



Proceedings of International Conference on Humanities, Social and Education Sciences

April 22-25, 2021

New York, USA





www.ihses.net

Volume 1, Pages 1-421

Proceedings of International Conference on Humanities, Social and Education Sciences

© 2021 Published by the ISTES Organization

ISBN: 978-1-952092-18-3

Editors: Stephen Jackowicz & Ismail Sahin

Articles: 1-29

Conference: International Conference on Humanities, Social and Education Sciences (iHSES)

Dates: April 22-25, 2021

Location: New York, USA

Conference Chair(s):

Stephen Jackowicz, University of Bridgeport, United States

Richard Thripp, University of Central Florida, United States

**© 2021 Published by the International Society for Technology, Education, and Science
(ISTES) Organization**

The proceedings is licensed under a Creative Commons Attribution-NonCommercialShareAlike 4.0 International License, permitting all non-commercial use, distribution, and reproduction in any medium, provided the original work is properly cited.

Authors alone are responsible for the contents of their papers. The Publisher, the ISTES Organization, shall not be liable for any loss, actions, claims, proceedings, demand, or costs or damages whatsoever or howsoever caused arising directly or indirectly in connection with or arising out of the use of the research material. All authors are requested to disclose any actual or potential conflict of interest including any financial, personal or other relationships with other people or organizations regarding the submitted work.

The submissions are subject to a double-blind peer review process by at least two reviewers with expertise in the relevant subject area. The review policy is available at the conference web page: www.ihses.net

President

Stephen Jackowicz, University of Bridgeport, United States

Richard Thrripp, University of Central Florida, United States

Scientific Board

Janice Fournillier, Georgia State University, United States

Wilfried Admiraal, Leiden University, Netherlands

Elizabeth (Betsy) Kersey, University of Northern Colorado, United States

Anastasios Theodoropoulos, University of Peloponnese, Greece

Arturo Tobias Calizon, University of Perpetual Help System Dalta, Philippines

Brett Buttlere, Technical University Dresden, Germany

Cara Williams, Emirates College For Advanced Education, United Arab Emirates

Chandra Pratama Syaima, University of Lampung, Indonesia

Chris Plyley, University of the Virgin Islands, Virgin Islands

Claudiu Mereuta, Dunarea De Jos University of Galati, Romania

Dana Aizenkot, Ashkelon Academic College, Israel

El Takach Suzanne, Lebanese University, Lebanon

Farouk Bouhadiba, University of Oran 2, Algeria

Frank Angelo Pacala, Samar State University, Philippines

Hou-Chang Chiu, Fu-Jen Catholic University Hospital, Taiwan

Irena Markovska, Assen Zlatarov University, Bulgaria

Irina Andreeva, Peter The Great St. Petersburg Polytechnic University (SPBPU), Russia

Iwona Bodys-Cupak, Jagiellonian University, Poland

Jaya Bishnu Pradhan, Tribhuvan University, Nepal

Jean-Yves Gantois, ICHEC, Belgium

Kassa Mickael, Addis Ababa University, Ethiopia

Kemmanat Mingsiritham, Sukhothai Thammathirat Open University, Thailand

Kristyna Balatova, University of Zilina, Slovakia

Milan Kubiato, Jan Evangelista Purkyně University, Czech Republic

Neide Da Fonseca Parracho Sant'anna, Colegio Pedro II, Brazil

Oguz Akturk, Necmettin Erbakan University, Turkey

Ossi Autio, University of Helsinki, Finland

Philomina Ifeanyi Onwuka, Delta State University, Nigeria

Sharif Abu Karsh, Arab American University, Palestine

Shenglei Pi, Guangzhou University, China

Siew Nyet Moi, Universiti Malaysia Sabah, Malaysia

Sindorela Doli Kryeziu, University of Gjakova, Albania

Siti Sarawati Johar, Universiti Tun Hussein Onn Malaysia, Malaysia

Sodangi Umar, Federal University Gusau, Nigeria

Tayfur Ozturk, Necmettin Erbakan University, Turkey

Theodore Chadjipadelis, Aristotle University of Thessaloniki, Greece

Tryfon Mavropalias, University of Western Macedonia, Greece

Volodymyr Sulyma, Dnipropetrovsk Medical Academy, Ukraine

Organizing Committee

Janice Fournillier, Georgia State University, United States
Wilfried Admiraal, Leiden University, Netherlands
Elizabeth (Betsy) Kersey, University of Northern Colorado, United States
Aehsan Haj Yahya, Beit-Berl College, Israel
Alaa AlDahdouh, University of Minho, Portugal
Augusto Z. Macalalag, Arcadia University, United States
Bhesh Mainali, Rider University, United States
Janez Jamsek, University of Ljubljana, Slovenia
Josiah Zachary Nyangau, Louisiana State University, United States
Kent Löfgren, Umeå University, Sweden
Laurie Murphy, Saint Joseph's College, United States
Marelbi Olmos Perez, Universidad Tecnológica de Bolívar, Colombia
Masood Badri, UAE University, United Arab Emirates
Monica Reichenberg, University of Gothenburg, Sweden
Phu Vu, The University of Nebraska at Kearney, United States
Qian Wang, Manhattan College, United States
Rachid Ait Maalem Lahcen, University of Central Florida, United States
Wei Zakharov, Purdue University, United States
Zhanat Alma Burch, Duke University, United States

Table of Contents

Podcasting for Teaching and Research in History: A Case Study <i>Richard A. Reiman</i>	1
International Students Mobility - Ten Years of Experience at the Faculty of Medicine of the University of Coimbra (2009-2019) <i>Marilia Dourado, Nicole Dourado, Cláudia Ribeiro</i>	11
Identifying Difficulties with Cultural Valuation of the Environment <i>Kelvin Jian Ming Lee</i>	23
Thinking – and Teaching – Outside the Gender Binary Box: Study Proposal for Promoting Gender Inclusivity Instruction in U.S. Public Schools Grades K and 1st <i>Kelli Jeanne Ling, Kera Chi Hwei Ling</i>	41
Modern Pre-operation Education of Surgeons: Principles Forming of Clinical Diagnosis <i>Volodymyr Sulyma, Kateryna Yaroshenko, Igor Verholaz, Pavlo Badyul</i>	62
Proposed Strategic Plan to Improve Student Retention and Enrollment at Universities: A Perspective Study <i>Hisham A. Maddah</i>	67
The Philippine National Police (PNP) in Bicol Region: A Community Survey on its Performance <i>Ryan V. Dio, Michael John A. Jamora, Ritzelda A. Deri, Sherill A. Gilbas</i>	78
Serving Clients in Central Appalachia: Self-efficacy of Mental Health Counselors with Assessment of and Intervention for Substance Use <i>Darlene B. Vaughn</i>	106
Educational Leadership for Development of Structural Plans, Cultural Diversity, Curriculum Standards, and Faculty Engagement <i>Hisham A. Maddah</i>	151
Workplace Experiences of Working Mothers: A Phenomenological Research <i>Esra Karakuş Umar, Abdullah Yiğit Güngör</i>	164
The Impact of Job Challenge and Job Satisfaction on Police Performance <i>Chris Bitner, Niyazi Ekici, Glenn Daugherty</i>	175
Validation through Classical Allusion: Creative Referencing as a Social Vector of Validity in Classical Chinese Medical Texts <i>Steve Jackowicz</i>	185

The Reality of Applying Teachers for Learning Disabilities Criteria According of Some Variables in Jubail City <i>Fareada Faiz Alshamry, Kowthar Jamal Eldian</i>	193
Evaluation and Quality Assurance for Higher Education in Morocco: the ANEAQ as the Main Actor <i>Omar Oustous, Adel Ihichr, Younès El Bouzekri El Idrissi, Ayoub Ait Lahcen</i>	206
Examining the Picture Book Production Process: The Creative Autonomy of Picture Book Artist <i>Hsiang Ling Lin</i>	219
Multidisciplinary Development of Sustainable Education <i>Fatma Khanim Bunyatova, Aynur Bunyatova, Nigar Shahhuseynbayova</i>	232
Fintech for Growth: The Case of Albania <i>Merita Toska, Eneida Thomaj, Ledia Bregu</i>	250
Exploring Digital Transformation of Taipei City in Municipal Services: A Case Study in Taipei PASS <i>Yuen Tung Ho</i>	274
Exploring the Trend of Plant-Based Meat in Taiwan <i>Kuan-Ju Yen</i>	282
Decentralisation in Albania: Achievements, Challenges, and Perspectives <i>Merita Toska, Aida Ciro, Ogerta Gjikhuri</i>	297
Investigation of Teachers' Risk-taking and Life Satisfaction Levels during the COVID-19 Pandemic <i>Davut Atilgan</i>	313
Exploring CRM Involved in Digital Era for Generation X <i>Yi Chun Shen</i>	322
Design Thinking as an Educational Innovation Way: A Case Study of Design for Change Taiwan (DFC Taiwan) <i>Wan-Ting Lin</i>	333
Analysis of Croatian Book Blog Audience's Habits and Behavior Using Mixed Methodology <i>Silvija Skoda, Zeljka Bagaric</i>	349
Security for Online Exams: Digital Proctoring <i>Yasemin Bertiz, Mustafa Tevfik Hebecci</i>	369
The Effect of Optical Illusion 3D Crosswalk on Vision <i>Chin-Chun, Lai, Ting-Yun, You, Yung-An, Lei</i>	375

Correlation Analysis of Krav Maga Athletes' Sociodemographic Characteristics and Their Leadership Competencies <i>Zeljka Bagaric, Emilija Strucic</i>	385
University Students' Internet Addiction Status and Relationship to Their Perceptions of Internet <i>Mustafa Koc, Cagri Tanrikulu</i>	405
Postmodern Artist Mehmet Kavukçu and Füsün Onur <i>Omer Tayfur Ozturk, Fatma Al</i>	413

Podcasting for Teaching and Research in History: A Case Study

Richard A. Reiman

South Georgia State College, USA

Abstract: Scholarly opinion on the usefulness of podcasting in higher education has been mixed. Considering the variety of methods of teaching and learning, the existing scholarship on the subject in any particular one has been inadequate to measure podcasting's promise. This case study of a podcast-infused, fully-online Western Civilization survey course supports the theory that student learning can be enhanced through abridgement and recording of online lectures hitherto offered in textual form only. A comparison of student learning outcome achievement in two such sections, with three non-podcast-infused control sections, suggests that the delivery of lectures as podcast episodes improves student success rates for those students not lost to attrition. This article also explores and documents the affordability of podcasting in education, the process of episode creation and delivery, and, beyond the format of the lecture, the value for higher education of audio-enhanced learning generally.

Keywords: podcasting in higher education, online learning; audio-enhanced learning, episode creation, distribution and evaluation.

Introduction

While podcasting has not been among the tools most written about when exploring online avenues of education-- that would be discussion boards, quizzes, videos--a growing literature has highlighted some of its advantages. Podcasts are "pushed" to mobile phones, delivering educational programming far more directly and conveniently than any other virtual mode of delivery. They are available "just in time" and may be consumed almost anywhere, anytime. In the automobile culture that is America, a driver cannot peruse a learning management system or an online video while on a commute, but in the case of a podcast, she can. Video tutorials (sometimes called "vodcasts") can be delivered serially like podcasts, but their greatest strength is also their chief weakness: with their visual and audio elements they leave less to the imagination than an audio-only program. A podcast, because it is restricted to the spoken word and music, requires the student, through their imagination, to ponder the meaning of its verbal concepts, but with the singular advantage over print of being conveyed via the actual sound of the student's learning facilitator (Huttel & Gnaur, 2016).

Moreover, podcasts can double as short-form lectures (or, as we shall see herein, summaries of lectures in five to fifteen minutes each), permitting students easier review of material or "catching up" before the next class

session when one is missed. Alternatively, they could serve as the only lectures in a course, permitting class time to be devoted to more active learning, participatory activities. As helpful as an in-person lecture may be, a podcast can allow a professor to interview a colleague or specialist in the subject of the day and, when played in the classroom, break the flow (and monotony) of a continuous lecture. Podcasting is also remarkably cost-effective and quick to produce for the educator and completely free to the student. While not an exhaustive list of advantages, these are among the strengths of podcasting most widely discussed (Williams, et al., 2016).

An educator need not produce podcast episodes in order to leverage them for the benefit of students. More than 500,000 podcast programs exist today and they are available free for immediate search and access through any one of dozens of podcast aggregator programs (also free), such as Apple Podcasts, to mention just the most popular of these. Regardless of the professional discipline of the teacher, there are likely to be dozens of professional podcasts on the subject, each highlighting a different subject in the curriculum. A recording may be thought of merely as a one-way method of communication, but it could be much more by asking students to listen out of class (or in class) to a podcast episode on a subject of the course, presented by a colleague in the profession you may or may not know, you can structure a discussion with students afterward, just as instructors have been doing with textbooks for centuries. A key difference is that students do not need to purchase or remember to bring it, since it is free and electronically available (Salmon, 2008).

Scholars in teaching and learning, long slow and reluctant to embrace the educational potential of podcasting, have gradually been noticing podcasting's creative potential for student learning. For much of the early 2000s, podcasts, identified only as distributed recordings, appeared to be foreign to the concept of active learning. Simply delivering fifty- or seventy-five-minute recorded lectures in a survey course seems to replicate the worst practice of the "sage on the stage" mode of teaching, without even the consolation of having time for questions at the end. According to one study, lectures delivered as podcasts resulted in "little increase in performance in a large introductory course." More recently Thomas Goldman agreed that the availability of distributed audio versions of in-class material simply encouraged students to skip class. Yet Goldman, and others since, have acknowledged the potential for such episodes to "flip" the classroom and permit active learning to take place in class (Goldman, 2018). Danielle Vandenberg recently found that "close listening of good podcasts reveals the importance of logical and coherent thinking processes of structuring an argument. Podcasts therefore enhance students' writing and provide insights that assist in analyzing texts" (Vandenberg, 2018).

Just as any mode of instruction will fail if not complemented by an array of other methods, each attuned with the others, podcasting alone is not a viable vehicle for teaching and learning. Moreover, to guarantee a fertile field for learning when it comes to the level of the individual podcast episode, less is definitely more. Restricting the length of an episode to less than fifteen minutes reduces cognitive overload in students. Students can pause a recording to take notes or replay sections that they only partly understood the first time that they listened. The short form of internet video and audio selections promotes metacognition. After all, it is easier to unpack a short form argument and see its argumentative scaffolding than one that is long and meandering (Vandenberg, 2018). Having to condense a fifty-minute lecture into ten minutes forces the instructor as

podcaster to improve organization and focus. The fact that a podcast can be replayed or reused in more than one semester should, at least theoretically, reward instructors for investing more time and thought in its preparation and lead inexorably to such increased commitment and focus. And podcasting is by nature a form of storytelling. According to Renee Hobbs, “As well as enhancing the opportunities for creative academic learning, digital storytelling technology can also help people become more comfortable using technology, and exemplify for them new ways of communicating ideas (Hobbs, 2017).

The use of podcasting in education need not require the reinvention of the wheel of online learning. The best practices of online teaching and learning can be combined with the pedagogical potential of podcasts to build upon modes of learning that we already use. For example, online courses typically involve fewer objective assessments such as multiple choice and more active learning discussion assignments, in role-playing to take one example. Combined with these approaches, an online course on today’s cutting edge of learning may supplement such exercises with self-tests, videos, an open educational resource textbook and access to anytime, anywhere tutoring. Ideally, each of these are integrated with the others. Podcasting too can unleash its full potential in classes only if its use is restricted to those advantages it has over other teaching modalities, and only so long as it is supplemented with resources which better meet other course needs (Salmon, 2008).

This is a case study of tentative lessons learned through teaching the linear content (aka, narratives or lectures) in an online survey course, via podcast episodes that are custom made by the instructor for his or her students. The platform was a fully online course, not a flipped classroom. The concept originated as a result of learning how to podcast in 2016 gained through my production of dozens of episodes under fifteen minutes in length on historical figures and topics relevant to contemporary events (Reiman, 2021). I wanted to try to answer four questions. First, can podcast episodes replace textual information written and embedded in an online course by the course creator or instructor, to the advantage of student learning? How can these supposed improvements be statistically validated, or at least prove to be measurable in some sense? How can they be integrated with the other elements of online courses to realize their possibilities more fully? Finally, how can instructors write and produce their own such episodes so that podcasts can quickly and affordably become a tool to enhance teaching and learning, rather just demonstrating, to some unknown degree, that such episodes have educational potential?

In order to ensure that podcast episodes did not add to the volume of existing course work, I adapted an existing course structure of six units or modules, each with five textual histories of a different subtopic in the unit. I rewrote (not simply narrated) and replaced the textual units with podcast episodes of an average length of minutes (see Table 1 below). The course was Western Civilization II (1648 to the present). Each unit covered an expansive period of time, sometimes more than a century, until covering the crowded events from the nineteenth to the twentieth centuries. The following table lists each unit, with its corresponding subtopics and links to each episode recording, by title.

Table 1. Organizational Structure of a Podcast-infused Western Civilization I survey Course

HIST 1121 Unit Title	Unit Subtopics with Episode Links	Average Episode Duration and Ancillary Items
I: The Age of Absolutism and Enlightenment, 1648-1789	<ol style="list-style-type: none"> Overview The Nation-State The Scientific Revolution Louis XIV and the Fronde The Enlightenment 	<ol style="list-style-type: none"> 8:60 4 chapters from an OER Textbook, 1 Quiz
II The Age of Democratic Revolutions and Romanticism, 1789-1848	<ol style="list-style-type: none"> Overview Comparing the American & French Revolutions The Consequences of Revolution The Ideas of Revolution Romantic Representative: Lincoln 	<ol style="list-style-type: none"> 10:80 4 chapters from an OER Textbook, 1 Quiz
III The Age of the Industrial Revolution and its Ideas, 1750-1848	<ol style="list-style-type: none"> Overview The Preconditions of an I.R. Why the I.R. was at First Unregulated and Cruel Art and the Revolution of 1830 Ideas borne of the Revolution of 1848 	<ol style="list-style-type: none"> 16:40 4 chapters from an OER Text, 1 Quiz
IV The Age of Nationalism and the Anti-Rational, 1848-1914	<ol style="list-style-type: none"> German and Italian Unification Darwinism and its Descendants Marxism and its Impact Overthrowing Newton: Science Imperialism and the Road to 1914 	<ol style="list-style-type: none"> 16:40 4 chapters from an OER Textbook, 1 Quiz
V. Europe's Suicide: The Second Thirty Years War, 1919-1945	<ol style="list-style-type: none"> Overview Democracy under Siege Diplomacy Between Two Wars The Second World War, 1939-45 The Holocaust, 1941-1945 	<ol style="list-style-type: none"> 12:00 4 chapters from an OER Textbook, 1 Quiz
VI. Realism, Post-Modernism, Globalism, and Their Discontents: 1945-2020	<ol style="list-style-type: none"> Overview The Cold War, Part 1 The Cold War, Part 2 Whither European Integration? Unraveling the Postwar Order 	<ol style="list-style-type: none"> 11:60 4 chapters from an OER Textbook, 1 Quiz
Other Assignments	Midterm Exam Final Exam Primary Source Analysis Assignment	Episode Link

While the overview episode presented the general themes for the unit, each episode within the unit tracked back to the first in the sense of exemplifying the unifying themes of the period. Each episode has its own discussion topic, where students receive a question and post an answer in 75 to 125 words. An example (for the Scientific Revolution subtopic above) is as follows:

Description: Here we look at the role of the Scientific Revolution of the 17th century (the 1600s) in making that century the first modern century. This podcast will help you with that part of the period called the Scientific Revolution. At the end of this podcast episode, I will give you a question to try to answer in your 75-125 word post (Reiman, 2021).

The question for each is highly narrow and answered by information in the course of the podcast but not in any brief passage within it. The question for the above is “Explain the differences and similarities between the ideas of Copernicus, Galileo and Newton during the Age of Absolutism.” Students earn up to 2.5% of their course grade, or 12.5% for each unit. These discussions therefore collectively represent more than 60% of their course grade. Students must take them seriously but they are low stakes individually, with a limited degree of challenge. Once a unit is completed, students can listen again to the overview (or any other episode) to refresh their understanding of the common themes. This approach wards off “imposter syndrome” by rewarding any serious effort with a substantial possibility of success. The OER textbook and primary source analysis assignment provides them further materials to contextualize their understanding of the themes and to conduct actual historical analyses (Salmon, 2008).

In order to compile data to measure some of the promise of this approach, student performance on assignments used for learning outcome course assessment were compared across three survey sections taught by the same instructor. Two of the sections (both Western Civilization II) were “podcast-infused” as described in the previous paragraphs, and one (US History II) was not. The learning outcome assessments for the Western Civilization II sections were tests of higher-level thinking, requiring written analysis of primary sources and cause and effect relationships in history. Only one of the US History learning outcome assessments was higher level, a primary source analysis. The other two were multiple choice in format, measuring factual knowledge only. It was thought that a comparison of student performance on the single higher level assessments present in each of the three sections would provide the most reliable information as to the possible impact of podcasts on student learning (Reiman, 2021)..

Table 2 below provides the results. The first three rows measure student performance on the higher level assessments common to all three sections. The final two rows provide data on student performance on the US History II multiple choice assessments:

Table 2. Comparative success rates on SLO scores in HIST 1122 WC and HIST 2111 US

Course	Question	# of students who skipped	# of students who completed	Target	% and # of students meeting the target
HIST 1122 WC Podcast	Students will analyze primary sources	8 (higher attrition)	42	7/10 correct	35/42 (83%)
HIST 1122 WC Podcast	Students will analyze cause and effect relationships	10 (higher attrition)	40	7/10 correct	33/40 (83%)
HIST 2112 US	Students will analyze primary sources	5 (low attrition)	48	6/9 correct	36/48 (75%)
HIST 2112 US	Students answer 15 mc questions on economic history	5 (low attrition)	48	10/15 correct	43/48 (89%)
HIST 2112 US	Students answer 15 mc questions on cultural history	5 (low attrition)	48	10/15 correct	45/48 (93%)

These statistics, if they prove meaningful over time as a result of similar data, suggest that podcast-infused sections may have somewhat higher student attrition rates. However, if students remain committed to the course, their prospects for success appear to be greater as measured by the higher success rates for the assessment target outcomes in the podcast-infused sections. It will be noted that even though the success target for primary source analysis in the Western Civilization sections was more rigorous (70%) than that for its counterpart in US History (66%), the success rate of students was still higher in Western Civilization (83%) than it was in US History (75%). It is believed that the highest success rates in the table--for student achievement outcomes in the multiple choice assessments--is an outlier and statistically misleading, since these were online sections and it cannot be known for certain if the exam was not copied and shared among students (Reiman, 2021).

An indirect student assessment was also administered to the 65 students who responded in two US History online sections that were not podcast-infused. Eighty-six percent of student respondents indicated that they had listened to at least one podcast before. Ninety-eight percent reported that they would prefer a 15-minute podcast to a 50 minute face-to-face lecture. When asked if they would prefer writing a longer essay on the topic of an entire course unit to answering short-answer questions for each of the unit's five subtopics, 87.7% replied that they would prefer the short-answer format, exactly the one used in the Western Civilization II surveys (Reiman, 2021).

Contemplating the use of podcasts may itself be a deterrent to use, until the simplicity of their production is

understood. There are two modes of creation, both quite simple, but the one with more steps predictably offering more features. First, a smartphone can be used to record your voice. After uploading the file to a desktop computer, the instructor can use “Audacity,” free software, to edit out gaps and errors in just a few minutes. After exporting the recording as an .mp3 file, the instructor uploads the file to a podcasting hosting service such as “Blubbry.com.” For \$12.00 a month, Blubbry offers enough space each month for 150 megabytes of data (about five 15-minute recordings per month). Blubbry, as well as many podcasting hosts, offers unlimited bandwidth, so that the number of listeners adds nothing to the cost. For no extra charge, Blubbry also offers a free WordPress web site to publish the episodes as a subscribable podcast (in which students can automatically receive the episodes to their smartphones as they are published).

To reduce the number of steps, one can simply forego the use of the free WordPress site and insert the URLs to the Blubbry files in their Learning Management System (LMS). While the student cannot subscribe to the podcast, the instructor can provide the episodes as links in the LMS (in a Discussion board, for example) where they ultimately will likely be posted anyway. This reduces time because one need only publish the links to their LMS, not use WordPress. The result will technically not be a podcast but will have most of the advantages associated with podcasting. However, it is useful for students to have the episodes on their smartphones without searching for them, especially because they can listen to them without requiring an internet connection. Since the WordPress site is linked to all podcast aggregators, only by publishing a description of, and link to, each episode as a post in WordPress will your episodes be subscribable with automatic delivery, the definition of a podcast. In addition, learning WordPress is no more difficult than learning how to use an LMS. Both function intuitively without the need for coding of any kind. Thousands of free tutorials on using WordPress populate YouTube. Finally, both creation methods cost the same, about \$12.00 per month (Krol & Silver, 2013).

From the students’ perspective, podcast episodes offer multiple advantages with no discernable disadvantages. There is no learning curve for students. Playing a file on their smartphones is no different than playing a Youtube video. Students do not have to subscribe to the podcast since they will be linked in the instructor’s LMS. It costs students nothing to listen, download, receive and save them. Students can still benefit from all manner of readings, which are simply assigned as supplements. Podcast hosting services often automatically provide episode transcripts for no additional charge. Thus podcast episodes are easily distributed with full ADA compliance.

Outside the curriculum as well, instructors can break down existing boundaries of learning through podcasting, particularly in online courses. A true learning community requires that the learning experience be humanized, which can be accomplished by periodic efforts to help students understand the instructor as a person and how that person came to find learning infectious herself. In my experience it is incredibly useful to provide students optional recordings to communicate the instructor’s hobby, which may be of interest to the student but will certainly convey the humanity of the instructor. Since my hobby is audio narration, I provide students an excerpt from my reading of *A Tale of Two Cities* for Librivox.org. (Reiman, 2021) Mathew Rubery remarks “that sound has a powerful relationship to affect and that the voice has ‘deep laid associations . . . with various

kinds of corporeal intensity, with suffering, love, and pleasure.” Students have an opportunity to experience a diversionary break as well as to get to know something about the instructor. In most online courses, the instructor is not even a disembodied voice, but instead a disembodied text. A podcast in which the instructor’s personality is communicated restores the voice, mind and therefore body to the online instructor (Rubery, 2011).

Table 3. Relative Advantages of Alternative Podcast Delivery Modes

Podcast Delivery Mode	Cost	Subscribable	Unlimited Bandwidth	Auto-Distribution	Ease of Use
4-Step Procedure					
1. Record with a smartphone or desktop microphone	Free*				
2. Edit file with “Audacity” software and export as .mp3 file	Free	No	Yes	No	Easiest
3. Upload .mp3 to podcast hosting service	\$12.00/ month				
4. Enter description and link to file in LMS Discussion post	Free				
5-Step Procedure					
1. Record with a smartphone or desktop microphone	Free*				
2. Edit file with “Audacity” software and export as .mp3 file	Free	Yes	Yes	Yes	Easy
3. Upload .mp3 to podcast hosting service	\$12.00/ month				
4. Enter description and link to file in LMS Discussion post	Free	Yes	Yes	Yes	Easy
5. Publish Discussion posts to WordPress site to create the podcast					

*Requires smartphone or microphone

While this last example highlights the communication of one instructor's eclectic enjoyment of audio, the instructor's gift to her students of a diversion in sound can and should represent any personal subject of interest to the instructor outside of the digital classroom. One can imagine the positive impact on the construction of a learning community of a recording in which an instructor discussed his interest in skydiving, for example, or deep-sea fishing. K. Ann Renninger and Wesley Shumar wrote of the importance of "value" in forging community and it is clear that they defined value in the linkages between human to human in the circle of course learners: "The mix of community and value is not only heady but also mutually dependent. It is when value is measured primarily in terms of capital that the mix becomes unstable. The communities that seem to thrive best are the ones that allow multiple values, set by members 'between the lines' of the words that are expressed, and not the ones that quantify value (Renninger & Shumar, 2002)." The very act of communicating through the instructor's own voice, with or without the value-added feature of recorded examples of the instructor's outside interest, can add this essential form on "value."

Podcasting has been a possibility now for almost a generation. For nearly as long, it has been a tool used by some instructors, particularly in survey courses. Scholarly research into its pedagogical possibilities has been intermittent, however, and mixed in terms of evaluation and conclusions. While only a small percentage of instructors have tried them, those examples themselves have been in such different settings (flipped classrooms, non-flipped face to face courses, fully online courses, podcast-infused, or non-podcast, linked recordings) that no definite conclusion as to the intrinsic or categorical utility of podcasts for education can yet be statistically demonstrated. If podcasting is useless for teaching and learning, it is clear that it is certainly not because it is expensive or difficult to deploy. This case study suggests that podcasting is an inexpensive, easily learned and intuitive process for providing anywhere, anytime learning opportunities precisely in the environments in which student live. This article is proposed not as a conclusion to the educators' question, "of what value is podcasting," but as a spur to greater research in a technology about which more will surely be heard.

References

- Audiobooks, Literature, and Sound Studies, edited by Matthew Rubery, Taylor & Francis Group, 2011. ProQuest Ebook Central, <http://ebookcentral.proquest.com/lib/waycross/detail.action?docID=692326>. Created from waycross on 2021-05-31 13:42:24.
- Building Virtual Communities: Learning and Change in Cyberspace, edited by K. Ann Renninger, and Wesley Shumar, Cambridge University Press, 2002. ProQuest Ebook Central, <http://ebookcentral.proquest.com/lib/waycross/detail.action?docID=201716>. Created from waycross on 2021-05-31 13:34:11.
- Diane K. O'Dowd Published online: 20 October 2015 Association for Educational Communications and Technology 2015
- Goldman, T, (2018) "The Impact of Podcasts in Education" (2018). *Advanced Writing: Pop Culture Intersections*. <https://scholarcommons.scu.edu//29>

- Hobbs, R. (2017) *Create to Learn: Introduction to Digital Literacy*, John Wiley & Sons, Incorporated.
<http://ebookcentral.proquest.com/lib/waycross/detail.action?docID=4901686>
- Hobbs, Renee. *Create to Learn: Introduction to Digital Literacy*, John Wiley & Sons, Incorporated, 2017.
ProQuest Ebook Central, <http://ebookcentral.proquest.com/lib/waycross/detail.action?docID=4901686>.
- Huttle, H., & Gnaur, D. (2016) *Podcasting for Teaching and Learning in Higher Education*. Aalborg University Press. <https://openresearchlibrary.org/content/7438c952-2710-4dbf-8b04-83b6d14be963>
- Król, K., & Silver, A. H. (2013). *WordPress 3.7 Complete*. (3rd ed.). Packt Publishing, Limited.
- Reiman, R (2021). *A Tale of Two Cities*. Librivox.org. <https://librivox.org/a-tale-of-two-cities-by-charles-dickens-5/>
- Reiman, R. (2021). "Podcasting for Teaching and Research in History: A Case Study." *International Conference on Humanities, Social and Education Sciences*.
- Salmon, G. (2008). *Podcasting for Learning in Universities*. Open University Press.
<https://ebookcentral.proquest.com/lib/waycross/reader.action?docID=369506>
- Vandenberg, D. (2018). "Using Podcasts in your Classroom." *Metaphor*.

International Students Mobility - Ten Years of Experience at the Faculty of Medicine of the University of Coimbra (2009-2019)

Marília Dourado

University of Coimbra, Faculty of Medicine, Portugal,  <https://orcid.org/0000-0002-5003-4722>

Nicole Dourado

University of Coimbra, Faculty of Medicine, Portugal,  <https://orcid.org/0000-0002-7876-3126>

Cláudia Ribeiro

University of Coimbra, Faculty of Medicine, Portugal,  <https://orcid.org/0000-0002-9699-3814>

Abstract: Since 1987, Faculty of Medicine of the University of Coimbra (FMUC) has been engaged in mobility programs, making efforts to encourage and support the internationalization of its students. Mobility programs are designed to strengthen the dimension and quality of the Higher Education, to encourage transnational cooperation between Universities, to improve transparency and academic recognition of studies and qualifications. The objective of this paper is to present a report on the evolution of mobility of the FMUC undergraduate students in the period between 2009 and 2019. A descriptive report was carried out. During this last decade, the FMUC has dealt with mobility applications from 1,500 incoming and 1,350 outgoing students to attend both classes and clinical traineeships as part of their Master's Degrees in Medicine. In the academic year 2015-2016 there was an increase in the number of applications, coinciding with the introduction of clinical internships in hospitals. The top countries where the FMUC sent students (538); and from where it received students (978) were, Italy, Spain and Brazil. In Portugal, the FMUC is one of the main medical schools with the largest number of students attending mobility programs, which has contributed to fostering the internationalization of undergraduate medical students' training.

Keywords: Higher education internationalization, Students mobility, Mobility programs, Incoming and outgoing students, Medicine

Introduction

The rapid process of the globalization of society, which is characterized by the economic and social activities (Dollar 2001; Labonté, 2018), that we have witnessed in recent decades, has naturally been accompanied by the process of the internationalization of Higher Education Institutions, namely with regard to student mobility,

opening up universities to students from abroad. (She & Wotherspoon, 2013) The internationalization of higher education, with regard to student mobility, has been considered as one of the most important transformations at this educational level in the past decades. It is not only a complex individual, institutional but also political process, that is in a continuing transformation with regard to student flows to chosen destinations, but which is also influenced by the political interests and objectives of governments. (Courtois, 2018; Bærenholdt, 2013; OECD, 2018). Whatever the reason, international mobility always brings benefits: to the student, as she/he becomes more tolerant and flexible when confronted by difference, and has the opportunity to develop his or her cognitive skills and cross-cultural communication; to the institutions, because through student movements, opportunities for cooperation and participation in projects and the exchange of knowledge, among others, are created (Gartmeier, 2020; Toprak, 2019).

The various mobility programs, LLP/ERASMUS and ERASMUS+, Free Mover and Almeida Garrett, a Portuguese mobility program, and other institutional agreements, are aimed at promoting quality and reinforcing the dimension of Higher Education, encouraging transnational cooperation between Universities, with a view to improving, transparency and the academic recognition of studies and qualifications worldwide. It also offers students the possibility of attending a period of study abroad, in an eligible educational establishment, with full academic recognition (as an integral part of the study program of the home institution). No less important it is also an opportunity, often the first one, for socially disadvantaged students to get to know new realities and a different country. The student benefits from a rewarding experience at an academic and personal level, which translates into contact with new working methods; improving a foreign language; knowledge of other cultures and academic recognition (with a prior agreement between partner universities/institutions and the student).

The interest and commitment of the Faculty of Medicine of the University of Coimbra (FMUC) to student mobility dates back to 1987, when the ERASMUS / ECTS (European Credit Transfer System) was still a pilot program, which years later was adopted under the Bologna Process. The FMUC was the first Portuguese School of Medicine to participate in this project, alongside other European Higher Education institutions. (Dourado et al, 2009). Since then, the International Relations Office of the FMUC (IRO-FMUC) has worked to promote and encourage students to internationalize their academic education, guaranteeing them full recognition and the necessary support, in line with the objectives of the University of Coimbra.

The objective of this paper is to present a report about the evolution of mobility of the FMUC's undergraduate students over a decade, from 2009 to 2019.

Methodology

An observational descriptive report was conducted to carry out the study. For this purpose, we consulted the anonymized records from the archives of a decade (2009-2019) of the International Relations Office of the FMUC (IRO-FMUC), about mobility programs and incoming and outgoing students. As I was the director and

responsible for the IRO-FMUC over the period of time previously identified, it was our concern to collect and store information regarding student inflows and outflows, so that the evolution of the internationalization of students at the FMUC could be analyzed in the future. For this purpose, we recorded and anonymized the following information: gender, year that the student attended/would attend, country and host institution during the mobility period, country of origin, home institution, program under which they applied, duration of the mobility period and type of mobility (for studies or internships).

After consulting the files, the information necessary to prepare this report was collected and organized on an excel sheet for analysis.

Results

Evolution of Incoming and Outgoing Mobility of medical students at the FMUC

Since 2009, we have witnessed a progressive and considerable increase in the mobility of the students on the Integrated Master's Degree in Medicine (MIM) at the FMUC, both incoming and outgoing mobility (Figure 1). As shown, incoming mobility overpassed outgoing mobility until 2012/2013. There was a reversal in this trend in 2013/2014, in which year it may be observed that the number of outgoing students exceeds the number of incoming students, and that it was maintained until 2016/2017 when, again, the inversion of the trend is observed, with more incoming than outgoing students at the FMUC.



Figure 1. Evolution of Incoming and Outgoing Mobility of The FMUC's Medical Students

It was in the academic year of 2015-2016, that we can see the biggest increase in the outgoing mobility, with 241 students leaving FMUC to study outside Portugal, exactly when the ERASMUS + Program came into force. According to the data collected on the website of the "Observatório da Emigração" (Observatory of Emigration), this peak of growth that had started in 2015-2016 is coincident with the peak of Portuguese

emigration that was registered, with the departure of 134,624 Portuguese citizens, due to the economic and social crisis at that time (OEm, 2020). Many of the FMUC's outgoing students were seeking an opportunity and a place where they could continue their specific training, for the specialties in which they felt most suited, and perhaps work in the future as medical doctors in their destination countries.

By 2018/19, the IRO-FMUC had provided support for more than 2,800 medical students, with a steady growth rate, receiving 1,500 and sending 1,350 students to foreign institutions. In fact, the 27 students who studied outside Portugal in 2009/10 contrast significantly with the 204 outgoing students who decided to leave during the academic year of 2018/19 with the same purpose. It is also possible to observe that the number of incoming students increased progressively over the ten years under analysis, from 86 in 2009/10 to 253 in 2018/19. Therefore, there was an increase in the number of outgoing and incoming students by the end of the period of time analyzed, at the FMUC.

During this period of time, one of the goals of the IRO-FMUC was to stimulate and encourage its medical students to attend a period of study at a partner institution abroad. Analyzing the results, we may conclude that this objective was achieved. It is also clear that the FMUC has become progressively more attractive. The efforts of the IRO team, which over the 10 years under analysis, worked to clarify, inform, encourage and support the FMUC's medical students by motivating them to take a period of international mobility within the scope of their studies, justified the results obtained.

With regard to the FMUC's growing ability to attract foreign students, this may be justified by the quality of teaching on offer, above all the clinical teaching that takes place in a large hospital with all medical specialties, where students have the opportunity to learn and practice clinical procedures under the supervision of senior tutors and not least where they also feel welcome. The security of the country and especially the city where FMUC is located, Coimbra as a university city that annually welcomes several thousands of students, which contributes to a youthful living environment, where mutual help and companionship dominate students' lives and are certainly factors that justify this growing number of incoming students.

Outgoing Mobility

Where did the FMUC's Students go?

The language factor is very important when choosing the country and the institution of higher education for a mobility period. As we can see in Table 1, the FMUC's outgoing students chose countries where the communication would be easier. Italy, Spain and France were the most chosen countries, because of their geographical proximity, but also because they facilitate the learning of the languages spoken there as there are many similarities between Portuguese and the local language. Brazil, where the spoken language is the same as in Portugal, was also very popular and the Czech Republic where English is used for teaching.

Table 1. The Five Most Sought-After Countries for Outgoing Mobility

Countries	Total Outgoing (2009/10 – 2018/2019)
Italy	282
Spain	175
Brazil	126
Czech Republic	100
France	72

Distribution of Outgoing Students by Gender

As may be seen in Figure 2, in all the academic years analyzed, the number of female students who applied and completed a mobility period, outside the FMUC, was always higher. In fact, the total number of female students significantly exceeds that of male students from the FMUC (average 1277 vs. 662, respectively). Traditionally, it is considered that women are by nature more modest, dedicated to caring, less stressful and better-known tasks, while men are associated with being more adventurous and accepting more challenging tasks.

What our experience has shown over these years is that female students have always fought side by side with their male colleagues for the "best" places and opportunities. The fact that more than double the number of females took advantage of the mobility program reinforces this idea and partially explains the trend. They are equally motivated for the international experience, while demonstrating that they are equally, if not more, qualified and competent to respond to the growing need in the contemporary context, in agreement with the findings and reflections of other authors (Desmarais, C. Alksnis, 2005; Dumont et al, 2007).

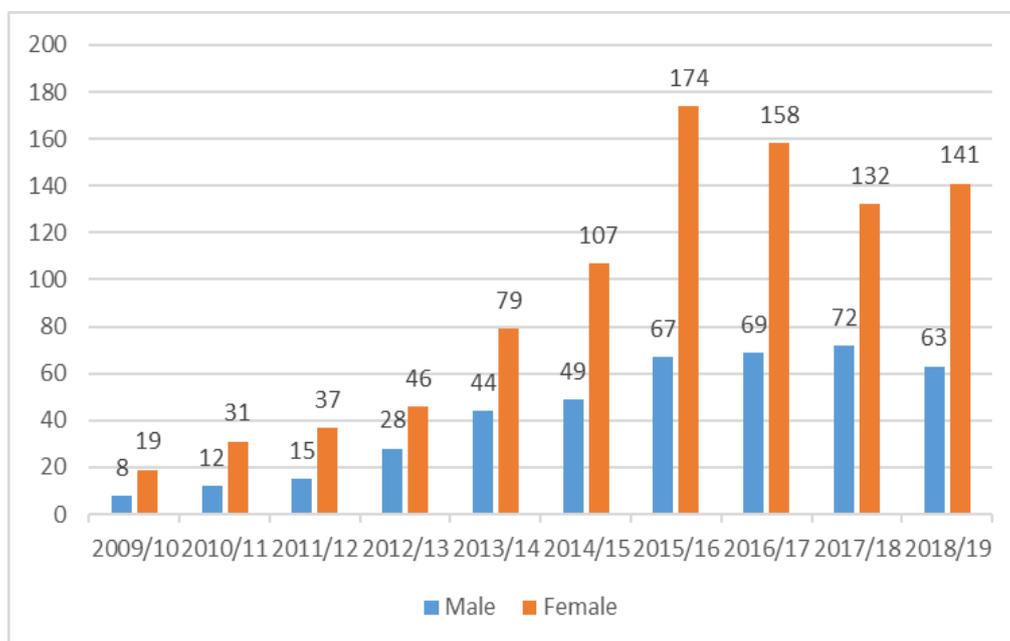


Figure 2. Distribution of The FMUC's Outgoing Students According to Gender

Traineeship Mobility versus Study Mobility

As we can see in Figure 3, up to the academic year of 2012-13 we had more outgoing students for study mobility (all programs included) than for traineeship mobility, the fact is that traineeship mobility started later than study mobility at the FMUC. However, in 2014, with the entrance of the new ERASMUS Project, ERASMUS+, traineeship mobility escalated.

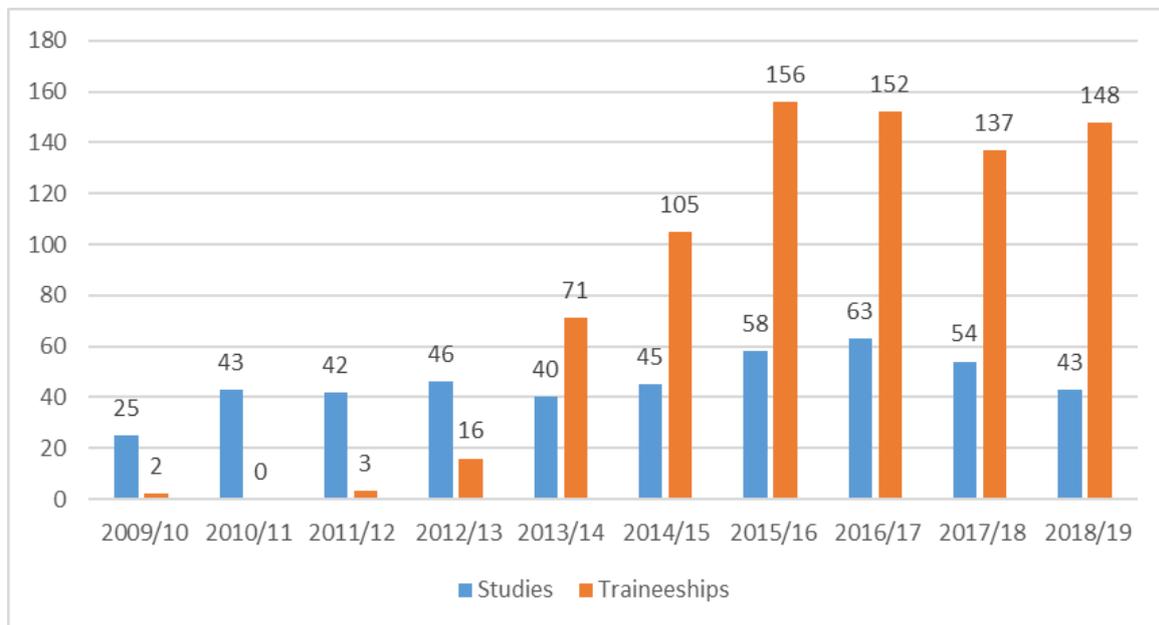


Figure 3. Scope of Mobility of Outgoing Students

In fact, traineeship mobility up to the academic year of 2012/2013 was residual or non-existent, as in 2010/2011. It was in the academic year of 2013-2014 that it more than quadrupled considering the previous academic years of 2011-12 and 2012-2013, (3vs16vs71). After 2013-2014, the increase in the number of outgoing students was due, significantly, to the greater number of outgoing students for Traineeships than for Studies.

Last (6th) year students carried out this mobility traineeship under the MIM. During their degree, the 6th year students have a full clinical year that takes place at the Coimbra Hospital and University Centre. However, some students opted to do their traineeship abroad for at least two main reasons: one was the possibility to complete their traineeship in a shorter period of time abroad, with less financial demands for families, the other one is the fact that there was no need that a bilateral agreement had to exist. That enabled the student to look for the best place to learn and practice clinical procedures in a different hospital, scientific and cultural environment, enriching them as future doctors and citizens, with the bonus that it might open doors for a future job abroad. These were the main reasons why students chose to do a traineeship mobility instead of a study mobility.

According to Asoodar et al. (2014) in their analysis of the IEREST questionnaire, the main reasons why students decide to participate in a mobility program are because of personal reasons. Before they depart, they

believe this experience will help them to be more successful in the future and to become more autonomous and self-confident.

Incoming Mobility

Where do incoming Students come from?

As can be seen in Table 2, over the 10 years analyzed, the largest number of incoming students (n = 474) were students from Brazil, followed by students from Italy (n=276). In the third position were incoming students from Spain (n= 228) followed by Germany and the Czech Republic.

Table 2. The Top Five Countries Sending Incoming Students

Countries	Total Incoming (2009/10 – 2018/2019)
Brazil	474
Italy	276
Spain	228
Germany	118
The Czech Republic	86

This shows that Brazilian medical students are very interested in the FMUC, where they apply to do a period of their medical training, with a special demand for clinical practice. In the broader context of higher education, between 2008 and 2012 there was a strong growth (109.1%) in the number of Brazilian students in Portugal, despite the decrease in migration from Brazil to Portugal following the economic crisis and the decrease in the jobs available. However, due to the joint efforts of the Brazilian government and the Portuguese University, the attendance of students, namely at the University of Coimbra, was made as smooth and trouble-free as possible. (Fonseca et al, 2016)

Incoming Students by Gender

As shown in Figure 4, alongside the continued growth of incoming mobility, we can see that there is a gender asymmetry in the 10 years under analysis with regard to incoming students at the FMUC. There is always a predominance of the female gender, which becomes particularly evident from the year 2014-2015 on.

These results are in line with the comment made by Böttcher, et al (2016), who stated that, within the scope of the ERASMUS Program, for almost all participating countries female students are over-represented when compared to the entire population of tertiary level students.

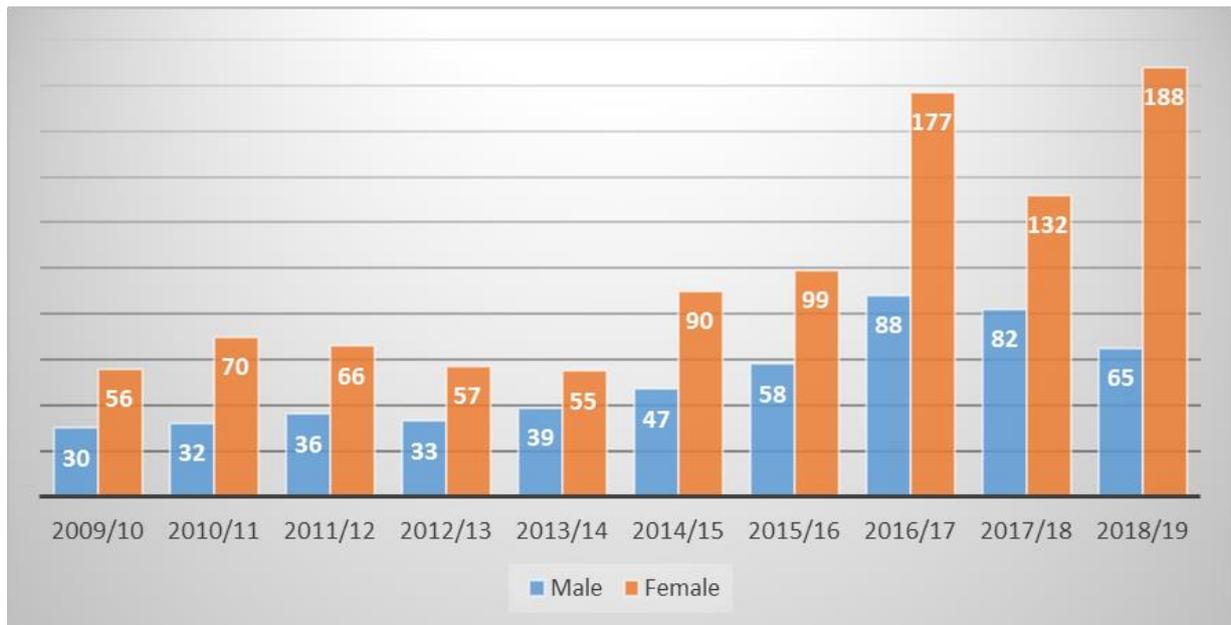


Figure 4. Distribution of Incoming Students According to Gender

Mobility Programs at the FMUC

The FMUC started participating in mobility programs in 1987, namely the ERASMUS Program. During the 10 years under analysis, we participated in several other mobility programs such as the LLP/ERASMUS and ERASMUS+, Agreements (especially with Brazil), Free Mover and Almeida Garrett. Occasionally, we collaborated with the mobility program “Science without Borders”, created and financed by the Brazilian government, which only existed in Portugal in the academic year 2012/2013; in “AMIDILA”, within the scope of ERASMUS Mundus; “Coimbra Group”, constituting itself as a network of universities that includes European institutions that cooperate in the area for the internationalization of higher education.

In Figure 5, we can see that over a decade, the FMUC received students on a larger scale from institutions covered by the ERASMUS Program to carry out studies, with a total of 686, and with 273 students doing traineeships. The presence of students from Brazil remains significant, both in studies (n=158) and in traineeships (n=177), which is mainly due to the great participation of Brazilian students in the Free Mover Program for Traineeships, where, within the total number of students, the majority is from this country Brazil (n=168).

It is already known that the ERASMUS program has been, in recent years, the mobility program that has involved more students. As Cunha et al (A. Cunha, & Y. Santos, 2018) explains, ERASMUS has achieved its successive targets and grown in size and impact. As can be seen in Table 3, the ERASMUS program was clearly the mobility program that mobilized the most students (n=2063) to study abroad.

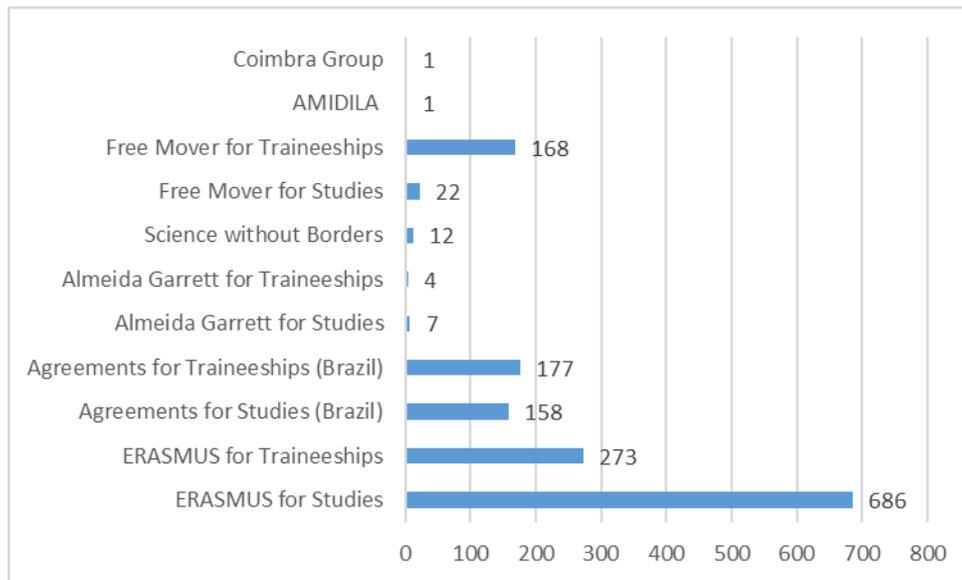


Figure 5. Incoming Mobility Programs at The FMUC

Following the ERASMUS Program, the mobility program with more exchange students, was Agreements (n=471). This program mainly supported exchange students from and to Brazilian Universities, this program was very sought-after, especially by students from Brazil, who came to the FMUC to carry out both studies and traineeships.

Table 3. Participation at the FMUC by Mobility Programs (2009-2019)

Mobility Programs	Incoming	Outgoing
ERASMUS (LLP/ERASMUS And ERASMUS+)	959	1,104
Agreements	335	136
Free Mover	190	1
Almeida Garrett	11	79
Science without Borders	12	0
Coimbra Group	1	0
AMIDILA	1	0
TOTAL	1,509	1,320

The proximity of European countries and the fact that the ERASMUS program is supported with a scholarship, which is not the case under the scope of the Agreements program that covers countries outside Europe and which may or may not be supported by a scholarship, are reasons that may help to explain the preferences shown by students.

The Free Mover Program, for studies and for traineeships which, by definition is a program where a student participates under credit mobility outside an organized student mobility program (WeAreFreeMovers, 2020),

has played an important role for incoming students at the FMUC. In fact, the FMUC has been accepting applications from institutions with which there are no bilateral agreements, allowing students from all over the world to experience a mobility period at the FMUC. Only one student from the FMUC has benefited from the Free Mover program. The student wanted to attend a University in the United States of America for the second time and where the possibility of being admitted under the ERASMUS Program was not possible, whereas by using this program, he was able to do so.

Conclusion

Higher education students in general and medical students in particular have numerous opportunities to take a period of their graduation at a foreign university (Ebrahimi-Fakhari et al, 2014; Störmann et al, 2018). The various mobility programs, but above all the ERASMUS Program, allows students to experience different cultures and teaching activities, both when studying and doing traineeships. Learning and/or improving knowledge of a new language is also considered very important in this context, which is in alignment with what is recommended by the Common European Framework of Reference for Languages (CEFR) that emphasizes the need for the development of communicative linguistic and sociolinguistic competence (CEFR, 2011). In short, taking the opportunity to study abroad students gain experience and professional training, but also personal preparation as citizens of an increasingly global world. The work developed over these ten years has contributed to fostering the participation of the FMUC students in mobility programs and at the same time for the international dissemination of the Faculty of Medicine and the University of Coimbra.

This report has addressed incoming and outgoing mobility under various mobility programs. We can draw conclusions from four different perspectives. The first is related to the number of students who experienced an exchange period abroad in countries like Spain, Italy and Brazil, whose language is similar to the Portuguese language. Secondly, in relation to the students who went to or came from countries with a closer proximity to Portugal, here Spain and Italy are definitely the two top countries. The third perspective concerns gender, both the incoming and outgoing mobility over the past ten years were dominated by female students. Lastly, there was a significant increase in the traineeship mobility with the beginning of the ERASMUS+ Program in 2014. It is our belief that, it has definitely changed hundreds of students' lives, both incoming and outgoing students, in many ways at a personal but also at an academic level.

References

- Asoodar, M., Baten, L., Van Maele, J., & Vassilicos, B. (2014, June 12–13). *Criteria for a Successful Erasmus Experience: Student Perceptions in the IEREST Project*. [Paper presented]. IEREST Conference: Teaching the Intercultural in Contexts of Student Mobility. University of Bologna.
- Bærenholdt, J. O. (2013). Governmobility: The Powers of Mobility. *Mobilities*, 8 (1), 20-34. <https://doi.org/10.1080/17450101.2012.747754>.

- Böttcher, L., Araújo, N. A. M., Nagler J., Mendes J. F. F., Helbing, D., & Herrmann H. J. (2016). Gender Gap in the ERASMUS Mobility Program. *PLoSOne*, 11 (2), e0149514. <https://doi.org/10.1371/journal.pone.0149514>
- CEFR. (2011). *Common European Framework of Reference for Languages: Learning, teaching assessment*. From: <https://rm.coe.int/16802fc1bf>
- Courtois, A. (2018). *The Significance of International Student Mobility in Students' Strategies at Third Level in Ireland*. Galway: National University of Ireland.
- Cunha, A., & Santos, Y. (2018). The participation of Portuguese Students in ERASMUS: from its European Conception to its implementation in universities. *Estudos do Século XX*, 18, 97-113. https://doi.org/10.14195/1647-8622_18_5
- Desmarais, S. & Alksnis, C. (2005). Gender Issues. In J. Barling, E. K. Kelloway, & M. R. Frone (Ed.), *Handbook of Work Stress* (pp. 455–485). Thousand Oaks, CA: Sage
- Dollar, D. (2001). Is globalization good for your health? *Bulletin of the World Health Organization*, 79 (9), 827-833.
- Dourado, M., Carvalho, A., Matos, S., Fernandes, G., & Dourado N. (2009). *20 Years of ERASMUS in FMUC*. Coimbra, Portugal: Faculty of Medicine, University of Coimbra (FMUC).
- Dumont, J., Martin, J. P., & Spielvogel, G. (2007). Women on the Move: The Neglected Gender Dimension of the Brain Drain. *IZA Institute of Labor Economics Discussion Paper Series*. Bonn, Germany: IZA Institute of Labor Economics
- Ebrahimi-Fakhari, D., Agrawal, M., & Wahlster L. (2014). International electives in the final year of German medical school education-a student's perspective. *GMS Journal for Medical Education*, 31(3), Doc26. <http://dx.doi.org/10.3205/zma000918>
- Fonseca, M. L., Pereira, S., & Iorio, J. C. (2016). International Mobility of Brazilian Students to Portugal: The Role of the Brazilian Government and University Strategies in Portugal. In J. Domínguez-Mujica (ed), *Global Change and Human Mobility. Advances in Geographical and Environmental Sciences* (pp. 265-284). Singapore: Springer, Singapore. https://doi.org/10.1007/978-981-10-0050-8_14
- Gartmeier, M., Reimer, M., Huber, J., Epstein, N., Fischer, M. R., & Berberat, P. O. (2020). International mobility of students in the medical disciplines from a comparative perspective. *GMS Journal for Medical Education*, 37 (3), 1-16.
- Labonté, R. (2018). Reprising the globalization dimensions of international health. *Global Health*, 14 (1), 49. <https://doi.org/10.1186/s12992-018-0368-3>
- OECD. (2018). *Education at a glance 2018: OECD indicators*. OECD Publishing, Paris. From: <https://doi.org/10.1787/eag-2018-en>.
- OEm. (2020). Global Estimates. The Emigration Observatory (OEm). From: <http://observatorioemigracao.pt/np4EN/1315> (accessed on July 7th, 2020)
- She, Q., & Wotherspoon T. (2013). International student mobility and highly skilled migration: a comparative study of Canada, the United States, and the United Kingdom. *SpringerPlus*, 2 (1), 132. <https://doi.org/10.1186/2193-1801-2-132>

The Free Mover Program. From: <https://www.wearefreemovers.com/what-is-a-free-mover/> Accessed on July 13th 2020.

Toprak, T. E. (2019). Internationalization, Mobility and Englishization in Higher Education Across OECD Countries. *Journal of University Research*, 2, (1), 12-17.

Identifying Difficulties with Cultural Valuation of the Environment

Kelvin Jian Ming Lee

Singapore University of Social Sciences, Singapore,  <https://orcid.org/0000-0003-2641-2882>

Abstract: This paper seeks to identify problems with cultural valuation of the environment. Global importance has been given to cultural valuation as an important policy consideration as recognized in the Millennium Ecosystem Assessment (MEA) initiated as early as 2001. Various scholars have emphasized the role of cultural valuation as a counterweight to the utilitarian approaches that tend to dominate the environmental valuation literature. However, cultural valuation continues to face challenges in adoption even today two decades after it was introduced by the United Nations through the MEA. Nevertheless, it is not always clear that critics of cultural valuation have fully understood what cultural valuation is and how it is to be implemented. This paper seeks to provide a more nuanced description of cultural valuation as a field, as well as to identify its criticisms that do not always give an organized treatment of the field. In doing so, this paper hopes to help pave the way forward for improvements to be made to cultural valuation in reality.

Keywords: Environmental valuation, Cultural Valuation, Environmental politics, Culture, Millennium Ecosystem Assessment

Introduction

This paper seeks to identify problems with cultural valuation of the environment. Global importance has been given to cultural valuation as an important policy consideration as recognized explicitly in the Millennium Ecosystem Assessment (2001) and The Economics of Ecosystems and Biodiversity (Sukdev et. al., 2014, p. 4) initiative. These reports have framed cultural valuation of the natural environment in terms of “cultural services” ecosystems provide: aesthetic inspiration and cultural identity; sense of home and spiritual experience; tourism benefits; and recreational benefits (Food and Agricultural Organization, 2020; Sukdev et. al., 2014, p. 4). Consequently, national governments have applied cultural valuation as conceptualized in these reports, e.g. governments in the United Kingdom (Department for Environment, Food and Rural Affairs, 2007, p. 32), and Australia (see Whiteoak and Binney, 2012, p. 36). Their understanding of cultural valuation, however, tends to be couched in neoclassical economics terms by situating it in the context of total economic value (TEV). For instance, the UK government has identified cultural valuation with direct use, option and non-use values under the TEV framework (Department for Environment, Food and Rural Affairs, 2007, p. 32). Such an approach has been met with resistance in academic and policy circles even until today two decades after cultural valuation has been introduced.

This paper is important because current research does not detail how an individual's preferences can be viewed in a value-neutral judgment when other normative factors such as norms, culture, and institutional structure influence expression of individuals' underlying preferences, if not construct them. Some scholars argue that non-economic motives of valuation can affect one's preferences. Martín-López et al. (2007, pp. 67, 68) argue that contingent valuation (CV) responses "usually" reflect such motives for valuation, and that economists "cannot avoid considering such psychological issues" if CV data is used for policy purposes. They cite four reasons that explain human beings' attitudes towards biodiversity including culture and tradition playing a role in affecting how human beings react towards various species through their past and present interactions with them; the other three reasons have to do with universal human values towards nature, physical and behavioral characteristics of species that resemble humans through evolution, and knowledge about species (Martín-López et al., 2007, pp. 68, 77, 79).

Non-economic valuation is supported also by Beckerman and Pasek (1997, pp. 78-79) who caution against "agent-relative" valuations which can hold society hostage without some means of adjudicating over them, which leads them to conclude that society's valuation (i.e. social valuations) do not—and "often" could not—simply be "the aggregation of individual agent-relative valuations". Instead, Beckerman and Pasek (1997, p. 78-79) advocate for public deliberation to find the "truth" and not "techniques to estimate which theory arouses the most intense preferences among its advocates" albeit problems with public deliberation. Furthermore, Beckerman and Pasek (1997, p. 73) recognise that while "special moral status" need not be conferred on the environment, they argue that some form of ethical consideration can be attached to the environment. This consideration renders the environment subject to some "higher" modes of valuation that depend not on the instrumental gain derived from using an object as a private good but on one's "social relationship" between the "ideals of the valuer" and the object to be valued and/or the giver (such as based on sentimental value), as seen in Anderson's (1993) 'expressive valuation' theory.

In this paper, I submit that culture affects individuals' willingness-to-pay (WTP) for environmental conservation because culture cannot be divorced from the context in which an individual in such a community operates. However, I contend that impediments to implementing cultural valuation have come down to a few key areas of contention: conceptual tussle over what cultural valuation means, and problems related to its methodology, theories underlying it, operationalization of environmental goods and services and the larger political-ideological climate in which cultural valuation is exercised. Current literature suggests that cultural valuation has not been clearly understood or largely agreed upon, and its criticisms have been ad hoc. The hope is to address these areas to help pave the way forward for improvements to be made to cultural valuation in reality.

Many scholars have recognized that norms and culture influence individuals' environmental valuation. For example, culture—together with governing institutions—constitute Ostrom's overarching macro context. Ostrom (2010, p. 6; see also Poteete et al., 2009, pp. 351, 379-380) defines the "macrocontext" as "the social-ecological system in which groups of individuals make decisions" which can include: biophysical or physical "(such as those characterizing a resource system)"; cultural or communal "(such as those related to shared

norms and sense of common history and future)”; and institutional “(related to the rules used to structure relationships)” variables as well as allowing for “feedback relationships” among these variables which can strengthen or weaken levels of cooperation over time (Ostrom, 2009b, pp. 215, 223; Ostrom, 2014, pp. 9-10). The “microcontext”, to Ostrom (2010, p. 6; 2009b, pp. 220-221; see also Poteete et al., 2009, pp. 351, 379-380), is “related to the specific attributes of an action situation in which individuals are directly interacting” which generally concern how much information individuals possess about the other party, duration of interaction (number of rounds of interaction), anonymity and signalling to others via communication and punishment. In other words, Ostrom distinguishes between macro and micro contexts: the former includes geographic conditions, governing institutions and culture of a community such as a country, while the latter refers to the immediate context the individual experiences in this community such as interpersonal trust.

The definitions of the following concepts are adopted in this paper. Triandis (1994, p. 16) defines culture as unspoken, shared prescriptions of social appropriateness; that is, “unstated assumptions, standard operating procedures, ways of doing things that have been internalized to such an extent that people do not argue about them”. Culture is distinguished from norms which are standards of behavior as cross-cultural psychologists such as Schwartz (1977, p. 231) defines but are not necessarily legally binding and thus lack legal enforcement. In Keefer and Knack’s (2005, p. 702; see also Ostrom, 2014, p. 11) words, social norms “specify what actions are regarded by a set of persons as proper or correct, or improper and incorrect” and that norms and their accompanying potential rewards (for compliance) or punishments (for noncompliance) are not the sole determinants of decisions by rational actors, but they “affect the costs and benefits which individuals taken into account when exercising choice”. Ostrom (2005, p. 841) subsumes norms as part of culture in defining culture as “the bundle of variables” that encompass the “attributes of a community that are important in affecting the structure of an action arena includ[ing] the norms of behavior generally accepted in the community, the level of common understanding potential participants share about the structure of particular types of action arenas, the extent of homogeneity in the preferences of those living in a community, and the distribution of resources among those affected”; these manifest as “preferences or the ‘habits and values’ of individuals aggregated at a societal level” (Ahn and Ostrom, 2008, p. 83).

This paper will discuss the role of culture in environmental valuation in the following order. The next section provides a nuanced description of cultural valuation of the environment. Cultural valuation is depicted as a foil to the utilitarian approaches that tend to dominate the environmental valuation literature. The following section is the penultimate section which details the debates over cultural valuation. This is an attempt to organize the more prominent criticisms of cultural valuation that tend to be scattered across the environmental valuation literature. Proponents of culture argue that culture impacts on individuals’ WTP by requiring in-group members to agree on the group’s or society’s WTP to the extent of even overriding individuals’ private (underlying) preferences. However, proponents also recognise that not all individuals in an in-group share identical cultural values and these values can change over time. Yet, this view undermines mainstream economists’ assumptions of one’s exogenous preferences as stable, given and similar across all individuals.

How Cultural Valuation Works

Culture expressed through social norms, i.e. cultural norms, is a contextual factor that can influence how individuals express their underlying preferences through valuation. The omission of culture is one criticism that Turner et al. (1998, pp. 62, 63) level at Costanza et al.'s (1997, pp. 253-260) valuation of the world's ecosystems in the latter's neglect of valuation contexts that lead to "scaling problems" by generalising from the monetary worth of one hectare of land to cover all ecosystems but neglects "the temporal, spatial and cultural specificity of economic value estimates". This affects how valuation estimates are 'scaled' up from one typical geographical region to generalise to the entire world's ecosystems, and valuation estimates via revealed preference that depend on localised usage of the ecosystem, as well as affects the calculation of monetary value of environmental commodities harvested from nature over time.

Moreover, it is not automatic that employing valuation would elevate the importance of monetary valuation over other forms of valuation. Social norms can generate diverse kinds of valuation. Sunstein (1994, pp. 787, 788) notes that "[p]eople do not value goods acontextually" and "[d]istinctions among kinds of valuation are highly sensitive to the particular setting in which they operate", one social norm being the principle of equality. Equality aids the diverse kinds of valuations for which "particular goods typically do not admit of a single kind of valuation" as these goods are valued in relation to other actors (Sunstein, 1994, p. 784). For example, the liberal political system is crucial to allowing "diverse kinds" of valuation based on "social differentiation" (e.g. markets, families, religious groups, politics) to grant them their "appropriate" place in human life, and environmental law depends on the appropriate kind of valuation for environmental amenities (Sunstein, 1994, p. 860). Thus, reducing the economic value of an environmental good or service into a single number is not possible because not all social groups would agree to such a view when politics has to reconcile these various social groups, as Gatto and De Leo (2000, p. 351) argue. In fact, Ostrom (2010, p. 5) notes how the family can socialize an individual's preferences through the latter's capacity to learn norms and adopt them which is a key factor to cultivate the norm of reciprocity to overcome collective action problems such as environmental conservation.

Scholars such as van den Bergh et al. (2000, p. 49) argue that valuation can be culturally determined. For example, culture is included in the ecosystem service (ES) framework because non-material aspects account "for a great part" of why humans value nature, and act to "complement or counterbalance" the utilitarian aspects of value (Pröpper and Haupts, 2014, pp. 29-30). Fourcade (2011, p. 1735) supports this view by arguing that nature as a concept is a "cultural formation, or a social assemblage" not so much implying that the natural world is unreal or a figment of human imagination but is coloured by human beings' expressions of nature rooted in their "own values and cultural assumptions", i.e. worldviews, that "can never be separated" from descriptions of the world. For example, "wilderness" is "a cultural invention" as it is shaped by the idea of "wild, untouched nature" that emerged at the end of the 19th century when "urban, educated, upper middle class East Coast Americans, who rarely, if ever, confronted the harsh reality of "living in the wild" in their everyday lives, reinterpreted the experience of the frontier as a primordial national experience to be cherished and preserved"

(Fourcade, 2011, pp. 1735-1736). This is made possible by the US federal government owning most of the land at that time in contrast with the French in which land ownership is more distributed and fragmented among the citizens. What the French defend, however, is not nature as centuries has seen manmade intervention on most landscapes in France but “rural civilization” against an encroaching state where man’s place in the environment is given a “de facto place” where nature and human identity “intertwine” compared to the sharper distinctions between man and nature in US conservation (Fourcade, 2011, pp. 1737-1739).

The role of the environment in cultural transmission is explained by O’Neill (2001, p. 1867) who notes how the environment, as gleaned from in-depth discussion groups about the Pevensey Levels surveys, is not a mere commodity but is “a place that embodies particular relations of the past and through which relations to the future are expressed”; or in other words, “the environment is expressive of social relations between generations”. The environment “embodies in particular places our relation to the past and future of communities to which we belong” such that, for instance, the environment “expresses a particular set of relations to one’s children” that accepting a price is equivalent to ‘betraying’ future generations and thus the “treatment of the natural world is expressive of one’s attitude to those who will follow you” (O’Neill, 2001, p. 1867). Hence, monetary transactions have ‘cultural meaning’ such as to O’Neill (2001, p. 1866) who argues that monetary transactions are “not exercises in the use of a measuring rod” but are expressive “social acts which have a social meaning” which “are constituted by particular kinds of shared understanding which are such that they are incompatible with market relations”, such as friendship and kinship ties. This “shared understanding” is consistent with Sunstein’s (1994, pp. 805, 813) defense of incommensurability as “freedom-producing” by preventing aspects of the “good” life (e.g. friendship) from being reduced to monetary terms. Even environmental economists such as Shogren (2012, p. 353) admit that markets are not necessary “in certain situations” because of “efficient cultural and social rules governing resource allocation” in both developed and developing countries when cultural and individual traits can impact on exchanges and nonmarket allocations, and that behavioral “anomalies” such as preferences for others’ welfare can persist even if markets are integrated into local communities.

Gowdy (2008, pp. 633, 634) argues that the rational choice model seems, instead, to describe more fittingly the actions of animals with “limited cognitive ability” and “perhaps” humans making “the simplest kind of choices” as “the most important decisions” humans make requires taking into account “culture, institutions, and give-and-take interactions” which are “critical and should be central to any behavioral model” such as adopting a “culturally conditioned sense of fairness” and willingness to enforce cultural norms even at their own economic expense. Preferences can be “socially conditioned” which are “at odds with the neoclassical welfare model in which ends are given”, i.e. consequentialism (Gowdy, 2004, p. 252). Culture can even impact on market price as Brown (1984, p. 239) concludes that price is a “social phenomenon, resulting from exchanges involving many individuals” because consumers act in their own interest which “is most often an atomistic one, each producer or consumer acting largely in his or her own interest”, but operate within the constituency being “influenced by the group’s common heritage and culture”.

A cultural approach to valuation following the ES framework is based not on a simple aggregation of individuals' WTP in a community but on the value of services or benefits an ecosystem provides to the community as a whole. Small et al. (2017, p. 61) supports this by reasoning that factors that affect how a community manages an ecosystem can be different from those that affect individuals' behaviors. Such an approach is deliberative as it entails gathering all stakeholders together to discuss how to manage ecosystems and the benefits derived from the latter (Chan et al., 2012, p. 754). The ES framework includes intangible services that ecosystems provide such as cultural uses including recreation, tourism, aesthetics and spiritual (Sukdev et. al., 2014, p. 4) which environmental valuation approaches exclude, and uses a variety of methods including qualitative methods on top of quantitative approaches such as stated and revealed preference approaches associated with environmental valuation. This helps to compensate losers not just in terms of material (tangible) losses but also intangible (e.g. cultural) losses.

Specifically, culture affects valuation in two ways. One is through the socio-cultural values of ecosystem services which Scholte et al. (2015, p. 68) define as “the importance people, as individuals or as a group, assign” to bundles of ecosystem services. Socio-cultural values, however, are conceptually different from cultural ecosystems which is the second way that culture can impact on valuation. Scholte et al. (2015, p. 68) differentiate between the two concepts by explaining that socio-cultural values reflect both material and immaterial wellbeing while cultural ecosystems reflect only immaterial wellbeing. The material aspect of socio-cultural values is reflected in the material (i.e. terrestrial) factors that influence socio-cultural values, such as the quantity and geo-location of ecosystem service provision (Scholte et al., 2015, p. 70). On the other hand, Chan et al. (2012, p. 745) define cultural ecosystem services as “ecosystems’ contribution to the nonmaterial benefits (e.g., experiences, capabilities) that people derive from human–ecological relations”; or as the Millennium Ecosystem Assessment (2005) defines, is “the nonmaterial benefits people obtain from ecosystems through spiritual enrichment, cognitive development, reflection, recreation, and aesthetic experience, including, e.g., knowledge systems, social relations, and aesthetic values”.

The deliberative approach above suggests constant social negotiation among human beings as to what constitute cultural values. Pröpper and Happts (2014, p. 31) see values as “culturally shared meanings” and the process of valuation as “actors’ negotiated and shared estimation of objects and activities according to multiple goals, principles and conceptions of what is desirable in life (e.g. prices, religious convictions, norms, sense of place, and even feelings of love and the sense of beauty)”. The temporality of cultural values is evident in valuation as an “ongoing human activity” (authors’ italics) as Pröpper and Happts (2014, p. 30) maintain who thus add that the “temporal challenge” of cultural valuation “needs attention” as values are “negotiated in social interactions and ascribed to objects and actions rather than inherent in them”.

Thus, Pröpper and Happts (2014, pp. 31, 33) refute the neoclassical economists’ conception of individuals’ exogenous preferences as being given, stable and “rather similar” across all individuals. Instead, they argue that individuals’ values as “culturally shared meanings” are changing as these values interact with exogenous factors such as surrounding landscapes and global influences which form “an integral part of endogenously evolving

and transforming preferences — within a cultural context of other people and the surrounding world” when “the aesthetics of landscapes, the spirituality of places, and the necessity of recreational and educational activities” are constantly being negotiated. Sagoff (2007, p. 79) echoes this suppression of individual characteristics using the “rather similar” preference assumption by opposing the aggregation of individuals’ WTP to achieve a societal WTP as the recourse to compensation based on potential Pareto efficiency. Sagoff (2007, p. 80) argues that society cannot be reduced to “a single subject” such that properties of individuals in a society can be aggregated and are reflected as a community as this amounts to individualistic fallacy and merely demonstrates the relative changes from a change introduced. Moreover, doing so disregards the individual’s autonomy as it is reduced to a constitutive unit of an aggregated WTP (Sagoff, 2007, p. 79).

The cultural argument against homogeneity of exogenous preferences above thus opposes Stigler and Becker’s (1977, p. 76) view of preferences as given and similar, as well as Vriend’s (1996, p. 279) advocacy of completely ascribing differences in individuals’ actions based on “differences in perceived opportunities” to each individual—or the differences in “perceived opportunity set” according to Becker (1962). Vriend (1996, p. 279) argues that it is “theoretically impossible to get the necessary characteristics of aggregate demand functions” necessary to show that the trial-and-error process (“tatonnement process”) of reaching equilibrium in all perfectly competitive markets simultaneously for multiple commodities by assuming away the heterogeneity of individuals’ motivations underlying their preferences, i.e. by “imposing more and more restrictions upon individual characteristics”. Vriend (1996, pp. 268-269) defines “opportunities” such that “all perceived costs and benefits are taken into account” (author’s italics), especially “information, decision-making and transaction costs” which go beyond monetary opportunity costs to include costs in searching for information, and costs in engaging in leisure activities such as talking with a friend or doing nothing. If “perceived opportunities” are defined as “perceived possible actions plus perceived consequences” (Vriend, 1996, p. 269), Vriend (1996, p. 268) explains why agents do not take advantage of “an apparently profitable opportunity” because of “the existence of costs, monetary or psychic, of taking advantage of these opportunities that eliminate their profitability—such costs that may not be easily “seen” by outside observers”.

However, such preoccupation with one’s monetary profitability reduces the description of complex ecosystem services into dollars and cents which obscures the complexity of ecosystems through commodifying them (Gómez-Baggethun and Ruiz-Pérez, 2011, pp. 621-622; Matulis, 2014, p. 156; Kallis et al., 2013, p. 99). Rather, Gómez-Baggethun and Ruiz-Pérez (2011, pp. 621-622) argue that ecosystem services have “symbolic” value, which is all the more so when ecosystems cannot be discretely described and valued independently (i.e. Georgescu-Roegen’s (1971) “artimo-morphic concept”) when various ecosystems operate in interaction with one another (i.e. Georgescu-Roegen’s (1971) “dialectical concept”) which echoes the problem of functional transparency arising from interdependency of ecosystems. The symbolic value that the environment possesses can be observed in the aesthetic and spiritual values which are not “solely” individual preferences in terms of artistic taste and choice of religion but are “socially shared values, frequently intersubjective, and the outcome of historical processes in shared cultures” (Cooper et al., 2016, p. 225). The pursuit of symbolic value, according to Cooper et al. (2016, p. 220), generates meaning in the human-nature relationship such that man is

“no longer set apart as engineers and consumers” contrary to proponents of ecosystem valuation, such as Ostrom (2009a, pp. 419-422; for Ostrom’s “Socio-Ecological Framework”, see Ostrom, 2007, pp. 15181-15187); such human-nature integration makes it difficult for man to value nature exogenously, i.e. instrumentally. Cooper et al. (2016, p. 225) maintain that aesthetic and spiritual values are “independent of human preferences according to aesthetic theories of disinterestedness or the spiritual dimension of nature” and are “not primarily instrumental, for individual or group human benefit (though there may be some emotional benefits)”.

If aesthetic judgment is “non-instrumental and objective to the extent that the interests of the observer are set aside and appeal is made to reasons and methods of proof appropriate to aesthetics, e.g., identification of aesthetic qualities and perceptual proof” (Cooper et al., 2016, p. 222), then preferences for environmental goods grounded in “aesthetic, scientific and communitarian judgments” cannot be treated the same way as preferences for commodities, as Eriksson (2005, p. 423) argues. Thus, contrary to the neoclassical conception of economic phenomena as “the collective outcome of the decisions of individual actors”, Winthrop (2014, p. 210) argues that individuals are “neither autonomous nor wholly selfish” as they participate in “social systems—villages, tribes, communities, churches, associations, corporations—that shape their lives and inform their values”. Environmental perceptions and values are “not simply exogenous, uninterpretable facts, but become intelligible in light of a community’s ecological conditions and constraints, collective history, and way of life” as environmental knowledge to an American Indian, for example, is “multifaceted, encompassing both the qualities of a place and the associations that it holds for individuals, families, and communities, combining natural history with social history” (Winthrop, 2014, p. 210). Winthrop (2014, p. 211) maintains that environmental value based on “utilitarian benefit” is “not consistent” with how American Indians understand human’s place in nature which view environmental value as “multidimensional, reflecting cultural schemata for rightly experiencing, honoring, conserving, and appropriating the physical and biological manifestations of particular places and landscapes. Knowledge of particular environments is gained through experience, which may include interaction with personified spirits or forces”. Thus, Winthrop (2014, p. 211) surmises that larger than the world of information that competitive markets require in order to operate efficiently is the “universe of cultural knowledge” that is “far larger than the world of information” as knowledge can be tacit and contextual as is found in tradition; these cannot be taught or learned in the abstract but rather must be expressed, transmitted, and understood by participating in a way of life, whether knowledge is explicit/semantic or tacit/symbolic as both are involved in the creation of environmental value.

This is not to say that all individuals in a cultural group share the same socio-cultural values. Iniesta-Arandia et al. (2014, p. 46) note that socio-cultural values might differ among stakeholders as these values are “context-dependent and may also be related to different objectives, concerns and priorities for ecosystem management”, such as the factors which shape individuals’ perceptions of ecosystem services which “are related to the type of knowledge they hold (i.e., experiential or experimental), their place attachment and the way in which they interact with their natural surroundings”. While traditional practices of managing ecosystem services are “perceived as highly important and highly vulnerable by every stakeholder group”, Iniesta-Arandia et al. (2014,

p. 36) find that there are “contrasting perceptions of some ecosystem services among stakeholders and of the relevant drivers of change and wellbeing” which lead them to suggest that “[l]inking values to other stakeholder perceptions might be a useful way to move forward in ecosystem services valuation”.

Thus, Iniesta-Arandia et al. (2014, p. 47) recommend that trade-offs for conserving the environment in terms of gains and losses for particular groups of people can be enhanced by linking ecosystem service values to stakeholder perceptions because “it allows to make explicit: (1) context-dependency, as values exist within a specific setting, (2) value conflicts, as different stakeholders might value the same ES [ecosystem service] but for different purposes or with different decision outcomes and (3) power relations”; the role of such power relations is supported by Martinez-Alier and O’Connor (1999) who recognize the role of power, institutions and institutional change in influencing types of valuation (e.g. instrumental versus cultural) and its outcomes. Such differences among stakeholders are not captured by the monetary bids elicited from stakeholders.

Discussion

The above arguments are contentious with several scholars challenging their robustness and highlighting their limitations. Firstly, Chan et al. (2012, p. 746) admit that cultural ecosystem service values remain to be accounted for in monetary valuations despite recognition of their importance (e.g. Millennium Ecosystem Assessment, 2005, p. 40). This is because: 1) valuation is more amenable to “more navigable domains of provisioning, regulating, and supporting services, with the recognition that many cultural services could likely never be appropriately represented by such monetary valuation”; 2) the problem of attributing causation to ecosystem service change as it is “always difficult to distinguish the ecological from the social causes of ES change”; and 3) the lack of “participatory methods” to identify and catalogue priority ecosystem services as they seemed to be treated as “self-evident” in a geographical region despite their intangible nature. Small et al. (2017, p. 57) support this view by noting that ES has hitherto framed “core concepts and approaches” only. However, Vriend (1996, pp. 270-271) argues that “cultural factors, ruling morals, social customs or duties, habits, herd behavior, etc.”, can be easily incorporated into the economic framework by changing the perceived opportunities of behavior because “1) either agents do not perceive some objectively available options because they have never heard of such things; or 2) because they are not used to thinking about such things, or agents perceive the consequences to be different from those which they will in fact be, for example, because they are always told so; or 3) the consequences will indeed be different due to the behavior of other agents in their environment” and that such cultural norms and rules are themselves the product of the economic behavior of many agents. Vriend (1996, p. 270) argues that it is all about preferences and perceived opportunities and one should not confuse egoism with self-interest as it can be in one’s self-interest to act altruistically which is not egotistical behavior.

While Vriend’s reply sounds promising for proponents of culture, Vriend ultimately alludes to the concepts of atomism (i.e. individual-based) and monetary profitability in arguing for inclusion of culture into the economic

framework when, as shown above, cultural values is determined more at the ecological (i.e. group) level than at the individual level and profitability is only one goal—if ever—among stakeholders with different interests of varying degrees. Moreover, Farley et al. (2015, p. 250) argue against ‘atomizing’ or reducing the decision-making unit to the individual as this can lead to “more boundaries exist over which externalities can occur” and greater transaction costs of resolving them. Brown (1984, p. 245) is more optimistic about “more socially defensible values” which are “values that look to the good of the whole” while “detached, “scientific” values” may not be obtainable using neoclassical economic analysis. He argues that refinements to valuation “should improve upon existing group decision-making procedures, or develop new procedures that force explicit quantification of value judgments on the part of individual valuers, and that encourage individual valuers to utilize the best available information about the welfare of the true resource owner in the course of the valuation”.

A second criticism is made by Hahnel and Albert (cited as O’Neill et al., 2002, p. 155) who argue for a consequentialist position as people are concerned about the “values humans attribute to the consequences of those choices” made which are “inevitably compared” and thus dismiss as “pointless debates” about the commensurability and inclusion of opportunity costs. Instead, the focus should be on is “what benefits and costs we do and do not want to take into account, who gets to estimate those benefits and costs, how they go about estimating them, whether or not the answers to these questions should depend on what the choice is, and who will be affected by the consequences of the choice”. However, O’Neill (see O’Neill et al., 2002, p. 157) disputes this objection to opportunity costs on the basis that the very existence of plural values means that opportunity costs must be represented as “[c]ertain valued options that might be foregone will be either misrepresented or unrepresented” and refutes the consequentialist position by arguing that both the ends (as expressive rationality because choices “are themselves ways of expressing attitudes to people and things and not just instrumental means to valued consequences”) and means (procedural rationality to accommodate value plurality and “unavoidable uncertainty concerning the consequences of actions”) are important in the context of a “socialist community”. Such a view echoes Gowdy’s (2004, pp. 247-248) argument for paying attention to both the ends (i.e. outcomes as benefits) and means (i.e. processes such as fairness considerations) as people “in reality” are also “concerned about the processes, particularly the issue of fairness” contrary to the rational-actor model focusing only on the outcomes in terms of “the quantities and qualities of goods exchanged”.

Thirdly, such a utilitarian view above raises objections to the neoclassical framing of culture as “cultural [ecosystem] services”. Winthrop (2014, p. 209) notes two different conceptions of culture that can entail “fundamental differences in what constitutes the objects of study in assessing environmental values”: in economics, culture is “treated as a special category of commodities: those involving “the enlightenment and education of the mind”, such as films, paintings, magazines, dance performances, and pop music recordings”; while in anthropology, culture “refers to a system of understandings through which social life is transacted”. Winthrop (2014, p. 209) criticises the valuation of ecosystems in terms of the ‘services’ they provide (i.e. ecosystem services) from two standpoints: the ES framework from the standpoint of theory is narrow as it neglects “the socially transacted character of environmental knowledge, motivation, and values”; from the

standpoint of practice, the use of tradeoffs in the ES framework is “both methodologically and ethically inappropriate” as regulation of ES using technology “less concerned individual benefit and rather more involved strengthening social and ritual relationships” which are “difficult to interpret within the ES framework”. Even if culture were included in neoclassical economics as “cultural [ecosystem] services”, Winthrop (2014, p. 209) lists five objections to such a neoclassical rendering of culture: 1) ethical beliefs are not economic benefits and are hence not amenable to measurement; 2) other communities may find it alien to conceive of nature as a “service provider”; 3) some categories of values are not able to be traded off with other things as they are incommensurate; 4) the focus on the individual as possessing self-regarding interest is at odds with the other-regarding behavior (i.e. “inherently social character”) of many environmental practices; and 5) ideas of private property and ownership associated with valuation are incompatible with the communal basis of many indigenous systems of property rights.

Such a critique resonates with Sen’s (1977, p. 326) critique who differentiates individuals’ actions based on sympathy which is egotistical and those actions based on commitment which is “non-egotistic”; Sen (1977, p. 329) argues that commitment is “closely connected with one’s morals”, such as boycotting particular goods or eschewing holidays (Sen, 1977, p. 330). In refuting the gains-maximizing assumption of individual behavior, Sen (1977, p. 334) cites the Cultural Revolution in China as an example of morals being used to increase one’s “sense of commitment with an eye on economic results”, although Sen (1977, p. 335) cautions against universalizing commitment based on culture or morality. Moreover, even in the case of extreme incommensurability or “radical incommensurability” which dispenses with the possibility of comparability amidst incommensurability (Sunstein, 1994, p. 810), Sunstein (1994, p. 811) argues that extreme incommensurability is not present “most of the time” as individuals and societies make choices among incommensurable goods on the basis of “reasons”. This, to Sunstein (1994, p. 811), is a “principal task for practical reason, especially in law” and thus he concludes that “we should not identify the existence of good reasons for action with the existence of a unitary metric” because “[s]ome choices among incommensurable goods are rational, and others are not, because of the connection between any particular choice and the achievement of good lives or good societies”.

Fourthly, some scholars have argued that blaming neoliberalism for the spread of economic valuation to the extent that it displaces other forms of evaluation may be far-fetched. This is so especially, as Gsottbauer et al. (2015, p. 166) argue, that neoliberalism is an ideological (i.e. “politically laden”) concept but for that matter, a strongly regulated market is a “far cry” from neoliberalism which assumes “perfectly correct pricing based on perfect monetary valuation of externalities”—something which a strongly regulated market is implied to be unable to achieve. Norgaard (1994, pp. 154-155) supports this label of neoliberalism as an ‘ideology’ as he argues that the global economy is “rationalized around the assumption of individualism as much as around the logic of trade” such that the “association of trade with individualism reflects the dominant premise in modern political thought”. Fourcade (2011, p. 1732) goes further to emphasize that monetary valuation of the environment demonstrates society’s “trust in numbers” which is “characteristic” of modern societies occurring as “a historical consequence of political centralization, the progress of a commercialized economy, mass

education, and democratic legitimation processes”. The symptoms of this “trust in numbers” is reflected in the “systematic use of quantification in public policy decision making” which presupposes “a particular form of political rule, one rooted in the authority of rational expertise rather than custom or personal leadership” (Fourcade, 2011, p. 1732). Sen (2000, p. 935) echoes this view from the viewpoint of Max Weber arguing that this phenomenon is a sign of modern societies’ demand for “a rationalistic approach, which demands full explication of the reasons for taking a decision, rather than relying on an unreasoned conviction [e.g. tradition] or an implicitly derived conclusion”.

However, in contrast to Gsottbauer et al., Norgaard (1994, pp. 154-155) holds neoliberalism culpable by asserting that it “reflects western culture rather than economic logic” for neoliberalism encourages economies to expand but creates ‘distance’ between the individual and environment by ‘separating’ the actions of the individual from their environmental and social consequences which he terms as the “distancing phenomenon”, thus generating externalities and increasing the difficulty of internalizing them. This is detrimental to the environment considering that nature “cannot readily be divided up and assigned to individuals, hence the failure of markets” as the “difference between individual and community interest” is influenced deeply (i.e. “intimately tied to”) by the interdependent structure (or “systemic character”) of environmental systems (Norgaard, 1994, pp. 154-155). In fact, Norgaard (1994, p. 157) blames it on a consumerist culture by arguing that “[o]ur values, knowledge, and social organization have coevolved around fossil hydrocarbons” which not only “transformed” the environment, but “selected for individualist, materialist values”; favoured a parsimonious (“reductionist”) understanding over holistic (“systemic”) understanding, and; is more amenable to a more predictable, “bureaucratic, centralized form of control which works better for steady-state industrial management” than alternative forms of environmental management such as traditional practices that go with the vagaries and vicissitudes of nature (or “varied, surprising dynamics of ecosystem management”). Such management practices which form the “dominant modes of valuing, thinking, and organizing” explains how “our abilities to perceive and resolve environmental problems” are “severely constrained” when considering change in values, knowledge, organization, technology and the environment in a society simultaneously impacts on all others through “selection” in what Norgaard (1994, pp. 155-156, 157) calls “coevolutionary framing”.

Conclusion

This paper has sought to examine how culture influences an individual’s WTP. Arguments for non-economic motives behind environmental valuation trigger such a discussion. Culture has been depicted in this paper as cultural norms. Of particular interest is how culture impacts on a group’s valuation of the environment which goes beyond a simple aggregation of WTP elicited from individuals in this group promulgated by environmental economists. This is because cultural evaluation requires group members to deliberate and come to a consensus on the group or societal WTP as a whole. Not all individuals in an in-group share the same cultural values, however, and these values change over time creating an impermanence which is at odds with mainstream

economists' assumptions of one's exogenous preferences as stable, given and similar across all individuals in an in-group.

Nevertheless, some scholars doubt the role of culture in environmental valuation. These scholars note that problems with including culture in environmental valuation remain because some aspects of ES valuation (e.g. provision, regulation and supporting services) are more amenable to economic valuation of the environment than the cultural aspect. Other scholars maintain the pre-eminence of the consequentialist position in spite of the debate on the role of culture as humans are inevitably going to be concerned about the consequences of the decisions they made. On the other end of the debate, some express discomfort with treating culture as 'some' commodity (of varying degrees) because certain beliefs and practices are not amenable to quantification let alone monetization as well as that the communal partaking in these beliefs and practices goes against the atomism approach of neoclassical economic valuation of the environment. Still, there are other critics who blame the lack of progress in cultural valuation on the entrenchment of economic neoliberalism as an ideology. They hold that modern production processes have 'distanced' the individual end consumer from the production source which is the natural environment treated as a store of natural resources. This renders more difficult the communal process required for cultural environmental valuation.

Recommendations

If the criticisms above are valid, cultural valuation will have to do better if it aims to entrench itself further in policy assessments. Policymakers will need to exercise judgment that goes beyond what cost-benefit analyses (CBAs) are informing them in deciding whether to conserve the environment and how to compensate the losers for the loss of the ecosystem. Clearly, difficulties with cultural valuation have not prevented policymakers in the United Kingdom (see Department for Environment, Food and Rural Affairs, 2007) and European Union (see, for example, Chrzanowski and Buijse, 2019) from including it in their policy handbooks and relying on approaches other than CBAs such as multi-criteria analyses (MCAs) to make more informed decisions about conservation and development. Still, to see that cultural valuation remains simply one of the criteria in policymaking does not depict it as the counterweight to utilitarian approaches that proponents have made it out to be; in fact, that cultural valuation can not only counterbalance but also complement utilitarian approaches makes it a handmaiden to utilitarian approaches.

Future research into cultural evaluation of the natural environment may benefit from other research angles into culture that seek to quantify culture. Cross-cultural psychologists such as Hofstede (1980, 2001), Schwartz (see Schwartz and Bardi, 2001), and Triandis (see Suh et al., 1998, pp. 485-486) have conducted studies that measured differences in cultures across societies such as on the basis on individualism-collectivism dimension; these have been adopted by other scholars who study individuals' pro-environmental behavior (PEB) such as Cho et al. (2013), Kopelman (2009), Roy and Goll (2014), Peng and Lin (2009), McCarty and Shrum (2001), and Turkyilmaz et al. (2015). But as of now, the most promising recourse left to policymakers and practitioners

of cultural valuation seems to be their reliance on “good reasons” in Sunstein’s (1994, p. 811) words such as pursuit of the ‘good life’ and continue to make choices among bundles of goods and services despite the incommensurability of their monetary worth using a wealth of approaches including CBAs and MCAs. If so, cultural valuation risks remaining as a byword in policymaking despite its internationally acknowledged importance such as through the United Nations’ Millennium Ecosystem Assessment (2005, p. 40) until ways are found to elevate it to the status of utilitarian approaches—but not simply as an extension of the latter.

Acknowledgements

The author would like to thank participants for their comments on a previous version of this paper presented at the conference on “Environmental Governance: Policy Discourse, Deliberative Practices, and Public Participation” held at the Lee Kuan Yew School of Public Policy, National University of Singapore, on 29 to 31 January 2020. The author is also grateful for comments on the current version of this paper from participants at the International Conference on Humanities, Social and Education Sciences 2021 held virtually from 22 to 25 April 2021.

References

- Ahn, T. K., & Ostrom, E. (2008). Social capital and collective action. In D. Castiglione, J. W. van Deth, & G. Wolleb (Eds.), *The handbook of social capital* (pp. 70-100). Oxford University Press.
- Anderson, E. (1993). *Value in ethics and economics*. Harvard University Press. In W. Beckerman, & J. Pasek. (1997). Plural values and environmental valuation. *Environmental Values*, 6(1), 65-86. <https://doi.org/10.3197/096327197776679202>
- Becker, G. S. (1962). Irrational behavior and economic theory. *Journal of Political Economy*, 70(1), 1-13. <https://doi.org/10.1086/258584>
- Beckerman, W., & Pasek, J. (1997). Plural values and environmental valuation. *Environmental Values*, 6(1), 65-86. doi:10.3197/096327197776679202
- Brown, T. C. (1984). The concept of value in resource allocation. *Land Economics*, 60(3), 231-246. <https://doi.org/10.2307/3146184>
- Chan, K. M. A., Guerry, A. D., Balvanera, P., Klain, S., Satterfield, T., Basurto, X., Bostrom, A., Chuenpagdee, R., Gould, R., Halpern, B. S., Hannahs, N., Levine, J., Norton, B., Ruckelshaus, M., Russell, R., Tam, J., & Woodside, U. (2012). Where are *cultural* and *social* in ecosystem services? A Framework for Constructive Engagement. *BioScience*, 62(8), 744-756. <https://doi.org/10.1525/bio.2012.62.8.7>
- Cho, Y.-N., Thyroff, A., Rapert, M. I., Park, S.-Y., & Lee, H. J. (2013). To be or not to be green: Exploring individualism and collectivism as antecedents of environmental behavior. *Journal of Business Research*, 66(8), 1052-1059. <https://doi.org/10.1016/j.jbusres.2012.08.020>
- Chrzanowski, C., & Buijse, T. (2019). *Cultural ecosystem services*. Freshwater Information System. <http://fis.freshwatertools.eu/index.php/infolib/ecoservices/cultural-ess.html>

- Cooper, N., Brady, E., Steen, H., & Bryce, R. (2016). Aesthetic and spiritual values of ecosystems: Recognising the ontological and axiological plurality of cultural ecosystem 'services'. *Ecosystem Services*, 21, Part B, 218-229. <https://doi.org/10.1016/j.ecoser.2016.07.014>
- Costanza, R., d'Arge, R., de Groot, R., Farber, S., Grasso, M., Hannon, B., Limburg, K., Naeem, S., O'Neill, R. V., Paruelo, J., Raskin, R. G., Sutton, P., & van den Belt, M. (1997). The value of the world's ecosystem services and natural capital. *Nature*, 387, 253-260. <https://doi.org/10.1038/387253a0>
- Department for Environment, Food and Rural Affairs. (2007). *An introductory guide to valuing ecosystem services*. Department for Environment, Food and Rural Affairs.
- Eriksson, R. (2005). On the ethics of environmental economics as seen from textbooks. *Ecological Economics*, 52(4), 421-435. <https://doi.org/10.1016/j.ecolecon.2004.06.029>
- Farley, J., Filho, A. S., Burke, M., & Farr, M. (2015). Extending market allocation to ecosystem services: Moral and practical implications on a full and unequal planet. *Ecological Economics*, 117, 244-252. <https://doi.org/10.1016/j.ecolecon.2014.06.021>
- Food and Agricultural Organization. (2020). *Cultural services*. Food and Agricultural Organization of the United Nations. www.fao.org/ecosystem-services-biodiversity/background/cultural-services/en/.
- Fourcade, M. (2011). Cents and sensibility: Economic valuation and the nature of "nature". *American Journal of Sociology*, 116(6), 1721-1777. <https://doi.org/10.1086/659640>
- Gatto, M., & De Leo, G. A. (2000). Pricing biodiversity and ecosystem services: The never-ending story. *BioScience*, 50(4), 347-355. [https://doi.org/10.1641/0006-3568\(2000\)050\[0347:PBAEST\]2.3.CO;2](https://doi.org/10.1641/0006-3568(2000)050[0347:PBAEST]2.3.CO;2)
- Georgescu-Roegen, N. (1971). *The entropy law and the economic process*. Harvard University Press.
- Gómez-Baggethun, E., & Ruiz-Pérez, M. (2011). Economic valuation and the commodification of ecosystem services. *Progress in Physical Geography*, 35(5), 613-628. <https://doi.org/10.1177/0309133311421708>
- Gowdy, J. M. (2004). The revolution in welfare economics and its implications for environmental valuation and policy. *Land Economics*, 80(2), 239-257. <https://doi.org/10.2307/3654741>
- Gowdy, J. M. (2008). Behavioral economics and climate change policy. *Journal of Economic Behavior & Organization*, 68(3-4), 632-644. <https://doi.org/10.1016/j.jebo.2008.06.011>
- Gsottbauer, E., Logar, I., & van den Bergh, J. (2015). Towards a fair, constructive and consistent criticism of all valuation languages: Comment on Kallis et al (2013). *Ecological Economics*, 112, 164-169. <https://doi.org/10.1016/j.ecolecon.2014.12.014>
- Hofstede, G. (1980). *Culture's consequences: International differences in work-related values*. Sage.
- Hofstede, G. (2001). *Culture's consequences: Comparing values, behaviors, institutions, and organizations across nations*. 2nd ed. Sage Publications.
- Iniesta-Arandia, I., García-Llorente, M., Aguilera, P. A., Montes, C., & Martín-López, B. (2014). Socio-cultural valuation of ecosystem services: uncovering the links between values, drivers of change, and human well-being. *Ecological Economics*, 108, 36-48. <https://doi.org/10.1016/j.ecolecon.2014.09.028>
- Kallis, G., Gómez-Baggethun, E., & Zografos, C. (2013). To value or not to value? That is not the question. *Ecological Economics*, 94, 97-105. <https://doi.org/10.1016/j.ecolecon.2013.07.002>
- Keefer, P., & Knack, S. (2005). Social capital, social norms and the new institutional economics. In C. Ménard, & M. M. Shirley (Eds.), *Handbook of new institutional economics* (pp 701-725). Springer.

- Kopelman, S. (2009). The effect of culture and power on cooperation in commons dilemmas: Implications for global resource management. *Organizational Behavior and Human Decision Processes*, 108(1), 153-163. <https://doi.org/10.1016/j.obhdp.2008.06.004>
- Martín-López, B., Montes, C., & Benayas, J. (2007). The non-economic motives behind the willingness to pay for biodiversity conservation. *Biological Conservation*, 139(1-2), 67-82. <https://doi.org/10.1016/j.biocon.2007.06.005>
- Martinez-Alier, J., & O'Connor, M. (1999). Distributional issues: an overview. In J. C. J. M. van den Bergh (Ed.), *Handbook of Environmental and Resource Economics* (pp. 380-393). Edward Elgar Publishing Limited.
- Matulis, B. S. (2014). The economic valuation of nature: A question of justice?. *Ecological Economics*, 104, 155-157. <https://doi.org/10.1016/j.ecolecon.2014.04.010>
- McCarty, J. A., & Shrum, L. J. (2001). The influence of individualism, collectivism, and locus of control on environmental beliefs and behavior. *Journal of Public Policy & Marketing*, 20(1), 93-104. <https://doi.org/10.1509/jppm.20.1.93.17291>
- Millennium Ecosystem Assessment. (2005). *Ecosystems and human well-being: Synthesis*. Island Press.
- Norgaard, R. B. (1994). The Process of loss: Exploring the interactions between economic and ecological systems. *American Zoologist*, 34(1), 145-158. <https://doi.org/10.1093/icb/34.1.145>
- O'Neill, J. (2001). Markets and the environment: The solution is the problem. *Economic and Political Weekly*, 36(1), 1865-1873. <https://doi.org/10.2307/4410667>
- O'Neill, J., Campbell, A., Hahnel, R., & Albert, M. (2002). Socialist calculation and environmental valuation: Money, markets and ecology. *Science & Society*, 66(1), 137-158. <https://doi.org/10.1521/isis.66.1.137.21006>
- Ostrom, E. (2005). Doing institutional analysis: Digging deeper than markets and hierarchies. In C. Ménard, & M. M. Shirley (Eds.), *Handbook of new institutional economics* (pp. 819-848). Springer.
- Ostrom, E. (2007). A diagnostic approach for going beyond panaceas. *Proceedings of the National Academy of Sciences of the United States of America*, 104(39), 15181-15187. <https://doi.org/10.1073/pnas.0702288104>
- Ostrom, E. (2009a). A general framework for analyzing sustainability of socio-ecological systems. *Science*, 325(5939), 419-422. <https://doi.org/10.1126/science.1172133>
- Ostrom, E. (2009b). Building trust to solve commons dilemmas: Taking small steps to test an evolving theory of collective action. In S. A. Levin (Ed.), *Games, groups, and the global good* (pp. 207-228). Springer.
- Ostrom, E. (2010). Beyond markets and states: Polycentric governance of complex economic systems. *Transnational Corporations Review*, 2(2), 1-12. <https://doi.org/10.1257/aer.100.3.641>
- Ostrom, E. (2014). Do institutions for collective action evolve? *Journal of Bioeconomics*, 16(1), 3-30. <https://doi.org/10.1007/s10818-013-9154-8>
- Peng, Y., & Lin, S-S. (2009). National culture, economic development, population growth and environmental performance: The mediating role of education. *Journal of Business Ethics*, 90(2), 203-219. <https://doi.org/10.1007/s10551-009-0036-x>
- Poteete, A., Janssen, M. A., & Ostrom, E. (2009). *Working together: Collective action, the commons, and*

- multiple methods in practice*. Princeton University Press.
- Pröpper, M., & Haupt, F. (2014). The culturality of ecosystem services. Emphasizing process and transformation. *Ecological Economics*, *108*, 28-35. <https://doi.org/10.1016/j.ecolecon.2014.09.023>
- Roy, A., & Goll, I. (2014). Predictors of various facets of sustainability of nations: The role of cultural and economic factors. *International Business Review*, *23*(5), 849-861. <https://doi.org/10.1016/j.ibusrev.2014.01.003>
- Sagoff, M. (2007). *The Economy of the Earth*. 2nd edition. Cambridge University Press.
- Scholte, S. S. K., van Teeffelen, A. J. A., & Verburg, P. H. (2015). Integrating socio-cultural perspectives into ecosystem service valuation: A review of concepts and methods. *Ecological Economics*, *114*, 67-78. <https://doi.org/10.1016/j.ecolecon.2015.03.007>
- Schwartz, S. H. (1977). Normative influences on altruism. *Advances in Experimental Social Psychology*, *10*, 221-279. [https://doi.org/10.1016/S0065-2601\(08\)60358-5](https://doi.org/10.1016/S0065-2601(08)60358-5)
- Schwartz, S. H., & Bardi, A. (2001). Value hierarchies across cultures: Taking a similarities perspective. *Journal of Cross-Cultural Psychology*, *32*(3), 268-290. <https://doi.org/10.1177/0022022101032003002>
- Sen, A. (1977). Rational fools: A critique of the behavioral foundations of economic theory. *Philosophy & Public Affairs*, *6*(4), 317-344. <https://doi.org/10.12681/sas.629>
- Sen, A. (2000). The discipline of cost-benefit analysis. *Journal of Legal Studies*, *29*(S2), 931-952. <https://doi.org/10.1086/468100>
- Shogren, J. F. (2012). WAEA keynote address behavioral environmental economics: Money pumps & nudges. *Journal of Agricultural and Resource Economics*, *37*(3), 349-360. <https://doi.org/10.22004/ag.econ.142349>
- Small, N., Munday, M., & Durance, I. (2017). The challenge of valuing ecosystem services that have no material benefits. *Global Environmental Change*, *44*, 57-67. <https://doi.org/10.1016/j.gloenvcha.2017.03.005>
- Stigler, G. J., & Becker, G. S. (1977). De gustibus non est disputandum. *The American Economic Review*, *67*(2), 76-90.
- Suh, E., Diener, E., Oishi, S., & Triandis, H. C. (1998). The shifting basis of life satisfaction judgments across cultures: Emotions versus norms. *Journal of Personality and Social Psychology*, *74*(2), 482-493. <https://doi.org/10.1037/0022-3514.74.2.482>
- Sukdev, P., Wittmer H., & Miller, D. (2014). The economics of ecosystems and biodiversity (TEEB): Challenges and responses. In D. Helm, & C. Hepburn (Eds.), *Nature in the balance: The economics of biodiversity* (pp. 1-14). Oxford University Press.
- Sunstein, C. (1994). Incommensurability and valuation in law. *Michigan Law Review*, *92*(4), 779-861. <http://dx.doi.org/10.2139/ssrn.3588337>
- Triandis, H. C. (1994). *Culture and Social Behavior*. McGraw-Hill, Inc.
- Turkyilmaz, C. A., Uslu, A., & Durmus, B. (2015). Antecedents and outcomes of consumers' inward and outward environmental attitudes: Evidence from Turkey. *Procedia – Social and Behavioral Sciences*, *175*, 90-97. <https://doi.org/10.1016/j.sbspro.2015.01.1178>
- Turner, R. K., Adger, W. N., & Brouwer, R. (1998). Ecosystem services value, research needs, and policy

relevance: a commentary. *Ecological Economics*, 25(1), 61-65. [https://doi.org/10.1016/S0921-8009\(98\)00018-4](https://doi.org/10.1016/S0921-8009(98)00018-4)

Van den Bergh, J. C. J. M., Ferrer-i-Carbonell, A., & Munda, G. (2000). Alternative models of individual behaviour and implications for environmental policy. *Ecological Economics*, 32(1), 43-61. [https://doi.org/10.1016/S0921-8009\(99\)00088-9](https://doi.org/10.1016/S0921-8009(99)00088-9)

Vriend, N. J. (1996). Rational behavior and economic theory. *Journal of Economic Behavior and Organization*, 29(2), 263-285. [https://doi.org/10.1016/0167-2681\(95\)00063-1](https://doi.org/10.1016/0167-2681(95)00063-1)

Whiteoak, K., & Binney, J. (2012). *Literature review of the economic value of ecosystem services that wetlands provide*. Marsden Jacob Associates Pty Ltd.

Winthrop, R. H. (2014). The strange case of cultural services: Limits of the ecosystem services paradigm. *Ecological Economics*, 108, 208-214. <https://doi.org/10.1016/j.ecolecon.2014.10.005>

Thinking – and Teaching – Outside the Gender Binary Box: Study Proposal for Promoting Gender Inclusivity Instruction in U.S. Public Schools Grades K and 1st

Kelli Jeanne Ling

Boston University, USA,  <https://orcid.org/0000-0001-6363-958X>

Kera Chi Hwei Ling

National Louis University, USA,  <https://orcid.org/0000-0001-5734-3504>

Abstract: This study proposal will provide a theoretical framework based on persuasive communication theories for educators seeking to make their curriculum more gender inclusive for contemporary school settings. The authors argue that too many U.S. public schools lack educational materials for young students in health classes about the value of understanding and respecting gender diversity and all individuals on the gender spectrum (i.e., nonbinary gender, gender fluid, transgender, cisgender, agender, etc.). On the whole, a majority of educators may agree that health/sex education classes in both elementary and middle schools should require some gender diversity instruction, since it could conceivably be one of the most important ways that these institutions can help students to establish early on positive relationships with their own bodies and healthy, constructive attitudes towards their peers' self-identifications. Yet, the reality is that very few states require institutions to provide this type of health-related information beyond the standard binary gender anatomy, physiology, and reproductive history (Leins, 2019; Laslett, 1989). Therefore, this communication-based proposal is focused on the twin goals of awareness and implementation of age-appropriate course materials for educators working with children in the 5-7 age range on topics surrounding a greater understanding and respect for gender diversity in oneself and others. A process model approach that reaches these young learners before they form strict binary gender views and stereotypes can help educators working with vulnerable school-aged children in the gender minority (Cross & Madson, 1997). Relevant qualitative theories include Weinstein and Sandman's Precaution Adoption Process Model, McGuire's Persuasive Communication Model, and Bertalanffy's System Theory (Schiavo, 2014; Bertalanffy, 2015).

Keywords: Gender inclusivity, persuasive communication, education in elementary schools, gender diversity, Precaution Adoption Process Model, Persuasive Communication Model, System Theory

Introduction

A community college student once remarked in class: "You call me 'she,' Mrs. Ling, but I prefer 'they.'"

This was a wake-up call to me as a progressive educator. I was already aware of studies showing how language use impacts beliefs and can lead to implicit bias (Von der Maisburg et al., 2020). However, this incident involving language (preferred pronouns), self-identification, and traditional binary gender notions helped me appreciate why we need to continue those important and sometimes heated conversations in education on the gender spectrum and expanding nonbinary-based gender education.

The paper's authors posit that in order to promote the development of gender diversity literacy in our educational settings, teachers in the earliest elementary grades of Kindergarten and 1st should be approached with awareness-based communication paradigms designed to scaffold this work. Our proposal, therefore, targets early childhood educators who work with grades K and 1st since they interact with and influence their students' mindsets, attitudes, and behaviors towards others in the earliest elementary grades. This young student age group is certainly educable on controversial issues involving self-identification because they may not yet have formed strict notions of what it means to be referred to as either 'him' or 'her' (e.g., traditional binary gender classifications taught in sex education and health classes in most schools). However, they soon will form specific attitudes and behaviors, which may influence peer relationships and acceptance throughout middle and high school years.

More generally, the influence of age on traditional gender constructs and stereotypes surrounding men versus women are based in part on research conducted by Bian, Leslie and Cimpian in their study entitled "Gender stereotypes about intellectual ability emerge early and influence children's interests" (2017). American society has become even more aware of the realization that gender is much more than the biological sex of either male or female that we are assigned at birth; but instead, an important societally-entranced self-perception/self-identification that interconnects with all aspects of a person's life and which warrants recognition as a valuable study in our public school's health and sex education curriculum.

The fear of being labeled as different or abnormal when it comes to gender diversity is, in fact, real and can single students out for harm and violence by peers, particularly in later adolescence (Marshal et al., 2011). In fact, this abnormal label is sometimes given to those children who don't conform to binary gender norms for dress, play, and behavior very early on by educators, coaches, parents, and/or other concerned adults. Herein, the authors offer a qualitative-based theoretical framework to encourage discussions on expanding gender diversity instruction in American school settings, based on relevant persuasive communication theories that can be applied to gender inclusivity instruction such as: Weinstein and Sandman's Precaution Adoption Process Model, McGuire's Communication for Persuasion Model, and Bertalanffy's System Theory (Schiavo, 2014; Bertalanffy, 2015).

We posit that too many U.S. public schools, regardless of economic status and student population diversity, allow gender stereotypes among students in health classes to continue due to a lack of a more expanded, more realistic gender curriculum (Canal & Oakhill, 2015). Schools may also lack appropriate educational materials in health and sex education classes that focus on teaching about the value of respecting all individuals on the

gender spectrum (For a solid review on these important terms and their meanings, please refer to Schlauderaff S, Davis K, Naime D, Rothblum E. “Can I Tell You About Gender Diversity? A Guide for Friends, Family and Professionals,” listed in Bibliography.). Understanding and accepting the various terms that people use to describe themselves is crucial for healthy interactions and relationships.

According to popular media reports from 2019 to 2020, only four states in the U.S. were in the process of actively remedying these gaps in missing gender diversity curriculum. Several states, such as Texas, Alabama, and Louisiana, have already mandated against gender diversity instruction in schools (Aspegren, 2021). This leaves educators with next to no options when it comes to expanding discussions on the gender spectrum and promoting good peer citizenship skills with all peers on the gender spectrum throughout grades K through 12th, and this is particularly unfortunate because such a discussion could help decrease discrimination and violent behaviors against students in the gender minority (Day et al., 2019).

One very liberal state that is already addressing these important educational issues and implementing changes. California, through its mandated “Healthy Youth Act” program (HYA), is already ahead of the curve nationally (Leins, 2019). Understanding the impact of this state’s work can provide further insight into the challenges faced by public elementary schools in terms of implementing a non-traditional, outside-the-box framework for expanded gender instruction for children. Drawing guidance from the HYA, this proposal focuses on twin goals of awareness and implementation of age-appropriate materials for target educators (priority population) working with school-aged children in the 5-7 age range. Readers may ask: Why so young? Why not begin this complex instruction when children are older? The key reason is that positive self-identification through expanded gender education and awareness can help to build trust with teachers, parents, and classmates, as well as a real sense of belonging and potential for success in academic environments (Martino & Cumming-Potvin, 2018). This can be crucial as school-aged children move through the K-8th grades and then navigate the difficult high school years. We already know that even children as young as age five may have questions along with some confusion about gender differences and why some sexes are allowed or encouraged to wear certain colors (e.g., pink/blue) or engage in certain activities (e.g., playing with dolls and dress-up rather than physical sport activities), while others are discouraged from doing so – based on masculine versus feminine constructs. So, a process model approach that reaches these young learners can help scaffold educators as they work to increase awareness and acceptance in their classrooms for those potentially vulnerable children leaning towards being identified outside the traditional binary gender classification.

Case Studies

Consider the following real-life examples:

Case Study #1

Bee is an 18-year-old community college student with a gifted intellect and future career interests in the visual

and fine arts. She has been living at home with her mother in order to save money, taking a full-load of post-secondary education courses. As she describes her home environment, it is clear that Bee's mother is very supportive of her daughter's educational goals and objectives. However, Bee says that she does not dare reveal too much personal information about herself to her family, or she could lose her housing situation due to discrimination and intolerance.

In fact, she describes college as being the first time in her young life where she feels accepted for who she is. Bee is an individual who does not conform to traditional binary gender roles of either female or male. Instead, she considers herself (and said she has always considered herself) to be nonbinary gender identified. In interviews, Bee explains that this reality of gender identification took a long time for her to come to terms with, and that she struggled enormously during her childhood and adolescence to fit in with her binary-gendered peers at school. She also confessed that she thought of herself as being abnormal compared to her family and friends. Yet, Bee (and many others like her) is perfectly normal. She may be born with an assigned biological gender at birth, but she naturally falls outside those strict binary classifications and falls elsewhere on the gender spectrum.

Also, what she feels she lacked throughout her childhood and adolescent was support. Like most U.S. public schools, Bee's health and sex education classes and teachers ignored the gender spectrum as well as the various ways in which people identify themselves as either, for example, gender nonconforming or transgender. It was those taboo topics she could never discuss safely in her home environment, either, and when she enrolled in required health and sex education classes, her teachers failed to cover issues involving gender diversity, even after she asked repeatedly. Instead, she learned only about human anatomy and physiology, the differences between male/female reproductive organs, human development from conception through death which usually included mating and offspring, and very limited at-risk developmental behaviors involving STDs and substance abuse. Her schools, like the majority in the U.S., failed to acknowledge, address, or inform students about those who do not share the same male versus female gender attitudes.

Indeed, they may have the sex organs of one or another gender assigned at birth and be labeled as such, but, like Bee, the reality of how they identify themselves and their place in U.S. society is a different matter entirely. And this lack of information and support, particularly during those early formative years in elementary and middle school, affected not only Bee's perceptions of herself (as normal versus abnormal) but also her general welfare and outlook on life, love, and relationships. In the primary grades, Bee said she felt invisible and conducted herself as such due to this rigid educational environment that failed to acknowledge her nonbinary identification.

Case Study #2

Rosie is an 18-year-old undergraduate who, like Bee, experienced a turbulent youth and adolescence due to her feeling abnormal. She struggled with severe depression, suicide ideation, and self-isolation and was in psychiatric treatment for the majority of her adolescence. Rosie considers herself as a nonbinary gender

individual and does not like being referred to as the gender of she/her assigned at birth. However, her relationship with her mother was in stark contrast to Bee's situation. While the latter was careful to keep her gender identity a closely guarded secret in order to survive, Rosie's mother was not only aware but also highly supportive of her daughter's gender identification journey. Whether she embraced the notion of a gender spectrum as normal and acceptable, we do not know. But we do know from interviews with Rosie that her mother was instrumental in helping her deal with major mental health concerns, and she did not try to change her daughter into someone else (someone who identified as either 'she' or 'he').

In both elementary and middle school, Rosie was aware of being different than her close friends, who were mostly girls, she said. But, like most public school students, she also was not taught about gender minority issues, and she had no concept then that being 'normal' could apply to those outside of the traditional nonbinary roles of male or female. So, Rosie struggled with feeling apart and isolated from others, including her closest friends, because of this confusion. When she finally learned about nonbinary gender identification, her world expanded, and she was able to talk about this openly with some of her family and get much-needed support from her mother as she grew up. While in community college, Rosie was determined to keep this progress into her adulthood and to bravely remind her instructors to refer to her in gender-neutral terms (e.g., they and them). But not all of Rosie's undergraduate instructors respected this request.

Health Communication Objectives

"Thinking – and Teaching – Outside the Binary Gender Box" begins modestly by approaching educators in two primary grades of Kindergarten and 1st, preferably through existing health and sex education classroom curriculum. These early elementary grades, where students are learning more about life skills and appropriate behaviors towards others – including boundaries -- is an arguably appropriate time, the authors posit, to implement this information on the gender spectrum. As teachers are profoundly aware, positive learning environments where students feel valued and accepted for who they are produce better learning outcomes and fulfill important mission statement objectives requiring inclusivity, tolerance, and good citizenship. Furthermore, because it is considered a significant public health issue for vulnerable youth in other places like Canada, intervention programs are being designed, implemented, and studied to see the effects on school environments. If attitudes about peers are formed early on and in a negative, hostile way, it may lead to instances of future discrimination and violence towards pre-adolescents and adolescents who identify differently than the majority students (Burk et al., 2018).

Through an application of communication theories, such as Weinstein and Sandman's 1984 Precaution Adoption Process Model, McGuire's 1969 Persuasive Communication Model, and Bertalanffy's 1968 System Theory, this proposal can help educators in those early grades to integrate and assess this new course material into already-existing health and sex education curriculum for childhood audiences. Moreover, these two grades (K and 1st) are successive in nature, and the Kindergarten grade can provide a baseline on which to build or revise new curriculum in order to achieve better health and education outcomes. Being successive in time helps

to strengthen the recall of new materials as well. For example, after introducing topics through the sharing of age-appropriate children's books and role playing, teachers in K and 1st grades can then introduce themes such as preferred pronouns and why some students wish to be referred to in the plural. While the priority population for our recommended gender inclusive studies is public elementary school teachers, other staff members, such as counselors and administrators, can also gain insight into working with this group of students on expanded gender curriculum. It is not a problem area limited solely to teachers.

Study Population

This study targets public school elementary teachers in Kindergarten and 1st grades. Since it is not feasible to study all teachers in the U.S. in these two primary grade levels, we need to draw a sample from the population in order to make accurate inferences. Since researchers may need to compare the two groups of primary teachers involved in this curriculum, a stratified random sample may be chosen (Keyton, 2018). We can stratify teachers according to grade level (those who teach Kindergarten; those who teach First Grade) and focus on a specific geographic region, such as a large urban area like Chicago, Detroit, or Boston. It could then be argued that a non-probability framework that relies on volunteer subjects to complete the surveys would work for such a sensitive subject matter. However, this needs further consideration and evaluation.

As with most studies of this nature, qualitative focus groups will be used to gain insight into our research questions and hypothesis. Researchers need to survey in pre- and post-tests attitudes regarding gender spectrum models, instruction, and curriculum prior to implementation. Researchers may also benefit from knowing how this priority population views gender issues and how comfortable or uncomfortable they are, as a group, expanding sex/health curriculum with younger audiences.

Understanding the Target Population

According to the National Center for Education Statistics, in the 2015-16 academic year, it was found there were approximately 1.9 million elementary school teachers. A large percentage (77%) of public-school educators in the U.S. were described as "female" compared to a smaller number described as "male" (23%). There was no data available on gender diversity among educators in this particular study (NCES, 2017). More secondary teachers held post-baccalaureate degrees than elementary public-school teachers. Also, an overwhelming majority (90%) of all public-school teachers were state-certified and/or held advanced certifications. In the 2015-16 academic year, approximately 10% of teachers were considered novices; that is, having 3 years or less of teaching experience. But almost 40% reported having a decade or more of teaching experience. In terms of ethnographic characteristics of race and ethnicity, the vast majority (80%) of public-school teachers identified as "White" or Caucasian, with only 9% identifying as Hispanic, 7% as "Black" or African American, 2% as Asian American, and just 1% from two or more races. This data is based on findings in the Public-School Teacher Data File report at the U.S. Department of Education's National Center for Education Statistics (See

Bibliography).

In terms of economics, the average baseline salary was found to have dropped for public school teachers compared to earnings in prior years. Teachers were paid about \$2,000 less than secondary school teacher in this time frame; in part, due to the former group's fewer post-baccalaureate degrees/professional certifications. "Female" teachers were also found to earn a lower average salary compared to "male" teachers: approximately \$55,000 versus \$57,000 respectively (NCES, 2017). From considering this collection of characteristics, we know that most of our priority population includes elementary public-school teachers who identify as White, female, with an undergraduate degree and state certification, and are paid less than their male peers and secondary teachers with advanced degrees. They may hail from different religious affiliations (and philosophies), so researchers cannot necessarily assume a Christian belief bias. However, target educators are very likely Western-educated and have teaching experience in the traditional school systems that cover only binary gender reproduction/health curriculum.

Changes at the state level are occurring and ongoing. For example, in Illinois, a new law signed into effect by Gov. J.B. Pritzker is called "The Inclusive Curriculum Law." It requires that by the time students finish the 8th grade in the Illinois public school system, they must have been exposed to information that covers the historical contributions of individuals in the LGBTQ+ community. The new law was based on studies of gender minority students who were found to experience a disproportionate number of challenges within and outside of the school setting, including being exposed to discriminatory language, dropping out of high school before graduating, facing homelessness due to their gender status, and being more likely than their heterosexual and cisgender peers to attempt suicide (IICAC, 2020).

However, the Illinois law is currently limited to instruction on the historical contributions of the LGBTQ+ community, such as knowing about the first gay female astronaut, Sally Ride, and her accomplishments. Furthermore, public administrators are voicing concerns about being able to fund these new educational initiatives, since the state has offered minimal financial assistance. Still, it can be seen as a step in the right direction; one that may help enhance other curriculum and aid in maintaining an environment that stresses healthy, peaceful, non-discriminatory relationships throughout childhood.

Research Questions, Methods and Experimentation

Qualitative Research Questions

- RQ1: Do the earliest elementary grades of K and 1st have an influence on the development of students' attitudes regarding gender diversity and gender norms in themselves and their peers?
- RQ2: Do communication exchanges by public school teachers in the earliest elementary years have an influence on their students' attitudes regarding gender constructs?
- RQ3: Does awareness of gender diversity create a more positive learning environment for elementary students?

RQ4: Does awareness of gender diversity in the earliest elementary grades impact future middle and high school acceptance of peers in the gender minority?

Hypothesis

It is hypothesized that early childhood educators in grades K and 1st who implement gender diversity curriculum in their existing classes will experience positive educational and health outcomes with their students, and that this positive trend in attitudes and behaviors towards others in the gender minority will continue into later middle and high school years, thereby helping to reduce discrimination, bullying, and harmful behaviors (such as suicide attempts) of gender minority students.

Proposed Methodology

Focus groups will be used to gain insight into these research questions and hypothesis. By conducting small size groups with no more than 6 to 8 teacher-participants at a time, researcher can better understand various perceptions related to gender diversity, gender norms, and educational pedagogy through initial and follow-up questions/discussions. The rationale behind focus groups is so that teacher-participants can talk freely on this complex, controversial topic without feeling limited to simple “yes” or “no” questions. Also, small groups of participants can get to know one another and develop trust, even if they feel embarrassed about the subject matter (i.e., gender self and peer identification in working with elementary students). A collaborative communication environment is recommended to help teacher-participants move from a state of resistance to a state of neutrality and, eventually, acceptance of study proposal. This trajectory follows Social Judgment Theory, which is based on latitudes of acceptance, rejection, and noncommitment of an issue. In this case, we are discussing constructs of gender diversity and gender norms. In a focus group setting, facilitators can sensitively ask for clarification on responses or even additional follow-up questions that may yield important information on attitudes towards teaching nonbinary gender materials.

Experimentation -- Pre-test Survey to Target Population

A survey is needed to help assess attitudes and behaviors on gender diversity instruction. We also need to consider compliance-gaining in the target population. It is recommended to strategically craft correspondence (mailed and available on schools’ official websites) that communicates the enrichment value of this proposed instruction before training programs are offered.

a. This (sample) letter could read as follows:

Dear Educator [Name]:

You are being asked to complete a short survey regarding new health-related curriculum on gender diversity being proposed in the Kindergarten and 1st grade classrooms for a pilot study. The survey attached includes questions about gender diversity instruction, learning and your own teaching

pedagogy. Please note that we are trying for a or higher response rate in order to accurately assess and more effectively implement this new curriculum. In addition, please answer as honestly as possible, as the survey is completely anonymous. Thank you very much for your time, support, and feedback!

Sincerely,

Researchers' Names

*Also, please answer the following seven [7] questions: Agree/Disagree/Neutral

- Q1: I am aware that children in grades K and 1st are beginning to become more aware of prescribed gender differences (what color to wear, what toys to play with, which gender group to interact with, etc.) that may impact how they learn and socialize in school settings.
- Q2: As an educator, I do not hold attitudes and/or behaviors towards people who are gender-identified differently than myself.
- Q3: As an educator, I know what to say when a student asks me about being non-binary gender, transgender, or really any gender description that is different from their assigned biology at birth.
- Q4: As an educator, I can always learn something new and valuable when I use gender diversity materials appropriate for my classroom age groups?
- Q5: As an educator, I prefer not to teach or use any classroom materials that discuss gender identification outside the traditional male/female (binary) descriptions?
- Q6: As an educator, I consider students with gender diversity descriptions that are nonbinary to be outside the norm.
- Q7: I think the lack of gender diversity studies in our schools represents a social issue/problem that needs to be addressed.

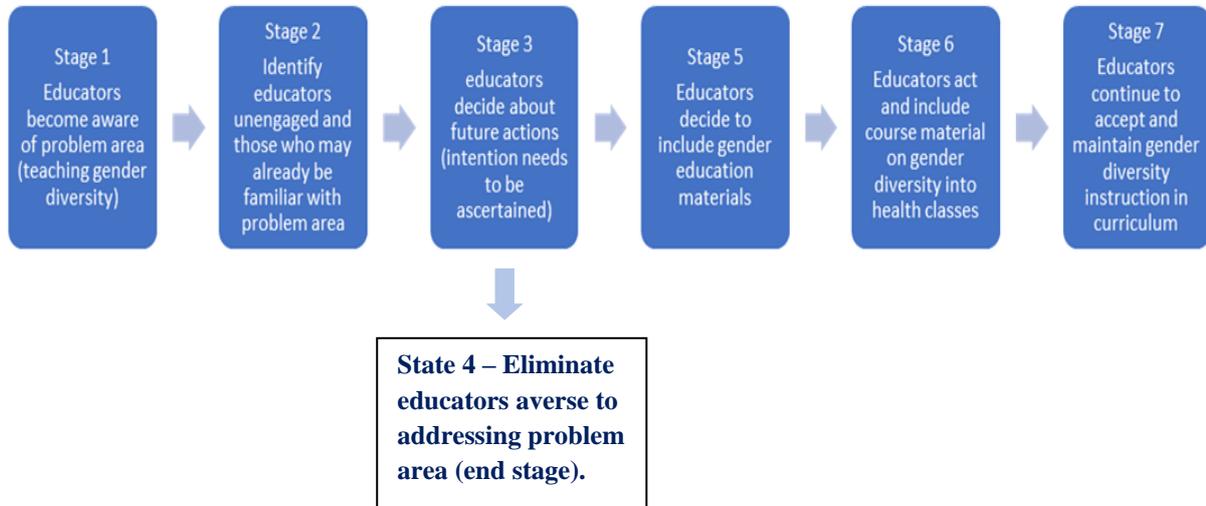
Applicable Communication Theories

Through an application of Weinstein and Sandman's Precaution Adoption Process Model (1984), or PAPM, as a primary paradigm and theories such as McGuire's Persuasive Communication Model (1969) and Bertalanffy's System Theory (1968) as secondary paradigms, this study proposal hopes to persuade educators to integrate new curriculum on gender diversity into existing health classes in K and 1st grade. In addition, barriers to this campaign would be addressed in a future health communication campaign (which is outside the scope of this study proposal) through life skills argumentation and identifying specific cognitive processes, such as respondent's notions of acceptance, rejection, and noncommitment to a particular message (Sherif, 2005). Social Judgment Theory, in particular, enhances this discussion by focusing on individual's views regarding a construct (e.g., gender identification) and its meaning in communication exchanges.

The Precaution Adoption Process Model

This model outlines specific stages that describe how people come to their awareness of issues and decisions and then determine whether to act or not. It is considered psychologically-based and takes into account qualitative differences among study participants that influence desired change. Because it is outcome-oriented, it

is also teleological and therefore, applicable to this thematic proposal on expanding gender spectrum education (Weinstein, 2008).



Stage 1: Unaware of the Issue. Educators need to be aware that this is an important issue in schools, society and in many families. Certainly, they may have heard of terms like transgender and non-binary gender identification, but they may need instruction in and encouragement to include this material into their health curriculum. Through application of research and case studies, this campaign will help teachers in grades Kindergarten and 1st to understand the importance of teaching gender diversity topics in their health classes. Also, it will encourage them to remember to use gender-neutral terms and pronouns to avoid furthering stereotypes in language use/word choice.

Stage 2: Unengaged by the Issue. In this stage, there is a distinction made between those educators who are unaware of the issue and those who may know about it, but don't care enough to do anything like add new curriculum to their health classes. Again, solid research and reasoning will help convince educators that they need to be more engaged on this public health educational issue.

Stage 3: Deciding about Acting. Here, educators are aware of the issue and considering what they are going to do about it. Since this has to do with the cognitive process, it is important to convince educators of the necessity of taking action (action that is within their power as educators) to avoid undesirable outcomes (e.g., their students being bullied or discriminated against in later middle and high school years). It is important to note that this stage is all about the study participant's intention. The target population hasn't decided in Stage 3 whether or not to act, so a strong persuasive message could move them from a decision of not engaging to instead act. Confidence and skills of educators need to be considered in this crucial stage.

Stage 4: Deciding not to Act. This stages basically eliminates those educators who are averse or hostile to teaching gender diversity topics. The study hopes to avoid having large numbers of target educators who elect

this end stage, because it will be less successful in terms of an entire community.

Stage 5: Deciding to Act. Here, educators have made the conscious decision to act. But they have not yet taken any action. At this stage, concrete suggestions on implementing course materials may be positively received. Promote this idea as an essential component of the pillar of inclusivity in educational paradigms. Help teachers to see this as an evolution of our limited sex education and health wellness programs in public schools – rather than worry that it may be controversial or uncomfortable information.

Stage 6: Acting. In this stage, educators are taking desired action by including this course material into their existing health classes, but not yet maintaining it. This is a chance to problem-solve for issues and concerns with open communication and regular monthly meetings throughout the school year.

Stage 7: Maintenance. The last stage is where the new behavior is accepted and maintained. Advocate pre- and post-attitudinal studies that addresses questions such as: how well did the curriculum work? Do any adjustments need to be made in the course materials or classes? Do teachers need additional support, such as funding or peer support, in order to continue teaching the new health curriculum?

McGuire's Communication for Persuasion Theory

This 12-step model focuses on how people process the information they receive, and it is invaluable for this health communication-based proposal. There may be overlap with innovations of diffusion process theories, since McGuire's theory is based on exposure and understanding of the message through an input to output linear model, which ties in with patterns of communication in diffusion process theory (McGuire, 1969; Shiavo, 2014, p. 36). Moreover, it moves towards an objective or goal (teleological) that is either confirmation or rejection of proposed new behaviors or the cessation of certain likely more harmful behaviors. This ties in with the construct of risk communication apparent when discussing controversial, highly sensitive, and polarizing topics in different settings. It has been defined by the US Department of Health and Human Services as being "an interactive process" for the exchange of opinions, experiences, knowledge, and information between people and within institutions such as K – 12th grade schools (HHS, 2002). Again, one can see the overlap between the two schemes, but the persuasive message focus is one of the key reasons why McGuire's theory can be extended to specific health communication education-based campaigns and how this process may work to change or influence primary educators' attitudes on binary gender-only course materials for young audiences.

Step 1: Exposure to a convincing message. Research available from the Centers for Disease Control and Prevention would be useful to include at this stage. For instance, the CDC has found that there are certain health risks (e.g., depression, being bullied or sexually assaulted, committing suicide, etc.) and disparities associated with being gender minority youth (Kann et al., 2015). Since educators are concerned with reducing stigma and discrimination against students in their classes, this program could help address these issues through both prevention and education. Applicable research by Dr. Elizabeth Meyer of the University of Colorado on

gender diversity and teacher's perceptions can be extremely useful, too (For more information, please see Elizabeth Meyer's research on gender-based harassment in schools and responses by teachers when asked about interventions. See Bibliography.).

Step 2: Pay attention. If my campaign message is conceptually sound, visually appealing, understandable, and well supported with credible research and case studies, then it will attract this target population's attention because they work with students from all gender self-identifications – not only male and female.

Step 3: Find it interesting or personally relevant. Even though educators may not have a personal connection to this issue, they have certainly heard and read about it in the media and on social network sites such as Facebook, so they may find it relevant to their work and interests. Moreover, since science tells us that there not two types of brain ("male" brain versus a "female" brain) and that this male or female brain is an outdated notion, educators can see the need for adding this course material into existing health classes which may wrongly encourage gender-based brain distinctions (Rippon, 2019). It is also important to explain how gender discrimination and violence can escalate against those in the gender minority in later school years.

Step 4: Understand it. Gender is a complex issue. To at least understand how it could impact students both positively and negatively in later middle and high school years can help elementary educators to better discuss this in their own health classes and with their educator peers. Also, it's important to help define these terms, because educators as a community may not be aware of the differences. For example, what is meant by gender diversity, the gender spectrum, non-binary gender identification, gender fluidity, transgender, binary gender, and cisgender? (APA, 2015)

Step 5: Figure out how the new behavior could fit in his/her/their life. I would recommend that this new material be designed to merge with existing health curriculum. Age-appropriate picture books such as author/mother Cheryl Kilodavis's *My Princess Boy* (2010), Leslea Newman's *Sparkle Boy* (2017), and Rob Sanders and Letizia Risso's *Bling Blaine: Throw Glitter, Not Shade* (2020) among others could be introduced for Kindergartners during class reading activities. Lesson plans could also include role playing and other fun activities to discuss gender roles students are becoming familiar with inside and outside of school and open possibilities for exploring gender diversity without forcing them to adopt any fixed roles. In 1st grade, teach children about asking for and using preferred pronouns as a way to create a safe and inclusive space for their peers. This will familiarize them with the expectation that they cannot automatically assume someone's gender identity based on name and appearance; this will also normalize the habit of asking for pronouns, preventing the development of discomfort and even stigma when students encounter gender queer communities.

Step 6: Accept the change that is being proposed. The focus of empirically-based studies is sometimes on engagement and not necessarily persuasion of the target population. Yet persuasiveness is key to ascertaining teacher-participants' cooperation in the study, which may ask unsettling, difficult questions that challenge notions involving gender-based stereotypes (Borelli & Cacciani, 2019). Also, McGuire's persuasive

communication model may provide another option for approaching educators and stakeholders (i.e., school board) to secure their willingness to adopt this new curriculum. Researchers need to evaluate how well a new gender inclusive curriculum has been to the classroom and larger school environment (System Theory), which also involves persuasion of target populations.

Step 7: Remember and validate the message. In order to sustain and remember this information, educators will need to meet and discuss these concepts and course materials on a regular basis, taking into consideration new research findings and ways to incorporate better course materials as they become available on the education market.

Step 8: Be able to think of the message in relevant contexts or situations. This proposal is considered context-dependent since it targets educators in a public-school district who work with Kindergartners and 1st graders. So, this is important to keep in mind when surveying the results of this new curriculum. Did it work for this age group? Was it too simple or too advanced? What questions did students have about the information shared?

Step 9: Make decisions based on the retrieved information/message. This step relies on channels of communication being accessible and open as this new curriculum is implemented and refined. Educators need to be willing to consider how their classes are integrating this new information. So, feedback from peer health instructors in the district who are also trying out the new curriculum can provide comparisons as well as insight on making curriculum or course material adjustments.

Step 10: Be in line with that decision. Educators need to feel comfortable enough to voice any concerns or reservations they may have with presenting this new course material to young audiences. Questions need to be encouraged and fully answered by the campaign team in order to encourage cooperation and trust.

Step 11: Receive positive reinforcement for that behavior. This could be the result of studies and reviews of how the educator adapts this material into his/her/their health education curriculum. Students' attitudes and behaviors following the implementation of this curriculum may serve to reinforce these endeavors.

Step 12: Integrate the new behavior into his/her/their life. If successful, based in part on attitudinal studies and observations of classes, this model could become a permanent part of the health education curriculum taught for these two primary grade levels at the school district. Finally, adopting new curriculum on gender diversity for the 5-7 age group could enhance students' understanding of both themselves and their world, which is a goal of many educators.

Bertalanffy's System Theory

System Theory is often cited as a basis of understanding human behavior and interconnectedness in organizational settings (Bertalanffy et al., 2015). However, it can be applied to educational institutions for the

rationale that discussions surrounding gender diversity and gender minority issues among children will, of course, stimulate curiosity, questions, and further discussions with teachers, classmates, friends, parents, and others. This is applicable because conversations surrounding what it means to be binary gender identified or nonbinary gender identified impact our attitudes and behaviors towards others in educational environments.

Based on both Bertalanffy's paradigm, these individual elements affect our larger, extended environment due to its appreciation of interconnected human interactions. In this scheme, the individual is only one part of the picture; the entire system changes and develops as each individual influences his/her/their own mindset and worldview. If applied to educational settings at the earliest age/level possible (K – 1st grades), System Theory could help study participants to better understand and even modify their language choice and course materials to be more accepting and inclusive of all persons on the gender spectrum.

The authors posit that this could enhance peer relationships in later grades, especially in the potentially tumultuous adolescent years when peers are struggling to understand themselves and where they lie socially. Moreover, System Theory is applicable because it doesn't seek to eliminate individual factors, such as differences in upbringing or religious beliefs, but instead encourages discussion among all participants for greater awareness and, possibly, acceptance of those who lie outside the societal norm (e.g., transgender students and teachers, etc.).

Evaluation of Curriculum Gender Diversification and Timeline

Evaluation (Dashboard)

Goal:	Type of Goal:	Content:	Individual:	Community:	Activity:
Increase key population's participation in learning about and then implementing age-appropriate instruction on gender diversity knowledge and acceptance to applicable elementary students.	Awareness of and appreciation for gender diversity education in health or sex education classes. A commitment from educators to including this new curriculum into their existing health and/or sex education classes at specific grade	To provide specific training and encouragement for including gender diversity instruction among educators in grades K and 1 st in a pilot study. Pre- and post-survey questionnaires will be made available, along with in class observations throughout the entire year.	Educators in these two targeted grades will improve their health literacy knowledge and understanding of gender diversity issues and be able to teach the importance of respecting all individuals, regardless of where they lie on the gender spectrum, through age-appropriate	Meeting educational gaps in current health education curriculum in this hypothetical large urban school system. Question to consider: How can we stimulate community activism? Community here is defined as the larger school community of teachers, students, administrators, staff members such	A series of teacher workshops and training sessions with the entire health communication team, sharing of data on gender diversity studies, distribution of posters and leaflets that describe the positive learning and behavioral outcomes of such curriculum (getting outside the binary gender box), and website materials/updates

levels.

The beneficial aspects of adding in this new curriculum will be implemented through the crafting and distribution of leaflets, posters, and website materials for instructors.

class materials and discussions. (Observing verbal and nonverbal responses in children will be noted and discussed; affect too is a primary way that child reveal their feelings and reactions when they lack the vocabulary.)

as counselors, school board members and other interested parties such as stakeholders and external partnerships. views and beliefs.

throughout the school year. Collaborating with educators at the school as well as parents, determine health materials with HIGH impact and LOW impact. Be willing to adjust materials and course content based on study results.

Specific: What do we want to achieve?

- Our objective is to persuade educators to adopt a proposal advocating instruction outside the binary (male/female) gender box for K and 1st graders at U.S. public schools in order to promote a healthier educational environment for all populations of minority students. This might entail getting support of school administration as well as parents of students who are receiving this education.
- We hope that educators who work with and influence the attitudes of 5-7-year-old school-aged children will be persuaded to take an inclusive, respectful, and more knowledgeable approach to gender diversity curriculum and instruction in their existing health classes.
- The desired outcome: After considering the strengths and weaknesses of this study proposal, we hope that educators will be willing to address and remedy gaps in gender diversity studies. It will be successful if those targeted educators express positive attitudes following implementation.

Questions on Measurability: Pre- and post-attitudinal studies to determine the following outcomes: how well did the new curriculum on gender diversity work for this key population of elementary teachers, counselors, and their classes? Do any adjustments need to be made in the suggested course materials in order to make it more understandable, relevant and/or more accessible to the 5-7 age range? Is anyone in the target population expressing a need for additional support as they instruct gender diversity studies in these two grades; this may include additional funding for course materials and field trips, permission to invite (school-approved) guest speakers, and emotional support from their peers and the administration? An analysis of these survey findings would allow for strategic changes and adaptations to course materials if resistance is found to be high among teachers or if they have ideas for the inclusion of better, more relevant health materials appropriate to this elementary age group. Pre- and post-tests that encourage candid feedback from educators will help to determine what is lacking in this new proposal/scheme. In addition, changes in gender curriculum can be crafted and implemented after considering those responses from educators and their students, preferably over a 3-5-year

time period.

- Recommend monthly meetings with teachers, counselors, and other school administrators to determine the impact of this curriculum change on the key population's (teachers, educators) perceptions, attitudes, and pedagogy regarding gender diversity instruction in their classes.
- Before and after integrating the new course materials, teachers and counselors would be asked how they feel about the new curriculum in surveys. Moreover, questions in a post-evaluation could include: Yes or No -- Has this new curriculum been valuable to your students in your health classes? What were the reactions of students to learning about gender diversity issues such as clothing choices, preferred pronouns, and identify? Please provide specific examples or anecdotes from your class. Did the role-playing exercises and class discussions about the literature (children's books) produce greater awareness and understanding of these issues, or increased confusion and anxiety?

Attainable: *Is this goal realistic and achievable?*

- The authors posit that it is certainly a realistic goal based on the more expansive K through 12th grade HYA already implemented in California (Meyer, 2018). Also, in Illinois, public schools have been mandated to include LGBTQ history studies by summer 2020. This is a step in the right direction and can help springboard health communication campaigns on gender diversity education. Moreover, this modest campaign – though smaller than the California program as it focuses on only two primary grades – takes a tiered approach to the health curriculum. First grade gender diversity studies build on knowledge gained in Kindergarten health classes.

Relevance: *Why is this goal relevant or worthwhile?*

There are certainly long-term advantages following the successful implementing of a program addressing health outcomes and disparities for a specific student population (e.g., the gender minority), including proposed fewer incidents of gender bullying and reported greater acceptance of those who identify as gender minorities (Denny et al., 2016; Colvin et al., 2019). The program may also enhance educational outcomes as well as school environments because it focuses on attitudes and behaviors in school environments.

The school might also choose to test outcomes through qualitative surveys designed for students that find out if they felt more (or less) confident when bringing up concerns or questions related to gender diversity issues after being introduced to this course material. This work relies on the assumption that educators have a positive and powerful influence on student interactions as a direct result of their teaching curriculum. The authors recommend a 3-5-year minimum commitment and study time to assess the effects of this new curriculum, since the program goals are considered long-term. Conducting studies at the end of each academic year -- right after the curriculum on gender diversity is introduced -- in order to more objectively research and assess attitudes is also encouraged.

Re-evaluation of Curriculum Implementation on Objectives

Using Level One guidelines, researchers will need to re-evaluate the effectiveness and scope of this proposal throughout the designated time period. We need to discover if those recommended activities (i.e., reading specific children's books, role playing, etc.) were carried out by the target population (educators). Next, we need to determine whether the communication objectives were achieved. Again, this can be done through attitudinal and behavioral surveys provided at both the beginning (baseline) and the end (impact assessment) of this study proposal. In addition, outcome monitoring of our campaign objectives would be possible based on attendance at teacher training workshops, monthly meetings with educators, and feedback. Unintended and possibly unwanted outcomes could also be addressed at this stage, too. Recap data and show which channels of communication would help in achieving support for campaign proposal (media, social media, in school flyers, bulletin announcements, special school board meeting with parents, the governor's office, and stakeholders, etc.). Total projected cost for the 3-5-year time period may be determined after subtracting public funding sources available.

Conclusions

History professor Louis Schmier wrote about teachers needing to understand and value all whom they are trusted to work with; complex, diverse human beings who may not be at the same place but who all deserve the benefits of a diverse education (Schmier & Mankazana, 2007). Extending this reasoning, schools would benefit from realizing that gender is (and may have always been) more than the body we are assigned to at birth based on our physiology. Instead, gender is an important social construct that influences self- and peer-perceptions and which deserves recognition in America's health/sex education classes aimed at young audiences. It needs to be addressed in ways that treat the gender spectrum not as an aberration, but as a normal part of human development from childhood into adulthood.

Acknowledgements

The authors would like to express their immense gratitude to the following people for their generous time and invaluable contributions to this work: Boston University's MET College and MSHC Director Leigh Curtin-Wilding; Dr. Felipe Agudelo, Joyell Huber, MSHC, and Dr. Anne Danehy at Boston University; Dr. Mark Palmer, a Denver area Jungian psychologist; Professor Lynn Harper of College of Lake County; Dr. Steve Macek and Professor Rachel Kimnach of North Central College; and Rishi Ling, graduate music student at the University of Denver. Thank you all!

References

- American Psychological Association. (2015). *Key Terms and Concepts in Understanding Gender Diversity and Sexual Orientation Among Students*. APA Informational Guide.
<https://www.apa.org/pi/lgbt/programs/safe-supportive/lgbt/key-terms.pdf>

- Aspegren, E. U. T. (2021, March 8). *Kids aren't learning LGBTQ history. The Equality Act might change that.* USA TODAY. <https://eu.usatoday.com/story/news/education/2021/03/06/lgbtq-history-equality-education-act-teachers/6648601002/>
- Bertalanffy, V. L., Hofkirchner, W., & Rousseau, D. (2015). *General System Theory: Foundations, Development, Applications* (Illustrated ed.). George Braziller Inc.
- Bian, L, S J Leslie and A Cimpian, Gender stereotypes about intellectual ability emerge early and influence children's interests. *Science*. 2017 Jan 27;355(6323):389-391.
- Borelli E, Cacciari C. The comprehension of metaphorical descriptions conveying gender stereotypes. An exploratory study. *Front Psychol*. 2019 Nov 22; 10:2615.
- Burk J, Park M, Saewyc EM. A media-based school intervention to reduce sexual orientation prejudice and its relationship to discrimination, bullying, and the mental health of lesbian, gay, and bisexual adolescents in Western Canada: A population-based evaluation. *Int J Environ Res Public Health*. 2018 Nov 2;15(11). doi: 10.3390/ijerph15112447.
- Canal P, Garnham A, Oakhill J. Beyond gender stereotypes in language comprehension: Self sex-role descriptions affect the brain's potentials associated with agreement processing. *Front Psychol*. 2015 Dec 23; 6:1953. doi: 10.3389/fpsyg.2015.01953.
- Colvin S., Egan JE., Coulter RWS. School Climate & Sexual and Gender Minority Adolescent Mental Health. *J Youth Adolesc*. 2019 Oct;48(10):1938-1951.
- Cross S. E., and Madson L. Models of the self: self-construals and gender. *Psychol. Bull*. 1997 Aug;122 (1):5–37. doi: 10.1037/0033-2909.122.1.5.
- a. An interesting study that may relate when I address arguments for my claim of gender diversity studies. Here, the authors describe individual differences in the structure of one's self (self-perceptions or constructs can be used as well) and connects this with men versus women (binary genders). Study considers self-construal to demonstrate gender differences in terms of cognition, motivation, emotion, and social behavior.
- Crowley, K, M A Callanan, H R Tenenbaum and Allen, A. Parents explain more often to boys than to girls during shared scientific thinking. *Psychological Science*. 2001 June; 12(3):258-261. doi: 10.1111/1467-9280.00347.
- Day JK, Ioverno S, Russell ST. Safe and supportive schools for LGBT youth: Addressing educational inequities through inclusive policies and practices. *J Sch Psychol*. 2019 Jun; 74:29-43. doi: 10.1089/lgbt.2018.0109.
- Denny S, Lucassen MF, Stuart J, Fleming T, Bullen P, Peiris-John R, Rossen FV, Utter J. The association between supportive high school environments and depressive symptoms and suicidality among sexual minority students. *J Clin Child Adolesc Psychol*. 2016; 45(3):248-61.
- Esaulova Y, von Stockhausen L. Cross-linguistic evidence for gender as a prominent feature. *Front Psychol*. 2015 Sept 8; 6:1356.
- Gower AL, Forster M, Gloppen K, Johnson AZ, Eisenberg ME, Connett JE, Borowsky IW. School practices to foster LGBT-supportive climate: Associations with adolescent bullying involvement. *Prev Sci*. 2018 Aug;19(6):813-821.

- Illinois Inclusive Curriculum Advisory Council, Equality Illinois. (2020). *Inclusive Curriculum Implementation Guidance Pamphlet (online)*. <https://www.isbe.net/Documents/Support-Students-Implementation-Guidance.pdf>. Retrieved March 2020.
- Kann L, Olsen EO, McManus T, et al. Sexual identity, sex of sexual contacts, and health-related behaviors among students in grades 9-12 -- United States and selected sites, 2015. *MMWR Surveill Summ*. 2016;65(SS-9):1-202. http://www.cdc.gov/mmwr/volumes/65/ss/ss6509a1.htm?s_cid=ss6509a1_w.
- Keyton, J. (2018). *Communication Research: Asking Questions, Finding Answers* (5th ed.). McGraw-Hill Education.
- Kilodavis, C. (2010). *My Princess Boy* (1st ed.). Aladdin.
- Laslett B, Brenner J. Gender, and social reproduction: historical perspectives. *Annu Rev Sociol*. 1989; 15:381-404.
- Leins C. These States Require Schools to Teach LGBT History -- Illinois is the latest state to expand its definition of American history. *US News and World Report*. <https://www.usnews.com/news/best-states/articles/2019-08-14/states-that-require-schools-to-teach-lgbt-history>. Published Aug 14, 2019. Accessed February 28, 2020.
- Marshal MP, Dietz LJ, Friedman MS, Stall R, Smith HA, McGinley J, Thoma BC, Murray PJ, D'Augelli AR, Brent DA. Suicidality and depression disparities between sexual minority and heterosexual youth: a meta-analytic review. *J Adolesc Health*. 2011 Aug; 49(2):115-23.
- Martino W, Cumming-Potvin W. Transgender and gender expansive education research, policy, and practice: reflecting on epistemological and ontological possibilities of bodily becoming. *Gender and Education*. 2018 (30) 6:687-694.
- McGuire WJ, The nature of attitudes and attitude change. *The handbook of social psychology*. 1969;2(3):136-314.
- Meyer, E.J. 2006. Gendered harassment in North America: School-based interventions for reducing homophobia and heterosexism. In *Combating gender violence in and around schools*, ed. C. Mitchell and F. Leach, 43–50. Stoke-on-Trent: Trentham Books.
- Meyer EJ, Keenan H. Can policies help schools affirm gender diversity? A policy archaeology of transgender-inclusive policies in California schools. *Gender and Education*. 2018;30(6):736-753.
- Meyer EJ, Leonardi B. Teachers' professional learning to affirm transgender, non-binary, and gender-creative youth: experiences and recommendations from the field. *Sex Education*. 2018;18(4):449-463.
- Newman, L. (2017). *Sparkle Boy*. Lee & Low Books Inc.
- Public School Teacher Data File, Charter School Teacher Data File, Public School Data File, and Charter School Data File, 1999–2000; and National Teacher and Principal Survey (NTPS), Public School Teacher Data File, 2015–16. *Digest of Education Statistics*. U.S. Department of Education, National Center for Education Statistics, Schools and Staffing Survey (SASS). https://nces.ed.gov/programs/coe/pdf/coe_clr.pdf. Published October 2017. Accessed February 29, 2020.
- Rippon G. *Gender and our brains: how new neuroscience explodes the myths of the male and female mind*. NY: Pantheon Books; 2019.
- Sanders, R. & Rizzo, L. (2020). *Bling Blaine: throw glitter, not shade*. Sterling Children's Books.

- Schiavo R. *Health communication: from theory to practice*, 2014 <http://site.ebrary.com/id/10780751>.
- Schmier, L., & Mankazana, N. T. (2007). Random Thoughts III: Teaching with Love. *Journal of Management, Spirituality & Religion*, 4(2), 269–272. <https://doi.org/10.1080/14766080709518660>.
- Schlauderaff S, Davis K, Naime D, Rothblum E. Can I Tell You About Gender Diversity? A Guide for Friends, Family and Professionals. *Journal of GLBT Family Studies*. 2018;14(3):260-261.
- Sherif, M. (2005). *Social Interaction: Process and Products*. Routledge.
- US Department of Health and Human Services. “Communicating in a Crisis: Risk Communication Guidelines for Public Officials.” Washington, D.C.: US Department of Health and Human Services, 2002. www.hhs.gov/od/documents/RiskCommunication.pdf. Retrieved March 2021.
- Von der Maisburg T, Poppels T, Levy RP. Implicit gender bias in linguistic descriptions for expected events: The cases of the 2016 United States and 2017 United Kingdom elections. *Psychol Sci*. 2020 Jan 8; <https://doi.org/10.1177/0956797619890619>.
- Weinstein, ND, Sandman, PM, & Blalock, SJ. The precaution adoption process model. In K. Glanz, B. K. Rimer, & K. Viswanath eds. *Health behavior and health education: Theory, research, and practice*. San Francisco, CA: Jossey-Bass; 2008:123–147.

Appendix A. Focus Group Questions

- 1: What made you interested in participating in a group on the subject of gender diversity? Do you have a personal connection to the topic of gender diversity, or do you know someone with an interest in gender diversity?
- 2: What feelings or words occur to you when you think about gender diversity and young students (e.g., It's frightening to talk about; It's important to talk about in health classes; I could get into trouble with parents; It's no big deal; I could get into trouble with other teachers; I'm hesitant because I don't know enough about the gender spectrum, etc.)?
- 3: How comfortable would you say you are when communicating with others about people in the gender minority? (Interval: 1 = very uncomfortable, 2 = uncomfortable, 3 = neutral, 4 = comfortable, 5 = very comfortable)? Please elaborate on your answer.
- 4: Does a student's gender identification matter to you? Why or why not?
- 5: Do you have any additional thoughts or feelings on this topic of teaching gender diversity to early elementary children that you would like to share?
- 6: Do you agree or disagree with this quote: "I have come to believe that teaching is more of a calling forth of wholeness to be a better person than just a jamming in of information, that it must deal with the entire person, not just the mind." (Source: Schmier, L. 1995. Random thoughts: The humanity of teaching. Madison, WI: Magna). Please elaborate on your answer.

Modern Pre-operation Education of Surgeons: Principles Forming of Clinical Diagnosis

Volodymyr Sulyma

SI “Dnipropetrovsk Medical Academy Ministry of Health of Ukraine”, Ukraine

Kateryna Yaroshenko

SI “Dnipropetrovsk Medical Academy Ministry of Health of Ukraine”, Ukraine

Igor Verholaz

SI “Dnipropetrovsk Medical Academy Ministry of Health of Ukraine”, Ukraine

Pavlo Badyul

SI “Dnipropetrovsk Medical Academy Ministry of Health of Ukraine”, Ukraine

Abstract: At the examination of a patient, a doctor evaluates clinical picture of the disease that manifests itself by a great number of various general and local symptoms caused by an etiological factor and pathogenesis changes of the different organs and systems of the organism. A purpose of the surgical patient examination is making of early, correct and precise individual diagnosis, and, based on it, effective and timely rendering of medical care via either pharmacologic nonsurgical methods or surgical intervention. Making a diagnosis is the most important task of the diagnostic and treatment process; solution of this task includes creative analysis of the disease clinical course, formulation of the provisional diagnosis and following determination of the additional examination methods scopes and diagnostic algorithm. From a formal aspect, diagnosis is based on the nosological principle and has to contain the name of a certain disease or injury according to the accepted nomenclature and classification of diseases; it is of importance to medical statistical goals and scientific research. Assessment of the findings of additional methods of examination in the aggregate with clinical signs allows carrying out of differentiation of similar diseases and gives an opportunity to make a clinical (final) diagnosis and define treatment approach. Concomitant diseases do not have etiopathogenetic relation to the underlying disease but able to influence substantially on the character of clinical picture, choice of the extent of other methods of examination and treatment.

Keywords: Education, Pre-operation, Principles, Clinical Diagnosis

Introduction

Nosological principle of training that exists in most clinical departments, unfortunately, does not meet the practical work of a doctor, so we came to forming the curriculum by the syndrome principle: a practical training combines several pathological conditions, with oriental features, such as the module “Abdominal surgery”, consists of two modules of content (substantial modules): “Urgent abdominal surgery” and “Surgical Gastroenterology and Proctology”. Syndromic diagnostic principle includes the recognition of diseases that is based on the mental processes only with that range of pathological conditions and diseases, which manifest themselves with a single leading syndrome, regardless of affiliation to different nosological units.

At the beginning of the examination of a patient, a doctor must actively identify symptoms of the disease. Herewith the researcher does not know which disease is characterized by this or that symptom as a set of the same symptoms may occur in various diseases. At the same time, only complete identification of all clinical symptoms and features of their manifestation gives an opportunity to form isolated syndromes, which make it possible to recognize and substantiate provisional diagnosis. The main syndromes of surgical diseases include pain syndrome of various location, fever, jaundice, motor evacuators disorders of the gastrointestinal tract and other disturbances. In other words, syndrome is a complex of symptoms, outwardly unified for various diseases of the various organs and systems regardless of the etiology and pathogenesis of the disease as well as the affected organ or system.

Method

To implement the system of planning, monitoring and evaluation of the education quality for a real degree of assimilation of foreign students with specific components of the program during the academic year of surgery training and discipline for module “Abdominal surgery” in general based on the cumulative number of ranking points for the European Credit Transfer System (ECTS). This will improve the quality of learning discipline among the four-year of students of enrolled this year, and develop common indicators for professionally-oriented exam after 6 year of study to get a general level of theoretical and practical knowledge and skills of physicians interns of surgery.

The Department of Surgery № 1 (in 2017 – 95 years founded) of the State Organization “Dnipro Medical Academy Ministry Health of Ukraine” (in 2016 – 100 years founded) was conduct structured, multiple planning of the study process and the use of different forms of the staging control. Taking into account the Standard program of the discipline, curriculum, working program for the department was create the specific actions by teachers, of students and of interns of surgery to achieve theoretical and practical knowledge, necessary resources and sequence of technological operations with the use of credit-modular system (Sulyma, et al., 2017).

In 2011 on Department of Surgery № 1 of the State Organization “Dnipro Medical Academy Ministry Health of

Ukraine” was founded Ukraine's first training center “Endoscopic technologies in medicine”, bases on which of foreign interns learn to use mini invasive operating technologies in surgery.

Thus, the substantial module “Surgical Gastroenterology and Proctology” includes “Syndrome of chronic pain in the upper region of abdominal cavity”, “Syndrome of mechanical jaundice”, “Syndrome of an acute pain in perianal area”, “Syndrome of rectal prolepses” and “Diarrheic-inflammatory syndrome”, combining similar diseases or their complications in the form of so-called educational elements, where, for example, a practice training for “Syndrome acute pain in perianal region” contains "Acute hemorrhoids”, “Acute anal fissures”, “Acute paraproctitis” and “Inflammation of the epithelial coccygeal passage”.

This approach is appropriate to expediently use the time of practical training, examine patients according to pathological syndrome, mastering the skills in classes with medical simulators, perform differential diagnosis with the definition of a rational treatment program. To support the learning process developed by the principles of credit-modular system using multimedia lectures, the textbook "Surgery" (Bereznytskyy Ya., et all., 2016), methodological guide of development for teachers, hand book and individual plans for students and interns, journal of the teacher.

For the practical training used division’s computer class (10 computers) - for computer testing of students and interns, two classes of medical mannequins and simulators (products firm “3B Scientific”) - for acquiring and mastering practical skills, supervision of patients in the surgical department, supervised and theoretical survey in training rooms. For the interns besides the basic work in the surgical department with patients it’s necessary to mastery of the operational equipment in operation and manipulation rooms, as well as mastering of mini invasive surgery technology in the learning center “Endoscopic technologies in medicine”.

Results and Discussion

The most important advantage of the syndromic principle of diagnostics is that the syndromes are so obviously different from each other that they cannot be confused. Already this first, rather simple stage of medical thought should become a basis of boundary economical diagnostic thinking. All the subsequent mental activity is going on inside the given syndrome, at that, its features, manifestations, connections with other symptoms and syndromes are analyzed. For establishment of diagnosis the careful inspection of patient is needed. Then it is an anymore discovered sign of display of disease, the greater probability of rightness of diagnostics.

After the careful questioning and physical inspection of patient a counsel it is necessary to conduct the selection of pathological symptoms both in subjective and in objective their displays. A previous diagnosis is grounded reference to the complaints of patient, using them successive exposition, beginning from most expressed. In every complaint it is necessary to specify this entire patient have different subjective tints of pain display (for example: localization of pain, change of him, intensity, character, irradiation, what facilitated).

After successive reference to every complaint for a ground anamnesis of disease is used: time of origin of disease, character of motion, subjective estimation, and the patients of possible factors which resulted in the origin of disease. At the protracted or recurrent motion of explored the applied methods early the conducted researches and their results, kinds and volume of treatment, his efficiency.

At presence of in anamnesis of life of factors which have an etiopathogenetic influence on the origin of disease, it is necessary to specify them (presence of stress situations, character of feed, condition of labor, and ect.). Then a previous diagnosis is grounded objective found out pathological changes, beginning from general, and then local. Using objective displays, it is necessary to adhere to the methodical chart - at first to bring a review over, then palpation, percussion, auscultation, to analyze the results of rectal and vaginal researches. A previous diagnosis plays an important role for forming of troubleshooting routine and algorithm of its implementation, that in connection with a clinical picture determines possibility of establishment of correct clinical diagnosis (Kirby RR., et al., 2005).

Conclusion

In consideration of the importance of rapid and qualitative analysis of the revealed symptoms and syndromes of the disease, a certain sequence of elementary mental operations that can be represented as a specific diagnostic algorithm is required. Moreover, it is the stage of education that is very important for mastering the principles of unified and standardized approach to the detection and analysis of the findings. Only complex estimation of subjective and objective displays of disease, complemented information of the special methods of research, provides high-quality diagnostics of the both planned and exigent, surgical diseases. Thus, information of additional methods enables objective weight of the state sick, dynamics of motion of disease, influence of medical measures, find out nascent complications, define the prognosis of disease (Kasimoglu, 2021; Lindsay, 2020, 2021; Ryan, 2020; Temel & Tukul, 2021). At the same time, it is the rapid and accurate recognition of the disease that makes it possible to start early and targeted treatment. This is the improvement of the effectiveness and quality of medical diagnostics that forces to modify some of the principles and thinking processes at learning that can provide higher probability of diagnostics and bases of high-quality treatment (Parsons PE, Winner-Kronish JP, 2006).

Recommendations

This procedure may be recommendation for preparation medical students and young surgeons.

References

Bereznytskyy Ya., Zakharash M., Mishalov V. (2016). *Surgery: textbook for students*. Vinnytsya (Ukraine): Nova knyga.

- Kasimoglu, M. (2021). Investigations of Organizational Commitment of Healthcare Professionals in Terms of Personal and Business Factors. *International Journal on Social and Education Sciences (IJonSES)*, 3(2), 267-286. <https://doi.org/10.46328/ijonSES.143>
- Lindsay, K. G. (2020). A Multilevel Binary Logistic Regression Model of Success in Anatomy and Physiology I: A Retrospective Analysis. *International Journal of Research in Education and Science (IJRES)*, 6(2), 361-368.
- Lindsay, K. G. (2021). Predicting Success in a Statistics Course Geared toward Allied Health Students. *International Journal of Research in Education and Science (IJRES)*, 7(2), 339-350. <https://doi.org/10.46328/ijres.1545>
- Parsons P.E., Winner-Kronish J.P. (2006). *Secrets of urgent help*. M.: MEDPres-infrom.
- Robert R. Kirby, Robert W. Taylor, Joseph M. Civetta. (2005). *Critical Care*. Lippincott-Raven Publishers, Philadelphia New York.
- Ryan, T. G. (2020). Multiliteracies and Multiple Literacies within Ontario (Canada) Health and Physical Education. *International Journal of Research in Education and Science (IJRES)*, 6(4), 568-579.
- Sulyma V., Berezhnytskyy Ya., Molchanov R. Education Medical Students on Syndromic Principle of Diagnostics. Conference Proceedings. 7th IRCEELT-2017. 21-22/04/17, Tbilisi, Georgia. – P.915-919.
- Temel, A. S. & Tukul, Y. (2021). Examining the Health Outcomes and Happiness Levels that Result from Engaging in Physical Recreation: A Study on University Students. *International Journal of Research in Education and Science (IJRES)*, 7(2), 545-561. <https://doi.org/10.46328/ijres.2244>

Proposed Strategic Plan to Improve Student Retention and Enrollment at Universities: A Perspective Study

Hisham A. Maddah

King Abdulaziz University, Saudi Arabia,  <https://orcid.org/0000-0002-8208-8629>

Abstract: This article aims to study the impact of the institution's strategic plan and the given student benefits and/or provided services on the student retention/enrollment rates. Institutional sustainability and student performance/motivation can be maintained with proper guidelines and enrollment management practices aligned with the university mission. Here, we propose a guided institution's strategic plan for King Abdulaziz University (KAU) including discussions on the university mission/vision statements, admission standards and counselors, recruitment procedures, student engagement, student support services, finances, and academic advising. The introduced strategic plan is believed to improve student retention and enrollment via: (a) applying the IDEAL initiative to promote campus diversity, (b) providing first-year support and assigned full-time advisors for guidance and persistence, (c) understanding applicant profiles for effective recruitment, (d) training and engaging students in several workshops and activities, (e) offering welcoming-week orientation to familiarize new students with the university requirements and guidelines, and (f) giving space to students to encourage in-class discussions and make them feel comfortable to share their ideas, from applying the "Turn and Talk" strategy. Strategic plans have a direct impact on the delivery of high-quality and cost-effective services to meet students educational and financial needs, with realistic/quantifiable goals necessary for student recruitment/success.

Keywords: Strategic Plan, Retention, Enrollment, Recruitment, Student Engagement

Introduction

Strategic Enrollment Management (SEM) describes the most significant aspects of the management plans to ensure student enrollment, retention, and graduation are met and are aligned with the institution's mission and goals. Planning is the first step that should be initiated by the management whereas brainstorming new ideas and thinking about maintaining the plan quality is much more important than the planning stage. The university needs to maintain student performance, keep them motivated, and share with them the proper guidelines necessary to follow to make students successful bodies in the community. Enrollment management practices should be more inclined towards the institutional sustainability where tuition for revenue is important but should become the second priority after ensuring good student education, retention, and enrollment are achieved. It is

also equally important to check for alignment of the strategic management plans with the university mission and vision in agreement with the approved strategic plan from higher administration.

The university needs to focus its attention on the student experiences during their study time. Students can gain a lot of experience from participating in the ongoing on-campus activities and other part-time jobs. This will help in the "Recruitment through Graduation" process where students will see their dream job and be even more motivated towards finishing their degree to work in the intended job. On the other hand, budget, campus plans, and student affairs are some of the other areas that need to be integrated into the planning of SEM as an effort to boost student education (The Society for College and University Planning, 2019). In this work, we propose a guided institution's strategic plan for King Abdulaziz University (KAU) including discussions on the university mission/vision statements, admission standards and counselors, recruitment procedures, student engagement, student support services, finances, and academic advising, where the introduced strategic plan is believed to improve student retention and enrollment at the university level in various aspects.

Mission and Vision Statements

According to University's Mission for King Abdulaziz University (KAU), the vision is very broad as in "Becoming a world-class university with sustainability and community engagement" – that is associated with improving both education and communication/engagement for a better learning experience (Maddah HA, 2018b). Some of the discussed objectives that pertain to this vision include developing assessment methods, ensuring high research output, and providing students with better university resources and capabilities (Maddah HA, 2019b). Those procedures will help in allowing our students to become more successful and increase the retention and enrollment percentages. However, the university must seek to apply some of the already applied mission statement tasks/goals from the top-ranked university (MIT and/or Stanford). For example, applying the IDEAL initiative would aid in promoting campus diversity and enhancing student success and admittance. There will be no more discrimination and the student will be treated equally with clear institutional guidelines and given procedures (Maddah HA, 2018a, 2019c). The university can build a trust relationship with its students and faculty members towards having a better education system. The mission of the university, for now, involves different aspects: "Community Responsibility, Knowledge Development, Research, Innovation and Entrepreneurship" as mentioned in the university website (King Abdulaziz University, n.d., 2015). STEM academic programs and university mission should take care of current students to develop their creativity, critical thinking abilities, and study skills which will develop the student persistence, retention, and graduation. Connecting the discussed strategies along with the stimulation of the student intellectual skills will improve the education journey that goes just as what is already planned in the mission/vision statements. The university should also include its plans and/or goals towards ease the admission procedures and campus diversification, which is certainly going to make the students feel more comfortable to come to university and finish their degree and graduate on the intended study timeline.

The university should seek to promote the welfare and to educate others for exercising an influence in behalf of

humanity and civilization. Involving research and education goals in the mission can help the students to become more creative, knowledgeable, and critical thinkers. Services and other procedures in the mission must be considered for ensuring smooth admission to the incoming students with equal opportunities. In terms of politeness and communication, ethical values and other integrity (foundation) and diversity values should be also involved in the mission statement, which would result in having a more diversified campus and a better learning environment (from applying the IDEAL initiative). The mission statement of the university should focus on educating students in science, technology, and other areas so that students can serve the nation and humanities with the top gained knowledge. The university must provide students with rigorous academic study towards the discovery of new things that would enhance student success and stimulate the intellectual skills of students. Each member of the community is a priority to the university where the university must seek to develop each person's abilities for effective and creative achievements (The Massachusetts Institute of Technology (MIT), n.d.).

The strategic plan must show that as the university mission is “to enrich society through cultural prominence, scientific acumen and pioneering research” with values directed toward integration of professionalism and excellence, leadership, innovation, diversity, and continuous academic research. The university aims to provide a positive and encouraging learning environment that would ensure student success and increase retention and persistence. Improving communication skills and self-development skills are some of the adopted methods to be acquired to empower the students and be motivated to come to the university. The university considers the students as “the center of attention at KAU, and all efforts will be made to keep the students abreast of all contemporary developments in their fields”. Focusing on the students means that there will be developed assessment methods, knowledge, and skills that would enhance student retention and graduation rates (KAU, 2013). All scientific chairs at KAU are intended to enhance the recruitment, retention, and support of outstanding individuals; this would enhance the strategic plan leading to significant contributions to the academic and research community. Supported high-quality teaching and research programs by the university are some of the strategies that can increase student persistence and graduation rate with stable and continuous development in the pursuit of academic and educational excellence, as mentioned by the university former president (Tayeb, 2016).

The Five Goals and Their Objectives

Student enrollment, recruitment and marketing: The university should adopt various strategies and techniques which are suggested to improve student retention with clear actions to reach persistence and retention goals. For example, the Student Success and Retention Council (SSRC) develop continuous practices and action plan or assessment activities to guide, support, and ensure student success (Maddah HA, 2019b). They also consider the graduation time rates articulated in the following guiding principles: (1) provide student with required graduation information as soon as possible, (2) provide guidance and support for knowledge development; (3) consistently measure student performance towards success and give help and advice to improve both retention and graduation (University of Central Arkansas, 2017). This plan aims "to increase

degree completion rates by defining and implementing universal accountability measures". Both student retention and degree completion will be enhanced from this plan in the university. The integration of student accountability and the support/achievement of students in the plan is expected to enhance the student academic success goals. Several engagement strategies to increase first-year retention are outlined throughout this plan, which would also increase student's persistence to degree and career placement. Some of the highlighted goals are to increase the first-year retention rate by 72% and six-year graduation rate by 42% while developing a strategy to close student-preparation gaps. Support programs involved in the plan would help the students to navigate the road to their degree for successful completion of the intended program.

Assigned full-time faculty and/or advisors is an excellent strategy discussed to give guidance and improve retention and persistence. Diversity, inclusion, admission criteria, program requirements, and first-year support are some of the specific discussed areas with clear given strategies selected based upon best practices to improve student development and persistence (The University of Akron, 2014). These strategies are excellent, clear, and cover many aspects which are more likely going to make students remain in school and succeed as compared to the other discussed plans. Recruitment practices and techniques will be different for online education, and it should be based on hiring innovative faculty either as full time, local area adjunct, wide-area adjunct, or well-qualified professors from other universities nationwide. Faculty recruitment should be a very credible and selective process to only choose "Faculty members with high credibility that will enhance the image of the online education". Lastly, "successful online faculty ... connects the benefits of online education with the background/mission of the institution" (Rahman, 2001).

Generating admissions processes in universities remains a critical step for developing university recruitment and enrollment of students. Higher education leaders should standardize the admission process and university objectives to be aligned with the university mission/vision, so that everyone in the university will benefit from such a change.

Admission standards and university requirements: In an ideal scenario, university admission standards should be done after careful consideration of comprehensive data analysis, enrollment trends, goals reassessment, and applicants' profiles (Hilts, 2018). The university must take action towards changing the admission standards based on the collected data and information from previous years, semesters, and previously enrolled students. The admission standards of the university must satisfy students' needs and must ensure equity and equality between the incoming students. Qualification and requirements need to be predetermined by the university leaders after communicating with department heads and colleges deans to list the general university requirement and the specific program requirements for the admission of students. To smooth the enrollment and recruitment of students, the university can use earlier data to estimate the number of yearly enrolled students in the different available university programs. From that point, the university can then focus more on the high-demand programs and recruit some of the current/senior or alumni students to be the point of communication between incoming students and university leaders/advisors to address any possible concerns. Student recruitment is a very critical component in Strategic Enrollment Management (SEM). It changes according to

many factors found in research which include the complexity of the admission standards, student behavior, and collected data regarding the current students (Sigler, 2018).

Action steps towards better recruitment: A good strategic plan and/or action steps that would improve the admissions standards, enrollment objectives, and enhance student recruitment have been suggested earlier from the “Improve Access and Opportunity for Traditional and Non-traditional Students” Strategic Thrust (University of Illinois Springfield, 2018). Leaders need to identify their students’ demographics and economics situations where the office of enrollment must give equal enrollment opportunities to all incoming students from recognizing any shifting in students’ demographics. Suggested action steps include: (1) provide financial aid comparable to the other aids provided by other public universities; (2) ensure the education is affordable for all the students; (3) increase fund from private sources that would ensure low-income students have equal chances to be enrolled; (4) develop education curriculum and offer new education programs based on the student needs; (5) align targeted marketing efforts with enrollment trends to gain more students enrolled on-campus programs; (6) support continuing education opportunities; (7) create a mechanism for consultation about recruitment, admissions process, and retention; where organized events can be very helpful to increase student recruitment letting all involved parties gain the desired benefits (University of Illinois Springfield, 2018).

Admissions counselor: The role of the admissions counselor in the facilitation of the admission funnel involves the facilitation of the "marketing and recruitment strategies" to be more effective in addressing prospective student leads and inquiries. Having a good admission counselor can ease the way for many students who may keep in communication (about their application) with the university from being more familiar with the admission process. Typically, understanding trends in enrollment, goals of the prospect students, and applicant profiles would allow the counselor to effectively recruit a student from prospect/inquiry to matriculant. Other efforts can involve a plan to achieve better communication such as college fairs, school visits, campus tours, and other technological methods (e.g. webinars and online tours) that would familiarize the students with the admission process as well as the university system. Staff members have to work collaboratively to assist students in their admission relying on the adopted strategies in the student recruitment plan where "it is important to involve stakeholders from recruitment, admissions, and enrollment who all influence what prospects think of the school" (Hilts, 2018).

Relating admissions standards to student retention and enrollment: Enhancing student recruitment through some of the early reliable strategies and tactics can certainly enhance the admission standards and therefore student enrollment and retention. For example, a four-year public school can adopt strategies like having: (1) campus open house events; (2) visit days for high school students; (3) encouraging prospective students to apply on the admissions website; and (4) encouraging prospective students to schedule campus visits, which altogether have been considered as the top four tactics for boosting student recruitment and university marketing from the improved admission standards resulting in increasing retention/enrollment rates (Hanover Research, 2014).

Student Engagement

One example or strategy to encourage participation is “Turn and Talk” where it states that we need to give some space to students between discussions to share ideas with their peers for a few minutes, then come back again to the whole-class discussion. This method should be adopted to let students feel more comfortable and have plenty of time to work their minds and share their contributions (Kriegel, 2018). Being positive about other ideas, creates a positive environment as well. Friends feel comfortable in sharing ideas with others when they feel safe to talk to them. Instructors should not be judgemental about someone's ideas or thoughts, all ideas are valid, and the teammates or students must be treated equally without giving advantage to some people or parties over the others. The personality of the student will lead to an engaging or passive environment, usually dealing with introverts make it more difficult to continue discussions. However, this does not mean only extroverts can facilitate the discussion since the course of the discussions is controlled by the instructor as well as the asked questions and raised concerns.

To facilitate the student engagement some strategies are proposed (Weimer, 2012) including: (1) enhance students' self-belief, (2) create learning that is active, collaborative, and fosters learning relationships, (3) ensure that institutional cultures are welcoming to students from diverse backgrounds, and (4) recognize that teaching and teachers are central to engagement. The student needs to feel confident and this confidence level can be improved by training and engaging students in several workshops and activities held on-campus. Active learning is very critical to have students who are motivated; thus, the university must enforce active learning in some of the classes for better success rates. Institutional culture must be diverse where the admission policies should be very clear about diversification to accept any student from any background in the university, this would develop student engagement prominently. Some of the challenges may arise from the fact that the whole engagement process is linked to the professor, and it is only the professor's responsibility within the class boundaries (during class) to motivate students to become part of the discussion!

Different examples and/or strategies can be adopted by universities to help academic departments ensure that students succeed regardless of their motivation and/or interest in the course materials. Strikwerda (2019) summarized the following techniques to improve student retention and enrollment in higher education institutions: (1) individual instructors – especially in the first semester and first year – make a huge difference: professors and instructors should be accessible to their students and must clarify any doubts to the students and effectively teach the required skills to survive college study; (2) introductory courses are crucial make-or-break arenas: administrators and/or faculty should cooperate and work hand-by-hand together towards developing course materials and creating opportunities in these courses for tutoring, office hours, and study-skills sessions enhancing student sense of belonging; (3) at-risk students perform better and stay focused: students will be studying harder when they feel the course materials are difficult to understand, and this will improve their performance as well as ensure their timely graduation and success; while [adding ways to make sure they will catch-up with the course pace] is important; (4) share relevant information widely: the role of instructors and

administrators or department chairs in the student retention would not be clear without sharing current progress and work done by others, all faculty need to work together with a clear plan in mind towards improving retention using the available students data to have the best practices shared with others for increased retention and graduation; (5) collaborative efforts payoff: blending available cultures in the campus together will foster retention from collaboration, students will feel more safe, comfortable, and will likely come regularly to classes when diversity and collaboration values are promoted via clear strategic plans (Maddah HA, 2019a; Strikwerda, 2019).

Student Support Services

First-year experience students need to feel they are welcomed in the university and they need to know more about the new homes that they will be in for the next 4 to 5 years. Many first-year experience areas could be researched to work on them for welcoming the incoming students. However, the author believes that the most important point is the “Welcome Week Activities” that would familiarize the new students with the university requirements, guidelines, and recurring campus activities as well as their way to survive and be successful during the undergrad study. Two universities have been researched for their welcome-week activities and provided programs as discussed in the following sections.

It is very important to offer new students a welcoming week (e.g. Fall 2019) with “New Student Orientation” and four days of opportunities to connect with other new students and know the university community. The given program is estimated to significantly increase student interactions with other new students, make friends, and allow faculty-student interactions for the first time. Student engagement and involvement in the activities will ensure student success during the first week and beyond. The activities or opportunities include giving guidance to students for their resident move-in and commuting check-in for a smooth transition. Many meetings are arranged to improve the student’s interactions and familiarize them with the provided academic programs and what is expected to be delivered to be a successful student. College welcome and academic programs on the second day plus a welcoming picnic will make the students more aware of the academic program and improve both student-to-student interactions and faculty-to-student communications making students feel more comfortable during their next weeks. “Walking Tour” is very critical to let students know their campus well and at the end be able to identify their classes from the “Where Are My Classes Campus Tour?” (Thomas Jefferson University, n.d.).

A decent welcoming-week program, which contains lots of activities, is meant to make students feel safe, comfortable, know each other, have fun together, and know their campus, their classes, and be part of the community to focus on their future study requirements. Campus constituents involved in the planning and implementation of the program include both faculty and administrators plus some senior students who can walk the incoming students and welcome them on-campus for achieving engagement and familiarizing the students with their new place. Group meetings will improve communication, playfair can lead to making friendships, new students welcome will make students feel comfortable to share their ideas, evening activities are meant to

be unprofessional for little more fun, and lastly, the residence hall meeting is very important for students who stay on-campus. Other program activities with other plans or workshops are critical for improving students' relationships, enhancing diversity awareness, and educating students more about their academic programs to be successful in their coming years!

Finances

Fostering educational excellence requires understanding the student needs as well as providing affordable and quality higher education opportunities. There should be a balance between taken/given money (tuition/grants) with the possibility of providing debt-free degree options. America's higher education system must consider building an accountable and incentive structure focused more on giving educational opportunities rather than only collecting enrollment/tuition fees from students. Due to a lack of funds and high education costs, it has been reported (U.S. Department of Education, 2015) that more than 40% of first-time full-time bachelor's degree students don't graduate within 6 years; indicating the poor performance which may be attributed to the demanded tuition. Also, college students who take loans are three times more likely to withdraw from school with incomplete graduation. The educational mission cannot be achieved as desired without providing care, fund, and assistance to students for equal access. Two-thirds of the job openings in 2020 will require postsecondary education or training indicating the importance of fostering higher education (U.S. Department of Education, 2015). The 'Iron Triangle' can surely impact the mission implementation since, as quoted: "the relationship among cost, quality, and access is unbreakable". We can reduce the cost to increase access, but this will inevitably decrease education quality. Thus, the university should find alternatives that would somehow satisfy all the Triangle parameters while keeping in mind the intended mission irrespective of the country's economic status (Keats, 2015).

Academic Advising

Academic advising is a crucial step in education and the role of academic advisor at a university is very important to ensure student success. The advising role involves responsibilities, including course identification, career counseling, personal counseling/referral, and professional reference (Petress, 1996). Some of the major researched duties of an academic advisor involve "guiding students on the correct academic path which is at the forefront of all levels" (Bruens, 2012). This is the general theme or the university goal from hiring professional advisors or even assigning some of the faculty members as student advisors. There should be regular individual meetings between the student and the advisor to assess the student interests, skills, and potential careers, and therefore selecting classes and/or choosing the best program that fits the student needs and ensure high student retention and success rates. Advisors can offer networking and mentoring support to foster academic goals where discussions and academic questions can be answered to help the student find their ideal study path. Also, specific program requirements and other related questions to the taken courses can be clarified by an advisor with pre-planning and coordination with students. Advisors can decide whether a student would become a

successful student in his area or not by looking at his standardized test scores, transcripts, and course prerequisites. Program eligibility is a very important point where only students with a minimum level of certain scores can be admitted in the program which would increase the student retention rates. This is clear because dropping-out rates will become much less since most of the admitted students, who passed many screening exams, would successfully finish their program and graduate. The role of an academic advisor also includes frequent communication with the student regarding important dates and deadlines, registration, course changes, costs of tuition, facilities maintenance, and transfer requirements. Moreover, academic advisors may transfer students to "specialized staff for such issues as psychological/emotional counseling, financial assistance, and study-abroad programs" (Bruens, 2012).

The most effective approach to academic advising is the conjunction between professional advisors and faculty advisors since faculty focus on research, teaching, academic success, and curriculum commitments, while professional advisors try to ensure high student retention, outreach, and satisfaction, from the advising of students during their undergraduate study. Lastly, we should advise students by both professional/faculty staff where it has been suggested that such collaboration in the development of an advising syllabus and identifying the student potential goals and career options are promising strategies to increase student retention (Fessehatsion & Peng, 2021; Krush & Winn, 2010; Yilmaz & Korur, 2021).

Conclusion

We have demonstrated the importance of the institution's strategic plan and its impact on the student's enrollment and retention, based on the given benefits and/or services provided to the students. The university needs to aid students from the first day of classes till their graduation. For example, some of the benefits that would make a huge impact on student enrollment is supporting students financially to ease the financial burden on the incoming students. There should be a balance between taken/given money (tuition/grants) with the possibility of providing debt-free degree options. Hence, university leaders need to identify their students' demographics and economics situations to offer equal enrollment/grant opportunities. Prospective students should be familiar with the university requirements, guidelines, and recurring campus activities for successful education journeys. Universities must advise their students by both professional/faculty staff where it has been suggested that such collaboration in the development of an advising syllabus and identifying the student potential goals and career options are promising. Strategic enrollment planning and strategic plans can also help in providing realistic and quantifiable goals for student recruitment and student success. Choosing the best program that fits the student needs ensures high student retention and success rates. Strategic planning is critical since it will ensure the delivery of high quality and cost-effective university services and/or support to students. This approach is going to result in meeting the educational, financial, and material needs of the students and the institution.

References

- Bruens, R. (2012). *Academic Advisor: Job Requirements and Salary*. Concordia University-Portland. <https://education.cu-portland.edu/blog/teaching-careers/academic-advisor/>
- Fessehatsion, P. W. & Peng, P. (2021). Exploring Teachers' Retention and Attrition in Middle and Secondary Schools in Eritrea: Perspectives of Currently Serving Teachers. *International Journal of Research in Education and Science (IJRES)*, 7(1), 227-244. <https://doi.org/10.46328/ijres.1532>
- Hanover Research. (2014). *Trends in Higher Education Marketing, Recruitment, and Technology*. <https://www.hanoverresearch.com/media/Trends-in-Higher-Education-Marketing-Recruitment-and-Technology-2.pdf>
- Hilts, J. (2018). *How to Create a Student Recruitment Plan*. AdmissionPros. <https://www.admissionpros.com/blog/how-to-create-a-student-recruitment-plan>
- KAU. (2013). *Executive Summary Strategic Plan II King Abdulaziz University 2009-2014*. http://www.kau.edu.sa/getfile.aspx?id=199422&fn=standard_7_appendix_7.1
- Keats, D. (2015). *Student fees and the iron triangle: the solution is easy*. Education. <https://www.dkeats.com/index.php/2015/10/21/student-fees-and-the-iron-triangle-the-solution-is-easy/>
- King Abdulaziz University. (n.d.). *University Mission*. <https://www.kau.edu.sa/Pages-University-Mission.aspx>
- King Abdulaziz University. (2015). *KAU Vision and Objectives*. <https://www.kau.edu.sa/pages-vision-and-objectives.aspx>
- Kriegel, O. (2018). *5 Ways to Encourage Participation from All Students*. Medium. <https://medium.com/@heinemann/5-ways-to-encourage-participation-from-all-students-3a7b1fbd5100>
- Krush, J. M., & Winn, S. (2010). *Professional Advisors and Faculty Advisors: A Shared Goal of Student Success*. NACADA. <https://nacada.ksu.edu/Resources/Academic-Advising-Today/View-Articles/Professional-Advisors-and-Faculty-Advisors-A-Shared-Goal-of-Student-Success.aspx>
- Maddah HA. (2018a). Diversity and Multicultural Education: Racism, Bilingualism, Disabilities and LGBTQ Students. *American Journal of Educational Research*, 6(9), 1333–1337.
- Maddah HA. (2018b). Diversity in Higher Educational Institutions: The Case of King Abdulaziz University (Rabigh). *Education*, 8(4), 74–83.
- Maddah HA. (2019a). Impact of English Proficiency and Bilingual Instructions on the Student Performance: A Hypothetical Study. *Journal of Education and Human Development*, 8(2), 42–48.
- Maddah HA. (2019b). Institutional Assessment Plans and Rubrics for Establishing Graduate Engineering Programs: A Practical Example. *International Journal for Innovation Education and Research*, 7(10), 784–798.
- Maddah HA. (2019c). Strategies to Overcome Diversity Challenges between Urban/Rural Students in Universities. *International Journal for Innovation Education and Research*, 7(1), 45–54.
- Petress, K. C. (1996). The multiple roles of an undergraduate's academic advisor. *Education*, 117(91).
- Rahman, M. (2001). Recruitment strategies for online programs. *Online Journal of Distance Learning Administration*, 4(4).

- Ruffalo Noel Levitz. (2019). *Align your institution with its environment and identify high-impact strategies*.
<https://www.ruffalonl.com/complete-enrollment-management/enrollment-management-consulting/strategic-enrollment-management-planning-consulting/>
- Sigler, W. (2018). *8 fundamentals of successful student recruitment*. AACRAO.
- Strikwerda, C. J. (2019). *Faculty Members Are the Key to Solving the Retention Challenge*. Inside Higher Ed.
- Tayeb, O. (2016). Roadmap to Become a World-Class University. In *Becoming a World-Class University*.
https://doi.org/10.1007/978-3-319-26380-9_1
- The Massachusetts Institute of Technology (MIT). (n.d.). *Mission*. <https://web.mit.edu/mission.html>
- The Society for College and University Planning. (2019). *Strategic Enrollment Management Planning*.
<https://www.scup.org/planning-type/strategic-enrollment-management-planning/>
- The University of Akron. (2014). *Completion Plan*. <https://www.uakron.edu/dotAsset/3d106385-5360-4641-83e9-c3e6d016cba0.pdf>
- Thomas Jefferson University. (n.d.). *Student Engagement: Welcome Week*.
<https://www.eastfalls.jefferson.edu/studentengagement/NewStudents/welcomeWeek.html>
- U.S. Department of Education. (2015). *Fact Sheet: Focusing Higher Education on Student Success*.
<https://www.ed.gov/news/press-releases/fact-sheet-focusing-higher-education-student-success>
- University of Central Arkansas. (2017). *Student Success and Retention Plan*.
<https://uca.edu/ssrc/files/2017/07/student-success-and-retention-plan-2017.pdf>
- University of Illinois Springfield. (2018). *Goal #5: Enrollment and Retention*.
<https://www.uis.edu/strategicplan/plan/sectiontwo/goals/goal5/>
- Yilmaz, E., & Korur, F. (2021). The Effects of an Online Teaching Material Integrated Methods on Students' Science Achievement, Attitude and Retention. *International Journal of Technology in Education (IJTE)*, 4(1), 22-45. <https://doi.org/10.46328/ijte.79>
- Weimer, M. (2012). *10 Ways to Promote Student Engagement*. Facultyfocus.
<https://www.facultyfocus.com/articles/effective-teaching-strategies/10-ways-to-promote-student-engagement/>

The Philippine National Police (PNP) in Bicol Region: A Community Survey on its Performance

Ryan V. Dio

Sorsogon State College School of Graduate Studies, Philippines

Michael John A. Jamora

Sorsogon State College Teacher Education Department, Philippines

Ritzelda A. Deri

Sorsogon State College School of Graduate Studies, Philippines

Sherill A. Gilbas

Sorsogon State College School of Graduate Studies, Philippines

Abstract: The Philippine National Police (PNP) vision gave a clear mandate in enforcing the law, maintaining peace and order, and ensuring public safety and internal security with the active support of the community. This paper determined the community approval rating on the performance of the PNP along the delivery of programs and services, public trust, respect, and public safety and security. The survey involved 1,178 sample respondents from the different sectors in the region who were determined through multi-stage sampling techniques. Analysis of the data was made through a mixture of quantitative and qualitative techniques. It was found out that the PNP gained a positive very high trust and respect rating with a favorable commitment of support on their campaign against criminality from the different sectors in the region. The provinces of Camarines Norte and Camarines Sur have the highest public safety and security rating while the Province of Catanduanes has the lowest net approval rating from the community. The judiciary sector provided the lowest net approval rating on PNP programs against criminality while the academe has the lowest net approval rating on PNP campaign against illegal drugs. It is recommended that the PNP may strengthened their partnership and collaborations with the different sectors along their programs on peace and security towards a more responsive and committed patriotic community in Bicol region. Feedbacks from the community may be considered by the PNP in the region for continuous improvement of the delivery of the programs and services to the public.

Keywords: Community Survey, PNP Performance, trust rating, respect rating safety and security, Bicol Region

Introduction

The vision of the Philippine National Police (PNP) by 2030 is to have “a safer place to live, work, and do business” in order to help build a country which is a safe and conducive place to carry out business and other economic activities. This vision reflects the PNP’s ‘bold audacious goal’ to be a highly capable, effective and credible police service, working in partnership with a responsive community by 2030 with the aid of Almighty (<http://www.pnp.gov.ph>, 2016).

In carrying out this vision, the PNP has identified four perspectives such as resource management, learning and growth, process excellence, and community with the corresponding measures and strategic initiatives aligned to its mandates and functions as a safekeeping agency. Working in partnership with a responsive community, both at the national and local levels has been recognized as the most important among the four perspectives which needs to be operational and fully functioning. The PNP sees itself as in need of reaching out and engaging the local and national communities so that a working partnership can be forged in attaining a "safer" environment.

This vision is in consonance with the PNP’s mission, which has been shaped by the enactment of Republic Act (RA) No 6975, as amended by RA No. 8551, and as further amended by RA No. 9708 which gave a clear mandate to the PNP in enforcing the law, preventing and controlling crimes, maintaining peace and order, and ensuring public safety & internal security with the active support of the community. Bicol Region (Region 5), with a total land area of 18,139.08 square kilometers or 6.0 percent of the country's total land area, is politically subdivided into six provinces, one chartered city, six component cities, 107 municipalities, and 3,471 barangays with 14 congressional districts (<http://nap.psa.gov.ph>, 2012). Camarines Sur is the largest province occupying 5,266.8 km² (2,033.5 sq mi) or around 30% of the total land area, while Catanduanes is the smallest with only 1,511.5 km² (583.6 sq mi) or 8.6% of the total land area. Of the region's total land area, around 71% is alienable and disposable while the remaining 29% is composed of public forest areas for the 5,796,989 population based on the 2015 Census of Population (POPCEN, 2015).

Along crime statistics, in an online report of Bicol Standards on October 10, 2017, there was a decrease of crime volume in the Bicol Region of 3,452 from 28,900 or 11.94% covering January to September 2016 to 25,448 recorded incidents for the period of January to September 2017. There were 6,023 index crime incidents or 23.67% out of 25,448 incidents and 19,425 non-index crime incidents or 76.33% of the total crime incidents. Theft was recorded as the highest occurrence with 2,300 or 38.37% incidents for the index crime and carnapping with 10 or 0.17% as the lowest. This may be attributed to the massive campaign of the Police Regional Office (PRO-5) against criminality with the active support of the local government units and as well as the community.

The study of Patalinghug (2017) on the effectiveness of crime prevention strategies implemented by the Salug Valley Philippines National Police (PNP) revealed that there is a significant relationship between crime prevention strategies employed and index crime rate during the second quarter of 2014. The Integrated Police

Patrol System, Barangay Peace Keeping Operations, Anti-Criminality Operations, Integrated Area Community Public Safety Safety Services, Bantay Turusta and School Safety Project were the crime prevention strategies which are found much effective in the four Municipalities of Salug Valley Zamboanga del Sur. The report of Mateo (2017) in The Philippine Star on trust rating obtained by the Philippine National Police from the Filipinos revealed that the PNP obtained a very good +55 net trust rating made last March 2014 surpassing its previous record of +52 obtained in February 2010. The survey revealed that the PNP is doing their job well along peace keeping and crime prevention which are visible to the eyes of the Filipino people.

Anchored on the PNP's vision, the Police Regional Office 5 has made its primary obligation to cater quality public safety service, and to maintain and promote peace and harmony with its stakeholders in the Bicol region framed by the philosophy of "service, honor and justice"; and the PNP core values: "makadiyos, makabayan, makatao, and makakalikasan". Currently, the PRO-5 has a total strength of 7,945 uniformed personnel of which 443 are PCOs and 7,502 are PNCOs. This is about 1:763 police to population ratio catering the needs of the people along peace and security in the region. In the Bicol Regional Plan for 2011-2016, one of the development challenges identified in the Regional Situationer is that peace and security is threatened by high crime incidence, low crime solution efficiency, illegal drugs, insurgency, and human rights violations." This contributes to the factors that may impede the development of Bicol region.

With this regional situation, a community survey on PNP performance in Bicol was initiated to measure the effectiveness of their programs and the efficiency of the delivery of police services vis-à-vis the public's perception, support, and attitude towards the PNP projects and activities. This is in consonance to Section 5 (4) of the Philippine National Police Reform and Reorganization Act of 1998 or RA 8551 to conduct an annual self-report survey and evaluation of the efficiency and effectiveness of all police units in the country. Thus, the survey hopes to provide reliable basis in formulating and reviewing their strategy in order to ensure an effective and efficient delivery of police services that would draw maximum support and would fairly be made acceptable to the community.

Objectives of the Study

This paper determined the community perceptions and feedbacks on the PNP performance in the delivery of programs and services, public trust, respect, and public safety and security in Bicol Region. The following are the objectives of the study: (1) determine the community approval ratings on the PNP performance, (2) find out the sectorial net approval ratings and feedbacks along the PNP programs, community trust, respect, and public safety and security, and (3) determine the sectorial commitment of support to the PNP programs in the region.

Methodology

Research Design

This study utilized quantitative-qualitative research methods. A survey was conducted to gather the ratings and

feedbacks on the PNP programs, community trust, respect, public safety and security, and commitment from the different sectors in Bicol region. Face to face interview with the identified respondents has been executed by the enumerators in the conduct of the survey. A qualitative analysis of the written feedbacks from the community was also done in the study.

Respondents

There was a total of 1,178 sample respondents involved in the survey identified based on the regional population of 5,796,989 using $\approx 3\%$ margin of error (confidence interval) with 95% confidence level. Multi-stage sampling techniques was used to determine the respondents per sector in the region. There were 200 sample respondents involved in the province of Albay, Camarines Norte, Camarines Sur including Naga City and Catanduanes while Masbate and Sorsogon have 189 sample respondents each.

Table 1. Frequency Distribution of the Respondents per Sector

Sector	Albay	Camarines Norte	Camarines Sur*	Catanduanes	Masbate	Sorsogon	Naga City	Total	%
Academe	20	18	11	19	17	15	6	106	9.00
Agriculture Sector	20	18	12	18	17	18	7	110	9.34
Business Sector	12	14	8	12	15	13	7	81	6.88
Elected Govt official	16	17	8	17	18	16	6	98	8.32
Govt Employee	16	15	9	17	15	16	7	95	8.06
Informal Worker	20	20	12	20	19	19	7	117	9.93
Judiciary	4	6	4	4	2	2	4	26	2.21
Media	4	11	4	4	1	5	4	33	2.80
Parent	20	17	12	20	25	18	9	121	10.27
Private Employee	16	18	8	16	11	17	5	91	7.72
Religious Sector	12	14	8	13	14	10	4	75	6.37
Transportation	20	16	12	18	14	20	7	107	9.08
Youth	20	16	12	20	21	20	7	116	9.85
No Answer	0	0	0	2	0	0	0	2	0.17
TOTAL	200	200	120	200	189	189	80	1178	100

*Exclude Naga City

Four municipalities were randomly selected through draw lots as the area of analysis per province (see Appendix B). Each municipality represents the quadrant ensuring that there will be representative municipality per location based on the geographical feature of the province where it belongs. Each municipality was allotted with 50 respondents incorporating the 13 sectors: academe, agriculture sector, business sector, elected government officials, government employees, informal workers, judiciary, media, parent, private employee, religious sector, transportation, and youth sector.

These respondents were purposively selected in coordination with the Local Government Units (LGUs) based on criterion as specified in Appendix B. On the other hand, the Camarines Sur Province is subdivided into two categories since it comprises a chartered city, the Naga City Police Station. Naga City was given 80 sample respondents with a remaining of 120 sample respondents for the rest of Camarines Sur.

Table 2. Profile of the Respondents

	Albay	Camarines Norte	Camarines Sur *	Catanduanes	Masbate	Sorsogon	Naga City	Total	%
Sex									
Male	113	103	62	100	98	105	31	612	51.95
Female	87	97	58	100	91	84	42	559	47.45
No Answer	0	0	0	0	0	0	7	7	0.60
Civil Status									
Single	65	39	30	80	73	77	15	379	32.17
Married	126	150	82	106	104	99	49	716	60.78
Separated	3	4	2	2	4	6	2	23	1.95
Widow/er	5	6	2	12	6	7	3	41	3.48
Others	1	1	4	0	2	0	11	19	1.61
Age Bracket									
20 y/o & Below	18	9	12	17	25	28	6	115	9.76
21 to 30 y/o	42	30	19	52	47	46	6	242	20.54
31 to 40 y/o	46	53	30	44	45	53	23	294	24.96
41 to 50 y/o	47	57	23	38	53	44	23	285	24.19
51 to 59 y/o	28	36	24	33	14	13	5	153	12.99
60 y/o & Above	19	15	12	16	4	5	15	86	7.30
No answer	0	0	0	0	1	0	2	3	0.25
TOTAL	200	200	120	200	189	189	80	1178	100

*Exclude Naga City

Table 2 shows the percentage distribution of the respondents in terms of sex, civil status, and age bracket they belong. Of the 1178 total respondents, there were 559 or 47.45% females and 612 or 51.95% males. In terms of civil status, 716 or 60.78% of the respondents were married, 379 or 32.17% were single, 23 or 1.95% separated, and 41 or 3.48% were widow or widower.

There were other 19 or 1.61% of the total respondents identified which may either live-in or others in terms of civil status. Most of the respondents are belong to the working age grouped with age bracket from 21 to 50 years old, where 242 or 20.54% belong to 21 to 30 years old age bracket, 294 or 24.96% belong to 31 to 40 years old age bracket, and 285 or 24.19% belong to 41 to 50 years old age bracket. Only 86 or 7.30% of the total respondents belong to senior citizen group and 115 or 9.76% belong to the age bracket of 20 years old and below.

Of the total number of respondents, there were 30.65% of the respondents are College degree holder, 19.27% has attended College level schooling, and 15.62% are high school graduate. Very few of the respondents has attended up to elementary level of schooling represented by 2.55% and 3.74% with primary level schooling and elementary graduate, respectively. This connotes that almost all the respondents of this study are literate, can comprehend and can provide useful information needed in the study. Data on educational attainment of the respondents are shown in Figure 1 below.

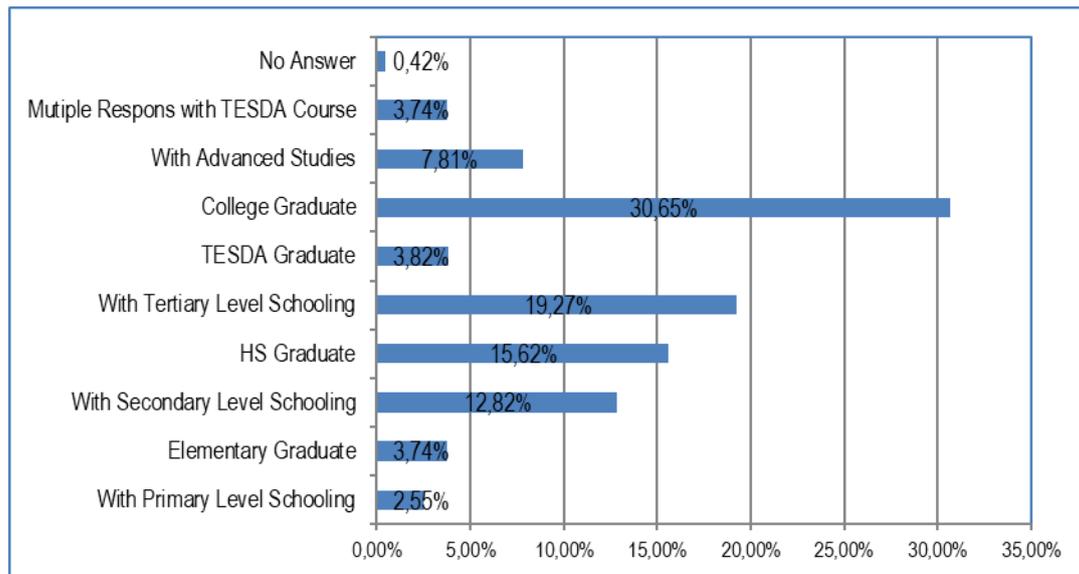


Figure 1. Educational Attainment of the Respondents

Instrument

The survey-questionnaire with three parts was the main instrument used in the study. The first part of the questionnaire pertains to the demographic profile of the respondents. The questionnaire highlighted the second part with seven items on the performance of the PNP against criminality, community trust, community respect, PNP respect to the community, public safety, public security, and implementation of the programs against illegal drugs. The third part of the questionnaire focuses on the community commitment to support the programs of the PNP against illegal drugs, terrorism, riding in tandem, and illegal gambling. The questionnaire also includes the open-ended questions on their comments and suggestions to the PNP in the implementation of their programs, projects, and activities.

This questionnaire was drafted by the research team in consonance to the PNP requirements and the existing survey-questionnaire utilized for several years. This has been presented on October 30, 2017 to the PNP Regional Office with their Regional Advisory Council (RAC) and the six Provincial Directors (PDs) for comments and suggestions. Upon the incorporation of the comments and suggestions, the questionnaire has been presented to the identified 28 enumerators and seven tabulators during the regional orientation and training of trainers last November 28, 2017 for the administration of the Community Survey.

The survey-questionnaire was subjected for the conduct of dry-run in the regional level to the municipality not covered by the survey on December 4-8, 2017. The enumerators and tabulators simulated their functions until the submission of the tabulated results to determine the possible problems encountered in the actual conduct of the survey. The questionnaire has been finalized by the research team on December 12, 2017.

Procedure of the Survey

The organization of the regional research team was proceeded by the identification of the enumerators and tabulators from the Local Government Units (LGUs) of the respective provinces. These enumerators attended the regional orientation to establish the procedures in the conduct of the survey including the face to face interview and its dos and don'ts. Tabulators have been provided with the electronic copy of the tabulation table in Microsoft excel including the coding to be utilized during the actual encoding.

Written consent from the Local Chief Executives through the assistance of the Police Provincial Office was sought prior to the conduct of the dry-run. The final form of the questionnaire was provided after thorough review and dry-run. The regional survey has been simultaneously conducted in the six provinces from December 21-28, 2018. Tabulation has been made by the assigned tabulators for each of the municipality and province. Completion of the submission of all the tabulated results to the regional research team has been made until January 8, 2018. The research team made some checking and corrections of the tabulated data. There were some discrepancies found which require thorough analysis of data tabulation. Some corrections found were made on the entry of code per municipalities and provinces. Corrections of the tabulated data has been made to ensure a uniform coding entry in the regional level to avoid discrepancies in the computation.

Regular meetings of the research team were conducted per activities to ensure the smooth implementation of the project. All issues and concerns regarding the survey have been discussed during the meeting.

Data Analysis

The statistical tool used in the study was mainly descriptive in nature. Frequency count, mean and percentages were the statistical tools used in analyzing the demographic profile of the respondents and the Regional Community approval ratings on PNP performance. The frequencies and percentages results have been transformed in graphical form for the pictorial representation of the results of the survey. Approval/favorable ratings is the combined percentages of the responses of the respondents at "agree" and "very much agree" level while the unfavorable ratings is the combined percentages of the responses at "disagree" and "very much disagree". The net approval rating of the community was identified by subtracting the unfavorable rating from the favorable response of the respondents on the identified seven variables. On the other hand, the commitment of support rating was based on the number of respondents with favorable response transmuted into percentage.

Comments, suggestions and feedbacks of the respondents were analyzed qualitatively through coding. Feedbacks were grouped accordingly as positive, negative and neutral along the themes of PNP programs against criminality, community trust, and respect, campaign against illegal drugs, and partnership and involvement. The qualitative analyses were used as support to the findings of the study on the community rating of the PNP.

Results and Discussions

Community Ratings on the Performance of the PNP in Bicol Region

The proceeding paragraphs provides the general information on the community perceptions categorized as favorable, unfavorable ratings, and undecided ratings on the performance of the PNP in Bicol region related to the delivery of their programs and services. Figure 2 shows the Community ratings along the PNP programs against criminality, trust, community respect, PNP respect to the community and/or public, public safety, public security, and PNP campaign against illegal drugs.

The figure reveals that the community has high approval rating on respect represented by 90.15% community favorable rating on PNP respect to the community and 94.23% favorable rating of the community on respect given to PNP which means that for every 10 people nine respected the PNP and for every 10 PNP nine respected the community. This suggests that both side, the community and the PNP, has high regards to each other as perceived by the community itself. The culture of giving respect to each other regardless of the race, gender, and status in life is given much importance by the Bicolanos. The community also provided high approval rating to the delivery of services and programs of the PNP represented by 90.07% favorable rating on the programs against criminality and 88.79% favorable rating on PNP campaign against illegal drugs. This connotes that the PNP is highly visible to the community in their campaign against criminality and illegal drugs in Bicol Region.

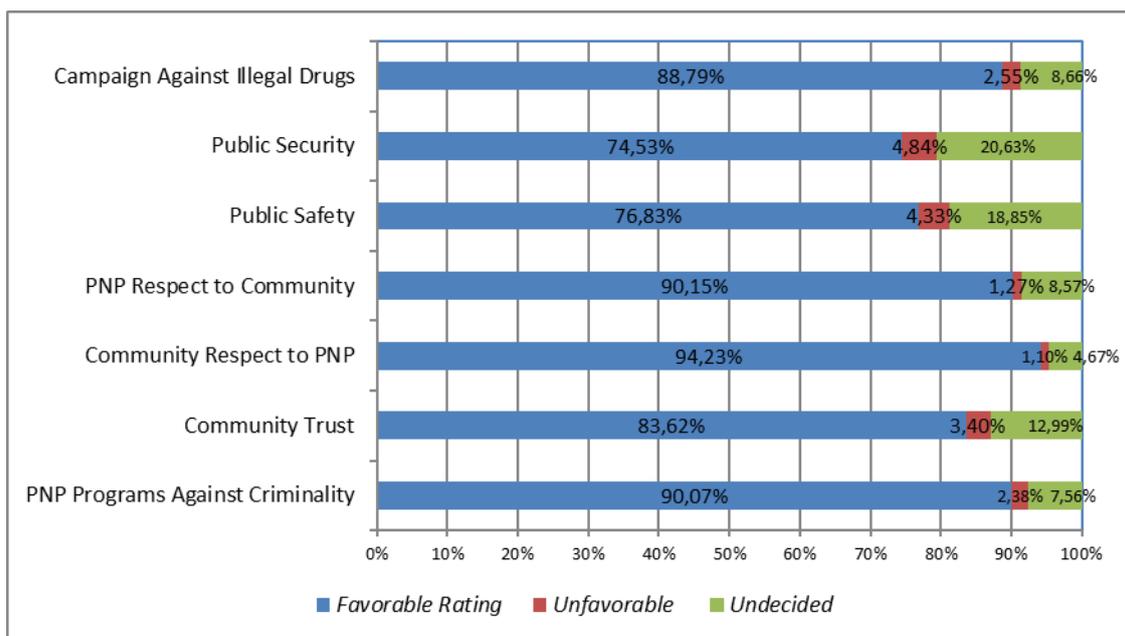


Figure 2. Community Rating on PNP Performance in Bicol Region

In terms of public safety and security, the community has provided a favorable rating of 76.83% for public safety and 74.53% for public security in the region which means that for every 10 people about seven believed that they are safe and secured in the region. This community ratings were the lowest among the seven indicators which signifies that the community still felt some harmful situations that may be brought in their respective area

which is supported by the 4.33% and 4.84% unfavorable rating for public safety and public security, respectively. Harmful situation may be brought by the internal or external forces. Internal forces may happen among the people in the community through crimes while external forces may be brought by the outsider such as terrorism and calamities which provide greater impact in terms of the feeling of safety and security by the community. A significant percentage rating share of the undecided group which are about 18% to 21% of the respondents rated safety and security. This means that there were some respondents has still doubts on the safety and security in the Region.

Despite of the lowest percentage rating on public safety and security among the seven indicators, the community has still trusted the PNP with 83.62% favorable rating and a corresponding of only 3.40% unfavorable rating and 12.99% undecided rating. The result also shows that for every 10 people eight trusted the PNP in the region which means that majority of the Bicolanos trusted the PNP. This trust rating of the PNP in Bicol region is higher than the National Survey result conducted by SWS last March 2014 where the PNP got 69% of the respondents have much trust rating, 14% have little trust and the remaining 16% were undecided.

The net favorable rating of the PNP along the programs against criminality, community trust, community respect to PNP, respect to community, public safety, public security, and campaign against illegal drugs is shown in Table 3 grouped by province. It can be gleaned from the table that Province of Camarines Norte has the highest net approval rating from the Community along PNP programs against criminality followed by Camarines Sur and Sorsogon. Naga City has the lowest net approval rating of 75% from the community along the PNP programs against criminality. Data also shows that for every 10 people, eight has favorable rating to PNP in terms of their programs against crimes in Naga City.

Table 3. Community Net Favorable Rating by Province on PNP Performance

Area	n	A	B	C	D	E	F	G	Ave. Net Rating
Albay	200	88.50%	75.50%	94.00%	92.00%	74.50%	70.00%	78.50%	81.86%
Camarines Norte	200	94.00%	91.00%	95.50%	90.50%	80.00%	79.50%	92.00%	88.93%
Camarines Sur	120	90.00%	86.67%	97.50%	94.17%	82.50%	77.50%	90.00%	88.33%
Catanduanes	200	83.50%	77.00%	89.00%	86.00%	54.50%	54.00%	87.00%	75.86%
Masbate	189	86.24%	79.37%	89.42%	85.71%	78.84%	72.49%	82.01%	82.01%
Sorsogon	189	89.95%	80.95%	95.24%	87.83%	69.31%	70.90%	91.01%	83.60%
Naga City	80	75.00%	63.75%	92.50%	86.25%	71.25%	62.50%	82.50%	76.25%
Over-All	1178	87.69%	80.22%	93.12%	88.88%	72.50%	69.69%	86.25%	82.62%

*Legend: n- sample size, A- PNP Programs against Criminality, B- Community trust, C – Community Respect to PNP, D- PNP Respect to Community, E- Public Safety, F – Public Security
G – PNP Campaign Against Illegal Drugs*

Along community trust, Camarines Norte has the highest net trust rating of 91% from the community followed by Camarines Sur and Sorsogon. Data also show that for every 10 people, nine trusted the PNP in these mentioned three provinces. Naga City has provided the lowest net trust rating of 63.75% to PNP which followed the Albay province net trust rating of 75.50% which means for every 10 people seven trusted the PNP and three

either undecided or do not trust the PNP in these two areas. This PNP trust rating result within the Bicol region is similar to the SWS survey result reported by Mateo (2017) conducted last March 2014 where the PNP got lower net trust rating (+42 “good”) in urban areas as compared to the net trust ratings (+65 “very good”) in rural areas.

In terms of respect rating, Camarines Sur provided the highest net rating of 97.50% on community respect to the PNP and 94.17% on PNP respect to community. Comparing results of the community rating in Camarines Norte and Albay being the second highest net rating, the people of Camarines Norte respected the PNP than in Albay while the PNP of Albay respected the community than in Camarines Norte. Generally, all provinces including Naga city in the region provided high net respect rating to the Philippines National Police as shown by the overall net rating of 93.12% and an 88.88% for PNP respect to community.

On the area of public safety and security, still Camarines Sur and Camarines Norte have the highest net rating provided. It is in Catanduanes has consistent lowest net rating of 54.50% and 54% for public safety and public security, respectively, which means about six people for every 10 people has the favorable rating and four people has either undecided or has unfavorable rating in Catanduanes. The province of Sorsogon with a net rating of 69.31% and Naga City with 71.25% net rating followed the province of Catanduanes with the lowest rating from the community on public safety and public security. This result is connected the actual situation in these areas where cases of insurgency are active such as in Sorsogon and Catanduanes. On other hand, Naga City where the center of commercialization and growing number of big establishments is at risk to several forms of crime incidence.

With regard to the PNP campaign against illegal drugs, Camarines Norte, Sorsogon, and Camarines Sur with 92%, 91.01%, and 90%, respectively, net favorable ratings were the highest among the provinces including Naga City. Albay province has the lowest community net favorable rating of 78.50% on PNP campaign against illegal drugs. Overall, an 86.25% net favorable rating was provided by the Bicolanos along PNP campaign against illegal drugs. Generally, the provinces of Camarines Norte, Camarines Sur, and Sorsogon have the highest net favorable rating on the performance of the Philippine National Police along the delivery of their services and functions in the community.

Sectorial Net Approval Ratings on the Performance of the Philippine National Police in Bicol Region

Campaign against Criminality. The sectorial net approval rating of the PNP on their campaign against criminality is shown in Figure 3. It is reflected in the figure that among the identified 13 sectors the elected government officials, the youth sector, and the religious sector provided the highest net approval rating of 91.84%, 93.10% and 93.33%, respectively, on the PNP campaign against criminality. Data also shows that for every 10 people in these sectors belong 9 has favorable rating and only either undecided or has unfavorable rating. It is also notable in the figure that the judiciary sector gave the lowest net favorable rating of 69.23% on PNP campaign against criminality which means about seven out of 10 people in this sector has favorable rating

and about three are undecided or has unfavorable rating.

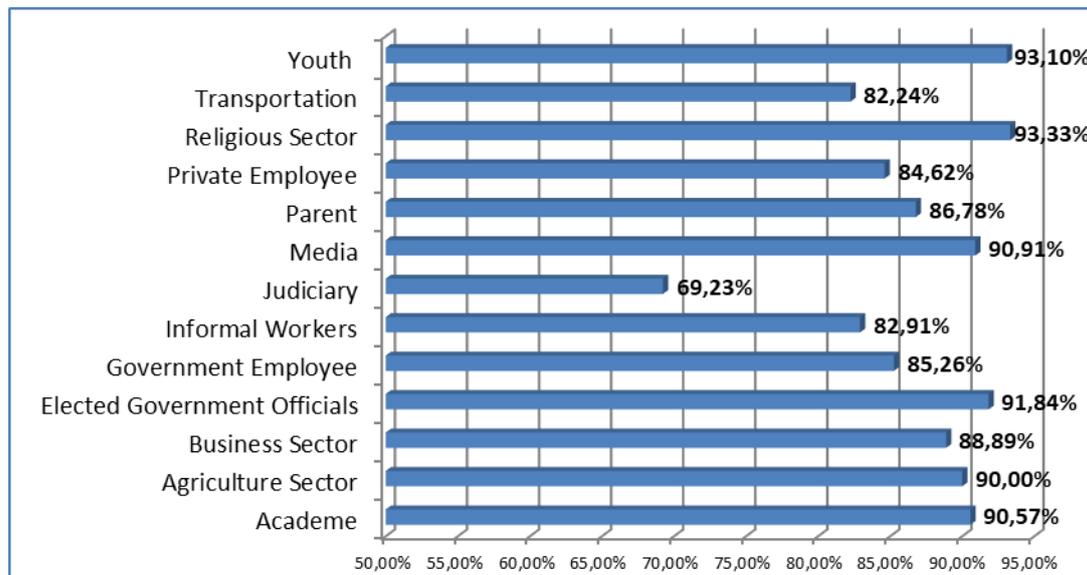


Figure 3. Sectorial Net approval Rating on PNP Campaign Against Criminality

When the respondents are grouped according to age, the PNP in Bicol region got a net favorable rating of 96.49% and 94.77% to the age bracket 41 to 50 years old and 51 to 59 years old, respectively, which is the highest among age grouped. It is in the age bracket of 60 years old and above where the PNP got the lowest rating of 88.37% which is still high rating. This means that implementation of the PNP programs against criminality is highly visible and gained approval from the different sectors in Bicol region.

Community Trust. The net trust rating of the PNP per sector is shown in Figure 4. It can be seen from the figure that there are six sectors which include transportation, religious, media, informal workers, elected government officials, and academe where the PNP got a net trust rating of at least 80%. The private employees and government employees provided the lowest net favorable rating of less than 75% with about seven people for every 10 people from these sectors has favorable rating and the other three otherwise.

In terms of sex, 83.82% of male respondents and 83.72% of the female respondents have favorable trust rating with a corresponding 2.78% and 3.76% unfavorable ratings, respectively. This resulted to a net trust rating of 81.05% and 79.96% for male and female respondents, respectively, which is almost similar trust rating. In terms of age grouped, Figure 6 shows that those senior citizen respondents belong to the age bracket 60 years old and above trusted the PNP than the other age grouped which corresponds to the net trust rating of 90.70%. On the other hand, those belong to a working age grouped who have full of energy from an age bracket of 21 to 30 years old to an age bracket of 31 to 40 years old gave the lowest net favorable rating of 74.38% and 79.93%, respectively.

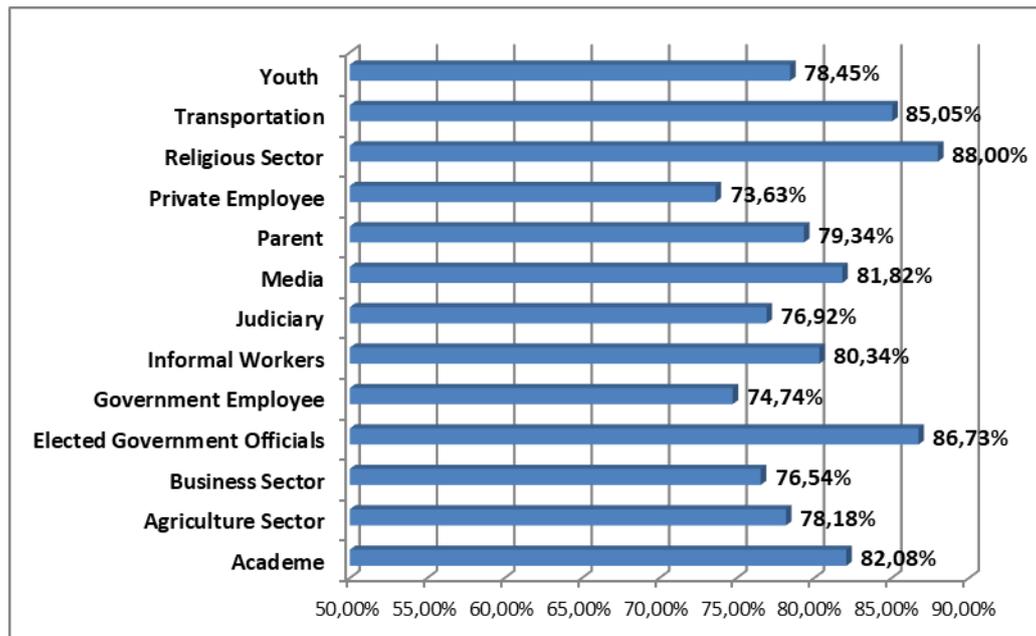


Figure 4. Sectorial Net Trust Rating of PNP in Bicol Region

the net trust rating got by the PNP from the community when grouped by civil status shows that the single respondents provided the lowest net trust rating of 77.84% followed by the separated/widow/er respondents with 78.13% net trust rating. It is notable in the figure that those respondents with civil status quoted as others which includes the live-in and mistress provided the highest net trust rating of 84.21%.

Community Respect to PNP. Figure 5 shows the net favorable rating by sector on respect to the PNP. The figure reveals that all of the sectors provided high net respect rating to the PNP of more than 85% with the religious sector has the highest rating and informal workers has the lowest net rating.

In terms of sex, both the male and female respondents gave a net rating of more than 90% on respect of the community to the PNP. This result is similar to the net rating result when the respondents are grouped by age bracket only that those respondents belong to age bracket of at least 51 years old provided higher net rating of more than 95%.

PNP Respect to the Community. This portion is about the sectorial net favorable rating of given by the respondents on PNP respect to the community. It can be noted in Figure 6 that the judiciary and youth sectors with net favorable rating of 96.15% and 95.69%, respectively, gave the highest rating on the respect provided by the PNP to the community. This means that almost all the respondents believed that the PNP offered much respect to the community that they serve regardless of their status in life. This is supported by the net favorable rating provided by the religious sector of 94.67%, media with 93.94%, elected government officials with 93.88%, and business sector with 90.12% net approval rating on respect given by the PNP to the community. On the other hand, those informal workers and parents have the lowest net favorable rating of 82.91% and 84.30%, respectively.

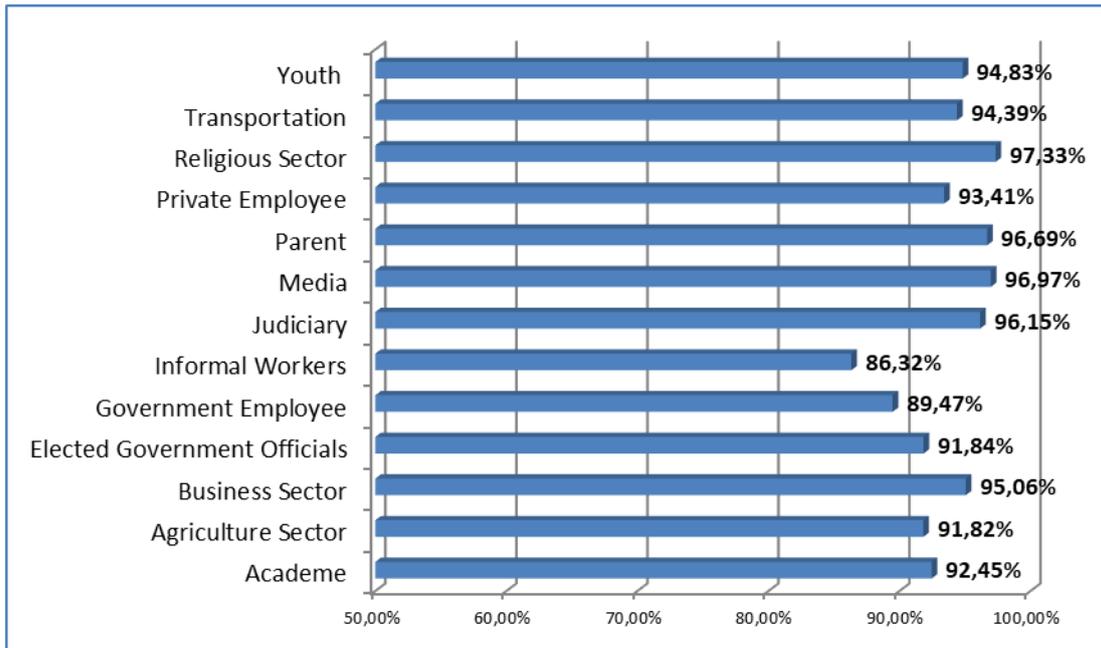


Figure 5. Sectorial Net Respect Rating to PNP

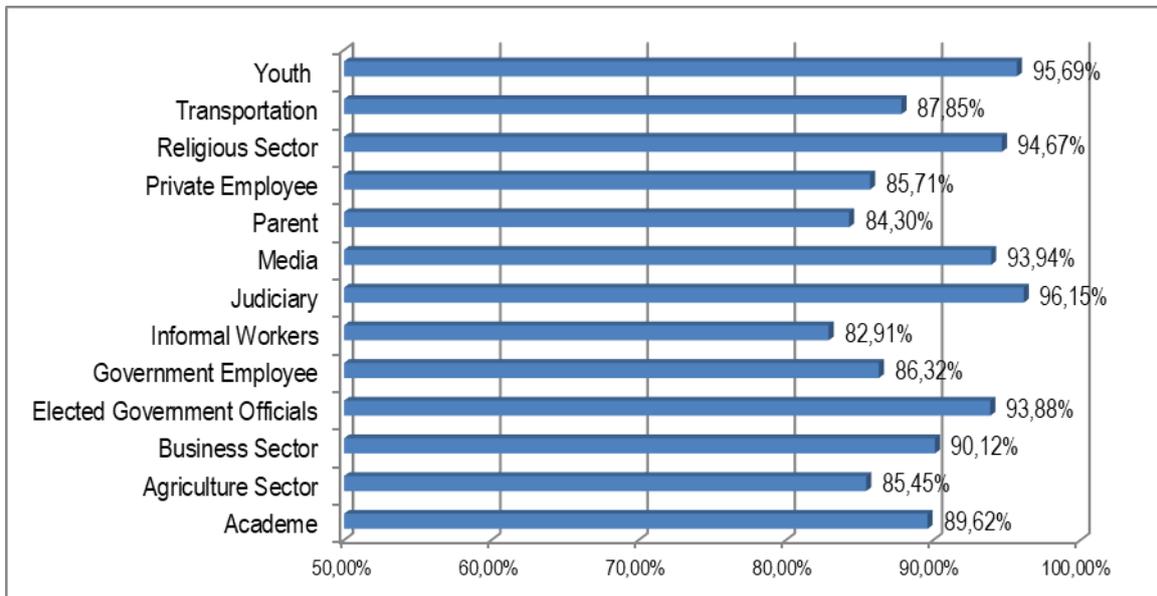


Figure 6. Sectorial Net Approval Rating on PNP Respect to Community

These survey results signify that the PNP personnel in Bicol Region executed good conduct and character which gain positive insights and perceptions from the community. The directives of Section 4 (4) of RA 6713 or the Code of Conduct and Ethical Standards for Public Officials and Employees observing at all times respect the rights every individuals regardless of their status in life and to refrain from doing acts contrary to law to maintain peace and harmony in the community.

In terms of sex, the net favorable rating of 88.89% of the male respondents and 88.73% of the female

respondents signifies that there are nine male or female for every 10 respondents have positive feedbacks on the performance of the PNP in terms of giving respect to the community. When grouped according to age, those belong to 20 years old and below age bracket has the highest net favorable rating of 94.78% followed by the senior citizen grouped with 91.86% net rating while those belong to 31 to 40 years old age bracket consistently gave the lowest net favorable rating of 85.71%.

Public Safety. The assurance and the feeling of being protected from any harm and any undesirable event can be associated to public safety. The sectorial rating on the public safety is shown in Figure 7. It can be noted in the figure that all the 13 identified sectors have a net approval rating of below 80% with the elected government officials have the highest net rating of 78.57%. Those sectors of private employee and government employees provided the lowest net approval rating on public safety represented by 60.44% and 63.16%, respectively, which means that for every 10 people about six from these employees believed that the community is safe. Data also reveals that about seven for every 10 people from the business sector and the transportation sector has the favorable rating on public safety.

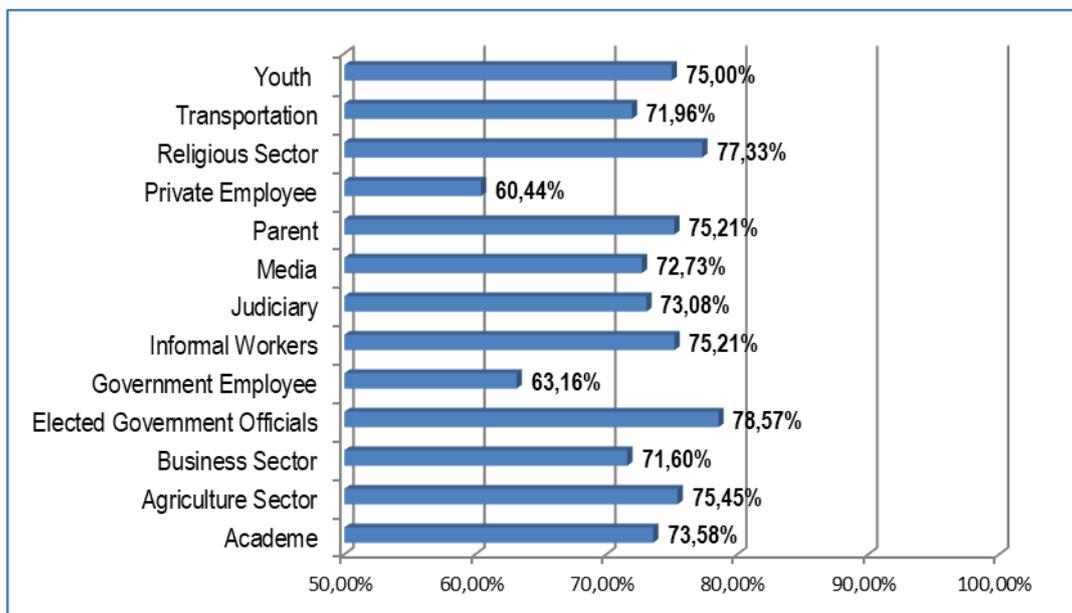


Figure 7. Sectorial Net Approval Rating on Public Safety

With regard to profile by sex, the male and female respondents have provided a closely similar net favorable rating of 73.53% and 71.38%, respectively, on public safety. In terms of civil status, it can be noted in that 100% of the respondents with civil status quoted as others claimed that they are confident with the public safety as revealed by the net approval rating of 100%. This contrasts with the result of the rating provided by married respondents, single, and separated/widow respondents with 72.63%, 72.82%, and 60.94% net approval rating.

Moreover, when grouped according to age, survey results show that those belong to senior citizen grouped and

20 years old below age bracket consistently provide the highest net approval rating among the other age grouped with 79.07% and 75.65%, respectively. This data confirms that there were group in the community have doubt on the safety of the public with about three for every 10 persons provided negative feelings along this area indicator.

Public Security. Public security is the function of governments which ensures the protection of citizens, persons in their territory, organizations, and institutions against threats to their well-being – and to the prosperity of the communities. The sectorial net favorable rating on public security is illustrated in Figure 8. Similar result on public safety can be noted with the sectorial public security rating where all the 13 sectors have a net favorable rating of below 80%. It can be noted that the elected government officials provided the highest net rating of 78.57% among the included sectors. Also, the private, government employees, and youth sectors provided the lowest net approval rating on public security with 58.24%, 63.16%, and 63.79%, respectively, which means that only about six for every 10 Bicolanos belong to these sectors have favorable rating the other four otherwise.

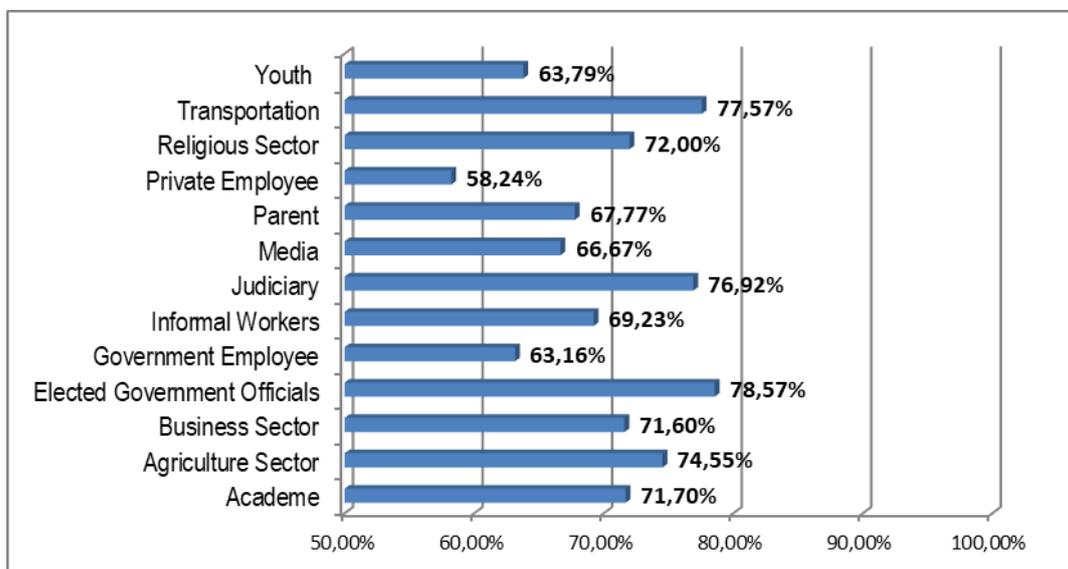


Figure 8. Sectorial Net Approval Rating on Public Security

With regard to the net favorable rating of the respondents when grouped by sex, the male and female respondents have 70.92% and 68.52%, respectively. These survey results are closely the same as the result on public safety when grouped by sex. The same situation can be noted to the ratings when grouped by civil status where those respondents belong to other type of civil status have the highest net favorable rating than the married, single, and separated/widow grouped. Moreover, the separated/widow grouped gave a lowest net rating on public security of 57.81% which is about four for every 10 separated/widow Bicolanos have negative feelings on public security.

A result on public security survey to the age grouped of senior citizen and 20 years old and below age bracket is different from the result on public safety. The public security net approval rating of the senior citizen grouped

and 20 years old and below age bracket is only 69.77% and 66.96%, respectively, which are among the lowest with the 64.88% net rating of 21 to 30 years old age group. This means that the senior citizen group and the teenagers feel that they are safer than secured in the community.

PNP Campaign Against Illegal Drugs. The net sectorial rating of the PNP on their campaign against illegal drugs is shown in Figure 9. The figure reveals that the media sector has provided the highest net approval rating of 93.94% on the campaign of PNP against illegal drugs. The media approval rating is backed up with the net approval rating provided by the elected government officials and agriculture sector of 91.84% and 91.82%, respectively. On the other hand, the academe, government employees, and the youth sector have a net approval rating of 78.30%, 80%, and 82.76%, respectively, which corresponds to about eight people for every 10 people provided an approval rating to the campaign of PNP against illegal drugs in Bicol region.

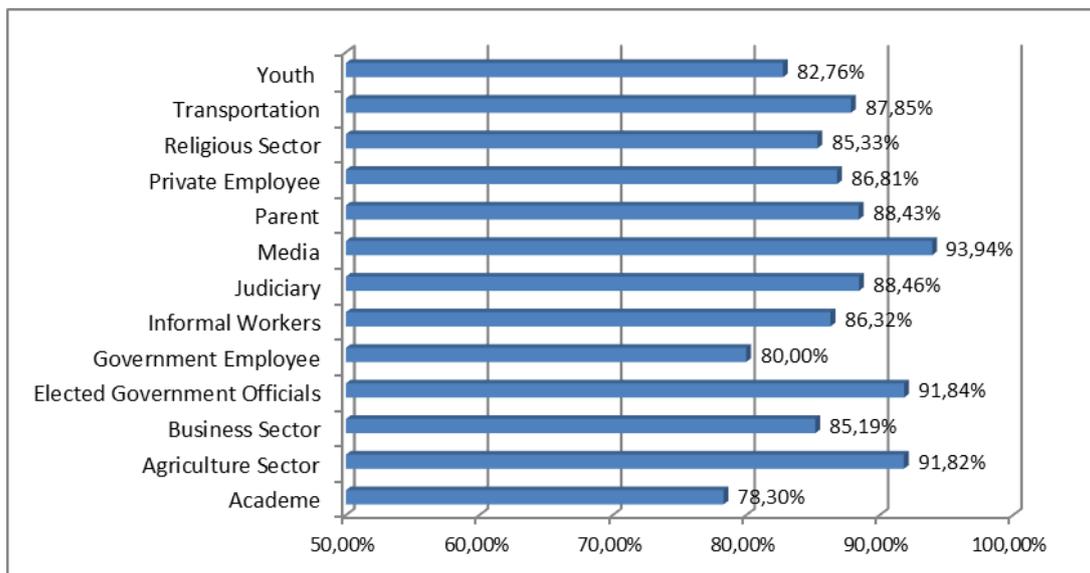


Figure 9. Sectorial Net Favorable Rating on PNP Campaign Against Illegal Drugs

When the ratings are grouped according to sex of the respondents, the male respondents provided a more acceptable net rating than the female respondents with a corresponding 88.24% and 83.90%, respectively. In terms of civil status, the married, single, and separated/widow respondents provided a net approval rating of about 80%. On the other hand, those with civil status called “others” have a very high 100% net approval rating.

In terms of age grouped, it is notable that those respondents belong to 20 years old and below age bracket have the lowest net approval rating of 79.13% on the performance of the PNP on the campaign against illegal drugs. This survey result is different on the result of the survey as compared with other age group bracket with at least 85% net approval rating. This means that those teenagers have different impressions when it comes to the campaign of PNP against illegal drugs than the other age grouped.

Community Commitment of Support to the PNP Programs against Community Problems

The programs of the Philippine National Police (PNP) against the problems in the community along peace and order situation will become stronger when there is a favorable support from the different sectors in the community. It shows the over-all support rating of the respondents in Bicol region along the programs and projects of the PNP against illegal drugs, terrorism, riding in tandem, and illegal gambling. It can be gleaned from the figure that the respondents have high favorable rating of more than 90% on their support to the PNP projects. It further shows that 95.84% of the respondents supported the PNP on their campaign against illegal drugs with only 1.36% negligible unfavorable rating and only 2.80% undecided. This means that for every 100 Bicolanos 95 of them supported the PNP on their campaign against illegal drugs.

The figure also shows that 92.87% of the respondents have favorable rating and commitment of support to the PNP on their campaign against terrorism with only 0.76% negligible unfavorable rating and 6.37% undecided. This means that about nine persons for every 10 Bicolanos have the commitment of support to the PNP against terrorism.

With regard to the campaign against riding in tandem, 91.85% of the respondents have the commitment of support to the PNP with only 1.10% unfavorable rating and 7.05% undecided. In terms of illegal drugs, 93.38% of the respondents have the commitment of support to the PNP on their campaign against illegal gambling with only 1.87% unfavorable rating and 4.75% undecided.

Table 4. Sectorial Commitment of Support to PNP Programs against Community Problems

Sector	Sample Size	Commitment of Support to PNP Programs			
		Anti-Illegal Drugs	Anti-Terrorism	Anti-Riding in Tandem	Anti-Illegal Gambling
Academe	106	95.28%	97.17%	95.28%	92.45%
Agriculture Sector	110	96.36%	91.82%	92.73%	94.55%
Business Sector	81	93.83%	92.59%	93.83%	95.06%
Elected Gov't Official	98	100%	94.90%	92.86%	93.88%
Government Employee	95	93.68%	91.58%	90.53%	92.63%
Informal Workers	117	91.45%	91.45%	91.45%	91.45%
Judiciary	26	88.46%	96.15%	92.31%	88.46%
Media	33	100%	87.88%	90.91%	90.91%
Parent	121	95.04%	95.04%	94.21%	93.39%
Private Employee	91	97.80%	92.31%	90.11%	95.60%
Religious	75	94.67%	90.67%	89.33%	94.67%
Transportation	107	97.20%	93.46%	88.79%	91.59%
Youth	116	99.14%	90.52%	90.52%	94.83%

Table 4 further shows the commitment of support of the respondents to the PNP programs against illegal drugs, terrorism, riding in tandem, and illegal gambling when grouped according to the sector they belong. It can be

seen in the table that 100% of the elected government officials and media signifies their intent of support to the PNP on their campaign against illegal drugs. The PNP also got the high favorable commitment of support from other sectors with at least 85% of them signifies their support. Moreover, 88.46% of the judiciary sectors the lowest rating among the 13 sectors committed themselves to support the PNP. Data reveals regardless of their status and profile the Bicolanos have a strong support to the PNP in their campaign against illegal drugs.

Along the PNP campaign against terrorism, Table 4 shows that every sector of the community signifies their strong intention to support the PNP against terrorism. This only means that the PNP may work hand in hand with the different stakeholders in the community of Bicolanos against terrorism. The academe and the judiciary sectors are a solid foundation to work with who provided the highest rating of commitment of support. On the other hand, the PNP may also work together with the media group who gave the lowest favorable rating of support of 87.88% among the sectors along the program on anti-terrorism campaign. Moreover, data revealed that the Bicolanos regardless of their profile in terms of sex and civil status shows support to the PNP. When it comes to age grouped, those who are in the working age bracket to senior citizen signifies their commitment of support to the PNP against terrorism. This only mean that the PNP may focus their campaign to those age group of teenagers for they are vulnerable to such activities.

With regard to the campaign against riding in tandem, similar observations can be noted in the table where the community in different sectors have shown their strong commitment of support to the PNP. It further shows that for every 10 Bicolanos, about nine of them show their commitment of support to the PNP regardless of the sectors they belong. It can be gleaned also from the table that the transportation sector with 88.79% favorable rating and 89.33% of the religious sector signifies their intention to support the PNP against riding in tandem, the lowest commitment of support among the 13 sectors. This connotes that the PNP may further provide programs and projects against riding in tandem specially to those belong to the transportation sector.

Along with the campaign against illegal gambling, all the sectors gave at least 90% favorable rating except the judiciary sector with 88.46% of them signifies their commitment to support the PNP against illegal gambling. This only shows that the PNP may work hand in hand with the different sectors in the community. Generally, the PNP in Bicol region gained favorable support from the community of different sectors regardless of the status in life and profile.

Content Analysis of Feedbacks from the Community

The verbal feedback section of the survey in the six provinces of the Bicol Region is composed of the highlights selected from the comments and suggestions/recommendations written by the respondents belonging to the different sectors. The contents of these statements were analyzed and categorized under each of the performance items in the survey. And within each of these groupings, the feedbacks have also revealed specific themes that were emphasized, discussed and integrated to the quantitative data previously presented in this study.

In general, the responses contain the following recommendations: additional personnel to improve service to the public and police visibility; be more diligent/active in the conduct of duty; apprehend drug offenders in accordance to the law; strict implementation of the anti-drug campaign, illegal gambling; alertness especially during public occasions to prevent accidents; security of the community; delinquency among the youth; improvement of community relations; and the conduct of community symposia/seminars about PNP programs.

PNP programs against criminality. Regarding this theme, some elected government officials in Sorsogon proposed the following measures to resolve constant problems regarding criminality as well as illegal drugs and terrorism/insurgency:

“Palawakin ang intelligence operation para matapos ang problema sa kriminalidad, droga, at terorista dito sa ating bansa.” (Increase intelligence [gathering] operations to end the problems of criminality, drugs, and terrorism in our country.)

“Maipatupad ng maayos ang araw-araw na pagbabantay, pagpapatrolya ng mga kapulisan para sa seguridad ng taong bayan lalo na sa panahong pagbabadya ng mga terorista sa bayan.” (Properly implement the daily sentry and patrol duties of the PNP for the citizens’ security especially at present that terrorists threaten the town.)

It is noticeable here that among all the responses from the various provinces in the region, Terrorism/Insurgency is a recurring topic in Gubat, Sorsogon. This will be further discussed in the section about Security. Moreover, a suggestion from the academe in the same town also recommend the strengthening/reinforcement of police forces in the town to enhance the security of the locals.

“Palakasin ang pwersa ng PNP sa pamamagitan ng pagdaragdag ng mga personnel sa bayan at paglalagay ng karagdagang station upang matutukan ang seguridad ng mamamayan.” (Strengthen/reinforce the PNP through additional personnel in [our] town and by establishing additional stations to ensure the security of the citizens.)

This request for additional personnel and stations/posts is accompanied by this from Donsol town for patrol vehicles that will increase the mobility of the PNP and enable them to extend their presence/visibility to wider and farther areas.

“Dagdagan ang mga bihikolong pang pulisya.” (Increase the number of police patrol vehicles.)

Moreover, there are also appeals for the placement of information posters/advertisements in strategic and visible public areas containing PNP contact numbers/hotlines. These are essential and particularly helpful especially during emergency situations that require police assistance/intervention.

“Dagdagan na lang ang mga nakapaskil na pwedeng tawagan sa oras na may abirya.” (Put up additional posters containing PNP hotlines/contact numbers to call during emergencies.)

In Camarines Sur, a similar comment expressed a respondent’s need to know about the active telephone number/s of the police stations in the area. On the other hand, the negative comments were commonly with

regard to the lack of police visibility especially during night time – a common issue voiced out by many respondents in other provinces.

“Kulang and seguridad. Lalo na sa gabí.” (There is lack of security especially during night.)

There are also comments regarding the following: inadequate police personnel, alertness/quick reaction to incidents, police visibility, community patrols; drug addiction among the youth; inadequate action on drug users/pushers; security issues, particularly at night; traffic congestion; and the presence of unidentified armed persons – “may armas” – an indication of insurgents, or at least criminals present in the communities.

In the proper implementation of the law, members of the transportation and agriculture sectors of Sorsogon suggested that police personnel should be fair. HUMAN RIGHTS should also be respected/upheld, added another farmer.

In spite of these, some respondents have still expressed their GRATITUDE to the PNP for its efforts in maintaining the peace and order of the society.

“Ipagpatuloy ang mabuting gawain para sa ikabubuti at katahimikan dito sa ating bayan. Salamat sa mga nagawa nyong tulong sa mga nangangailangan.” (Keep up the good work for the peace and order of our community. Thank you for all the help that you gave to those who are in need.)

Exceptional to Catanduanes are comments that are connotative to the PNP’s strict implementation of the Anti-Illegal Logging law and ordinances. Some respondents view this as positive; however, there are several who regard this negatively. The latter may indicate these respondents’ ignorance or disregard of environmental protection laws implemented by the government.

“Bawasan ang pagiging unreasonable at wag masyadong istrikto lalo na sa kahoy.” (Be less unreasonable and strict especially regarding wood.)

“Hinihuli nila ang mga kahoy at kinukuha.” (They apprehend and take/confiscate wood/logs.)

“Minsan OA ang pagbantay sa mga kahoy.” (Sometimes they are over-acting in guarding/watching over the trees/wood.)

A helpful recommendation from San Jacinto, Masbate suggests an annual refresher seminar for police personnel to remind them of their duties in implementing law and order.

“Makakatulong sa kapulisan kung taon taon ay magkakaroon sila ng seminar tungkol sa mga batas bilang refresher ito ay makatutulong para magkaroon ng higit na confidence ang ating kapulisan sa pagpapatupad ng batas.” (It will help the police if every year they will have a refresher seminar about law enforcement that will build their confidence in performing their duties.)

Slow response to crime incidents is pointed out in another comment – also generally expressed by other respondents from other communities.

“Wala naman siguro ang napapansin ko lang pag may patayan o kaya ay krimeng nangyayari ang tagal ng response nila. Medyo mabagal sa pagresponde. Siguro ay maaaring bigyan ng pansin ito.” (I don’t have much to comment, but I noticed that every time that there is a killing or criminal incident, the police is a bit slow in responding. If possible, please resolve this concern.)

Community Trust. Most of the comments from Camarines Norte were positive. For instance, the following statements describe the commendable personal characteristics of PNP personnel appreciated by the public. More importantly, the latter also connect these features to the PNP’s performance of their duties and active participation in communal events.

“Mababait, masisipag at normal na ginagampanan ang kanilang tungkulin. Ayos din silang kasama, friendly at humble.” (Kind, industrious, and they properly accomplish their duties. Good companions, friendly and humble.)

“Friendly, patient at tapat sa serbisyo. Maayos sa pagganap sa trabaho at nakikilahok sa gawaing pampubliko at pampaaralan.” (Friendly, patient and loyal to the service. Duty is properly accomplished; participates in public and school activities/programs.)

In Albay, however, a comment displays how the negative, overly-generalized and oftentimes exaggerated portrayal/depiction of police atrocities by the media inspire fear and mistrust of the PNP.

“Natatakot din ako minsan sa mga kapulisan natin sapagkat ang laman halos ng mga balita na sa krimeng nagaganap ay halos hindi naaalís ang pangalan ng mga pulis na siya pang nangunguna sa mga krimeng nagaganap.” (Sometimes I am afraid of our police because many of the crimes reported by the media involve them as the primary perpetrators.)

Another comment from Catanduanes states negative impression on the performance of their duty by some police personnel. However, this is followed up by a concession that more are actually doing their job properly.

“Base sa aking obserbasyon, ilan sa mga kapulisan ay hindi seryoso sa kanilang trabaho. Nagiging masipag lamang sila pag inoobserbahan at dinadalaw sila ng mga opisyal na galing sa region. Pero marami pa din namang pulis ang tapat sa mga tungkulin nila. Nagtatrabaho sila ng higit pa sa kanilang sinumpaang trabaho.” (Based on my observation, some policemen are not serious in their job. They are only hard-working during monitoring visits by their officials from PNP region. However, many of them are still conscientious of their duties. They perform their tasks beyond and above the call of duty.)

Community Respect. In terms of the community’s respect to the police organization, a respondent from Sorsogon congratulates and commends the PNP for performing their assigned tasks in spite of personal threats and dangers to them.

“Congrats sa performance ng PNP. Sinisikap nilang tuparin ang kanilang tungkulin sa kabila ng banta at peligro sa kanilang buhay.” (Congratulations to the PNP for its performance. They try to do their duty despite the threats and danger to their lives.)

In contrast to this, three (3) comments from the elected officials, informal worker and religious sectors stated that some police personnel are arrogant and abusive – observations that were also made by other respondents from other provinces.

“May mga pulis na mayayabang kung umasta sila na magagaling, sila na ang mga hari na, animo’y gusto silang katakutan ng tao.” (There are some police personnel who are arrogant and act as if they are good; they are like kings – as if they wanted to be feared by the people.)

A female member of the academe offered a comment pertaining to illicit affairs between policemen and their mistresses.

“Maraming pulis ang may other woman.” (Many policemen have mistresses/concubines.)

Regarding this, she added a suggestion that includes an explanation of its detrimental effects to the PNP’s public image and the safety of its personnel.

“Iwasan ng ibang kapulisan na magkaroon ng "other woman". Nakakasira ito sa imahe nila. Maaari din maging dahilan ng kanilang kapahamakan.” (Some policemen should avoid having mistresses. This tarnishes their image and may also cause them trouble.)

To enhance their public image and to elicit respect, a recommendation proposed the improvement of discipline, proper wearing of uniform, the active performance of their duties/tasks, and being health-conscious.

“Siguro maging mas disiplinado, kunti ayos sa pananamit lalo na sa pagsuot nila nang uniporme nila, maging mas aktibo pa at bigyan nila nang kunting oras at pansin yong kalusugan nila para mas paayos nila magampananan ang trabaho nila.” (They should be more disciplined, wear the uniform properly, be more active and health-conscious to be able to perform their duties well.)

A related comment and a subsequent recommendation from Catanduanes also state and pertain to the latter. This is congruent to the PNP campaign to improve the physical health of its personnel.

“Hindi physically fit ang mga pulis.” (They are not physically fit.)

“Dapat hindi matataba ang mga pulis.” (Policemen should not be fat.)

And in order to further enhance its public image and respect, a respondent from Masbate recommends “internal cleansing” among the PNP personnel assigned in their locality.

“Dapat nilang linisin at bigyang pansin ang samahan nilang mga pulis upang hindi na lumaganap ang mga masasamang gawain sa loob ng kanilang stasyon. Para hindi madamay ang mga mabubuting pulis.” (They should conduct self-monitoring and the weeding out of corrupt/bad police personnel to spare those who are doing their duties conscientiously.)

PNP Respect to the Community and/or Public. In the manner that police personnel are expected to display respect to the public in the performance of their duties, a respondent from Albay recommends compassion to other people and love of God.

“Sa ginagampanan na tungkulin ng mga pulis dapat nandiyan palagi ang puso para sa kapwa at ang Diyos para magampanan nila ang kanilang tungkulin.” (To properly accomplish their assigned tasks/duties, the PNP must always have a heart/compassion for their fellowmen and love of God.)

Moreover, these comments from Camarines Norte portray particularly negative images/impressions of some PNP personnel assigned in their communities.

“Maraming pulis ang mayayabang, tamad, naglalasing at ang iba ay hindi na iginagalang ng mga tao.” (Many police personnel are arrogant, lazy, drunkards and others don’t respect people.)

“Mga tamad, mayabang, mapang abuso at ang ilan ay gumagamit ng gadget habang nasa duty, Hindi marunong gumalang sa batas ng simbahan at kulang sa respeto lalo na sa mga nakagawa ng mali.” (Lazy, arrogant, abusive, and some use gadgets [cellphones, tablets] while on duty. Don’t respect church regulations, and especially those persons who have done violations.)

These notes were also reiterated to a lesser degree in Camarines Sur.

“Ang ibang pulis ay mga arogante at hindi marunong gumalang [at] makisama sa mga maliliit na tao. Mataas ang paggalang namin sa mga kapulisan at tiwala subalit tratuhin nilang tao ang kanilang mga nahuhuli.” (Some of the police are arrogant and they do not respect and deal properly with common people. We have high regard and trust for policemen but they have to treat people properly.)

This area must be highly considered for improvement. As a state organization dedicated to public service, it is imperative that the PNP must reciprocate and even exceed the respect and esteem that the community has accorded its personnel.

Public Safety. A comment from Albay described the lack of skills in traffic management of new PNP personnel assigned in the streets. Their absence was also noted, especially in the conduct of public assistance.

“Walang masyadong kasanayan sa pag aayos ng batas trapiko ang inilalagay sa kalsada lalo na ang mga baguhan pa kaya nagdudulot pa ito ng sobrang trapiko at minsa'y walang nakikitang pulis na umalalay sa mga matatanda na tumatawid.” (Those who were assigned in the streets don’t have adequate/proper skills in implementing traffic ordinances – especially the new police personnel. They cause worse traffic congestion and sometimes there are no policemen assisting the elderly in crossing the streets.)

The resolution of other concerns were suggested in Catanduanes – as well as the implementation of traffic rules without prejudicial treatment and the giving of favors.

“Mas magpokos sana sa mga immediate problems kagaya ng mga nakawan, gawan agad ng aksyon at ng maresolba. Sa mga traffic enforcers na pulis, sana kung may violation, hulihin at dapat walang palakasan system.” (Focus more on immediate problems such as robbery, act promptly to solve them. Police personnel who are enforcing the traffic, apprehend offenders without any prejudice/bias if there are violations.)

In Sorsogon, government employees also expressed their concern regarding the motorcycle driving of minors and those without license. This is a common cause of vehicular accidents that often result to physical injuries and even fatalities.

“Higpitan ang mga nagda-drive na walang lisensya lalo na ang mga menor de edad...” (Drivers who are still minors and have no license must be strictly apprehended/prohibited from driving.)

These comments complement those from the drivers/operators of the transportation sector, particularly in the manner that the police personnel interact/communicate with them.

“Sana maayos sila sa pakikitungo at pakikipag-usap sa amin lalo na kung may violation kami bilang driver kasi minsan galit sila.” (We hope that they [PNP] are relate and talk with us properly/civilly because sometimes they are angry.)

“May ibang pulis na pag kilala nila ang driver na nahuli nila na may violation ay hindi nila ito tinutuluyang hulihin.” (There are some policemen who don’t arrest/apprehend drivers they know/are familiar to them but who have violations.)

The inadequate number of police personnel conducting patrols was noted in Camarines Norte. This hinders them in responding effectively during emergency situations/incidents.

“Kulang ang mga nagpapatrolya at nagrorondang pulis sa lansangan, upang tumugon sa mga krimen at problema sa trapiko.” (The number of police personnel patrolling the streets is inadequate to respond to criminal incidents and traffic problems.)

A request for more constant patrols especially in dark/secluded areas, the emplacement of checkpoints and strict implementation of the curfew was also proposed.

“Dalasan ang pagpapatrolya, lalo sa madidilim na lugar, maglagay ng checkpoint, maghigpit at ipatupad ang curfew hours.” (Conduct more frequent patrols especially in dark areas. Establish checkpoints and strictly impose curfew hours.)

These are related to a plaintive appeal from Catanduanes:

“Nasaan kayo pag kailangan na kailangan kayo?” (Where are you when you’re badly needed?)

In Naga City, a recommendation proposes the same but with emphasis on young persons who wander/loiter in the streets and often cause trouble.

“Dapat po palagi silang mag-roving lalo na po sa mga dilengkwenteng lugar na pag dis-oras na ng gabi. Karamihan sa mga kabataan now [sic] ay palaging nasa kalsada, na syang pinagmumulan ng kaguluhan.” (They should always do their rounds especially in delinquent/accident-prone places during night time. Most of the youth nowadays are always on the streets in which they are prone to encounter trouble.)

Moreover, the negative comments are mostly about the inability of police personnel to implement ordinances since they themselves are the violators. Other remarks pertain to their lack of respect to the people who interact

with them. Program/project implementation is also short-lived and unsustainable – enthusiasm and interest is only in the beginning.

“Hindi nila napapatupad ng matino ang mga ordinansa dahil minsan sila pa ang nangunguna sa paglabag nito. Ningas kugon lang ang iba minsan nakakalimot silang gumalang sa mga nakakasalamuha nila. Dinadaan sa init ng ulo.” (They are not able to implement the ordinances because sometimes they are the ones who violate them. Some of them are unable to follow through on their duties and they tend to forget to respect the people they’re dealing with. They are hot-tempered.)

Public Security. With regard to public security, contrasting comments from the respondents either express their confidence that the PNP provides their communities adequate security – or the lack of police personnel and patrols expose them to threats and harm from criminals and terrorists. In Albay, a remark expressed the satisfaction about the security and safety that police presence/visibility provides them.

“Masaya ako dahil marami pa rin sa mga kapulisan ang ginagawa ang kanilang tungkulin sa bayan. Kampante din ako na maglakad ako/aking pamilya kahit gabi na sa daan dahil maraming pulis ang nagpapatrol. Mataas ang seguridad sa aming lugar.” (I am happy that there are still many police personnel who fulfill their duty to our country. My family and I are also confident to walk even at night because of police patrols. Our place is highly secure.)

This comment was also reiterated in Mandaon, Masbate.

“Ako po ay kampante na ligtas kaming mag anak kahit anung oras.” (I am at ease/confident that our family is safe at any time.)

An elected official in Gubat, Sorsogon emphasized the current insurgency situation/terrorist threat especially in remote communities (barangays/barrios) in this municipality. This observation was confirmed by a farmer.

“Hindi masyadong napagtutuunan ng pansin ang mga barangay na malayo sa bayan dahil na rin siguro sa mataas na threat ng engkwentrang NPA sa mga remote areas.” (Far-flung barangays are not given adequate attention, probably because of the high chance of encounters with the NPA in these areas.)

“May mga pulis na naka-duty sa mga outpost na gabi na. Sa lugar namin hindi dapat, kasi madali silang makilala at nagiging target ng masasamang loob.” (There are policemen who are still on duty in their outposts at night. In our place this should not be, because they are easily identified and targeted by criminals.)

To this, a teacher suggested that:

“Kung may duty kapag gabi sa mga bayan iwasan ang nakasuot ng uniform.” (Avoid wearing [PNP] uniform when on night duty in the town proper.)

This is directly related to the comment of another educator, who connects police/military presence in their community as additive factor to danger instead of security.

“Mas lalong hindi safe ang community if there is a presence of men in uniform/ policeman.” (The community is even less safe if uniformed personnel (i.e. AFP, PNP) are present.)

It must be noted here that there were several attacks against a police outpost and the municipal PNP station of Gubat in Sorsogon Province during the last quarter of 2017. These were claimed by the terrorists. The comments and recommendations of the respondents from this town must have been directly affected/influenced by these incidents.

PNP Campaign against Illegal Drugs. Almost all of the respondents in this survey support the PNP campaign against illegal drugs. In Camarines Norte, these comments express the public's appreciation of the PNP and its conduct of this program and other tasks.

“Laging alerto sa pagpapatupad ng batas, 24/7 na maaasahan lalo na sa illegal na droga.” (They are always alert in implementing the law. They are dependable 24 hours/7 days a week especially against illegal drugs.)

“Maganda ang naging resulta ng programa laban sa droga, nabawasan nag mga nagtatambay sa gabi dahil sa curfew. Maayos na nagpapsunod ng batas trapiko.” (The anti-illegal drug program has good results; it decreased loiterers at night due to the curfew. Traffic ordinances are properly implemented.)

In addition, a respondent from Naga City recommends the intensification of the program in their community since it is still drug-infested.

“Mas lalong paigtingin ang pagsugpo sa ilegal na droga dahil doon sa lugar namin ay talamak pa rin.” (They should intensify/strengthen the war on drugs because it is still prevalent in our place.)

This supportive stance is restated in Albay – with the inclusion of terrorism and riding-in-tandem killings. However, this respondent added that the innocent must not be harmed in the campaign.

“Ipatupad ng malawakan ang programa sa terorismo, ilegal na droga at maging ang riding in tandem na walang naapektuhang inosente at maliliit.” (Implement a comprehensive program/campaign against terrorism, illegal drugs and riding-in-tandem shootouts without harming/affecting the innocent and marginalized people.)

The appeal for the proper enforcement of the law is also reiterated in Masbate, to ensure that innocent civilians will not be affected.

“Dapat siguraduhin ang pagpapatupad ng batas na walang pinapanigan at walang kinikilangan para walang mabiktima na inosente sa pagpapatupad ng batas.” (Make sure that in enforcing the law, there should be no prejudicial treatment or biases on anyone so that innocent persons will not become victims.)

In Sorsogon, a member of the academe stated her indecision/ambivalence about the anti-drug campaign, especially regarding the killings she must have heard about. This was reiterated by an informal worker who expressed his uncertainty about the necessity of the killings. Moreover, he also added that policemen are observed in gambling places and cockpits.

“Oo, maganda ang layunin nila sa programa nila laban sa illegal an droga at illegal na sugal pero hindi ko talaga maintindihan kung bakit kailangan may mamatay? Pagdating sa sugal, marami sa mga pulis

dito sa atin makikita mo sa sugalan at sabungan.” (Yes, the PNP anti-illegal drugs and gambling program has a good purpose but I don’t really understand why some persons have to die. About gambling, there are many policemen here who are seen in gambling places and cockpits.)

Conclusions

The Philippine National Police in Bicol Region performed well in the delivery of their programs and services along their mandates as revealed by the positive excellent net rating from Bicolanos. The PNP gained a positive very high trust and respect rating from the community of different sectors in the region. The provinces of Camarines Norte and Camarines Sur have the highest public safety and security rating from the community among the seven areas of analysis. The Province of Catanduanes has the lowest good net approval rating from the community on public safety and security following Naga City and Sorsogon Province with private and government employees provided the lowest rating. The judiciary sector provided the lowest net approval rating on PNP programs against criminality while the academe has the lowest net approval rating on PNP campaign against illegal drugs. Furthermore, the PNP gained favorable commitment of support from the community especially the elected government officials, academe, agriculture sector, business sector, government and private employees, informal workers, parents and youth sectors on their campaign against illegal drugs, terrorism, riding in tandem, and illegal gambling. There were positive and negative feedbacks from the community per sector among the provinces in the region that need utmost attention by the PNP administrations and personnel.

Recommendations

Based on the derived conclusions of this study, it is recommended that the Philippine National Police may continue and maintain their excellent image from the public by performing their duties and responsibilities in the community with impartiality from all walks of life regardless of the status. Cognizant to the PNP vision and mission, the PNP may strengthened their partnership and collaborations with the different sectors towards a more responsive and committed patriotic community in maintaining peace and order and ensuring public safety and internal security in the region. Involvement of the community on PNP programs is a strong force in maintaining the peace and order as well as public safety and security in the community. Results of the survey may be considered by the PNP RO5 in the strategic planning workshop as well as in regional policy formulation and enhancements. The regional office may concentrate their interventions on the area where they got the lowest rating base on community perceptions. Furthermore, feedbacks from the community per sector among the six provinces may be considered by the PNP for continuous improvement of the delivery of programs and services to the Bicolanos.

Acknowledgment

The Sorsogon State College Office of Research and Development Services would like to extend their deepest gratitude to the research team who worked hard in the accomplishment of the reports in every provinces, the

Provincial Government of Albay, Camarines Norte, Camarines Sur, Catanduanes, Masbate, and Sorsogon together with the concerned Municipal LGUs in Bicol region for the support provided to the research team and the Philippine National Police RO5 as well as to the enumerators and tabulators who offered wholeheartedly their time and effort in the gathering and summarizing the data collected from the respondents. Above all, the Almighty God for the protection and guidance to SSC, Provincial and Municipal LGUs, and PNP RO5 staffs for the successful implementation of this project.

References

- [1] Bicol Crime Volume Down published October 10, 2017 by Bicol Standards. Retrieved from: <http://www.bicolstandard.com/2017/10/bicol-crime-volume-down.html>
- [2] Overview of the PNP. Retrieved from: <http://www.pnp.gov.ph> Published August 21, 2016.
- [3] Overview of the Bicol Region. Retrieved From: <http://nap.psa.gov.ph/> Published November 2012.
- [4] <https://www.surveysystem.com/sscalc.htm>, 2012.
- [5] Mateo, Janvic (2017). "Polls shows record-high trust for AFP, PNP". The Philippine Star. January 25, 2017. From: <http://www.philstar.com>
- [6] Patalinghug, Mark E. (2017). "Implemented Crime Prevention Strategies of PNP in Salug Valley, Zamboanga Del Sur, Philippines". Asia Pacific Journal of Multidisciplinary Research, Volume 5, No. 3, August 2017. From: www.apjmr.com
- [7] Philippine Republic Act No. 8551 "Philippine National Police Reform and Reorganization Act of 1998". February 25, 1998
- [8] Philippine Republic Act No. 6975 "Department of the Interior and Local Government Act of 1990". December 13, 1990.
- [9] Philippine Republic Act No. 6713 "Code of Conduct and Ethical Standards for Public Officials and Employees". Quezon City. April 21, 1989.

Serving Clients in Central Appalachia: Self-efficacy of Mental Health Counselors with Assessment of and Intervention for Substance Use

Darlene B. Vaughn

Lindsey Wilson College, United States,  <https://orcid.org/0000-0003-4285-4525>

Abstract: Two hypotheses, examining levels of self-efficacy for providing substance use services in mental health counselors and whether external variables impacted the reported self-efficacy, are presented. In Central Appalachia 65 licensed mental health counselors completed the Substance Use Self-Efficacy Scale (SATSES) and answered demographic questions. Hypothesis 1 stated mental health counselors in Central Appalachia would self-report low levels of perceived self-efficacy in providing services to clients with substance use issues. This hypothesis was not supported by the research findings. Hypothesis 2 specified level of education, credentials, number of graduate substance abuse classes completed, number of continuing education hours on substance abuse, length of time in field of counseling, and length of time working with substance using individuals as potential predictors for counselors' reported levels of self-efficacy. Hypothesis 2 was supported. Ancestral roots of the Appalachian culture as relate to the current substance use epidemic are exposed. Challenges in andragogy, service systems, and for providing effective interventions for the Appalachian epidemic are discussed.

Keywords: Appalachian culture, Substance use, Counseling, Mental health, Self-efficacy

Introduction

This research examined whether licensed counselors in Central Appalachia feel prepared in effective assessment of, response to, and intervention with a clientele immersed in an epidemic of substance use. A demonstrated need exists for clinical readiness in work with this impoverished and neglected minority group. Drug use fatalities have more than doubled in the past ten years in Central Appalachia (Centers for Disease Control, 2017; Virginia Department of Health, 2017).

Society is afflicted by prolific substance use, and counseling professionals need to assess for and address signs and effects of substance use as a co-occurring disorder or contributing factor (Chandler, Balkin, & Perepiczka, 2011). National and Appalachian substance use data and ethical code obligates all licensed counseling practitioners to consistently provide substance use assessment in routine client interactions (SAMHSA/NSDUH, 2016; Centers for Substance Abuse Treatment, 2015). Although counseling in Central Appalachia is provided

by a variety of professionals with or without specialization in substance use, licensed counselors are the subject of this inquiry.

Definition of Terms

1. Efficacy: the aptitude for producing a wanted or intended result.
2. Self-Efficacy: a high level of belief in self to regulate reactions to environmental stressors, engage choice, be self-motivating, recognize personal accomplishments, anticipate future consequences, set goals, self-evaluate, and strive for improvement (Bandura, 1977). This belief in self effects performance and is also influenced by self-perception of performance (Tang & Russ 2007).
3. Central Appalachians: individual and family residents of a mountainous region in the eastern United States that includes eastern Kentucky, West Virginia, northeastern Tennessee, southwest Virginia and northwestern North Carolina as defined by the Appalachian Region Commission (2018).
4. Substance Use: ingestion of alcohol and/or a legal or illegal drug for the purposes of altering mood or to change feeling. Consumption can be oral, through smoking, insufflation, absorption, or injection (DrugAbuse, 1018).
5. Licensed Professional Counselor: an individual who has completed the educational and credentialing requirements for their state of practice and is identified as LPC or LPCC. Regulated by state licensure and follow nationally established counseling standards related to ethics and practice.
6. Ethics: standards for counselor competence in clinical intervention for substance use that in supposition provide uniformity for client care and professional practice. The substance use specific guidelines are produced in Department of Health and Human Services' Technical Assistance Publication 21, TAP 21 (2015).
7. Competent assessment: during every mental health assessment, inquiry is made by the counselor about current and historical substance use by the individual being assessed, their family, social circle, and other natural support systems.
8. Clinical interactions: face-to-face or telephonic contact with an individual seeking mental health or substance use services, whether they are referred by self, family, or mandate.
9. Efficacious treatment planning: collaboration between the licensed counselor and the individual to address possibly unspoken areas of concern regarding substance use by the individual, another person(s), or circumstance in setting a plan for cognitive, emotional, and behavioral change.
10. Case coordination: licensed counselor assists the individual to enact a plan of action related to their emotional and environmental hierarchy of need, advocating on behalf of the individual, and linking the individual with identified providers for assessed need(s) where possible.
11. Counseling: provision of person-centered intervention by a licensed counselor based in theory and empirical outcomes, and includes experiential, mood, and cognitive change for the recipient and lessening or alleviation of the presenting stress response.
12. SATSES (Substance Abuse Treatment Self-Efficacy Scale): an assessment of counselor efficacy in work with substance users that addresses assessment, treatment planning, case management,

counseling, and ethics. This instrument provides a direct measure of respondents' perceptions of themselves as substance abuse service providers (Kranz & O'Hare, 2006).

Appalachia

Specific ideology defines the construct of a population. Hofstede (2001) stipulated that population data must: (a) describe, not evaluate, (b) be verifiable, (c) apply to a statistical majority, and (d) delineate discriminating characteristics that differ from other populations. Marginalized populations live outside society's mainstream and have a differing set of assumptions about societal structure, success, health, and meaning in life (Bubbenzer (2007) and West (2007) in Marotta & Watts, 2007). With origins in settlement of the United States a unique culture named Appalachia remains cradled by the oldest mountain range in North America. From Alabama to New York a slowly modernizing terrain captures the eye, but transgenerational imprints of rustic memories, connection to the earth, and traditions of cautious suspicion prevail. Professional literature on the people who live there is limited (Tang & Russ, 2007).

Social learning theory by Bandura (1997) asserts an individual should be (a) self-organizing, (b) proactive in conceptualization, (c) self-reflective, and (d) self-regulating. Appalachians differ from mainstream Americans in their local history, but even more so in value orientation (Adams, 2001). Peine & Schafft (2012) normalized the region's marginalization, describing Appalachia as a region engaged in a battle to the death with modernity. The constructs of Appalachian culture are framed in relationships between people, places, and institutions that both implicitly and explicitly challenge each other's authority and legitimacy (Peine & Schafft, 2012). Within-group differences exist but cultural themes, like the conveyance of trust and solidarity of the family are shared throughout the region regardless of social class (Tang & Russ, 2007).

Lance (2017), portrayed a family's economically driven egress from Appalachia, and revealed many cognitive impressions, personal and interpersonal behaviors, mores of the heritage, and direct experience in Central Appalachia. He exposed how its residents maintain the system of social stratification evidenced by distinct rankings of privilege, power and prestige after the move. In truth, the strata manifests as an elite working class, a stable working class, and an underclass outside the economic structure, present in Appalachian ancestry since before the United States was originally settled (Cunningham, 1991; Porter, 2001).

Appalachian Culture

Central Appalachia is comprised of southwest Virginia, eastern Kentucky, most of West Virginia, western North Carolina, and eastern Tennessee, and its many inhabitants reside in impoverished, underprivileged enclaves of blended culture (Appalachian Regional Commission, 2018; Joyce, 2014). Modern visitors witness strong cultural ties and catch glimpses of a past, simplistic life that lags behind their own. Appalachians remain true to early Native American and European hegemony and place great value on work, social capital, and their family

histories, influence, and structure (Keys, Cerda, Brady, Havens & Galea, 2014; Porter, 2001). Social standing is dependent on family, status is allocated within the context of who they are in the community rather than what they do, and family lineage and kinship has more value than degrees or recognition (Tang & Russ, 2007). Family, community, and social ties buffer the stress of economic hardship that results from unemployment and lack of available industry in this mountainous area (Porter, 2001).

Immersed in the existing class stratification structure, young adults in already impoverished Appalachia are severely impacted by downward social drifting (Porter, 2001; Salyers & Ritchie, 2006). Appalachia's young adults are often unaware of educational opportunities. Traditionally, focus on individual goals and interests is often criticized because benefit for the family surpasses individual interest (Tang & Russ, 2007). By remaining in these poor communities, they amass life problems through risk factors such as substance abuse and dependence. Although levels exist in social strata, layers within the Appalachian underclass are endemically involved in the drug subculture (Porter, 2001). For outside observers these social realities may seem enigmatic (Salyers & Ritchie, 2006).

Statement of the Problem

As an historical collective representation, many native Appalachians personally know the ravages of multi- and transgenerational substance use. A prevalent lack of awareness for change and an existing lack of personal initiative confounds the effectiveness of counseling interventions.

Substance Use

New physiological, neural, and cognitive responses are introduced to the individual through all recreational and prescribed substance use. These responses are the most apparent problem in rural areas such as Appalachia (Chubinski, Walsh, Sallee & Rademacher, 2014; Keyes, et al., 2014). Despite legal variance state to state, widespread use of cannabis is normalized in modern society. Indiscriminate use of often lethal pharmaceuticals is a pastime rivaling any national sporting event (Centers for Disease Control (CDC), 2017; Chubinski, et al., 2014; Virginia Department of Health, 2017). Chemically treated substances with non-consumption labels are consumed for recreational effect, sometimes resulting in a lingering psychosis (Gowing, et al., 2015). In Appalachia, the illicit sale and use of pills has become modern moonshining (Macy, 2018). Nearly half of the adults who report substance use are diagnosed with a co-occurring mental illness (Fisher, McCleary, Dimock, & Rohovit, 2014). Whether drug use creates or complements mental illness, the effects are proving devastating (CDC, 2017; Virginia Department of Health, 2017).

Plaut (1983) as cited by Cunningham (1991) discerned that Appalachians are nonconformist rebels who demand recognition of their existence by ancestry, and who filter consequences through a culture of deep pride, autocratic ambivalence, and undiscovered efficacy (Cunningham, 1991; Myers, 2013). In 2014, Joyce provided a chronological accounting of how drinking and alcohol distilling at the community level was normalized before

the country's original citizens and settlers began to acculturate and is a viable industry in contemporary society. Following the Civil War, addiction was severe in the South as men and women alike tried to deal with slavery ending, their families' losses, and the insecure economy (Macy, 2018). Although circumstances have differed hence, the coping pattern of use was never interrupted. Although producing tremendously negative effects on the individual's functional life or on the effectiveness of a person navigating daily life, the coping deficit of substance use is attractive when individuals negotiate poverty as a lifelong experiential process (Gowing, et al., 2015).

Intervention

Annual studies by governmental researchers chronicle the coping deficit of substance use as ever-increasing phenomena (SAMHSA/NSDUH, 2016; World Health Organization, 2010). With lethal use in epidemic proportions, the assumption can be made that a positive correlation exists between increased levels of substance use and the likelihood that any counseling practitioner, with or without specialization, will encounter experimentation, addiction, and the effects of substance use.

Counselors with extended education have higher levels of conceptual complexity and moral reasoning (Sias, Lambie, & Foster, 2006). Counselors must be accountable to the well-being of their clients (Marotta & Watts, 2007). A responsible response to substance use warrants direct, unbiased, and comprehensive assessment for use and its' effects with every client, and that use be addressed competently in routine clinical encounters. Commonly, as counselors engage self-development and a professional identity, the blend results in personal growth and a sophisticated sense of self as a counseling professional (Healey & Hays, 2002), interpreted as self-efficacy.

Programmatic and counselor transparency, consistent demonstration of genuine person-centeredness, and collaborative approaches to therapeutic alliance are successful interventions (Bride, Kintzle, Abraham, & Roman, 2012). In contrast, in an evaluation of social worker and substance use counselor preparedness to provide substance use treatment, Baldwin-White (2014) discovered that stigma and judgmental expectation for personal control exist within a culturally rigid system of care which results in negatively impacts service delivery.

Education and Training

Unfortunately for all settings and populations, dramatic disparity exists in resource allocation to combat the problems of substance use and dependence (Keyes, et al., 2014; Mellin, Hunt, & Nichols, 2011). Although effective, co-occurring treatment remains novel in rural communities (Myers, 2013). With help substance users can overcome emotional, environmental, and cultural barriers, but counselors and human services workers need to be informed and aware of signs and symptoms of substance use (Keyes, et al., 2014).

Training deficiencies are a conundrum for counselors and social workers (Myers, 2013). Both identified a

paucity of content in educational programs' integration of mental health and substance use curricula (Baldwin-White, 2014; Fisher, et al., 2014). Education and certification requirements are met in graduate degree curricula, but standards of care are regulated at the state level, and ethical expectations are set and guided by national organizations. Although the Center for Substance Abuse Treatment (CSAT)'s TAP 21 (2015) outlines formal competencies for addiction counseling, since the inception of credentialing, licensing requirements for substance use counseling have been less stringent than those for professional counseling.

Experimental Hypotheses

To more specifically address the limited response to Central Appalachia's substance use problem, two questions are asked:

Question 1. What is the level of counselor self-efficacy regarding a) assessment and treatment planning, b) ethics, c) case management, d) individual and group counseling reported by professional counselors treating substance use clients in Central Appalachia?

Question 2. What specific factors, such as education, continued training, and experience in treating substance use clients account for perceived self-efficacy in education hours on substance abuse, length of time in field of counseling, and length of time working with substance using individuals will predict level of counselor self-efficacy.

The SATSES was chosen as the primary instrument for this query.

Instrument Origins

Applying Bandura's (1977) self-efficacy theory, Melchert, Hays, Wiljanen, and Kolocek (1996) looked at counselor development and self-efficacy through use of the Counselor Self-Efficacy Scale (CSES). To examine change in psychology students and licensed clinical psychologists across a broad range of training and experience they hypothesized positive correlations would exist between CSES scores and higher levels of counseling experience when measured with level of clinical training and experience. The researchers examined construct validity for the CSES. Values were significant for level of training $F(1, 135) = 66.25, p = .0001$ and amount of clinical experience $F(2, 134) = 49.85, p = .0001$. When combined, these factors accounted for a large amount of the variance in CSES scores at 43%, $R = .65$, with level of training slightly higher, 18%; partial $r_s = .43$ than that of clinical experience 14%; partial $r_s = .38$. Correlations between CSES scores and training was $r = .62$, CSES and clinical experience, $r = .55$, and between training and experience, $r = .48$. A trend toward greater self-efficacy on the CSES and more clinical experience was determined by consistently increasing mean scores for experience whether the experience was full- or part-time $F(6, 119) = 12.68, p < .0001$ (Melchert, et al., 1996). The CSES provided the foundation for the Substance Abuse Treatment Self-Efficacy Scale or SATSES (Kranz, 2003), the instrument used in this study. In examination with confirmatory factor analysis (Kranz & O'Hare, 2006) the SATSES was found to be a strong self-assessment for assessing perceived competency in substance use knowledge and skills, for program evaluation, and ideographic explorations as supported by this

study (Kranz & O'Hare, 2006).

Delimitations

The following delimitations were established for the study:

1. The author is a practicing substance use counselor in the Central Appalachia who encounters a lack of sufficient response to identified needs by a variety of counseling providers, the researcher offers a personal bias for the chosen topic.
2. Restricting the examination by assessment to licensed counselors in Central Appalachia would produce a more homogenous content sample.
3. Only LPCs and LPCCs were targeted for study participation. Tennessee offers two levels of credentials, the LPC and LPC-MHSP. The latter was the group chosen for study participation due to their ability to diagnose in clinical settings.

Limitations to Research Design

Design limitations exist in this study, one of which was sampling only licensed counselors who practice in Central Appalachia to the exclusion of other counseling providers in the region. This was done in order to assess counselor responsiveness to the epidemic. Other identified professionals who provide counseling, but were not included are social workers, psychologists, marriage and family therapists, and rehabilitation counselors. Another design limitation is restricting the sampling area to only states and counties identified as Central Appalachia by the Appalachian Regional Commission (2016).

Procedurally, design limitations included the survey and descriptive methods component and the use of non-random convenience sampling. Another limitation was use of an online survey tool as the primary resource for information exchange, and a fourth was a dependence on accessing accurate contact information on the member lists of state licensing Boards of Counseling in Virginia, West Virginia, Kentucky, North Carolina, and Tennessee.

Minimal literature exists on counselor efficacy in Appalachia and even less on regional counseling and substance use. This study could spark and expand discussion about substance use training needs in academic programs and by national, state, and local organizations. Counselors should be prepared to address the complexities of substance use, but limited research exists for counselor preparedness for work with Central Appalachians, clients whose cultural identity is based in substance use acceptance (Chandler, Balkin, & Perepiczka, 2011). The construct of acceptance (Laing, 1965) is supported in Cunningham's (1991) existential examination of how Appalachian life is influenced by an ancestral framework of thought and perception. Differing greatly from the existing dominant society, Appalachian people embrace a transgenerational belief that all things are possible in imagining but no possibility exists in fact, a topic explored in the following chapter

(Cunningham, 1991).

Review of the Literature

Review of literature relevant to this study included both broad and more narrow research describing three pertinent variables of inquiry. The first explored broader elements of learning for optimal human functioning within the effects of culture and narrows to basic constructs of Appalachian culture. The second reviewed Appalachia's detrimental enmeshment in a normalized problem of substance use. Recent social histories of Appalachia provide crucial contributions to professional literature (Anglin, 2004). The third narrowly examined need for competency in substance use counseling and broadens to a review of research on counselor preparedness for clinical intervention with this underserved population. A brief summary and alternating interpretation follows.

Human Behavior and Culture

In describing that humans learn to navigate the world through response to acquired information, Bandura (1977) suggested humans model observed behaviors and internalize expectations for efficacy that determine activities of choice, the amount of effort expended to engage in activities, and the level of sustained effort toward activities when stress occurs. He defined efficacious expectation as performance accomplishments, vicarious experience, verbal persuasion, and emotional arousal. He further assigned high efficacy as the capacity to cognate future consequences, set goals and self-evaluate, and when satisfaction saturation is reached, make self-reward contingent to higher goal attainment (Bandura, 1977).

Hofstede (2001) summarized culture as the mind program of a collective operationalized through values, symbols, heroes, and rituals that distinguish one group from another. He allocated responsibility for the individual's life choices and responses to genetics or learned behavior and uncovered how groups conserve mental programs and pass them on transgenerationally. Learning through transference of collective mental programs, childhood experiences of disadvantage can result in lifelong impact and consequence (Hofstede, 2001).

Cunningham (1991) provided an in-depth examination of the ancestral background of Appalachia. His work expounded on an existence of belief in ageless minority assignment, infantilism, and external domination of the culture. His history described how a weakened sense of autonomy breeds dependent functioning and an internal dialogue of exclusion, hardship, and retaliation. In an oppressed people for whom crises have distorted cognitions, childhood desires are revisited and inaccurate internalized categorizations from the dominant society are not overcome. Appalachians are designated as apathetic dreamers who lack the self-consciousness to become doers, or actors on their own behalf (Cunningham, 1991). The trajectory is demonstrative of the effects of unrelenting abject poverty.

Poverty in Appalachia

Poverty is the extent a person does without resources (Payne, 2013). A culture of poverty is degrading and embodies a constant struggle for survival, high tolerance for psychological pathology and violence, a predominant nuclear family, unemployment and underemployment, the chronic lack of cash, and a strong present time orientation with limited ability to defer gratification (Penchef, 1971). Rural poverty is described by Harrington (1963) as an impact on the classic poor occurring in the poorest, lowest, and meanest living areas. He shared how, at that time, Appalachia would need more than one million jobs to compare to the rest of America. Prophetically he envisioned that Appalachia would continue its' demise, eventually housing a culture devastated by poverty and despair, reserved for the old, the apathetic, and the misfits (Harrington, 1963). Although the isolative nature of the region contributes to continuation of high levels of illiteracy and Appalachians are often discounted or feared, they do not lack in complex and sophisticated reasoning (Adams, 2001). Unfortunately, the poor, conquered and desperate, consume and produce little and gain least from economic growth, thus perpetuating a lack of change expectancy transgenerationally through an unrewarded and unprotected relationship to the rest of society (Penchef, 1971). An accurate description of Appalachia is that of reflections of poverty off the backdrop of ancient mountains (Jackson & Shannon, 2012).

The 1965 Johnson Administration's War on Poverty defined the inhabitants of Appalachia but failed to account for their unique cultural identity, thus impeding efforts to address the confound of underlying issues or effect change in the insidious grip of poverty on the area (Adams, 2001). Fifty-three years later, in 2018, a report of Appalachia from 2012 to 2016 noted that in 2016, 17% of two-adult and two-child Appalachian families had incomes below \$24,036 and lived below the poverty level. This was nearly two percentage points above the national average of \$24,828 (Pollard & Jacobson, 2017). At least 20% of persons in Central, South Central, and Southern Appalachia were poor with per capita incomes of less than \$20,000. In disproportion, Central Appalachian households had \$19,216 per capita income annually (Pollard & Jacobson, 2017). In 1995, Central Appalachia households had the highest rate of poverty at 24.7%. By 2014 the poverty rate had risen to 24.9% for the same area (Marshall & Alcalde, 2017). Within over 4.2 million impoverished Appalachian persons reported in 2015, at least 1.3 million were under the age of 18 (Pollard & Jacobson, 2017).

Appalachian Schema

At birth, interpersonal connections between humans shape the unfolding brain through neuronal communication (Seigel, 2001). These connections influence development of emotional regulation, empathy, and autobiographical memory, the quality of which may depend on the nature of interpersonal communication in early life (Siegel, 2001). An individual's deepest self-awareness may be irrevocably influenced by experiences in early infancy (Siegel, 2001). Throughout the lifespan biopsychospiritual homeostasis is under constant attack by internal and external life prompts, stress, adverse situations, opportunity, and other changes (Richardson,

2002). People find life situations where they can embody their childlike, moral, intuitive and noble nature (Richardson, 2002). Lamphere, Ragone, and Zavella (1997) shared Scheler's (1961) definition of resentment as a culmination of unresolved feelings such as hatred, revenge, and envy that fester into an attitude.

The moniker Appalachian assigned to the region's people superimposes on a pre-existing reality. Post-Civil War prejudices precipitated a decline in an already limited infrastructure and educational system that resulted in a state of extensive involuntary isolation (Cunningham, 1991). Goad (1997) postulated how hundreds of years of sinking in a maelstrom of debt, overwork, and broken promises fuels demoralization. Individuals who are unable to express and release resulting feelings are dominated. An adult who has not resolved trauma or loss can exhibit behaviors that create situations for the child that are paradoxical, unsolvable, and problematic (Siegel, 2001).

An enduring people, residents of Appalachia have been described as unfitted, unprincipled, and savage. Depicted as lacking in maturation, it is suggested they could only achieve their destiny by conquering nature and by modeling the dominant culture (Cunningham, 1991). Rigid and private, people of Appalachian descent have been exploited economically for eons, suffering cultural and personal denigration as controlled victims of industrial and religious interlopers, and feel shame in their desire to abjure and inability to break free (Cunningham, 1991). In reality, Appalachia's natives realize they live in two worlds and speak two languages, one of mainstream culture and one of their own. With a longstanding minority status, they have few illusions about social mobility (Salyers & Ritchie, 2006).

Central Appalachians

Central Appalachians share distinguishing cultural traits that operationalize through collective values and practices (Anglin, 2004; Latimer & Oberhauser, 2004; Massey, 2007; Meredith, 2001; Porter, 2001; Smith, 2001). Despite the richness and strength of their histories and due to diverse multi-generational influences, they differ from mainstream America in value orientation and history (Adams, 2001). While the outside culture is rewarded by possession of attributes of power, Appalachians share a common identity and history binding them as people (Cunningham, 1991; Salyers & Ritchie, 2006). For many locales in Appalachia the originating blend of cultural influences remain prominent and a deprecating stereotype persists, produced by national imagination and culled from the insidious impoverishment that is woven into the rich tapestry of Appalachian identities (Cunningham, 1991; Massey, 2007).

Even though differing characteristics among Appalachian Americans depict as much diversity as that of mainstream cultures, today's Appalachians are one of the most impoverished and neglected minority groups (Appalachian Regional Commission, 2017; Salyers and Ritchie, 2006). For insiders, the people who live there and identify as Appalachian, both the people and their beliefs within the environment of pervasive poverty may be less striking, but for cognitive or residential outsiders, the people living in or outside Appalachia who are not

Appalachian, these realities may seem both problematic and overwhelming (Salyers and Ritchie, 2006). Without receiving consistent confirmation and by perceiving outside domination, Appalachians turn in on themselves and become self-defeating and self-perpetuating (Cunningham, 1991). Most disturbing is how Appalachia's underclass maintains its position through endemic involvement in the drug subculture (Porter, 2001). Culturally self-perpetuating, the youth are heavily affected.

Emotions, Parenting, Youth, and Substance Use

Brain imaging reveals that specific emotions activate different parts of the brain (Ivey & Zalaquett, 2010). Humans have a basic need for pleasure states and pleasure strongly influences human action (Blum, et al., 2011). Some people believe drugs provide an acceptable means to feel pleasure (Blum, et al., 2011). Alcohol is cheap and easy to obtain, a legal drug with endemic roots in the origins of the United States, is devastatingly addictive, and is used with ever-increasing incidence (Gregg, 2012; Joyce, 2014). Many rural community residents are less likely to drink safely, and a significant number receive multiple driving under the influence (DUI) convictions (Webster, Pimentel, Harp, Clark, & Staton-Tindall, 2009). Substance use by adolescents is a huge problem in the United States (Gregg, 2012; SAMHSA/NSDUH, 2016). In impoverished areas where cultural norms run deep, youth raised around adult behaviors that normalize alcohol and drug use are more likely to engage in the same behaviors (Hamilton, Noland, Riggs, & Mullineaux, 2010).

Figueredo and Rushton (2009) contextualized a view of individuals' life histories that were termed fast life and slow life histories. Fast life histories were characterized by a high allocation of energy resources to mating, instead of attending to somatic care and parenting effort, and slow life histories show an opposite allocation (Richardson & Hardesty, 2012). Research on effects of parental monitoring and perceptions of peer drinking assessments on adolescent drinking in Appalachia resulted in significant findings (Hamilton, et al., 2010).

Using a parental monitoring 4-point Likert scale that ranged from "never" to "all of the time" and a 5-point Likert scale for perceptions of peer drinking that ranged from "all of them" to "none of them", for the variable "ever been drunk in lifetime", $n = 648$ youth with a "non-biological male guardian", and "some peers who drink" or worse "many peers who drink" had "low parental monitoring", and were more likely to drink (Hamilton, et al., 2010). For male biological and other guardian categories where perception of peer drinking was defined as being few, some, or many, and parental monitoring was measured at high or low, a regression of "ever been drunk in lifetime" and "drank in the last 30 days" provided correct classifications at 69% and 71% (Hamilton, et al., 2010). A culturally-based low-monitoring parenting style that complements the availability of alcohol is prevalent in Appalachia.

In Appalachia, alcohol isn't the only malady of substance use nor is the acceptance and practice of use in the culture (Webster, et al., 2009). In rural areas alcohol consumption is frequently accompanied by a dramatic likelihood of stimulant use, and concurrent use of other, multiple substances is of even greater concern (Webster, et al., 2009). In the methamphetamine and opioid crisis, fatalities are increasing (CDC, 2017; Virginia

Department of Health, 2017).

Pervasiveness of the Problem

Prior to current substance use epidemics, using and related high-risk behaviors were already burgeoning in rural settings and substance use was identified as a growing public health and societal problem (Momper, Delva, Tauiliili, Mueller-Williams, & Goral, 2013). Illicit drug use rose from 4.1% in 2007 to 6.1% in 2008 in counties described as ‘completely rural’ throughout the United States, and often concurred with sexual, domestic and physical violence, crime, and self-injury (Chubinski, et al., 2014; Gregg, 2012; Keyes, et al., 2014; Myers, 2012). In 2008 adolescents, in southern rural schools, grades seven to nine, ages 15 and up, reported significant drug and alcohol use patterns (Myers, 2013). A study on gender and first use of substances in adolescents found males began use of hallucinogens, methadone, tranquilizers, heroin, cocaine, and phencyclidine at younger ages than their female counterparts, but misuse of opiates occurred within the same time frames regardless of gender (Shannon, Havens, Oser, Crosby, & Leukefeld, 2011).

According to statistics from the SAMHSA (Substance Abuse and Mental Health Administration, 2016) and a worldwide report of addictive behaviors (Gowing, et al., 2014), the most commonly used illicit drug is cannabis. In a four-year period, the number of admitted cannabis users grew over 40% (SAMHSA/NSDUH, 2014; SAMHSA/NSDUH, 2016). Although alcohol is legal and a reported 7.5% of the population is smoking marijuana, there is growing evidence that use of prescription stimulant and benzodiazepines is increasing, especially in young adults and adolescents (Keyes, et al., 2014; SAMHSA/NSDUH, 2016). The rise in nonmedical use of and dependence on prescription drugs has become one of the most significant public health issues in the past three decades (CDC, 2017; Hall, Leukefeld, & Havens, 2013; Keyes, et al., 2014). Individually, alcohol, benzodiazepines and opioids depress the central nervous system. When used alone or in combination, medical overdose can result (Chubinski, et al., 2014).

Commonly Abused Drugs

Alcohol

In 2015, worldwide, 3.3 million individuals died of alcohol consumption (Statista, 2018). The same year in Appalachia, alcohol was responsible for 11.4% of the mortality ratio (Meit, 2017). As early as the 1980s concerns were raised about early onset alcohol use, dependence, and comorbidity of physical and mental pathology (Grant & Dawson, 1997). Episodic heavy drinking and acute alcohol intoxication are factors in alcohol poisoning in adolescents and the where, with whom, why, and when contribute greatly to excessive consumption (Grune, et al., 2017).

Alcohol use is normalized in the United States and early onset drinking is a public health concern (Grune, et al., 2017). Medically, drinking is a developmental concern since preadolescents and adolescents are particularly

vulnerable to drinking initiation and the development of alcohol use disorder often attributed to adolescent impulsivity (Grant & Dawson, 1997). By examining individual differences in executive functioning, Martins, Bartholow, Cooper, Von Gunten, & Wood (2018) determined that neither low or high levels of executive function can be identified as indicators for motives with alcohol use, heavy drinking, and alcohol-related consequences.

Benzodiazepines

Benzodiazepine misuse and abuse is a serious public health problem in the United States (Chen, Berger, Forde, D'Adamo, Weintraub, & Ghandi, 2011). Benzodiazepines are psychoactive drugs used primarily to treat anxiety and sleep disorders (Chen, et al, 2011). Their intended uses include anxiolytic, sedative hypnotic, anticonvulsant, and muscle relaxant therapy in low to medium doses. Because these medications are central nervous system depressants, inappropriate use can result in physical dependence (Chen, et al., 2011). Illicit use of benzodiazepines is popular due to the experience of feeling of relaxation and contentment, and a reduction in panic or agitation. These sedating drugs are extremely dangerous. Often prescribed and taken for long periods, repetitive use causes a naturally built tolerance that requires a higher volume of consumption to reach the desired mood and, since less effective, results in impulsive use of higher amounts of the drug in order to get the anticipated effect (American Addiction Centers, 2018; Pankratz, 2007). When abuse of the sedatives ends, or the familiar dose is significantly cut down, withdrawal symptoms emerge. Benzodiazepine withdrawal can be particularly dangerous, even life-threatening, and medical detoxification under the direct care of a doctor is generally advised (American Addiction Centers, 2018). In 2016 benzodiazepines were a contributing factor in 96.35% of overdose deaths in the United States (CDC, 2018).

Opiates

Though originally prescribed for pain management, opiate drugs have become a public scourge. Opioid use is typically lifelong battle with a high rate of relapse (Macy, 2018). Between 1999 and 2006 the synthetic opioid, methadone, was the most commonly implicated drug in overdose deaths in North Carolina and Oklahoma (Myers, 2012). Within the first decade of this century, a 98% increase in opiate-related deaths occurred over a four-year period (Momper, et al., 2013). In 2013, illicit methadone use resulted in multiple hospitalizations and deaths in Kentucky (Hall, et al., 2013). Nonmedical use of prescription opioids is a major health problem in a majority of communities throughout the United States, including rural settings, Native American reservations, and especially in Central Appalachia (Momper, et al., 2013; Gregg, 2012; SAMHSA/NSDUH, 2016).

According to the Centers for Disease Control (CDC), opiates were implicated in 33,091 deaths in 2015, with opiate overdoses quadrupling since 1999 (CDC, 2017). In 2016, more than 63,600 drug overdose deaths occurred nationally, and West Virginia ranked highest at 52.0 deaths per 100,000 residents (CDC, 2017). Occurrences of fatal use of synthetic opioids other than methadone, defined in part as fentanyl, fentanyl analogs, and tramadol, doubled between 2015 and 2016, an increase from 3.1 to 6.2 fatalities per 100,000 residents

(CDC, 2017). Nationally, research gathered in 2016 identified hydrocodone as contributing to 3,199 overdose deaths, oxycodone to 6,199, and heroin to 15,951 overdose fatalities (CDC, 2018). With ingredients purchased online from other countries, illicitly manufactured fentanyl is a direct source of fatality in the misuse of synthetic opioids contributing to 18,335 overdose deaths in 2016 (CDC, 2018; Jones, Baldwin, & Compton, 2017). The dramatic increase in fatalities from opioid drugs resulted in the declaration of a public health emergency in the fall of 2017 (Pres. Comm. on Combating Drug Addiction and the Opioid Crisis, 2017).

Stimulants

Stimulants are both illicit and pharmaceutical drugs that amplify various physiologic processes throughout the brain and body. Individuals with a history of misusing prescription stimulants or those with peer group acceptance of the behavior are more aware of the effects of using these drugs than those who have no history of use or friends who use (Lookatch, et al., 2014). Heightening dopamine release, the result is a powerful sense of well-being, increased energy, attention, and alertness (Drugabuse, 2018). Chronic use of stimulants is commonly associated with cognitive impairment (Wang, Fan, Bao, Li, Liang, Wang, Ma, Han, Meng, Wu, Shi, & Lu, 2017). High rates of use of stimulant drugs have dramatically increased levels of presenting psychosis during mental health interventions (World Health Organization, 2018).

Two popular illicit stimulants are cocaine and methamphetamine. Derived from the coca plant, cocaine's powerful stimulant effects are short-lived thus increasing its potential for abuse (Drugabuse, 2018). Mortality rates from cocaine use increased significantly from 2000, 1.26 to 2.50 per 100,000 in 2006, declined significantly until 2010, 1.35 per 100,000, and by 2015 had increased to 2.13 per 100,000 (Jones, Baldwin, & Compton, 2017). Methamphetamine, as described by Goad (1997) is a powerfully addictive psychostimulant that affects the brain and central nervous system. Manufactured from household products, methamphetamine poses a serious threat to health, social, and economic conditions in families, communities, and nations (Drug Policy Alliance, 2018; World Health Organization, 2018).

Need for Counselor Preparedness

With years of availability of mind-altering substances, it could be speculated that historically the estimation may have been low that one in ten mental health clients probably needed substance use treatment (Googins (1984) in von Steen, Vacc, & Strickland, 2001). Realistically, an increasing number of individuals continue to present with comorbid mental health and substance use disorders (Grootjans, Hunt, Cresswell, & Robinson, 2005). According to the National Institute on Drug Abuse (2011) the symptoms of these comorbid disorders are more persistent, intense, and impervious to treatment than a single disorder presentation (Fisher, et al., 2014). And the past five years have, at times, fatally spoken for themselves (Centers for Disease Control, 2017; Virginia Department of Health, 2018).

The counselor's accountability to the well-being of those they serve is the basis for best practice (Marotta & Watts, 2007). In practicality, the readiness to identify and address symptoms of substance use as a co-occurring disorder is a real competency need for all disciplines in combating the substance use epidemic that is devastating Appalachia. Although federal focus has finally shifted to address barriers to treatment delivery, an ever-narrowing lack of funding is maintained to provide for client needs, resource access, continuing education, and retention of qualified staff (Pullen & Oser, 2014).

Effectiveness of Training, Treatment, and Evidence Based Practice

An examination of evidence-based practices compared social worker and counselor attitudes about the use of motivational interviewing and contingency management and found 82% of counselors reported use of motivational interviewing, rating effectiveness $M = 5.96$, $sd = 1.11$ and acceptability $M = 6.47$, $sd = 0.98$ (Bride, et al., 2012). There were significantly lower differences and a large effect size with counselors' ratings for contingency management. With only 18% of respondents using contingency management, the results for effectiveness were $M = 4.83$, $sd = 2.03$ and for acceptability $M = 5.36$, $sd = 1.98$. Participating social workers rated effectiveness of motivational interviewing higher than counselors and used more motivational interviewing than their counterparts (Bride, et al., 2012).

Beyond macro-level issues affecting the client-counselor dyad, common factors prevail in the relationship, client characteristics, therapeutic qualities, and change process (Hauser & Hays, 2010). In Appalachia's mountainous terrain, poverty and lack of public transportation confound service access. An added dimension of challenge for providers in Appalachia is burnout within an organizational one-stop shop mentality that has resulted in excessive caseloads, varied duties, and territoriality between area providers (Baldwin-White, 2014). Oftentimes, professional counselors may not even be aware of federal guidelines for clinical intervention about substance use.

TAP 21

The fact that the TAP 21 (CSAT, 2001) competencies exist demands attention be given to transgenerational substance use in Appalachia. One hundred twenty-three competencies are divided into eight practice dimensions. The first 23 competencies are dedicated to prerequisites that include understanding addiction, treatment knowledge, application to practice and professional readiness. These competencies cover clinical evaluation, screening, and assessment, referral process, service coordination, treatment planning, consultation, and continuing assessment and treatment planning. Next competencies on counseling divide into individual, group, families, couples, and significant others. Final competencies are listed for education, documentation, professional, and ethical responsibilities (CSAT, 2001).

An Appropriate Skillset

In addition to TAP 21 competencies (CSAT 2001), seminal work on training counselors to work in Appalachian communities was offered by Schnopp-Wyatt, Fleming-Richardson, Trout, & Warren (2014) who encouraged use of Cognitive-Behavioral, Solution-Focused, Reality therapies, and indirect questioning as intervention routes. Suggesting the clinician practice punctuality, become well educated on Appalachian cultural norms, and be self-evaluative for potential cultural bias, they charged the counselor to use person-centered terminology, avoid demands or direct suggestions, be collaborative and empowering of the individual, and to involve the individual in all facets of treatment planning (Schnopp-Wyatt, et al., 2014). Last, and importantly, the researchers directed the counselor to become and stay aware of social, religious, and familial stimuli in the individual's life (Schnopp-Wyatt, et al., 2014). A respectful approach assumes individuals have implicit strength, desire to change, and the ability to achieve change (Linton, 2005). Optimally, with sobriety the individual's awareness of subsequent benefits can increase and allow continued behavioral change (Leukefeld, Godlaski, Clark, Brown & Hays, 2000; Miller, 2014; Miller & Rose, 2009).

A Dilemma

Due in part to their wide family-based social networks, rural Americans often experience different cognitive processes and think differently from their urban counterparts (Salyers & Ritchie, 2006). Appalachians are proud in their refusal to acquiesce to anyone telling them what to believe (Salyers & Ritchie, 2006). A lack of expanded thinking in Appalachia is often driven from an apathetic approach to change, lack of awareness of possibilities, and a culturally internalized fear of exposure and change (Vance, 2016). Deep multigenerational shame and denial envelops many interactions. It is a culture steeped in the past and transgenerational poverty where relationships and acceptance are more important than money (Salyers & Ritchie, 2006; Vance, 2016).

Treatment remains a novel concept in some rural communities. Rural substance users continue to have less than half the opportunity for treatment when compared to urban substance users despite rural substance use surpassing urban rates (Hall, et al., 2013). Where it is available it works, and the individual's emotional, environmental, and cultural barriers can be overcome (Myers, 2013). The need for counselor self-efficacy in meeting the substance use affected client with not only counseling skills and other identified needs can only be met if the counselor believes in ownership of those skills, which is in itself, self-efficacy (Bandura, 1977).

Service Systems and Outcomes

In addition to publications and competency expectations, federal studies on the coping deficit of substance use are conducted annually in efforts to understand its far-reaching effects (CDC, 2017; SAMHSA/NSDUH, 2016; SAMHSA/NSDUH, 2015; World Health Organization, 2010). Counselors and researchers share a goal to aid individuals with life improvement through effective treatment, and a combination of individual and group counseling is statistically and clinically superior when compared to other treatments (Barber, Foltz, Crits-

Christoph & Chittams, 2004; Magill & Longabaugh, 2012). An examination of conceptual and moral development in professionals who were counseling substance users found statistical significance but small effect size between counselors' conceptual complexity, education and experience levels, recovery status, gender, age, and ethnicity (Sias, et al., 2006). In independent t-tests, level of education significantly predicted conceptual complexity (Sias, et al., 2006). For years counselors noted the importance of educational resources, but difficulty in accessing and providing those opportunities was due to budgetary constraints (Pullen & Oser, 2014).

Generally, impoverished and suspicious cognitions occur in rural culture. Affording the opportunity for individuals to speak their truth becomes a venue for therapeutic success (Leukefeld, et al., 2000). A project examining the relationship of how interventions used in publicly financed outpatient addiction treatment programs related to client outcomes and program performance determined that individuals who remained in treatment over 90 days received more group sessions than those with shorter stays (Crevecoeur-MacPhail, et al., 2010). Exploring provider preparedness for substance use treatment with social workers and substance use counselors, multiple researchers demonstrate a culturally rigid system of care, stigma, and judgmental expectation for personal control to have negative impacts on service delivery (Baldwin-White, 2014; Fisher, et al., 2014). A clear need exists for counseling professionals to have skills to assess for substance use and co-occurring disorders (Chandler, et al., 2011). There is an overwhelming sense that training in addiction-related services for counselors are inadequate (Grootjans, et al., 2005).

Needed Education and Training

Despite decreasing resources, counselors address complex social issues such as poverty, discrimination, substance use, chronic illness, and disability (Mellin, Hunt, & Nichols, 2011). Counselor use of basic and advanced microskills and levels of self-efficacy correlate, and increased self-efficacy is an important component of counselor training (Midgett, Hausheer, & Dumas, 2016; Wendler, 2007). Formal education should be a requirement for substance use counselors (Sias, et al., 2006).

Comparison of substance use counselors and social workers found substance use counselors had received more training in co-occurring disorder treatment, psychopharmacology, and relapse prevention, and social workers had less training in and treatment of co-occurring disorders (Fisher, et al., 2014). Although social workers were more interested in future training on substance use disorder, substance use counselors did not report the same interest in mental health disorder training (Fisher, et al., 2014). Social workers were identified as needing additional training in substance use assessment and treatment (Fisher, et al., 2014). With many social workers provide counseling in Central Appalachia, obviously training deficiencies are a problem across counseling disciplines.

Summary

Bandura's social learning theory (1977) posits that individuals need to be self-organizing, proactive in conceptualization, self-reflective, and self-regulating. By heritage, Appalachian worldviews manifest below his construct. While independent and individual, many Appalachians are neighborly, hospitable to others, and fiercely loyal to family, community, country, and related beliefs (Porter, 2001; Goad, 1997). Goad (1997) cites Kephart (1913) in describing these southern mountaineers as ghetto-dwellers in an aloof civilization. Looking at how youthful identification with the external, dominant culture is often construed by Appalachian families, Porter (2001) discussed how the individual is viewed as disloyal to both family and culture and as ashamed of their Appalachian heritage. For those who embrace change, a conundrum of being exhibited and talked about as boastful or egocentric exists. This ostracism is only added to the marginal identifications already in play, such as gender, membership in an oppressed group, personal and generational trauma history, and current stage of change to name a few (Porter, 2001; Goad, 1997). Shifflett (2008) wrote how when Appalachian people moved out of the Gap, or mountain pass where she grew up, they didn't go far.

Typically, Appalachians who use substances live within a multitude of issues and preconceptions tied to the values they hold (Porter, 2001). Their point of view is guarded and always filtered through a multidimensional lens, culturally, socially and internally (Porter, 2001). By history, family violence and trauma are normed in Appalachia, and an output of shame or unworthiness is pervasive and deep. Appalachians may feel hopeless and lack motivation or believe in an intrinsic wrong accompanied by hopelessness and fatalism, either of which results in powerlessness and an inability to change (Leukefeld, et al., 2000; Penchef, 1971). Self-reliance and pride of not being indebted to others can present as defensiveness and disinterest about receiving help when a need is obvious. Often Appalachians suffer great hardships alone but pretend to be doing well (Salyers & Ritchie, 2006). Structural assimilation is deficient, and barriers great in realizing new expectations as everything is filtered by the substance-affected mind, a cynical eye, and a class orientation (Salyers & Ritchie, 2006). Internalizing actual, instead of perceived control, is frequently a new phenomenon for Appalachians (Miller, 2014).

Woven through transgenerational norms for substance use at familial, social, and cultural levels, the culture of rural America is often fraught with generalized judgment and unfulfilled expectation. Counselors and human services workers need to be informed about insidious trauma and substance use. They must be self-aware so that they do not stereotype drug and alcohol use as inner-city problems (Keyes, et al., 2014). Counselors are disadvantaged when negotiating client needs in a less than ideal contextual reality as dramatic disparity in resource allocation exists for combating substance use and addiction (Pullen & Oser, 2014). Success in rural communities where programs exist relates to the program's ability for transparency, consistent demonstration of genuine person-centeredness, and collaborative approaches to therapeutic alliance (Bride, et al., 2012).

Direct, unbiased, comprehensive assessment of substance use and/or effect should be conducted for every client

during clinical assessment. The potential of substance use needs to be addressed competently in all routine clinical encounters. Being able to assess and impact a person, their situation, behaviors, and perception of external influences from clinical and practicality standpoints is challenging for counselors (Chandler, et al., 2011). Since original settlement, throughout Appalachia, the one gift that does not insult poverty is whiskey (Adams, 2001). This exemplifies how the fight against an insipid cultural receptivity to substance use is especially challenging for counseling providers in Central Appalachia and perceived through this research.

Research Method

A discussion of method that includes study participants, the procedure used to acquire the data, instruments to collect the data, and a strategy for determining accuracy of the assumption that licensed counselors were not prepared to assess or treat the substance use epidemic, and methods used to statistically analyze the data follows. Permission to conduct this survey design study was received from the Lindsey Wilson College Institutional Review Board on 22 August 2018 in preparation for dissertation completion.

Research Questions

Given the epidemic proportions of substance use in in Appalachia, this study was designed to explore and describe perceived self-efficacy of mental health counselors in providing substance use counseling in Central Appalachia, and to examine factors contributing to reported counselor self-efficacy. Two questions were asked. 1.) What is the level of counselor self-efficacy in regard to a) assessment and treatment planning, b) ethics, c) case management, d) individual counseling, and group counseling reported by professional counselors treating substance use clients in Central Appalachia? 2.) What specific factors, such as education, continued training, and experience treating substance use clients, account for perceived self-efficacy in counselors providing services to substance users in Central Appalachia?

These two questions resulted in the final hypotheses of this research. Hypothesis 1. Mental health counselors in Central Appalachia would self-report low levels of perceived self-efficacy in providing services to clients with substance use issues. Hypothesis 2. Factors including level of education, credentials, number of graduate substance abuse classes completed, number of continuing education hours on substance abuse, length of time in field of counseling, and length of time working with substance using individuals would predict level of counselor self-efficacy. Gender, age, ethnicity, and cultural identity were removed as contributory variables due to their lack of significance.

Participants

Inclusion criteria and expectations of sample. Licensed Professional Clinical Counselors (LPCs and LPCCs) in Central Appalachia were the focus of this study. Central Appalachia as defined by the Appalachian Regional

Commission (2018) suffers a severe deficit in counseling and substance use related services although it is a hot spot of consumption and addictive use of alcohol and other drugs (CDC, 2017). Contact information for licensed professional counselors was requested from each state's counseling licensure board. Choosing this population, the author hoped to bring increased attention to a curricular need in counselor education, community-based training, and continuing education in the counseling field to combat the substance use epidemic. A normalization of transgenerational European influence, acculturation, and effects of economic and cognitive poverty, described as a lack of internal belief for success, supports social stratification in Central Appalachia. Despite a diverse heritage and availability of institutions of higher education, there is a general lack of engagement in educational attainment (Kiley, 2012).

The author hoped for the potential of $N = 2500$ professional counselors with employment in Central Appalachia, from whom she might access 1000 counselors through email, shared web-links, and social-media contacts. Due to a limited number of professional counselors in Central Appalachia a low response rate was anticipated, an 8% return for $N = 80$. Participants would vary from the general populace by having at least a master's level education and, representative of a range of work experience and involvement in professional organizations. Given the typical makeup of service organizations in Central Appalachia, the sample was also expected to include more female than male subjects of various ages and experience, and to lack broad ethnic variability. Sample respondents were licensed counseling practitioners in the Central Appalachian region at the time of the study.

Sampling and recruitment. Due to a lack of response from the state licensure boards, the researcher as a doctoral student, adjunct professor, and counseling professional was able to identify licensed professional counselors practicing in Central Appalachia from previous networking opportunities. Through use of snowball sampling, counseling professionals were invited to participate in a by a doctoral student dissertation study to explore how prepared licensed counselors in Central Appalachia felt in and effective assessment of, response to, and intervention with clientele immersed in epidemic substance use. A request that respondents be a counselor in central and eastern Kentucky, southwest Virginia, West Virginia, eastern Tennessee, or western North Carolina who: (a) was either fully licensed as a Licensed Professional Counselor (LPC), Licensed Professional Clinical Counselor (LPCC), or for respondents in Tennessee, a Licensed Professional Counselor, Mental Health Specialist Provider (LPC-MHSP), and who (b) had provided clinical counseling within the past 5 years was made.

After giving participation consent, respondents accessed the hyperlink to the SATSES and demographic questionnaire. The survey was open for data collection a total of 30 days with a follow-up email distributed at two weeks reminding participants about the deadline at the end of the fourth week. The survey was distributed through email, web link, and social media to both identified and public contacts. Survey distribution and data collection were facilitated through 84 emails, 82 shared web links, and 75 social media connections known to the researcher. In total, 65 of an estimated 1000 possible responses accessed the informed consent and completed the SATSES survey and demographic questionnaire for a return rate of 6.5%.

Characteristics of sample. A sample of 65 counseling professionals practicing in Central Appalachia in eastern Kentucky, southwest Virginia, and West Virginia responded to the snowball distribution of the Substance Abuse Treatment Self-Efficacy Scale (SATSES) and demographic questions. All participants had: (a) graduate or terminal degree from an accredited counseling program and (b) clinical practice experience in Appalachia. One respondent reported no longer being in practice.

The sample included 44 females and 21 male licensed counselor respondents. Most ranged in age from 26 to 55 (84.61%). Fifty-eight identified as Caucasian, three as African American, one as Hispanic, one as Native American, and one as Asian. Almost two thirds identified as having an Appalachian cultural identity and all had either a master's degree, a post- master's certificate, or a doctoral degree. Most also had a counseling credential. About half (53%) reported completing only one graduate-level substance use course, and about half (54%) reported fewer than 16 substance-use-specific continuing-education hours. Over half (55%) had worked as counselors for 10 years or less. Descriptive statistics for demographic information are provided in Table 1.

Procedure

The timeframe for data collection in this study was four weeks. Introductory contact with participants was made by an email requesting respondent consideration of a 15- to 20-minute commitment to complete the instruments. The informed consent included a statement that involvement in the study was voluntary and recipients were able to decline completing the Substance Abuse Treatment Self-Efficacy Scale (SATSES), two self-rating questions on treatment provision barriers, and demographic items.

The survey was developed and managed on the online platform SurveyMonkey. A follow-up email reminder request was sent at two weeks. As the focus was entirely on Central Appalachia, practitioners who were not located in the counties identified by the Appalachian Regional Commission (2016) were not approached to complete this study, although a larger respondent base would have supported the more general need for curricular attention to educating counselors on substance use. The researcher was able to maneuver collection of demographic data to separate non-Appalachia-based counties from the targeted sample of respondents during survey development, but this feature was not needed.

Table 1. Descriptive Statistics for Demographics

Variables	N	%
Gender	65	
Male	21	32.31
Female	44	67.69
Age Range	65	100
18-25	1	1.54
26-35	18	27.69
36-45	17	26.15
46-55	20	30.77

56-65	6	9.23
66-75	3	4.62
Ethnicity	64	100
European American	58	90.63
African American	3	4.69
Native American	1	1.56
Hispanic	1	1.56
Asian	1	1.56
Appalachian Identity	65	100
Appalachian	42	64.62
Not Appalachian	23	35.38
Education	65	100
Master's degree	44	67.69
Post-Master's certificate	7	10.77
Doctoral degree	14	21.54
Credential	65	100
LPC, LPCC, LPC-MHSA	57	87.69
CSAC, CADC, SACAVA	2	3.08
None indicated	6	9.23
Graduate substance abuse classes	62	100
1	33	53.23
2	11	17.74
3	8	12.90
4	1	1.61
5 or more	9	14.52
Substance Use CEU credits	63	100
1-4	12	19.05
5-8	7	11.11
9-12	10	15.87
13-16	5	7.94
17-10	4	6.35
21 or more	25	39.68
Years as a counselor	64	100
<5	18	28.13
6-10	17	26.56
11-15	13	20.31
16-20	5	7.81
21-25	5	7.81
26-30	1	1.56
>30	5	7.81
Years counseling substance users	63	100
<5	8	12.70
6-10	23	36.51
11-15	13	20.63
16-20	7	11.11
21-25	3	4.76
26-30	6	9.52
>30	1	1.59

Data Compilation

At study closure within the online survey platform participants were listed and counted, and their responses on the consent form and demographic and survey instruments transposed into a spreadsheet. Data were assessed for thorough completion. The total number of participants with acceptably complete data (three quarters of data present for demographic items and scales) were distinguished from incomplete submissions. Per the process for electronic data entry, individual data were identified by state and county for compilation purposes.

Instruments

The SATSES

Description of SATSES. The SATSES was administered in an online survey with an added demographic component. Permission to use the copyrighted SATSES instrument in this dissertation research was obtained from the original author, Dr. Kranz, on 16 April 2016 in email correspondence. The SATSES, a self-perceived competency evaluation, uses straightforward language about specific skills while recognizing the potential for social desirability (Kranz & O'Hare, 2006). It provides a glimpse into the understanding, awareness, and needs of counseling professionals who encounter substance use in their clinical life.

Effective intervention depends on assessment, treatment planning and counseling skills sensitive to cognitions and the realities of life held by the drug subculture. Additional skills and knowledge in providing case management and substance use treatment within ethical framework is needed. Using a five-point Likert scale to measure provider confidence in personal knowledge and skill for effective alcohol and drug use counseling, the SATSES includes subscales for assessment and treatment planning, counseling, group counseling, case management, and ethics. A culturally neutral instrument, the SATSES is comprised of 32 items with a five-choice interval scale for respondent response from 1-Very low confidence level to 5-Very high level of confidence.

The SATSES examines self-reported efficacy of assessment/treatment planning, individual counseling, case management, group counseling, and ethics. Each subscale begins with the question, "how confident are you in...?". The subscale for assessment /treatment planning asks "...determining the client's readiness for treatment/change and the needs of others involved in the current situation?", and "screening for alcohol and other drug (AOD) toxicity, withdrawal symptoms, aggression or danger to others, and potential for self-inflicted harm or suicide?". The case management section asks about confidence in "continuously assessing and evaluating referral resources to determine their appropriateness?" and "initiating collaboration with referral sources." For individual and group counseling, the inquiry includes "facilitating the development of basic and life skills associated with recovery" and "describing and summarizing client behavior within the group for the purpose of documenting the client's progress and identifying needs/issues that may require modification of the treatment plan." Finally, the ethics section explores respondent confidence with questions like "utilizing a range of supervisory options to process personal feelings and concerns about clients" and "developing and utilizing

strategies to maintain physical and mental health.”

Development of SATSES. Influenced by Bandura’s self-efficacy theory, scholars examined counselor development and self-efficacy (Melchert, et al., 1996). Through use of the Counselor Self-Efficacy Scale (CSES) variance in psychology students and licensed clinical psychologists across a broad range of training and experience were evaluated. The research team hypothesized that positive correlations would exist between CSES scores and higher levels of counseling experience measured by level of clinical training and experience, the researchers analyzed construct validity for the CSES. Values were significant for level of training, $F(1, 135) = 66.25, p = .0001$, and amount of clinical experience, $F(2,134) = 49.85, p = .0001$. When combined, these factors accounted for 32% of the variance in CSES scores, with level of training having more variance (18%; partial $r = .43$) than clinical experience (14%; partial $r = .38$). CSES scores for training $r = .62$ and clinical experience at $r = .55$; training and experience were $r = .48$. The CSES and clinical experience correlated if the experience was full- or part-time $F(6, 119) = 12.68, p < .0001$ (Melchert, et al., 1996).

Aware of the existence of competencies for the provision of addiction counseling (Center for Substance Use Treatment, 2006), the author conducted a search for peer-reviewed articles on counselor self-efficacy and substance abuse treatment self-efficacy on EBSCO. Interest in the SATSES instrument resulted from reliability and validity studies by Kranz (2003) and Kranz & O’Hare (2006). Validity was confirmed for the SATSES through use of both exploratory and confirming factorial analysis conducted in a test-retest with a nonrandom sample of social work members of the National Association of Social Workers in Rhode Island. At an average age of 46.81, the social workers scored the questionnaires by hand and returned them to the researchers. Seeking content validity in results provided by 562 respondents, the authors found Pearson’s $r = .48 - .72$ and Cronbach’s $\alpha = .89 - .96$ for the 5 subscales (Kranz, 2016, Kranz & O’Hare, 2006).

Correlational research using the SATSES. Chandler et al. (2011) went on to use the SATSES and multiple regression to investigate the relationship of licensed counselor self-efficacy beliefs in providing substance abuse services and graduate level courses in substance abuse, practicum and internship hours, extent of clients with a primary diagnosis of substance use, and continuing education hours. The SATSES scales were normally distributed and scatter plots confirmed linearity and homogeneity of variance. In a multiple regression, there was no statistically significant association between self-efficacy and combined internship and practicum hours completed, percentage of clients with substance use diagnosis, number of continuing education hours, or number of courses taken in graduate school, $F(4,97) = .47, p = .756$. The variables had a small effect size, accounting for only 2% of the variance in the model. For the four predictor variables, a multiple regression yielded standardized coefficients of $b^* = 0$ except for substance use courses completed ($b^* = .07$), with the same standard errors. This finding supported the need for further training of clinicians in substance use intervention (Chandler et al., 2011). With strong face-content and construct validity previously found in the SATSES, criterion validity for the present study should be strengthened to support need for further training of clinicians in substance use intervention (Chandler et al., 2011).

Demographic Variables

The demographic items assessed gender, age, ethnicity, cultural identity, level of education, credentials, number of graduate substance abuse classes completed, continuing education hours on substance abuse, length of time in the field of counseling, the number of substance-using clients on caseloads, and length of time working with substance using individuals.

Other Variables

To identify possible confounds to service delivery, respondents were asked to respond to two questions. The questions focused on respondents' opinions of perceived self-efficacy for currently assessing for and delivering substance abuse services. For Question One, respondents self-rated their perceived levels of competence in providing substance use intervention in the clinical setting. Counselors used a five-point Likert scale to score their self-efficacy from 0-complete inability or willingness due to experience or belief; 1-will try but scared or feel at a loss due to lack of exposure; 2-pretty confident, have interest or coursework; and 3-no concern, due to experience in providing substance use services. Question Two asked for disclosure of internal barriers experienced by the responder in this component of service delivery, such as fear, religious belief, disgust, and other for a written response.

Statistics

The competencies for addiction counseling identify four transdisciplinary foundational concepts, one of which is professional readiness (Center for Substance Abuse Treatment, 2006). The alternate hypothesis set forth in this study explores the perceived self-efficacy of licensed counselors in assessing and treating substance use. Variable criteria for the categories of assessment and treatment planning, counseling, group counseling, and case management within the SATSES are unidimensional and straightforward. Each topic area delineates skills inherent to these categories. Although parameters exist in the ethics section and various skill areas are outlined, this construct is multidimensional by its very nature. Counselor attitudes that are open to alternative approaches, diversity, and, in the face of the epidemic of substance use in contemporary society, a willingness to embrace change, demonstrate definitive need for ethical practice (Center for Substance Abuse Treatment, 2006).

Setting $\alpha \leq .05$, this correlational study sought to avoid both Type I and Type II errors. In a sample of just over 60, a correlation must be $> .25$ to differ significantly from zero at $\alpha = .05$ (Allison, 1999). By using SPSS-24 to conduct a multiple regression the research questions should be answered (Schwartz, 2018). Hypothesis 1 predicted that counselors would report low levels of self-efficacy; the hypothesis was first examined using descriptive statistics which assessed the mean level of reported counselor self-efficacy on the five SATSES subscales and the item about perceived confidence providing substance use treatment (see Table 1). Self-efficacy around substance use was determined by self-scored responses on the SATSES of very low, low, moderate, high, and very high, or numerical responses of 1, 2, 3, 4, and 5. If respondents had average SATSES

subscale scores of 1 or 2, they would be deemed to have low self-efficacy. On the single item about confidence providing substance use, which was scored on a three-point Likert scale, if respondents had average subscale scores of 1, they would be deemed to have low self-efficacy. One-sample t-tests were run to compare the means for the SATSES subscales and the confidence item to the means that would be expected if respondents felt low self-efficacy (a mean of 2 for the SATSES or 1 for the perceived confidence item). If the sample means differed significantly from the test value for low self-efficacy, participants would be deemed not to have low self-efficacy, confirming the null hypothesis. To assess the relationship of the variables to each other, the SATSES subscales and the confidence item were also correlated using Pearson's two-tailed correlations, and the means for the SATSES subscales were compared using paired t-tests.

To test Hypothesis 2, Spearman's two-tailed correlations and multiple regressions were run to identify background variables that predicted reported self-efficacy as measured by the SATSES (see Table 1.1). Spearman's correlations were used because predictor variables were categorical or not normally distributed. The demographic variables that could be included in analyses included gender, age, ethnicity, cultural identity, level of education, credentials, number of graduate substance abuse classes completed, continuing education hours on substance abuse, length of time in field of counseling, and length of time working with substance using individuals. However, a small sample size increases the likelihood of sampling error (Rosenthal, 2001). To decrease error for $N = 65$, the predictor variables of gender, age, ethnicity, and cultural identity were not analyzed. Spearman's correlations were run first. Any variables that were significant or marginally significant in predicting scores for a subscale were entered together into a multiple regression for that subscale, which made it possible to assess to what extent demographic variables correlated with the SATSES subscales and supported acceptance or rejection of the null hypothesis.

Challenges

With a low response rate $N = 65$, reliance on a Web-based approach had biases of its own. Examples of biases included sample integrity in completing the survey, the availability and reliability of internet access, willingness to participate, honesty, comfort level of respondents, desire to impress as in the guinea pig effect, and interviewer expectation effect.

Hypotheses Revisited

The need for counseling professionals to be ready to address the epidemic of substance use is a reality. Reiterating the previously stated hypotheses is important to this research. Hypothesis 1. Mental health counselors in Central Appalachia will self-report low levels of perceived self-efficacy in providing services to clients with substance use issues. Hypothesis 2. Factors including level of education, credentials, number of graduate substance abuse classes completed, number of continuing education hours on substance abuse, length of time in field of counseling, and length of time working with substance using individuals will predict level of counselor self-efficacy. These hypotheses merge the TIP 21 expectations and the SATSES variables in response

to this researcher's question of how licensed counselors in Central Appalachia would self-report efficacy with assessing and treating clients who are affected by substance use.

Results

A sample of 65 counseling professionals practicing in Central Appalachia in eastern Kentucky, southwest Virginia, and West Virginia responded to the snowball distribution of the Substance Abuse Treatment Self-Efficacy Scale (SATSES) and demographic questions. The 65 individuals completed more than three quarters of the demographic items and the items in each of the SATSES subscales, which meant their data could be retained. A few individuals omitted filling out one or two responses on the SATSES subscales; their subscale scores were averaged across the number of completed items.

Preliminary Analysis

Reliability for SATSES scales. The SATSES is a 32-item, five factor-scale with $\alpha = .89$ to $.96$ for its five scales measuring counselor practitioners' perceptions of competency in substance use knowledge and skills (Kranz & O'Hare, 2006). For this study, Cronbach's alpha was computed for the scales and showed good reliability ($> .60$), as follows: case management ($\alpha = .90$), assessment and treatment planning ($\alpha = .91$), individual counseling ($\alpha = .90$), group counseling ($\alpha = .94$), and ethics ($\alpha = .85$). Kolmogorov-Smirnov tests also showed the scales were normally distributed and could be used in linear regressions. Confidence providing substance use treatment was not normally distributed and was not used in a regression.

Other questions addressed level of confidence and perceived barriers to comfort in working with substance users. Some wrote in responses to the latter question. Barriers reported by number of respondents follows: 35 stated no barriers (54%), ten indicated lack of experience, knowledge or training (15%), six chose fear (9%), six wrote treatment ineffective, too short, or risk of relapse (6%), three panned lack of funding or resources (5%), two had religious reasons (3%), two didn't want the challenges of court ordered clients (3%), two feared possible countertransference (3%), and one was disgusted (2%).

Hypothesis Testing

Hypotheses 1. Hypothesis 1 proposed that mental health counselors in Central Appalachia would self-report low levels of perceived self-efficacy in providing services to clients with substance use issues. The SATSES offered the research respondents an opportunity to self-report their level of confidence in providing services to substance users. On average, participants reported high levels of confidence in providing individual counseling, $M = 4.13$. They reported the least confidence in providing group counseling, $M = 3.77$, reporting on average confidence somewhat lower than high confidence. Confidence in providing assessment and treatment planning in the treatment of substance use was somewhat limited in this small sample as well, $M = 3.86$. Paired t-tests

showed that participants had significantly higher scores in SATSES individual counseling and ethics domains than on the other three subscales, where the scores did not differ significantly from each other. On average participants also reported being pretty confident about providing substance-use counseling, $M = 2.35$ out of 3. Next, one-sample t-tests were run to compare the means for the SATSES subscales and the confidence item to the means that would be expected if respondents felt low self-efficacy: that is, a mean of 2 (low confidence in knowledge/skills) for the SATSES or 1 for the perceived confidence item.

Table 2 shows that mean scores for the SATSES subscales and the confidence item were significantly higher than the mean that would be expected if participants felt low-self-efficacy providing substance use services. Given the relatively high level of perceived self-efficacy reported across scales about providing services to clients with substance use issues, the null hypothesis for Hypothesis 1 was confirmed. Mental health counselors in Central Appalachia self-reported high levels of perceived self-efficacy in providing services to clients with substance use issues.

Table 2 Frequencies for SATSES Subscales and Substance-Use Counseling Self-Efficacy

One sample t test SATSES Subscale Averages	Test value, low self-efficacy				
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>t</i>	<i>p</i>
Ethics	4.10 ^a	.65	2	26.02	0
Case Management	3.96 ^b	.67	2	23.60	0
Assessment & Treatment Planning	3.86 ^b	.60	2	25.17	0
Group Counseling	3.77 ^b	.85	2	16.78	0
Individual Counseling	4.13 ^a	.65	2	28.23	0
Confidence providing substance use counseling	2.35	.74	1	14.79	0

Note: $N = 65$ for all analyses. SATSES scales scored 1 = Very low confidence to no confidence in my knowledge/skill, 2 = Low confidence in my knowledge/skills, 3 = Moderate confidence in my knowledge/skills, 4 = High confidence in my knowledge/skills, 5 = Very High confidence in my knowledge/skills. Confidence providing substance-use counseling coded: 1 = Will try but scared or feel at a loss due to lack of exposure, 2 = Pretty confident, have interest or coursework; 3 = No concern, due to experience in providing substance use services. In paired t-tests, SATSES items marked ^a had significantly higher means than items marked ^b.

The research also examined correlations among the SATSES subscales, as well as with perceived confidence in providing substance use counseling. Table 3 shows that the SATSES subscales correlated significantly and positively with each other, and also correlated significantly and positively with self-reported confidence in providing substance use counseling, except in the area of case management.

Table 3. Correlations for SATSES subscales and Confidence Providing Substance Use Counseling

SATSES subscales & other self-efficacy item		Assessment & Treatment Planning	Case management	Individual Counseling	Group Counseling	Ethics	Confidence providing substance use counseling
Assessment & Treatment Planning	<i>r</i>	1.00					
	<i>p</i>	.00					
Case management	<i>r</i>	.67*	1.00				
	<i>p</i>	.00	.00				
Individual Counseling	<i>r</i>	.78*	.76*	1.00			
	<i>p</i>	.00	.00	.00			
Group Counseling	<i>r</i>	.82*	.65*	.75*	1.00		
	<i>p</i>	.00	.00	.00	.00		
Ethics	<i>r</i>	.66*	.70*	.75*	.69*	1.00	
	<i>p</i>	.00	.00	.00	.00	.00	
Confidence providing substance use counseling	<i>r</i>	.46*	.19	.29*	.44*	.03*	1.00
	<i>p</i>	.0001	.1282	.0186	.0003	.0140	.00

Note: $N = 65$ for all correlations. Results from Pearson's two-tailed correlations (r) or Spearman's two-tailed correlations (r_s).

Hypothesis 2. Hypothesis 2 stated that background factors (such as education, having a counseling credential, number of graduate substance abuse classes completed, number of continuing education units (CEUs) on substance abuse, years in field of counseling, and years working with substance using individuals) would predict level of counselor self-efficacy. Spearman's two-tailed correlations were run for each of these variables and SATSES subscales. Results are shown in Table 4.

Table 4 shows that self-efficacy in assessment and treatment planning correlated significantly and positively with number of CEUs in substance use and number of years working with substance users and marginally significantly with having a counseling credential. Self-efficacy in individual therapy and self-efficacy in group therapy each correlated significantly and positively with number of CEUs in substance use and marginally significantly and positively with having a counseling credential. Self-efficacy in ethics correlated significantly and positively with number of graduate substance use classes and having a counseling credential and marginally significantly and positively with number of CEUs in substance use. Subscale scores did not correlate significantly with education or years as a counselor. Confidence providing substance use treatment also correlated significantly with number of substance-use CEUs, $r_s(N = 63) = .60, p < .001$.

Table 4. Correlations for SATSES subscales and Background Variables

SATSES self-efficacy subscales		Assessment & treatment planning	Case management	Individual counseling	Group counseling	Ethics
Education (<i>N</i> = 65)	<i>r</i> s	-.06	.15	-.09	.01	.04
	<i>p</i>	.62	.22	.48	.95	.73
Graduate substance abuse units completed (<i>N</i> = 62)	<i>r</i> s	.16	.14	.19	.15	.26*
	<i>p</i>	.21	.28	.14	.25	.04
Substance abuse CEUs (<i>N</i> = 63)	<i>r</i> s	.46*	.16	.25*	.37**	.21+
	<i>p</i>	.00	.22	.05	.00	.09
Any counseling credential (<i>N</i> = 65)	<i>r</i> s	.23+	.17	.23+	.24+	.33**
	<i>p</i>	.07	.17	.07	.06	.01
Years counseling substance abusers (<i>N</i> = 63)	<i>r</i> s	.32*	.12	.12	.15	.07
	<i>p</i>	.01	.35	.34	.26	.57
Years counseling (<i>N</i> = 64)	<i>r</i> s	.08	-.01	-.16	-.03	.03
	<i>p</i>	.53	.91	.21	.79	.80

Note: Results from Spearman's two-tailed correlations. * $p < .05$, ** $p < .01$

Next, multiple regressions were run to determine the association of the predictor variables and SATSES criterion variables. Predictor variables were those that were significant or marginally significant in the correlations above: (a) number of graduate classes on substance use, (b) any counseling credential; (c) number of CEUs on substance use, and (d) years counseling substance users. Examining multicollinearity, these four variables were low in variance inflation factors (VIF) since they and did not have a correlation $> .70$ (were not multicollinear) and so could be used together as predictors in multiple regressions. The coefficient of determination, R^2 , is the percentage of total variance explained by the predictor variables. In a multiple regression predicting subscale scores for assessment and treatment planning (Table 5), the number of substance abuse CEUs correlated significantly and positively with reported self-efficacy in assessment and treatment planning, but years counseling substance abusers and having a counseling credential were not significant. When number of substance- abuse CEU units was entered as the only predictor of self-efficacy in assessment and treatment planning, it was highly significant ($b^* = .44$, $p < .001$), accounting for 18% of the variance, $F(1, 62) = 14.54$, $p < .001$. Subscale scores respectively for self-efficacy in individual counseling and group counseling also correlated significantly and positively with number of substance abuse CEUs but not with having a counseling credential (Table 5). As sole predictor, number of substance-abuse CEUs correlated with individual counseling scores at $b^* = .30$, $p < .02$, with $R^2 = .07$, $F(1, 62) = 5.97$, $p < .02$, and also correlated with group counseling scores at $b^* = .36$, $p < .00$, with $R^2 = .12$, $F(1, 62) = 9.20$, $p < .001$. Ethics subscale scores correlated significantly and positively with having a counseling credential but not with other variables (Table 5). As sole predictor, having a counseling credential correlated with ethics scores at $b^* = .31$, $p < .01$, with $R^2 = .08$, $F(1,$

63) = 6.91, $p < .01$. A secondary analysis was also run to see if having a counseling credential correlated with greater number of substance use CEUs, but the correlation was not significant, $r_s(N = 63) = .05$, $p = .71$, suggesting that each has its own independent association with self-efficacy.

Table 5. Multiple Regression Analyses Predicting SATSES Subscales for Self-Efficacy in Counseling Domains from Background Variables

Predict self-efficacy counseling <i>AdjR²</i>	<i>b</i>	<i>SE</i>	<i>b*</i>	<i>t</i>	<i>p</i>	<i>F</i>	<i>df</i>	<i>p</i>
Predict Assessment & treatment planning subscale	.13	.04	.45	3.38	.00	5.67	3, 58	.00
Substance abuse CEUs								
Any counseling credential	.44	.28	.18	1.54	.13			
Years counseling substance users	-.01	.05	-.04	-.27	.79			
Pred Ind counseling subscale						4.07	2, 60	.02
Substance abuse CEUs	.09	.04	.29	2.38	.02			
Any counseling credential	.43	.30	.17	1.44	.16			
Predict Group counseling subscale						4.07	2, 60	.02
Substance abuse CEUs	.15	.05	.35	2.99	.00			
Any counseling credential	.77	.41	.22	1.89	.06			
Predict Ethics subscale						3.81	3, 57	.01
Any counseling credential	.84	.37	.27	2.24	.03			
Substance abuse CEU units	.07	.04	.20	1.61	.11			
Graduate substance-abuse units	.06	.06	.12	.94	.35			

Note: Predictor variables in regressions were significant or marginally significant in correlations.

Hypothesis 2 stated that background factors (such as age, level of education, number of graduate substance abuse classes completed, having a counseling credential, number of continuing education hours on substance abuse, length of time in field of counseling, and length of time working with substance using individuals) would predict level of counselor self-efficacy. Three of the subscales, individual counseling, group counseling, and ethics correlated significantly with at least one background variable, so the null hypothesis for Hypothesis 2 was rejected.

Summary

Licensed counselors who participated in this research demonstrated confidence and self-efficacy in counseling domains and work with substance use, and Hypothesis 1 was not supported. Spearman's correlations and multivariate regression were used to examine the association of the SATSES subscales and background

variables and found the background variables were significant predictors of self-efficacy in licensed professional counselors. Specifically, number of continuing education units was the best predictor of reported self-efficacy in providing substance use counseling and of SATSES reports of self-efficacy in three domains: assessment and treatment planning, individual counseling and group counseling. Having a counseling credential was the best predictor of SATSES reports of self-efficacy in the ethics domain. Chapter Five will discuss the implications of the findings.

Discussion

A homogenous sample $N = 65$ of licensed mental health counselors practicing in Central Appalachia completed an online survey that appraised self-efficacy with clinical response to substance use. Survey questions on assessment, treatment planning, individual and group counseling, case management, and ethics for providing substance use services focused on efficacy. The demographics gathered were consistent with standards in the field, with the exception of whether the respondents' cultural identification was Appalachian. The predominantly female sample aligned with the existing gender structure in the disproportionately female counseling field (Healey & Hayes, 2011; Hecker, 1998).

Counselors participating in this research reported high levels of perceived self-efficacy in working with substance use, so Hypothesis 1 concerning low levels of counselor efficacy was not supported. Correlative statistics found case management to be the significant and positive exception in examining the SATSES subscales and self-reports of confidence with providing substance use counseling. Further investigation of the subscales and demographic variables of level of education, credentials, number of graduate classes on substance use, having a counseling credential, continuing education credits on substance use, years in counseling practice, and years counseling substance users showed significant correlations, as did assessment and treatment planning and years working with substance users, individual counseling and continuing education in substance use, number of graduate classes in substance use, and ethics, $p < .05$. In addition, significant correlations existed between continuing education in substance use and group counseling, credentials, and ethics, $p < .01$.

Multivariate regression examined affiliations of the SATSES subscales and level of education, credentials, number of graduate classes on substance use, having a counseling credential, continuing education credits on substance use, years in counseling practice, and years counseling substance users. A higher number of continuing education units was the best predictor for self-efficacy with providing substance use counseling. For the SATSES subscales, the domains of assessment and treatment planning, individual counseling, and group counseling showed significant self-efficacy. Having a counseling credential was the best predictor of self-efficacy in the ethics domain. These findings supported Hypothesis 2 that other variables would predict levels of counselor self-efficacy.

Conclusion

The purpose of this study was to discover how licensed counselors in Central Appalachia would report self-efficacy in assessing and treating clients affected by substance use. Hypothesis 1 stated that mental health counselors in Central Appalachia would self-report low levels of perceived self-efficacy in providing services for substance use issues. This hypothesis was not supported. Although the respondent pool was small, and in opposition to research with other professions (Baldwin-White, 2014; Fisher, et al., 2014), the research showed a high level of self-reported efficacy in counselors around providing substance use services, attributable to their graduate and continuing education training, time in the field, and professional identity.

The CACREP model for education to train counselors has suggested curricula addressing substance use intervention since 2001. The attention of CACREP to the need for substance use specific courses in their original higher education in counseling standards to what would become an unforeseen catastrophe is noteworthy. In this research a limited sample of counselors demonstrated a high level of self-efficacy in addressing substance use which suggests the need for more counselors and a continuation of existing counselor effort. Counselor self-efficacy has been shown to correlate positively with counselor experience and training (Chandler, et al., 2011).

The field of counselor education offers courses on substance use and mental health diagnosis, but traditionally the focus is a distinct separation of the two phenomena. This needs to change. Research and current fatality rates indicate the immediate need for an inclusionary approach to counselor training and resulting treatment that normalizes co-occurring assessment and treatment for all mental health counseling providers, especially with present rates of substance use (CDC, 2018; Chandler, et al., 2011). In the current study many participants had provided counseling for more than 10 years, but an almost equal amount reported high levels of self-efficacy despite their lack of experience. This specifically indicates the significance of substance use education in college curricula for all the helping professions. The level of community devastation from substance use demonstrates a responsibility for trained counselors to educate their community stakeholders who are experiencing daily living and workplace challenges resulting from co-occurring or substance-induced mental illness. Knowledge is power, and a way of combating this epidemic is to inform stakeholders at community levels.

Hypothesis 2 examined how variables including: (a) level of education, (b) number of graduate substance abuse classes completed, (c) credentials, (d) number of continuing education hours on substance abuse, (e) length of time in field of counseling, and (f) length of time working with substance using individuals would predict level of counselor self-efficacy. This hypothesis was supported by a Spearman's two-tail correlation between the variables and the SATSES subscales where multiple variables were significant.

This research found continuing education in substance use to be the strongest predictor of efficacy. For years counselors have noted the importance of educational resources, but difficulty in accessing trainers and providing

those opportunities remains, often due to budgetary constraints (Pullen & Oser, 2014). This research study clearly supports the need for counselor participation in continuing education opportunities on substance use. Unfortunately, especially in Appalachia, budgetary limitations around continuing education and rigidity of social stratification and role identification in systems of care are more the reality. Given substance use fatalities in the past year, it would benefit communities if better effort for continuing education on substance use was provided within funding streams and organizational action plans. Instead federal dollars filtered through state budgets are often focused on training that does not meet individual, community, or counselor need.

The present study holds significance. It is one of few inquiries into the perceptions of licensed counselors on self-efficacy in provision of substance use services (Chandler, et al., 2011). The population sample was chosen to specifically bring attention to a regional need for prepared clinical staff. A sparse response to the complexities of substance use exists in Appalachia. Counseling providers often look to specialists to answer its clarion call. Appalachian substance use is an ever-increasing problem, 26 people died in a single day from a batch of heroin (Macy, 2018). Credential irrelevant, every counseling practitioner needs both skill and willingness to assess for and treat substance use and its effects.

Although the research sample was exceptionally small, the data supported counselors as well-prepared to address substance use. Representing only one segment of professional response to substance use in Appalachia, 33% had completed only one substance use course in their graduate program, so an expansion of curricular need continues to exist. Effectively addressing Appalachia's transgenerational normalcy of substance use cannot occur when the counselor has an only had an overview of drugs of choice and some treatment concepts, and awareness of substance use as a problem. The ability to transcend the normal can only be accomplished with informed knowledge. In Appalachia, the client may be better informed about the detriments of use at a base level than a clinician with limited knowledge of drugs of abuse. This research supported a much larger, universal need for professional development opportunities on substance use for all counseling practitioners regardless of credential, for expanding effective and informed response in clinical skillsets around substance use.

Sampling methods presented limitations to this study. Recruitment of study participants was dependent on snowball sampling. The researcher began with a small population of known individuals and asked the initial participants to identify others that should participate in the study. The overall respondent sample size, with under-represented response from professionals in West Virginia, Kentucky, and southwest Virginia, and the total lack of response from eastern Tennessee and western North Carolina was identified immediately. Possible confounds include recipients rejecting the email, web link, or social media request, a lack of interest or time, or invalid contact information, or the apathy of Appalachian culture. According to SurveyMonkey, of 84 emails received, 40 were completed. An unknown number of survey weblinks were shared on Facebook and other social media due to the survey distribution model, and it is unknown how respondents were initially contacted. This study determined that a small sample of counselors in Central Appalachia is well prepared to address substance use in counseling. Although the lack of readiness in social workers was explored to support training

needs, this study was limited to counselors and did not examine the self-efficacy of other professionals who are practicing in Central Appalachia. Bandura (1977) states cognitive processes regulate human behavior, and changes in behavior result from thinking positively and accepting successful performance. Decisions about behavior develop from self-observation of the effects of behavior on others, on environment, and resulting levels of coping effort (Bandura, 1977). As life skills expand, self-efficacy expectations determine choices in activity, level of interest in effort, and how long the effort will be made. This statement brings light to a paradox often in existence between client and professional around the Appalachian substance use epidemic.

For any professional the concepts of repeated successes raising mastery expectations and conversely, failures lowering them is understood (Bandura, 1977). Once mastery of any behavior is achieved from determined effort, the impact of perceived failed behavior becomes acceptable and strengthens a self-motivated persistence of thought and action. As clients' normalized patterns of use are demonstrative of persistence and determined effort toward use fueled by neural processes, so is the level of practitioner doubt and hopelessness about clients' potential for change.

The Appalachian client in the aforementioned paradox exists within a physiological reinforcement of substance use, the lack of realizing successful mastery of life, normalized perceptions of failure, impoverished living and awareness, and defensive self in impoverished environment, with slow awareness of change. The counseling provider has a desire for clients' improvement and sustained life functioning which, at best, may result in manipulative victimization and a disheartened bias toward those they serve. For both professional and client, eliminating defensiveness about performance through success can result in cerebral, emotional, cognitive, and behavioral change. Receiving training on the nuances of the drug subculture and related drug of choice-specific lifestyles would prove invaluable to all the warriors in the war on drugs.

For over a decade, counseling treatment funders and community service providers have demanded accountability, through use of evidence-informed approaches and best practice expectation (Marotta & Watts, 2007). Professionals who provide counseling must develop relationships with clients and engage tailored, systemically described treatment designed for psychological change (Sexton (2007) in Marotta & Watts, 2007). There is growing interest in integration of treatment methodologies for co-occurring issues. Optimally, integration of treatment by professionals who are experts in assessment and treatment for both mental health and substance use disorders is indicated (Fisher, McCleary, & Rohovit, 2014).

Many providers who are not in the counseling discipline suffer from a lack of effective assessment and skillset efficacy, a disconnection from the complexities of manifested substance use in the client's life, and an innate desire for performance gratification. Even if mistaken, any negative perception results in reluctance to continue efforts and, being easily dissuaded by negative responses, to avoid stressful transactions perceiving them as beyond their ability (Bandura, 1977). Subjected to uncontrollable aversive events, an expectancy that actions do not impact outcomes, and multiple failures, future effort response becomes futile and the initiation of change ceases, even when outcomes are controllable (Maier & Seligman (1976) in Bandura, 1977). The paradox exists

in that at different levels of understanding and perception, the practitioner and substance user are really living out the very same thing.

Aware of a lack of effect on behavioral change, either party may give up because they expect their behavior to have little effect on unresponsive environments (Bandura, 1977). This confounds their mutual ability to eliminate defensiveness. Through self-awareness and efficacious treatment where counselors normalize awareness of common factors by modeling and guiding performance, both can see success beyond a stressful situation. As a result, mutual self-directed, mastery experiences reinforce reductions in perceived failure (Bandura, 1977). There is always a need to look beyond personal credentials and preference, ideologic politics, and a dogma of theory to maintain a practice that is good for the client (Sexton (2007) in Marotta & Watts, 2007). Continuing education can be a useful tool for increasing counselor comfort level and self-efficacy around substance use intervention (Chandler, et al., 2011).

Recommendations

Researched since the 1980s, counselor education and training cannot ensure fidelity or practical competence in evidence-based delivery of effective treatment for co-occurring disorders (Chandler, et al., 2011; Fisher, et al., 2014). Counseling students with nominal instruction in substance use have attempted to treat or refer a client with substance use but did not identify the need for immediate response, even dismissing it as not urgent (Carroll (2000) in Chandler, et al., 2011).

The more a provider believes in their ability without attachment to client outcome, the better their level of self-efficacy. Given the diversity of Central Appalachian counseling providers, the first recommendation for future research is to engage mental health providers regardless of credential, and counselors-in-training as future research participants to gain a broader view of effective response preparedness in the intervention field. Investigating the wider range of participants by specialty would expose both macro- and micro- training needs across disciplines.

Secondly, future research examining in-practice manifestation of counseling competencies in critical clinical responses to substance use is indicated. An ability to determine the severity of clients' substance use, obtain true substance use histories, educate the client on consequences of use, facilitate exploration of personal consequences of substance use, and assess clients' understanding of substance use dependency is paramount (von Steen, et al., 2002). Furthermore, research about Appalachia as a culture under the multicultural umbrella warrants consideration, as does understanding drug use as a social phenomenon and how that relates to development of its youth. Expansion of effective intervention competencies in the field of counseling that fit diversity expectations are of severe importance in Central Appalachia.

Given the common widespread normalcy of substance use throughout the region, institutions of higher learning,

their accreditation bodies, professional associations, and social advocates should encourage additional training on assessment of substance use, and include effects not only on the user, but also the influence of, effect on, and trauma from an environ of substance use on a collateral, for example, the child raised in a home with normalized substance use. Training specific to the neurological effects of opioids, and other depressant and sedative drugs in comparison to others would be helpful for practitioners navigating availability of proven effective interventions.

There are advantages to examining client outcomes around the effectiveness of substance use counseling services from a licensed counselor (Chandler, et al., 2011). A 1984 report that one in 10 mental health clients may have needed substance use services predated an estimate that 20% to 40% of clients were affected by a substance user (von Steen, et al., 2002). More than a decade later research indicated a need for mental health counselors to have been trained in substance use because of the number of users presenting in the clinical population (von Steen, et al., 2002). Nearly 40 years later, with looming economic upheavals and a trend of decriminalization of marijuana, a corrections-based response to methamphetamine, and Appalachian people dying in droves from opioids, the need for trained professionals goes unfulfilled.

The time for educated action is now. The real need? For all professions who counsel in the public sector to become open to a future of new possibilities for the marginalized voices, not only for those they serve, but collectively, for the disregard ofr all of us (West (2007) & Bubenezer (2007) in Marotta & Watts, 2007). This research of clinical needs for addressing substance use in Appalachia found that education, continuing education, and professional development are major inroads to changing perceptions and interventions for the epidemic. A need is more than evident. A call for action, by higher education, government, and providers in their insular worlds, is now.

Acknowledgements

To the victims of poverty's direct and micro-traumas, who can't see they hold the ability for change. To M.A.S. for encouraging adventure through betrayal. To the boys of Mouth of Wilson and Whitetop, Virginia who have mountain water running through their veins and are as Appalachian as anyone can be and who learned about being our own worst enemy through loss. To those who find the natural way, who can step into life's flow with self-forgiveness, acceptance, and curiosity. Thanks for keeping it real. They that wait upon the Lord shall renew their strength. They shall mount up with wings as eagles. They shall run, and not be weary; and they shall walk, and not faint (Isaiah 40:31, KJV).

I would like to express special appreciation and thanks to my Committee Chair, Dr. Daniel Schnopp-Wyatt for mentoring and guiding my research and writing process. Your advice over the past year has been invaluable. I would also like to thank my Committee statistician, Dr. Nicole Schnopp-Wyatt and members at-large, Dr. Aaron Hymes, and Dr. Laura Smith for their willingness to suggest improvements in my work. I especially want to

thank Lindsey Wilson College and the School of Professional Counseling for bridging an educational gap in offering the extended campuses in southwest Virginia, and for development of the doctoral program in Counselor Education & Supervision. Thanks to the Lindsey staff and faculty who served the Wytheville, VA campus in 2012-13. Dr. Denis' Thomas, Dr. Rebecca Lochrer, Dr. Terry Street, Dr. Melissa Doan, Dr. Tracy Cohn, and others encouraged me toward a terminal degree. Thanks to Dr. Jeff Crane who sent the original program announcement email, and Dr. Jeff Parsons and the CES faculty, past and present for admitting me into the program. I offer special appreciation and thanks to Dr. Daya Sandhu for his guidance and leadership in my scholarly pursuits, Dr. Patrick Hardesty for sharing the transparency of research, and Dr. Ed Gunberg for reminding me the journey is about progress, not perfection. Furthermore, I want to thank Ms. Mava Vass, my high school senior English teacher, for her dedication to education and college preparation, and Mrs. Ila Davidson who firming my reading skills in first grade. I extend great appreciation to Reverend Kevin Campbell and Clan Mother Betty Red Earth Hyatt who have kept me grounded, and to my coworkers, friends, and students who have been inexhaustible cheerleaders. I am grateful to my family for loving me and supporting my confusing efforts with words of encouragement, especially my great nephews and great niece who sat at the Mickey Mouse table and did their "work" as preschoolers, and who are paying it forward with their accomplishments as elementary and middle school students. But to those whom I owe the most, my mother, for my tenacity and drive, and my grandmother who fostered my love for learning, I honor in memory and thank from my soul. You both taught me what it is to truly be a victim of Appalachia, to be long-suffering with impoverished thinking and fear change of the status quo, against which I eventually fought and which became the foundation for healing my childhood traumas. Thank you. But mostly, I thank Creator...for the cueing of soul intent, the strength provided when I felt I could not go on, and with whom all things are possible.

References

- Adams, N. (2001). *Far Appalachia: Following the New River north*. New York, NY: *Delacorte Press*.
- American Addiction Centers (2018). Benzodiazepine addiction: Symptoms and signs. Retrieved from <https://americanaddictioncenters.org/benzodiazepine/symptoms-and-signs/>
- Anglin, M. K. (2004). Erasures of the past: Culture, power and heterogeneity in Appalachia. *Journal of Appalachian Studies*, 10(1/2), 73-84.
- Appalachian Regional Commission (2016). [Website]. Research reports. Retrieved from <http://www.arc.gov/research>
- Baldwin-White, A. (2014). Psychological distress and substance abuse counselors: An exploratory pilot study of multiple dimensions of burnout. *Journal of Substance Use, Early Online*, 1-6. doi: 10.3109/14659891.2014.949316
- Bandura, A. (1977). Self efficacy: Toward a unifying theory of behavioral change. *Psychological Review*, 84(2), 191-215.

- Barber, J. P., Foltz, C., Crits-Christoph, P., & Chittams, J. (2004). Therapists' adherence and competence and treatment discrimination in the NIDA collaborative cocaine treatment study. *Journal of Clinical Psychology, 60*(1), 29–41. doi: : 10.1002/jclp.10186
- Blum, K., Giordano, J., Morse, S., Bowirrat, A., Madigan, M., Downs, W., ..., Simpatico, T. (2010). Understanding the high mind: Humans are still evolving genetically. *The IIOAB Journal, 1*(2), 1-22.
- Bride, B. E., Kintzle, S., Abraham, A. J., & Roman, P. M. (2012). Counselor attitudes toward and use of evidence-based practices in private substance use disorder treatment centers: A comparison of social workers and non-social workers. *Health & Social Work, 37*(3), 135- 145. doi: 10.1093/nsw/his022
- Center for Substance Abuse Treatment (2015). Addiction counseling competencies: The knowledge, skills, and attitudes of professional practice. Technical assistance publication (TAP) series 21. HHS Publication No. (SMA) 08-4171. Rockville, MD: Substance Use and Mental Health Services Administration.
- Centers for Disease Control (2017). [Website]. Drug overdose death data. Retrieved from <https://www.cdc.gov/drugoverdose/data/statedeaths.html>
- Centers for Disease Control (2018). [Website]. National vital statistics reports. Retrieved from https://www.cdc.gov/nchs/data/nvsr/nvsr67/nvsr67_09-508.pdf
- Chandler, N., Balkin, R. S., & Perepiczka, M. (2011). Perceived self-efficacy of licensed counselors to provide substance abuse counseling. *Journal of Addictions & Offender Counseling, 32*(1/2), 29-42.
- Chen, K. W., Berger, C. C., Forde, D. P., D'Adamo, C., Weintraub, E., & Ghandi, D. (2011). Benzodiazepine use and misuse among patients in a methadone program. *BioMed Central Psychiatry, 11*(90), 1-7. doi:10.1186/1471-244X-11-90
- Chubinski, J., Walsh, S., Sallee, T., & Rademacher, E. (2014). Painkiller misuse among Appalachians and in Appalachian counties in Kentucky. *Journal of Appalachian Studies, 20*(2), 154-169.
- Conrad, C., Bradley, H. M., Broz, D., Buddha, S., Chapman, E. L., Galang, R. R., ..., Duwve, J. M. (2015). Community outbreak of HIV infection linked to injection drug use of oxymorphone-Indiana, 2015. *Morbidity and Mortality Weekly Report, 64*(16), 443-444.
- Crèvecoeur-MacPhail, D., Ransom, L., Myers, A. C., Annon, J. J., Diep, N., Gonzales, R., ..., Barger, J. (2010). Inside the black box: Measuring addiction treatment services and their relation to outcomes. *Journal of Psychoactive Drugs, 42*(6), 269-276. doi: 10.1080/02791072.2010.10400550
- Crizler, Z. (2013). Franklin county man charged with making moonshine. *The Roanoke Times*, Retrieved from http://www.roanoke.com/news/crime/franklin_county/penhook-man-charged-with-manufacture-of-moonshine/article_ccdd3331-ce8a-5382-99c0-bb757f67a426.html
- Cunningham, R. (1991). Apples on the flood: Minority discourse and Appalachia. Knoxville, TN: *The University of Tennessee Press*.

- Drug Policy Alliance (2018). [Website]. History of the drug war. Retrieved from <http://www.drugpolicy.org/>
- Drugabuse (2018). [Website]. Cocaine history and statistics. Retrieved from <https://drugabuse.com/library/cocaine-history-and-statistics/#history>
- Figueredo, A. J. & Rushton, J. P. (2009). Evidence for shared genetic dominance between the general factors of personality, mental and physical health, and life history traits. *Twin Research and Human Genetics*, 12(6), 555-563. doi: 10.1375/twin.12.6.555
- Fisher, C. M., McCleary, J. S., Dimock, P., & Rohovit, J. (2014). Provider preparedness for treatment of co-occurring disorders: Comparison of social workers and alcohol and drug counselors. *Social Work Education*, 33(5), 626-641. doi: 10.1080/02615479.2014.919074
- Gilder, D. A., Luna, J. A., Calac, D., Moore, R. S., Monti, P. M., & Ehlers, C. L. (2011). Acceptability of the use of motivational interviewing to reduce underage drinking in a Native American community. *Substance Use & Misuse*, 46(6), 836-842. doi: 10.3109/10826084.2010.541963
- Goad, J. (1997). The redneck manifesto: How hillbillies, hicks, and white trash become America's scapegoats. New York, NY: *Touchstone*.
- Gowing, L. R., Ali, R. L., Allsop, S., Marsden, J., Turf, E. E., West, R., & Witton, J. (2015). Global statistics on addictive behaviours: 2014 status report. *Addiction*, 110, 904-919. doi: 10.1111/add.12899
- Grant, B. F. & Dawson, D. A. (1997). Age at onset of alcohol use and its association with DSM- IV alcohol abuse and dependence: Results from the national longitudinal alcohol epidemiologic survey. *Journal of Substance Abuse*, 9, 103-110.
- Gregg, J. A. (2012). Rural adolescent substance use: Prevention implications from the evidence. *Online Journal of Rural Nursing and Health Care*, 12(2), 41-50.
- Grootjans, J., Hunt, H., Cresswell, S., & Robinson, T. (2005). Explorations of self-identified education needs of alcohol and other drug workers. *The Australian Journal of Rural Health*, 14(2), 62-65. doi: 10.1111/j.1440-1584.2006.00765.x
- Grune, B., Piontek, D., Pogarell, O., Grubl, A., Grob, C., Reis, O., Zimmermann, U. S., & Kraus, L. (2017). Acute alcohol intoxication among adolescents: The role of the context of drinking. *European Journal of Pediatrics*, 176, 31-39. doi: 10.1007/s00431-016-2797-4
- Hall, M. T., Leukefeld, C. G., & Havens, J. R. (2013). Factors associated with high-frequency illicit methadone use among rural Appalachian drug users. *The American Journal of Drug and Alcohol Abuse*, 39(4), 241-246. doi: 10.3109/00952990.2013.8057161
- Hamilton, J., Noland, M. P., Riggs, R. S., & Mullineaux, D. R. (2010). Factors related to adolescent drinking in Appalachia. *American Journal of Health Behavior*, 34(2), 249-256.
- Harrington, M. (1963). The other America: Poverty in the United States. New York, NY: *Macmillan Company*.
- Hauser, M. & Hays, D. G. (2011). The slaying of a beautiful hypothesis: The efficacy of counseling and the therapeutic process. *The Journal of Humanistic Counseling*, 49(1), 32- 44. doi: 10.1002/j.2161-1939.2010.tb00085.x

- Healey, A. C. & Hayes, D. G. (2011). Defining counselor professional identity from a gendered perspective: Role conflict and development. *Professional Issues in Counseling*. Retrieved from www.shsu.edu/academics/counselor-education/piic/journals/spring-2011/spring-2011-healy-hays.html
- Hecker, D. E. (1998). Earnings of college graduates: Women compared to men. *Monthly Labor Review*, 62-71.
- Hofstede, G. (2001). *Culture's consequences: Comparing values, behaviors, institutions, and organizations across nations* (2nd Ed.). Thousand Oaks, CA: *Sage Publications, Inc.*
- Ivey, A. E. & Zalaquett, C. P. (2011). Neuroscience and counseling: Central issue for social justice leaders. *Journal for Social Action in Counseling and Psychology*, 3(1), 103-116.
- Jackson, A. & Shannon, L. (2012). Barriers to receiving substance abuse treatment among rural pregnant women in Kentucky. *Maternal Child Health*, 16, 1762-1770. doi: 10.1007/s10995-011-0923-5
- Jackson, S. L. (2012). *Research methods and statistics: A critical thinking approach*, (4th Ed.). Belmont, CA: *Wadsworth*.
- Jones, C. M., Baldwin, G. T., & Compton, W. M. (2017). Recent increases in cocaine-related overdose deaths and the role of opioids. *American Journal of Public Health*, 107(3), 430-432. doi: 10.2105/AJPH.2016.303627
- Joyce, J. (2014). *Moonshine: A cultural history of America's infamous liquor*. Minneapolis, MN: *Zenith Press*.
- Keyes, K. M., Cerda, M., Brady, J. E., Havens, J. R., & Galea, S. (2014). Understanding the rural-urban differences in nonmedical prescription opioid use and abuse in the United States. *American Journal of Public Health*, 104(2), e52-e59.
- Kiley, K. (2012, January 12). A rocky Appalachian trail. Retrieved from <https://www.insidehighered.com/news/2012/01/12/university-pikeville-seeks-join-kentucky-public-higher-education-system>
- Kranz, K. M. & O'Hare, T. (2006). The substance use treatment self-efficacy scale: A confirmatory factor analysis. *Journal of Social Science Research*, 32(3), 109-121. doi: 10.1300/J079v32n03_06
- Kranz, K. M. (2003). Development of the alcohol and other drug self-efficacy scale. *Research on Social Work Practice*, 11(6), 724-741. doi: 10.1177/1049731503254105
- Kranz, K. M. (personal correspondence, 16 April 2016) Retrieved from <https://mail.google.com/mail/u/0/#label/Priority%20PhD+Dissertation/15417c2eee0d9363>
- Lampher, L., Ragone, H., & Zavella, P. (1997). *Situated lives: Gender and culture in everyday life*. New York, NY: *Routledge*.
- Latimer, M. & Oberhauser, A. M. (2004). Exploring gender and economic development in Appalachia. *Journal of Appalachian Studies*, 10(3), 269-292.
- Leukefeld, C., Godlaski, T., Clark, J., Brown, C., & Hays, L. (2000). Behavioral therapy for rural substance abusers. Lexington, KY: *The University Press of Kentucky*.

- Linton, J. M. (2005). Mental health counselors and substance use treatment: Advantages, difficulties and practical solutions to solution-focused interventions. *Journal of Mental Health Counseling, 27*(4), 297-310.
- Lookatch, S. J., Moore, T. M., & Katz, E. C. (2014). Effects of gender and motivations on perceptions of nonmedical use of prescription stimulants. *Journal of American College Health, 62*(4), 255-262.
- Macy, B. (2018). *Dopesick: Dealers, doctors, and the drug company that addicted America*. New York, NY: Little, Brown & Company.
- Magill, M. & Longabaugh, R. (2013). Efficacy combined with specified ingredients: A new direction for empirically supported addiction treatment. *Addiction, 108*, 874-881. doi: 10.1111/add.12013
- Markland, D., Ryan, R. M., Tobin, V. J., & Rollnick, S. (2005). Motivational interviewing and self-determination theory. *Journal of Social and Clinical Psychology, 24*(6), 811-831.
- Marotta, S. A. & Watts, R. E. (2007). An introduction to the best practices section in the journal of counseling & development. *Journal of Counseling & Development, 85*(4), 491-503.
- Marshall, J. L. & Alcalde, G. (2017). Health disparities in Appalachia: The first report in a series exploring health issues in Appalachia. Washington, D. C.: Appalachian Regional Commission. Retrieved from https://www.arc.gov/assets/research_reports/Health_Disparities_in_Appalachia_August_2017.pdf
- Martins, J. S., Bartholow, B. M., Cooper, M. L., Von Gunten, C. D., & Wood, P. K. (2018). Associations between executive functioning, affect-regulation drinking motives, and alcohol use and problems. *Psychology of Addictive Behaviors, 32*(1), 16-28. doi: 10.1037/adb0000324
- Massey, C. (2007). Appalachian stereotypes: Cultural history, gender and sexual rhetoric. *Journal of Appalachian Studies, 13*(1/2), 124-136.
- Meit, M. (2017). Appalachian diseases of despair. (Research Report: Final Report). Retrieved from https://www.arc.gov/assets/research_reports/AppalachianDiseasesofDespairAugust2017.pdf
- Melchert, T. P., Hays, V. L., Wiljanen, L. M., Kolocek, A. K. (1996). Testing models of counselor development with a measure of counseling self-efficacy. *Journal of Counseling & Development, 74*(6): 640-644.
- Mellin, E. A., Hunt, B., & Nichols, L. M. (2011). Counselor professional identity: Findings and implications for counseling and interprofessional collaboration. *Journal of Counseling & Development, 89*(2), 140-147.
- Meredith, D. (2001). Migration and adaptation of popular balladry in the US Appalachian region. *Scottish Geographic Journal, 117*(3), 169-183.
- Meyers, L. S., Gamst, G., & Guarino, A. J. (2006). *Applied multivariate research: Design and interpretation*. Thousand Oaks, CA: Sage Publications, Inc.
- Midgett, A., Hausheer, R., Dumas, D. M. (2016). Training counseling students to develop group leadership self-efficacy and multicultural competence through service learning. *Journal for Specialists in Group Work, 41*(3), 262-282. doi: 10.1080/01933922.2016.1186765

- Miller, W. R. (2014). [Website]. Motivational interviewing. Retrieved from <http://www.williamrmiller.net/MotivationalInterviewing.html>
- Miller, W. R. & Rose, G. S. (2009). Toward a theory of motivational interviewing. *American Psychologist* 64(6), 527-537. doi: 10.1037/a0016830
- Momper, S. L., Delva, J., Tauiliili, D., Mueller-Williams, A. C., & Goral, P. (2013). OxyContin use on a rural midwest American Indian reservation: Demographic correlates and reasons for using. *American Journal of Public Health*, 103(11), 1997-1999.
- Murdock, T. B., Wendler, A. M., & Nilsson, J. E. (2005). Addiction counseling self-efficacy scale (ACES): Development and initial validation. *Journal of Substance Use Treatment*, 29, 55-64. doi: 10.1016/j.jsat.2005.03.005
- Myers, L. L. (2013). Substance use among rural African-American adolescents: Identifying risk and protective factors. *Child Adolescent Social Work Journal*, 20, 79-93. doi: 10.1007/s10560-012-0280-2
- Nelson, D., Hewell, V., Roberts, L., Kersey, E., & Avey, J. (2012). Telebehavioral health delivery of clinical supervision trainings in rural Alaska: An emerging best practices model for rural practitioners. *Journal of Rural Mental Health*, 36(2), 10-15.
- Pankratz, N. (2007). Medications. *Visions Journal*, 4(2), 10-11.
- Payne, R. K. (2013). A framework for understanding poverty (5th rev. ed.). Highlands, TX: *Aha! Process*.
- Peine, E. K. & Schafft, K.A. (2012). Moonshine, mountaineers, and modernity: Distilling cultural history in the southern Appalachian Mountains. *Journal of Appalachian Studies*, 18:1/2, 93-112.
- Penchef, E. (1971). Four horsemen: Pollution, poverty, famine, violence. New York, NY: *Harper & Row*.
- Pollard, K. & Jacobson, L. A. (2018). The Appalachian region: A data overview from the 2012- 2016 American community survey chartbook (CO-19073-17). Washington, D. C.: Appalachian Regional Commission. Retrieved from https://www.arc.gov/assets/research_reports/DataOverviewfrom2012to2016ACS.pdf
- Porter, J. D. (1981/Winter). Appalachians: Adrift in the mainstream. *Theory into Practice*, 20(1). 13-19.
- Pullen, E. & Oser, C. (2014). Barriers to substance use treatment in rural and urban communities: Counselor perspectives. *Substance Use & Misuse*, 49(7), 891-901. doi: 10.3109/10826084.2014.891615
- Richardson, G. B. & Hardesty, P. (2012). Immediate survival focus: Synthesizing life history theory and dual process models to explain substance use. *Evolutionary Psychology*, 10(4), 731-749. doi: 10.1177/147470491201000408
- Rosenthal, J. A. (2001). Statistics and data interpretation for the helping professions. Belmont, CA: *Brooks/Cole*
- Salyers, K. M. & Ritchie, M. H. (2006). Multicultural counseling: An Appalachian perspective. *Journal of Multicultural Counseling and Development*, 34, 130-142.
- Schnopp-Wyatt, N., Fleming-Richardson, L., Trout, C., & Durand, W. (2014, November).

- Training Appalachians to counsel Appalachians: Best practices for mental health counseling. Paper presented at the 2014 conference of the Kentucky Counseling Association, Louisville, Kentucky.
- Schwartz, B. M., Wilson, J. H., & Goff, D. M. (2018). An easy guide to research design & SPSS, 2nd edition. Thousand Oaks, CA: *Sage Publications, Inc.*
- Shannon, L. M., Havens, J. R., Oser, C., Crosby, R., & Leukefeld, C. (2011). Examining gender differences in substance use and age of first use among rural Appalachian drug users in Kentucky. *The American Journal of Drug and Alcohol Abuse* 37. 98-104. doi: 10.3109/00952990.2010.540282
- Shifflett, P. A. (2008). The red flannel rag. Waynesboro, VA: *McClung Companies.*
- Short, N.A., Norr, A. M., Mathes, B. M., Oglesby, M. E., & Schmidt, N. B. (2016). An examination of the specific associations between facets of difficulties in emotional regulation and posttraumatic stress symptom clusters. *Cognitive Therapy Research*, 40, 783-791. doi: 10.1007/s10680-016-9787-8
- Sias, S. M., Lambie, G. W., & Foster, V. A. (2006). Conceptual and moral development of substance abuse counselors: Implications for training. *Journal of Addictions and Offender Counseling* 26(2), 99-110. doi: 10.1002/j.2161-1874.2006.tb00011
- Siegel, D. J. (2001). Toward an interpersonal neurobiology of the developing mind: Attachment relationships, "mindsight," and neural integration. *Infant Mental Health Journal*, 22(1-2), 67-94. doi: 10.1002/1097-0355(200101/04)22
- Smith, B. D. (2013). Substance use treatment counselors' attitudes toward evidence-based practice: The importance of organizational context. *Substance Use & Misuse*, 48, 379-390. doi: 10.3109/10826084.2013.765480
- Statista. (2018). Alcohol use: Statistics and facts. [Data file]. Retrieved from <https://www.statista.com/topics/2301/alcohol-and-health/>
- Substance Abuse and Mental Health Services Administration, (2016). National survey on substance use and health: Detailed tables. Retrieved from <https://www.samhsa.gov/data/sites/default/files/NSDUH-DetTabs-2016/NSDUH-DetTabs-2016.pdf>
- Substance Abuse and Mental Health Services Administration, Center for Behavioral Health Statistics and Quality. (2015). The NSDUH report: Substance use and mental health estimates from the 2014 national survey on drug use and health: Overview of findings. *Rockville, MD.*
- Substance Abuse and Mental Health Services Administration, Center for Behavioral Health Statistics and Quality. (2014). The NSDUH report: Substance use and mental health estimates from the 2013 national survey on drug use and health: Overview of findings. *Rockville, MD.*
- Tang, M. & Russ, K. (2007). Understanding and facilitating career development of people of Appalachian culture: An integrated approach. *The Career Development Quarterly*, 56, 34-46.
- The President's Commission on Combating Drug Addiction and the Opioid Crisis (2017). Final report draft. Government Printing Office, 2017. Available at https://www.whitehouse.gov/sites/whitehouse.gov/files/images/Final_Report_Draft_11-1-2017.pdf (Accessed 12/20/17).

- Vance, J. D. (2016). *Hillbilly elegy: A memoir of a family and culture in crisis*. New York, NY: *Harper*.
- Virginia Department of Health. (2017). Fatal drug overdoses quarterly report Q2-2017. Retrieved from: <http://www.vdh.virginia.gov/content/uploads/sites/18/2016/04/Fatal-Drug-Overdose-Quarterly-Report-Q2-2017.pdf>
- von Steen, P. G., Vacc, N. A., & Strickland, I. M. (2002). The treatment of substance-abusing clients in multiservice mental health agencies: A practice analysis. *Journal of Addictions & Offender Counseling*, 22, 61-71.
- Wang, T., Fan, T., Bao, Y., Li, X., Liang, C., Wang, R., Ma, J., Han, Y., Meng, S., Wu, P., Shi, J., & Lu, L. (2017). Pattern and related factors of cognitive impairment among chronic methamphetamine users. *The American Journal on Addictions*, 26, 145-151. doi: 10.1111/ajad.12505
- Webster, J. M., Pimentel, J. H., Harp, K. L. H., Clark, D. B., & Staton-Tindall, M. (2009). Substance abuse problem severity among rural and urban female dui offenders. *The American Journal of Drug and Alcohol Abuse*, 35, 24-27. doi: 10.1080/00952990802334458
- Wendler, A. M. (2007). Validation of the addiction counseling self-efficacy scale (ACSES). (Doctoral Dissertation) Retrieved from ProQuest Dissertations Publishing. (3280868)
- World Health Organization (2018). Management of substance use: Amphetamine-type stimulants. Retrieved from http://www.who.int/substance_abuse/facts/ATS/en/
- World Health Organization (2010). ATLAS on substance use 2010: Resources for prevention and treatment of substance use disorders, Retrieved from http://www.who.int/substance_abuse/activities/msbatlasfrontncont.pdf?ua=1
- Young, A. M. & Havens, J. R. (2011). Transition from first illicit drug use to first injection drug use among rural Appalachian drug users: A cross-sectional comparison and retrospective survival analysis. *Addiction*, 107, 587-596. doi: 10.1111/j.1360-0443.2011.03635.x

Educational Leadership for Development of Structural Plans, Cultural Diversity, Curriculum Standards, and Faculty Engagement

Hisham A. Maddah

King Abdulaziz University, Saudi Arabia,  <https://orcid.org/0000-0002-8208-8629>

Abstract: Educational leaders need to be able to make outstanding decisions for planning, organizing and directing others. Herein, we discuss the impact of educational leadership in developing structural plans, cultural diversity, curriculum standards, and faculty engagement. Cultural diversity remains as an unresolved issue, but student's negative attitudes associated with their differences in background and culture can be overcome with a proactive structure (prevention rather than cure!). University leaders should seek better learning environments through diversification to foster collaboration, creativity, equality, and innovation. Pre-planned curriculum standards and class outlines are critical to have a high quality education. A research-based and/or a coursework-based program can be carefully chosen according to the student's needs (interests) prior to the implementation of such planned standards. Well-established standards must be periodically assessed to achieve expected outcomes. Approachable, honest, caring, inspirational, and respectful leaders promote faculty engagement to incorporate their experiences. The strategy of "telling benefits" and "speaking academic" are useful and effective to engage faculty in the ongoing activities and assessments. The leadership plan and the role of leaders must be both utilized to identify the deficiencies and the interests of current students; hence, achieving the educational organization's mission, intended goals, and student success from the engagement.

Keywords: Educational Leadership; Diversity; Curriculum; Engagement; Assessment

Introduction

In higher educational institutions, leaders need to be able to make good decisions and to be outstanding in planning, organizing and directing others (Pierce & Newstrom 2003). Both leaders and managers have to have certain traits to make them capable of achieving university goals for a successful education. The key characteristics of strong leaders involve honesty, integrity, vision, inspiration and communication skills; while the common traits required for strong managers are being able to execute a vision, ability to direct, process management, taking care of people (people focused) (Go2HR 2019). When we think about leaders and contrast them with managers, leaders have much power and benefits that would give better results. Bridging the gap between people in charge and the subordinates (led people as followers or managed people as employees) is the first and most critical advantage we find in leadership. People like to be engaged, understood and given trust and

opportunities to practice their work activities smoothly in an attempt to reach their leader/managers ultimate goals.

It has been established that leadership can influence study in six key emerging areas: environment manager, network manager, policy manager, crisis manager, knowledge gap manager, and future leader preparation (Koyuncuoglu, 2021; Martin & Marion 2005 Marwanto & Satriyono, 2021). The role of leadership and leaders in higher educational institutions can enhance the learning capacity by having a good knowledge-processing environment and bridging the gap between students and faculty. Behavioral actions of both leaders and managers, as well as their designed programs, enable or inhibit knowledge-processing activities. To the best author's knowledge, faculty members have to create a friendly environment with their students to allow them to feel more comfortable in sharing their ideas and participate in-class activities; hence, instructors who are in the leader position would identify the deficiencies and the interests of their current students. Knowing your followers (students) interests and abilities would make it more efficient for leaders to design their materials accordingly to be appropriate for teaching (matching the available skills and capabilities of students learned in prerequisite classes). Thus, implementing a pre-planned class outline based on the student needs and interests as well as the departmental needs might result in much better knowledge-processing abilities. The change is evident and it is "a must" to adapt with every batch of students; as pointed out by Wells (1997) we should have the change from involving leaders while ensuring that values, ethics, and processes involved become prominent issues in higher education. Inevitably, we can say that chief executive officers and higher education leaders possess the ability to impact significantly on the learning abilities, campus culture, and education success.

Students, faculty members/staff and administrators are all responsible for the change in the university (diversification). For example, in order to successfully engage students in classrooms, educators must know their students and their academic abilities individually, rather than relying on racial or ethnic stereotypes. Educators must be very sensitive to their own ethnic attitudes as well as their student's ethnic attitudes in order to have a more harmonic environment that is free from racism. Moreover, curriculum and text selections are crucial to academic performance and can help students to find and value their own voices, histories, and cultures (Teaching Tolerance Magazine 2018). The growth/development of the department can be assessed from leaders/educators through weekly reports about negative outcomes (e.g. racism issues and cultural conflicts) and positive outcomes (e.g. more inclusion, engagement, and positive attitudes). Thus, adopting a proactive structure with the previously mentioned practices by the different involved parties in the engineering college is very critical to achieve diversity and overcome any possible diversity-related issues. The structure should be in summary "taking initiative actions towards prevention of diversity problems through the involvement of community members, administrators, students, families, faculty members, and university staff like librarians for ensuring implementation of the cultural diversity". The structure might not have been implemented yet due to the difficulty in engaging all the university parties in working together towards a unified action plan which should adopt prevention rather than resolution. The important leadership qualities that should exist to implement the suggested structure involve honesty, intelligence, organization, innovation, and being ambitious (Pew Research Center 2015); and more importantly, a culturally competent leader must be able to identify other

cultural views, understand the needs of people coming from different backgrounds, and grasp the common differences between cultures and work towards them according to the norms of that culture (National Education Association 2019).

Implementing curriculum standards in a higher educational institution is very important to have a high-quality education. Setting the right and concise standards would allow educators to be familiar with the learning goals and help them prepare students to reach their educational and career goals. Those standards should involve higher management, instructors, curriculum developers, students, and their families in order to have all groups working together towards supporting the learning process from developing curriculum standards. According to the literature on core standards (Common Core State Standards Initiative 2019), curriculum standards should be (1) research and evidence-based; (2) very clear and consistent with university mission and vision; (3) aligned with university expectations; (4) built upon critical lessons learned from current standards and mistakes; and (5) implemented based on gained knowledge and by expert people with high thinking abilities to resolve issues in higher education.

Some of the power tools and standards regarding the “Curriculum Guides” should include that educators need to ensure (1) every child/student in the district receives the same content; (2) teacher can make connections between content areas; (3) promotion of integration with teachers and even experts who are teaching materials outside the core areas; (4) developing the coursework with relevant concepts and theories to be included in the classroom curriculum topics; (5) teacher’s favorite topics and units only taught in the core courses when teachers become masters of their materials (Mooney and Mausbach 2008). Building a roadmap to instructors and their students is important to guide them towards implementing new curriculum standards that would greatly improve both teaching and assessment throughout the year.

Identifying the standards depends on the educator; and what should a student know from another student differ from one class to another as well as from an instructor to another. For example, in engineering programs, the fundamental standards should be that Mathematics has to be seriously understood and is a mandatory skill which should be well-grasped by the students to understand the taught concepts and their relation to engineering phenomena.

A good strategy that would create a change and engage teachers/faculty and staff with the administration in evaluating the department progress (or even the university progress) is “Declare and tell the benefits for both students and faculty and/or staff”. This strategy would engage teachers/faculty and staff in the evaluation process by familiarizing them with the assessment process benefits and advantages which can be gained by the students and the faculty members (Blau, 2018). The engagement process would be much easier to accomplish when people know what is expected to happen next, and why do we need to care about the change. The author believes that letting others know the benefits is the first step we should tackle because students/faculty will get motivated once they know there are huge benefits waiting for them after the implementation of the evaluation process to achieve the university vision.

Structural Action Plans for Cultural Diversity

Personal experience: In 2014, I have been hired on a teaching assistant (TA) position in the Chemical Engineering Department at King Abdulaziz University (KAU) in Rabigh. I had the chance to work with faculty staff in evaluating, grading, and delivering lecture notes to undergraduate students; hence, I got the opportunity to recognize/understand several diversity-related issues between students. Typical diversity-related attitudes in KAU, Rabigh include, but not limited to, undermining learning skills and abilities of low-income/rural students, non-English speakers and non-Saudi students. These attitudes are associated with the differences in social-class, language, ethnicity/race (nationalism) and culture background between university students. The higher educational institute (KAU, Rabigh) is typically constructed for undergraduate study levels. The University was established in 2009 and is located at Rabigh City in the Western Region of Saudi Arabia, and is a branch of the main KAU in Jeddah. In 2015, there were approximately 1000 students attending the university and were distributed on the five available academic programs (200 students per program) which are Medicine, Engineering, Science, Business and Computing/Information Technology (Zaka'ee, 2009). The university had no clear standards and/or regulations relevant to the mentioned diversity-related attitudes. However, today's administrators at KAU are developing standards of assessment for student's performance as an attempt to promote equality. The author believes that the university should address diversity-related attitudes by having a more diverse campus, teaching students about diversity and engaging students and faculty staff in solving the problem (King Abdulaziz University, 2015).

There are various difficulties inherent in creating a culture to change attitudes towards diversity in KAU at Rabigh. While religion and culture permeate every facet of life including economic, governmental and educational arenas, Saudi Arabia remains a very traditional, conservative society where educational institutions prefer to have a static culture (a non-diverse campus). Yet, successful educational reforms encourage new ideas, new thinking and new concepts to be implemented in order to achieve/accept diversity (Profanter, 2014). Commonly, difficulties arise because students/faculty staff are not exposed to other cultures within the university campus (or even outside the university); and this is because Saudi students account for more than 90% of the total university students (Zaka'ee, 2009).

The primary goal of the department is to engage faculty, staff, and students in a better learning environment and diverse campus community that will ensure collaboration, creativity, equality, and innovation. The department seeks a safe environment that is free from discrimination which is possible by understanding and appreciation for the complex cultural and physical worlds in which faculty, staff, and students live (Andrew 2018; Centenary University, 2017). However, University leaders and administrators are not currently taking proper actions towards diversifying the department, campus and inclusively involve students with different backgrounds.

Issues and resolutions: Cultural diversity remains as an unresolved issue because the university is only taking initiative in engaging students with employees in celebration events and other social occasions; which are still not enough to allow students understand and grasp the overall idea and differences arise between the different

racess and backgrounds. Currently, in the engineering college, students are treated differently based on their capacity of speaking English and/or the abilities to express their education background or strength skills to their instructors or university leaders. Students with great interpersonal skills get so many opportunities than their peers who lack these skills. Some people think this is completely natural because those students are already with much better skills and abilities that would allow them to have better chances in work, education, and even in interaction with faculty members. Nevertheless, the engineering dean has to take the initiative to address diversity issues and allow equal opportunities to all students regardless of their race, ethnicity, background or even their abilities such as English language skills or interpersonal skills.

The current adopted structure in my organization is very clear when it comes to dealing with diversity issues. The only actions that I believe are implemented well is when there is direct misbehavior arise between student/student or student/instructor which will be directly reported to the higher management to take proper actions for behaving such non-professional acts. Thus, the structure seems to be inclined to a reactive structure rather than a proactive one. Waiting for the problems to occur until we solve them is not the optimal approach we should think of, university leaders have to adopt the notion of prevention rather than cure! Fixing existing diversity problems would be much more difficult than preventing them from occurring.

The university has to follow the proposed structure that is suggested here to overcome most of the diversity-related issues which might arise from any unwanted misbehavior (either from students or instructors involved in the engineering college). Roles and responsibilities of educational leaders at the university should involve the following (Banks & Banks, 2016; Peterson & Deal, 1998): (1) Community members must participate in the diversification act and appreciate administration efforts in culture change and academics areas; (2) Administrators should communicate with the involved groups and organizations for the culture change and for developing diversity; (3) Students should be taught cultural differences to accept diversity, and get engaged in the society for community inclusion; (4) Families should be engaged by the administrators towards creating a culture change, diversification, and development of academic programs; (5) Faculty has to provide students with guidance, support, and encouragement; and participate in both updating programs' curriculum and attending international conferences for better diversity and research outcomes; Lastly, (6) Staff members need to ensure university facilities, technology, and knowledge (e.g. libraries, archives, museums, and research facilities) are available and easily accessed for understanding diversity and being part of the campus cultural change.

Implementation of Curriculum Standards

Writing and implementing an educational plan for curriculum standards should be initiated by university administrators by allowing leaders to closely work with university instructors to check for the student needs as well as check for possible improvements. A high failure rate in any organization should be faced by setting the right foundations for the plan. For instance, considering an educational organization with the university level, educators have certain tasks to implement where the most critical role goes to faculty members and their students (Pierce & Newstrom, 2003). Both parties have to work closely to identify the best standards that can

satisfy the needs of having high education qualities. The plan should first consider checking students earlier assessment reports, then, understanding the impact of the previously implemented plans and focused standards on the student performance. For any unimproved standard, there should be an action plan taken towards improving those standards. Educators have to check the progress of their students while the implementation of the new plan should take place after revising prior reports. Leaders need to ask instructors to gather information about their student's background, knowledge, and possible skills available at the time of creating the plan.

In terms of the leadership position in this task, any instructor or lecturer should be capable of gathering the required information from students, asking them for suggestions about developing the university curriculum, and ask them to provide feedback on the current teaching methodologies as well as the curriculum standards adopted by instructors and university leaders. For example, students will allow leaders to understand which area they should focus on regarding the standards. It is important to evaluate whether a research-based program focus or a course-work program focus is the best option of the students! Would it be more beneficial for the students to understand the theory or to apply them in real-life applications through experimental works? These are some of the common questions we need to find the answer for; hence, university leaders have to think carefully about what standards should be implemented first when it comes to the plan initiation.

To clearly identify the goals of the university and have standards meeting the overall mission/vision, the instructors need to convince leaders about what they think are the important standards to be implemented and prioritized. Further, instructors cannot work separately from the administrators, we have to guide our students through the implemented standards that should be also identified to be useful for the student bodies once the plan is being accredited by educational professionals. For example, essential skills related to physics, math, chemistry subjects are required for Chemical Engineering students in the Chemical Engineering Department in any university; these skills are expected to be well-gained by undergraduate students which were acquired during the high school studies (Texas Education Agency, 2019). Curriculum standards involve that students should be able to critically solve engineering problems, able to extract unknown and given variables for the purpose of analyzing the problem. In the engineering fields, students are also expected to follow a logical sequencing with the understanding of all assumptions made and their impact on getting the final solution or answer; to check how the answer might be different than observations in reality (without making assumptions). Contents must be changed based on the student needs, mastery level of the instructor towards the taught materials, and mission/goals of the university as well as the career goals of the students (Mooney & Mausbach, 2008). We have to consider assessment tools that would verify the applicability and success of the implemented plan to change standards after careful consideration of previous factors.

Moreover, the curriculum standards in the university must include diversity and practical applications of the given materials. Instructors who work in the university should be working towards fulfilling educational goals through understanding their students' needs, communication, and keeping the door open for any suggestions from the students (Hohamad Karkouti, 2016). Lecturers must be capable of listening to their students and taking into consideration their English language deficiency. Educators such as lecturers must be able to communicate

effectively, connect the dots between different ideas or suggestions given from students for possible improvements.

Educators can be guided through the implementation process by patient leaders. Leaders have to always praise others work, abilities, and try to engage them in conversations to brainstorm new methods that can be helpful in researching or improving the education of incoming students. Having a leader who is very approachable, friendly, caring, and respectful to everyone involved under him is very important and appealing to the employees who work under his supervision. An educational leader should engage instructors/students in conversations, make them feel comfortable, and let them enjoy their learning experiences without any fear or negative self-talk conversations (Chief Executive, 2016; Pierce & Newstrom, 2003).

Finally, the adopted standards have to be well-established and then assessed with a clearly outlined expected outcomes from the students. For example, we need students to be very strong in mathematics for engineering classes and able to communicate effectively for communication and media classes. Resources should be gathered from instructors and from their interactions with students as well as previous assessment reports. The lack of resources may be substituted by creating survey questions for students and interviewing alumni students to ask them for suggestions about meeting the industry requirements (demands) from the taught courses and implemented curriculum standards. The implementation of the above leadership traits, starting with instructors, would make it easy to create the change and implement the new plan.

Faculty Engagement in Assessments

From a perspective of an educational leader in a higher education institution, the aim should be to engage the whole people in our department in the ongoing activities as well as in the occurring assessments to reach our educational goals (Pierce & Newstrom, 2003). For example, the department which I work for is associated with the “Engineering College” and there are many objectives identified to be done by the end of every year in order to keep the education quality as high as possible. Typically, administrators need to know how to speak academic. This is because faculty staff would understand them much easier and then they will be more willing to help, support, and be part of the evaluation process (Blau, 2018). Speaking academic means that administrators need to be focused, with clear ideas, and have the cause-effect relations in their minds ready to be explained to university leaders and students for further clarifications of suggested benefits. Having a mindset similar to one of the faculty members would make it much easier for the administration to reach faculty, and allow them to incorporate their experience in the evaluation process (Pierce & Newstrom, 2003).

Regarding the “telling benefits” strategy, it has been proved that faculty usually care about the students learning, progress, and understanding. Hence, they will do anything that would make the students be successful bodies in the community (Blau, 2018). In terms of the student benefits, I like to mention this quotation which emphasizes on the importance of telling the student benefits to faculty (or even to the students to engage everyone in the evaluation process) “Faculty members usually care deeply about the quality of education they are able to

provide; so they will make time to get involved if they believe it will improve that quality” (Blau, 2018).

Further, Blau (2018) indicated that not only student benefits are important for the engagement of faculty in the assessment; however, faculty themselves look for their own benefits or interests and will be more motivated and interested to help the management in the evaluation process if they find out the benefits will extend to reach them as well. For example, many research professors look for grants and funds provided by the university to do research work and make their students prepared to do research and gain the lab experience. A faculty member will be more motivated to help the students to gain the lab experience and build his own research skills if the management is going to provide quite good yearly research funds. The benefits, in this case, is then extended to faculty as well as their students and the whole department. Doing research means that the faculty member can be promoted and become prominent in his field, students will gain experiences and have more opportunities in the research industry, and lastly the management or the higher administration will get satisfied from the research accomplishments and the highly educated students which can be evaluated by the different assessment processes involving research work and prospective publications from the students. Another quote by Blau (2018) highlights the importance of benefiting faculty is worth to mention here as in “Faculty members will make time to get involved if they believe it will result in smaller class sizes, more faculty lines, more and better facilities, a reduction in committee work, more financial support for attending conferences ...” (Blau, 2018).

The strategy of “telling benefits” and “speaking academic” will be useful and effective to engage faculty and staff in the assessment because of the following reasons: (1) faculty will know that the management care about them and their own ideas, and they want to benefit everyone involved in the change process through the continuous evaluations; (2) faculty will understand the academic language adopted by administration which would allow better communication to achieve the university educational vision.

The leadership plan of any adopted strategy has to identify the role of every involved group in the assessment process. Faculty and staff need to gather data and information required for the students’ assessment. The higher administration should ease the way of collecting information to quickly get the data and take it to the next step of the process “data analysis”. The benefits for both students and faculty should show up in the collection phase where faculty has to mention their benefits as well as the higher management benefits from doing a specific assessment method. The administrators have to revisit those benefits and double check if every person has included his own benefits to be compared with others for the purpose of having benefits aligned with the university educational vision. If necessary, the management may need to do a round of teacher evaluation to check for any possible improvements in student’s education via the evaluation of teachers (Santiago, n.d.). The university should seek to improve assessment processes from the engagement of all parties and from the enhancement of teacher’s performance in their teaching, data collection and, data analysis skills. Lastly, the leadership plan and the role of leaders must be both utilized for the purpose of achieving the educational organization’s mission and student success from the engagement process.

Leadership Development Plan (Thoughts and Reflection)

In higher education institutions, we should treat students as grown, independent, and self-learner students who are led by their instructors for having a better learning quality. I remember that I have guided more than 20 undergraduate students in a semester to selectively choose the ideal remaining courses to them which should match departmental needs as well as the student's interest. The author thinks that working closely with the students and lead them over their coursework is a skill that should exist in any faculty member to have a great match between students and faculty needs. Also, having the opportunity to work as a teaching assistant in a couple of classes showed me how it would be like to lead a classroom. Students prefer leaders than managers. They want someone to guide, advise, and engage them in conversations for mutual benefits. Being a part of the classroom, while ensuring respect from students is there, is important for education success. Even though if someone is still led by the department head, I believe there is much room left to improve and involve both creativity and leadership skills in taking care of the students based on given instructions from an advisor. However, I am personally more capable of leading others than being led. We would certainly need to be good at guiding others to effectively draw the road map for the whole department and achieve better education from delivering the department educational requirements. An interesting idea which can be adopted was mentioned before in the literature relating leadership role to knowledge processing abilities of taught students.

As mentioned before, the key characteristics of strong leaders involve honesty, integrity, vision, inspiration and communication skills; while the common traits required for strong managers are being able to execute a vision, ability to direct, process management, taking care of people (people focused) (Go2HR 2019). The role of leadership and leaders in higher educational institutions can enhance the learning capacity by having a good knowledge-processing environment and bridging the gap between students and faculty. Behavioral actions of both leaders and managers, as well as their designed programs, enable or inhibit knowledge-processing activities. By creating a personal leadership plan, one should adopt the previously mentioned characteristics to be used in educational leadership. In my department, we treat students as grown, independent, and self-learner students who are led by their instructors for having a better learning quality. We need to be close to our students, make them feel comfortable, and contained so that they approach us (the leaders) for any support without hesitation. Having a supervisor (e.g. the department head) who is friendly with others, great listener, and supportive would make him/her become a role model to others, since both faculty and students will feel safe and important bodies to the university. Faculty members have to create a friendly environment with their students to allow them to feel more comfortable in sharing their ideas and participate in-class activities; hence, instructors who are in the leader position would identify the deficiencies and the interests of their current students.

Regarding the abilities and skills in accomplishing university vision for having a good education, faculty members should be very good at planning and creating class outlines. Hence, implementing a pre-planned class outline (based on the student needs and interests as well as the departmental needs) might result in much better knowledge-processing abilities. The change is evident and it is "a must" to adapt with every batch of students; as pointed out by (Wells, 1997) we should have the change from involving leaders while ensuring that values,

ethics, and processes involved become prominent issues in higher education. Inevitably, chief executive officers and higher education leaders possess the ability to impact significantly on the students learning abilities, campus culture, and education success.

Conversely, collaboration between all the university parties is critical to address arising challenges. Students, faculty members/staff and administrators are all responsible for the change in the university (diversification). Moreover, implementing an educational plan for curriculum standards should be initiated by university administrators to closely work with university instructors to check for the student needs as well as check for possible improvements. A high failure rate in any organization should be faced by setting the right foundations for the plan. For instance, considering an educational organization with the university level, educators have certain tasks to implement where the most critical role goes to faculty members and their students (Pierce, J. L., & Newstrom 2003). We should be capable of gathering required information from students, asking them for suggestions about developing the university curriculum, and ask them to provide feedback on the current teaching methodologies as well as the curriculum standards adopted by instructors and university leaders. This would allow university leaders to think carefully about what standards should be implemented first when it comes to the plan initiation. To foster collaboration between administrators and instructors, resources should be gathered from instructors based on their interactions with the students.

The motivation of the university members (leaders and led people), may be done by engaging them in the change by showing the possible rewards that would come after finishing the required tasks. A good strategy that would create a change and engage teachers/faculty and staff with the administration in evaluating the department progress (or even the university progress) is “Declare and tell the benefits for both students and faculty and/or staff” (Blau, 2018). It has been proved that faculty usually care about the students learning, progress, and understanding. Hence, they will do anything that would make the students be successful bodies in the community (Blau, 2018). The strategy of “telling benefits” will be useful and effective to also engage faculty and staff in the assessment because of that faculty will know that the management care about them and their own ideas, and they want to benefit everyone involved in the change process through the continuous evaluations.

In general, we need to focus on understanding diversity, creating awareness programs on diversity-related issues, promoting inclusion, respect, and appreciation of differences arise between students. Also, we should consider working with other on-campus organizations to identify and resolve existing diversity issues and establish a new and modified curriculum which can fit students coming from different backgrounds. The university should engage the whole people in such a department in the ongoing activities as well as in the occurring assessments to reach our educational goals (Pierce & Newstrom, 2003). The university should seek to improve assessment processes from the engagement of all parties and from the enhancement of teacher’s performance in their teaching, data collection and, data analysis skills. Faculty and staff need to gather data and information required for the students’ assessment. The higher administration should ease the way of collecting information to quickly get the data and take it to the next step of the process “data analysis”. The leadership plan

and the role of leaders must be both utilized for the purpose of achieving the educational organization's mission and student success from the engagement process.

An overall personal educational leadership mission statement can be summarized as the following: "The leadership plan should seek to educate students and develop their knowledge through participation, diversification, understanding, and educational guidance. The university seeks to engage faculty, staff and students in better learning environment and diverse campus community that will ensure workforce/students collaboration, equality, and appreciation for the complex cultural and physical worlds" In short, a well-summarized and adopted mission statement can be written as "Educate, Communicate, Participate – and Diversify the Community for a Better Learning Experience".

Conclusion

We demonstrated the impact of educational leadership and its consequences in developing university structural plans, cultural diversity, curriculum standards, and faculty engagement. Institutions can enhance the learning capacity by having a good knowledge-processing environment and bridging the gap between students and faculty. Chief executive officers and higher education leaders possess the ability to impact significantly on the students learning abilities, campus culture, and education success. Students, faculty members/staff and administrators are all responsible for the change in the university (diversification); educators must know their students and their academic abilities individually rather than relying on racial or ethnic stereotypes. Thus, adopting a proactive structure by the different involved parties is very critical to achieve diversity and overcome any possible diversity-related issues. Such promising structural plans that can be adopted include "taking initiative actions towards prevention of diversity problems through the involvement ...". Moreover, implementing curriculum standards in a higher educational institution is very important to have a high quality education. Setting the right and concise standards would allow educators to be familiar with the learning goals. Building a roadmap to instructors guide them towards implementing new curriculum standards that would greatly improve both teaching and assessment throughout the year. A good strategy that would create a change and engage everyone in evaluating the department progress is "Declare and tell the benefits for both students and faculty and/or staff". This strategy allows having a better evaluation process by familiarizing everyone with the assessment process benefits.

Such diversity issues can be also overcome by having a more diverse campus, teaching students about diversity and engaging students and faculty staff in solving the problem. Successful educational reforms encourage new ideas, new thinking and new concepts to be implemented in order to achieve/accept diversity. Fixing existing diversity problems would be much more difficult than preventing them from occurring. Hence, administrators should communicate with the involved groups and organizations for the culture change. Regarding the educational plan for curriculum standards, leaders need to ask instructors to gather information about their student's background, knowledge, and possible skills available at the time of creating the plan. It is important to evaluate whether a research-based program focus or a course-work program focus is the best option for the

students! Contents must be changed according to the student needs, mastery level of the instructor towards the taught materials, and mission/goals of the university as well as the career goals of the students. An educational leader should engage instructors/students in conversations, make them feel comfortable, and let them enjoy their learning experiences. Administrators need to know how to speak academic to reach faculty and make it easier for them to be part of the evaluation process. The benefits from doing a specific assessment method for both students and faculty should be justified and that they would also benefit the higher management. Lastly, based on educational leadership practices, instructors and leaders may adopt this well-summarized mission statement “Educate, Communicate, Participate – and Diversify the Community for a Better Learning Experience” for a fruitful education journey provided to the students.

Acknowledgements

The author would like to thank Dr. MJ Jackson (from Tiffin University) for his invaluable feedback and discussions which greatly polished this work.

References

- Andrew, C. (2018). Carnegie Mellon University: Vision & Mission. <https://www.cmu.edu/about/mission.html>
- Banks, J. A., & Banks, C. A. M. (2016). Multicultural education: Issues and perspectives. *John Wiley & Sons*.
- Blau, J. J. C. (2018). How to Engage Faculty in Assessment. *Idea Exchange*.
<https://www.watermarkinsights.com/blog/how-to-engage-faculty-in-assessment/>
- Centenary University. (2017). Examples of Mission and Vision Statements in Higher Education.
<http://www.centenaryuniversity.edu/wp-content/uploads/2017/01/Examples-of-Mission-and-Vision-Statements-in-Higher-Education.pdf>
- Chief Executive. (2016). *Leadership Differences Between Men and Women*.
<https://chiefexecutive.net/leadership-differences-between-men-and-women/>
- Common Core State Standards Initiative. (2019). Read the Standards. <http://www.corestandards.org/read-the-standards/>
- Go2HR. (2019). Understanding the differences: leadership vs. Management.
<https://www.go2hr.ca/management-leadership/understanding-the-differences-leadership-vs-management>
- Hohamad Karkouti, I. (2016). Professional Leadership Practices and Diversity Issues in the U.S. Higher Education System: A Research Synthesis. *Education*, 136(4), 405–412.
- King Abdulaziz University. (2015). KAU Vision and Objectives. <https://www.kau.edu.sa/pages-vision-and-objectives.aspx>
- Koyuncuoglu, D. (2021). An Investigation of Potential Leadership and Innovation Skills of University Students. *International Journal of Education in Mathematics, Science, and Technology (IJEMST)*, 9(1), 103-115.
- Martin, J. S., & Marion, R. (2005). Higher education leadership roles in knowledge processing. *Learning Organization*. <https://doi.org/10.1108/09696470510583520>
- Marwanto, I. H. & Satriyono, G. (2021). Formation of Field-Based Pedagogical Resources: The Role of

Leadership of Regional Heads in Educational Sports and Sports Achievement. *International Journal of Education in Mathematics, Science, and Technology (IJEMST)*, 9(3), 482-497.

Mooney, N. J., & Mausbach, A. T. (2008). Align the Design: Chapter 1. Developing Curriculum Leadership and Design. <http://www.ascd.org/publications/books/108005/chapters/Developing-Curriculum-Leadership-and-Design.aspx>

National Education Association. (2019). Why Cultural Competence? To Help Educators Close Achievement Gaps. <http://www.nea.org/home/39783.htm/>

Peterson, K., & Deal, T. (1998). How leaders influence the culture of schools. *Educational Leadership*, 56(1), 28–30. <https://doi.org/Article>

Pew Research Center. (2015). Chapter 2: What Makes a Good Leader, and Does Gender Matter? <https://www.pewsocialtrends.org/2015/01/14/chapter-2-what-makes-a-good-leader-and-does-gender-matter/>

Pierce, J. L., & Newstrom, J. W. (2003). *Leaders & the leadership process*. McGraw-Hill/Irwin

Profanter, A. (2014). Achievements and Challenges in the Educational Realm in Saudi Arabia. *European Scientific Journal*, 1(September), 207–222. ejournal.org/index.php/esj/article/download/4092/3926

Santiago, P. (n.d.). Valuation and Assessment Frameworks for Improving School Outcomes: Common Policy Challenges. *OECD*. <https://www.oecd.org/education/school/46927511.pdf>

Teaching Tolerance Magazine. (2018). Culture in the Classroom. <https://www.tolerance.org/culture-classroom>

Texas Education Agency. (2019). Curriculum Standards and Student Support Division: Texas Essential Knowledge and Skills. <https://tea.texas.gov/curriculum/teks/>

Wells, R. K. (1997). The role of leadership in higher education diversity initiatives. *Journal of Leadership and Organizational Studies*. <https://doi.org/10.1177/107179199800400309>

Zaka'ee, H. (2009). KAU Branch in Rabigh Inaugurated. https://www.kau.edu.sa/Content.aspx?Site_ID=0&lng=EN&cid=28310

Workplace Experiences of Working Mothers: A Phenomenological Research

Esra Karakuş Umar

Atatürk University, Turkey,  <https://orcid.org/0000-0003-1764-9394>

Abdullah Yiğit Güngör

Atatürk University, Turkey,  <https://orcid.org/0000-0001-8135-7180>

Abstract: The current study includes a field study on ideas that consider women as an important component for sustainable development. As a woman experiences the phenomenon of "motherhood", which is a part of her biology, the main problem of the research has been identified in the focus of the question as "how she is evaluated in the workplace". Accordingly, conducting semi-structured interviews were designed based on the question of "What are the experiences of the working mothers in the work environment?". The experiences of seven female interviewees, which are revealed by using the phenomenology pattern, aim to reveal "the position of working mothers in business life". Therefore, the qualitative research method was preferred. It is important for research that women participate in interviews by experiencing "time flexibility" and "place flexibility" types of flexible work due to the epidemic in the process of collecting data. The data obtained during the interviews will be analyzed with the help of "ATLAS.Ti8" program. In the study in which the discourse analysis technique will be used, it will be revealed how the "motherhood" experiences of seven female interviewees, determined by purposeful sampling, construct the phenomenon of women in business life in Turkey.

Keywords: working mother, workplace, maternal wall, time flexibility, place flexibility.

Introduction

Getting married and being a mother in Turkey can be considered as two phenomena that prevent women in business life. It is known that the woman's traditional beliefs (the desire to spend more time with her child despite wanting to support the family (Ciciolla et al., 2014), the prejudices of the woman, the barriers she faces in the working environment and the cultural structure around her can cause a woman to "give up her job" and "say goodbye to business life" in case of marriage and having children. If female employees can take an active part in business life as married and have children, it can be said that they have successfully overcome these obstacles. But it should be known that the woman's self-belief also shapes this process.

The discussions on this issue have been going on since the study initiated by Schwartz (1989), in which women are considered as a workforce. Schwartz, in his study, divides female employees into those who are mothers and those who are not mothers, and argues that female employees who are mothers need more “suitable” jobs, but this will create a “mommy track”.

In some studies, the reasons why women are exposed to discrimination in working life have been investigated (Cohen et al., 2009). For instance, while the concept of "Devaluations of Women Work" reveals that wages and women's employment are negatively related, the reason for this was thought to be that women worked in areas not considered "traditionally female jobs" (Cohen and Huffman, 2003). For example, considering the "Gig" economy, which has a new market feature, it can be said that men work in "software development" style jobs, women work in "writing" style jobs and are directed to "female-typed" jobs (Galperin, 2019).

Basically, it is seen that traditional gender roles affect the role of women in business life. In other words, the woman is evaluated by taking into account that she is a "mother" (Cotter et al. 2004). This situation can be explained through the concept of "motherhood penalty". Employment of mothers was thought to be their punishment. Starting from the recruitment process, women can be the target of inequality treatment compared to female employees who are not mothers. This situation negatively affects women in terms of promotion, leave and salary (Correll et al., 2007; Joseylyn and Kolenikov, 2016).

"Having a child" can lead to ideas that the performance of a working woman may decline and not be "efficient". A woman may choose to "work flexibly" when she has children. Obviously, a study conducted in Belgium confirms this finding. When women have the status of "flexible work regimes", they can also decide to have children. Therefore, we can talk about a construction process stemming from both the administration and the woman (<https://www.demographic-research.org/volumes/vol42/33/42-33.pdf>) (Marynissen et al., 2020). Therefore, women's "part time" or "flexible" working preferences may cause managers to find a basis in reproducing inequality (Dolan and Stancanelli, 2021). Flexibility can manifest itself in five different forms in business life. Flexibility strategies, which are gathered in five groups as "functional flexibility, numerical flexibility (Part-time, etc.), wage flexibility, place flexibility and time flexibility", can make women's labor in the labor market invisible by reinforcing traditional roles (Çakır, 2011).

Studies show that even pregnant employees are criticized for their performance even before they have a child because they are "more sensitive and emotional". Women can be prevented through "poor performance" or "possibility" during pregnancy and having children. Motherhood can be shown as an "optimistic" reason and presented as an obstacle to the rise of women. Mothers who are prevented to "spare more time for their children" can be sent home and forced to reproduce "traditional gender roles". Therefore, the understanding of "flexplace", that is, the idea of running the work from home when necessary, is at a point that needs to be questioned. Studies show that the idea of "flexplace" is not functional and it affects women negatively both psychologically and physically. The woman may turn to her "traditional roles" while she is at home, or she may not be able to adapt to her job because is in a fog (Kossek and Michel, 2011).

Recent studies show that the job market can choose "workplace flexibility" and "time flexibility" while expecting more performance and overtime from the employee (Hammer, Neal, Newsom, Brockwood and Colton, 2005). Flexibility in the workplace has been directed directly to "FWA" (Flexible Work Arrangements) with support from corporate areas. Thus, it is argued that the traditional notion of women not working creates a new tradition with the FWA (<https://www.dol.gov/agencies/odep/program-areas/employment-supports/flexible-work-arrangements>) (U.S Department of Labor). Thus, efforts are made to combat the employees' experience of "work-family conflict". "Flexibility" is required and supported by both employers and employees for a sustainable "workforce".

Although it is known that women's employment is necessary for "sustainable development", the exclusion of women from business life by using the status of "motherhood" is considered an important problem in terms of sustainability (Evans and Kelly, 2008:289). "Punishment" of a woman due to her maternal status can be observed even during the recruitment process. Women being "mothers" in their struggle to exist in the public sphere by leaving "home-oriented" production may cause them to work in uninsured, low paid or insecure jobs. In addition, the areas where she finds the opportunity to work and promote, in a sense that she thinks she is not prevented, are "home-oriented jobs" in parallel with traditional gender roles. Babysitting, nursing, cleaning and service jobs stand out among these roles.

As a developing country, "agriculture" is another field in which women work intensively in Turkey. (Prime Ministry of the Republic of Turkey, 2000:8). Some problematic processes are also experienced in agriculture. Women can work as an "unpaid family worker" in jobs that do not require training in rural areas (Hotar, 2011). Women are invisible as an "unregistered, insecure and unpaid" labor force in the agricultural sector.

It should be noted that the employment rate of women and the length of their stay in business life have increased in recent years in Turkey (TÜİK, 2018). However, this ratio, which is 29% in Turkey, is 70% in Europe. (Eurostat, n.d). Regarding the "maternal wall" phenomenon, it is observed that women with children under the age of three have an increasing employment rate since 2014. Of course, it is necessary to talk about the effects of immigration and education on women's employment. As a result, women finding employment opportunities in the city is related to the education level of women and it is known that women have made progress in education in recent years. In a sense, it can be said that education is given importance in Turkey in terms of women's participation in business life.

Since the 70's, there has been a shift to home-based production in Turkey. Since employers' avoidance of payments such as taxes and insurance causes the economic activities in this field to remain unrecorded, it is not known exactly in which sectors women operate at home. This situation causes both work and labor to be invisible (Disk, 2003:14).

Three ways are suggested for a sustainable development in relation to the employment of women workers. More clearly, the woman and the social environment surrounding her cannot provide sustainability in business life due

to some stereotypes (Dolan and Stancanelli, 2021). These stereotypes are as follows:

- Women's acceptance of the need to balance their work and family life
- The effect of traditional gender roles on women's acceptance
- Employers' practices that create inequality for mothers.

While the concept of sustainability points to economic development as a result of the industrial revolution, over time it has become indicative of continuous production not only in economic but also in environmental and social processes (Meadows and Meadows, 1972). In this study, it was adopted with the acceptance that women have the opportunity to continue their business due to their "time flexibility" and "place flexibility" features with the Covid-19 process. Based on the question of "How did" time flexibility "and" place flexibility "affect the lives of female employees in the current study?", it is aimed to understand how this process, which is actively applied in the world, works in Turkey.

Method

In-depth interviews were conducted with female employees working in the public and private sectors. In the study, in which the qualitative research design was determined as indicated by the research question, the experiences of working women were tried to be included by using the "phenomenology technique".

Findings

Beren is 37 years-old academician. She has a child. She had been working as a maths teacher when she had a baby. She experienced pregnancy and birth processes while teaching secondary school. Within this period, she struggled against both secondary school management and question marks related to doctorate maintenance. Esila is 32 years-old public relations specialist. She has a child and pregnant for the second one. She felt herself lucky because she did not hit the maternal wall. Elif is 32 years-old maths teacher at primary school. She has a child. When she described herself, she indicated that she had not informed her manager about her pregnancy process. The manager disallowed Elif to use her rights. Ece is 40 years-old science teacher at primary school. She has two children. She mentioned that she was pregnant while she was undergoing cancer treatment. That circumstance provided her to be supported. Ada is 34 years-old academician. She has a child. She hid her pregnancy during the recruitment process. Her manager disallowed Ada to use her rights. Müge is 45 years-old employee in the informatics department in a private company. She changed her job due to a decrease in her performance after the birth. Deren is 40 years-old. She has a child. She decided to resign after the birth.

Pregnancy

I thought that I could not complete the doctorate.

“When I found out that I was pregnant, I was both teaching and doing a doctorate. Within that period, I thought that I could not complete the doctorate. At that point, I had to give a thesis proposal. I thought about to quit the doctorate. I thought that could I manage all three together. Both teaching and doctorate ...” (Beren, 37, Academician)

Here, the participant was in conflict between her roles. According to her, a woman expecting a baby should maintain either her education life or business life. The participant attributes her "choice" to a reason in her own way. This situation actually rationalizes the violence that she uses herself. The participant was involved in the violence cycle during the pregnancy period. As long as she rationalizes her maternity and decisions made by this reason, primarily she will build the wall which she hits. This situation shows the effects of **“her own biases”** as it happens in the glass ceiling syndrome. Accordingly, the participant will either fight or flight.

As if someone was chasing after me

Ada planned her pregnancy in the time she made. Because she did not want to feel herself that she had to make a choice. Unlike fight or flight tactics, she formulated “an unethical strategy”. This circumstance prevented her to develop a strategy. *“I was about to complete my doctorate. I had been desiring a baby for a long time. Since my teacher had told me that I would get the job as soon as my doctorate finished, I wanted to have a baby before starting the job. I had to give birth to a child in a hurry as if someone was chasing me. Now when I think about it, it would be better if I had had a child when I got the job.”* (Ada, 34, Academician)

When I should have given a thesis proposal, I did not.

“At that time, when I should have given a thesis proposal, I did not. I was confused. I was going to university. I was always in the lectures. When I came home, I used to be sleepy due to pregnancy. I liked to sleep. Then my parents and my husband told me that I could do. However, I was not convinced. I was hearing in a place I was sitting that my friends could not continue their thesis. They were saying that it was a no-go, I gave up. That affected me. It seemed that I could not do it. I wish I had spent the pregnancy period well. I worked without getting into stress. I waited for my child to be born. I waited for that period to pass by working with the little things.” (Beren, 37, Academician).

When we asked the participant that why she thought she would not be able to maintain both her pregnancy and other responsibilities, she indicated **“her social environment”**. Her social environment affected her ideas. Later, she ruefully expressed she understood that she had been affected by her social environment. Actually, the pregnancy was not an obstacle that she could ground.

“My pregnancy process did not affect me negatively because I was already in a managerial position. When my superior found out that I was pregnant, he said that he wished me healthy pregnancy process.” (Esila, 32, Public Relations Specialist).

The presence of participants whose pregnancy processes were supported and who hid their pregnancy from their managers shows us that women develop particular strategies in business life. As it can be seen in these strategies, women have particular biases related to business life. On the one hand, hiding the pregnancy ends in complying with the attitude of the manager. On the other hand, informing the management about the pregnancy is a situation that supports individuals to use their rights. Three different experiences of three participants about the pregnancy process as noted below are important to understand the pregnancy-management relationship.

I never hid my pregnancy...

"I never hid my pregnancy... The assistant principal was one of the people whom I told about my pregnancy. When management was changed, the new principal started to prove troublesome. For instance, we have to guard after the 36th week. Even though I received a medical report, he said "what you had done was not nice behavior." I was very upset about this. I am an altruistic academician as much as I can be. I don't like that he behaved to me like that. I said, "it was my right." I did not guard." (Beren, 37, Academician).

Nobody asked so I did not tell that I was pregnant...

"I hid my pregnancy process but that was not an obligation for me. I thought that it should be like that. When I gave my report of birth to take time off, they knew about it. Therefore, they were not able to criticize me. Because they had not known." (Elif, 32, Teacher)

I felt like I had to hid my pregnancy...

"I was pregnant when I made a job application. I thought that they would not hire me if I said that I was pregnant. Therefore, I did not mention my pregnancy during the application process. However, this stirred up trouble for me later. Because I hired and I had to go to work when it was the 15th day after the birth. My manager said that I had to start my job immediately because I was hired and they needed an employee. I never rested and I was depressed." (Ada, 32, Academician)

Maternity

"My daughter was born and I wanted to spend time with her. I grew up separate from my mom and I did not want her to grow up apart from me either. I thought I should be there when she needed it most. I wanted her to spend time with me for the first six months. That's why I was confused. Besides, the principal said, "do not come and upset the balances, I will find a substitute lecturer instead of you." I received a medical report and did not come back to school. After all, he said, "have it your way! When lecturers change, there is always conflict, I don't want it". He used to do it to everyone." (Beren, 37, Academician)

After I had a child, **working conditions became harder for me**. For instance, I could not use my right that I did

not have to guard for one year. When five teachers gave birth, the director said that each of us had to guard necessarily. He said, “You all are on leave, who will guard?” Actually, he compared us. (Elif, 32, Teacher)

As it can be seen in the last two interviews; Beren and Elif were forced to some choices against the firm attitudes of the directors. These kinds of attitudes of the directors show the question marks about the existences of women for sustainable practices in the workplace. It is understood that current circumstances do not represent an appropriate model for women. A sustainable model should be proposed by considering the maternities of women.

“To lecturers who have just given birth are treated flexibly. You might not demand an additional course. I had been working for a fee. I did not demand an additional course. I did not expect extra income. I requested gaps between my courses. I had two hours of courses and one hour gap. During that gap, I used to go to my child and feed her. In this respect, teaching is a good job to be a mother. You have flexibility in terms of courses. You have a lunch break. If you have an empathetic management group, teaching is so good. If you leave your child to the caretaker, you can take her in the afternoon. I think mother and her child can spend a long time together thanks to teaching occupation.” (Beren, 37, Academician)

Beren explained to us a model that why teaching has been an appropriate occupation for many years for maternity. Time is needed for maternity and teaching is suitable to make time. However, directors might restrain women by outlawing them unfairly, even in this suitable occupation.

*I thought that my principal did not like me because I had a child. His glances were very stiff and distrustful, if he had known the process I experienced, he wouldn't behave in that way. I thought that hadn't his wife experienced that kind of process. Both my doctorate and my child bothered him. He behaved to me in a **weird** way.* (Beren, 37, Academician)

Elif attributes her director's “negative” behaviors to his family life. *“The director was thinking that working with women was hard. Because we all five women went on leave and came back at the same time. He thought that he was in trouble. His wife was not working. For that reason alone, I think that he does not understand us.”* (Elif, 32, Teacher)

This kind of behavior is “normalized”. Because Esila interpreted her director's attitudes as “luck” rather than in an ideal world.

“I have never criticized and punished because of the reason that I have a child. It might occur in other companies but mom-dad and child I mean the family is the most important. Therefore, I can say that I am lucky in this respect.” (Esila, 32, Public Relations Specialist)

Even if the director's behavior restrains women, teaching occupation which women can make time to her child

in the summer far away from the director can have some disadvantages.

*“I started to write my thesis in the summer period. When I had to make time for her, I had to focus on my thesis. I tried to write during her sleeping time. I stole time that I could spend with her. I wrote and wrote ... I did not have time to listen to her due to study (**the participant was crying and the interview was cut...**). When I was transferred to an academicianship, a dean assistantship was offered to me but I did not accept due to my child and distance problem. (Beren, 37, Academician)*

Coping Strategies of the Participants

Coping strategies of the participants are; “accepting extra workload”, “resigning from the current position” or “leaving the job”.

“He gave me an extra task and I accepted it. Because I do not want him to feel like that. But the reason he came to me that other teachers had not accepted that task. He praised me. I said that I could do it and took charge. I conducted both projects and I was awarded a plaque. Another reason I accepted it, I was studying for a doctorate. I knew how to do things. Plus, I did not want him to think **she had a child and said no to everything. I wanted to overcome that image**, actually.” (Beren, 37, Academician).

“There were some complaints in that period too. My close friends’ children were in my class. I was not able to attend social activities because my baby was so little. I was not able to take my students to the cinema or theatre. Parents complained. I quitte classroom teaching. After that, I had never done classroom teaching again. I said that I did not want to be their classroom teacher.” (Elif, 32, Teacher)

Only one participant indicated that she did not hit the maternal wall, she got a promotion contrary. She explained that it was related to which kind of employee an individual was. I think **“I am an individual who likes my job and follow the task assigned me and fulfill it accurately.”** (Esila, 32, Public Relations Specialist) She exhibited that she developed a coping strategy by describing herself like that.

My husband is not with me and I am caring for my child alone.

Thus far, we mentioned “managers/directors/principals” and “women’s own biases” while discussing participants’ problems related to pregnancy and maternity in the workplace. We noticed that they regulate their coping strategies according to this. However, we witnessed that women showed low performance and even resigned during struggling with issues originating from spouses when we looked at where men stand in women’s fighting against the maternal wall.

“After my daughter had born, I had big troubles due to family issues. I was about to get a divorce from my husband. I had to continue my job but I was not able to focus on my job. My boss called me and he said that he

was disappointed due to hiring me. I disappointed him because I could not show the performance, he expected from me. I resigned from my job and found another. Unfortunately, they expected high performance from me in my new job. I had to leave there soon.” (Müge, 45, IT)

“The director was grading teachers. He gave me a low grade. My husband was not with me and I was caring for my child alone. My image on his head did not change. Even if I tried to get involved in the processes, he could not elude me from that image and I was depressed. Even seeing him started to make me annoyed.” (Beren, 37, Academician)

“After my son was born, I took unpaid time off. He was a tough child and I thought that I had to stay with him. When my unpaid time off right was expired, I came back to work. However, I was working eight-to-five. When I came home, my son was sleeping. I resigned from my job after six months because I was not able to make time for him. I was not good with my manager and colleagues. Moreover, I had problems with my marriage. I could not stand against that stress and I quitted my job.” (Deren, 40, Unemployed)

Conclusion

In the study, it was found that the maternal wall is experienced in the public and private sectors in Turkey. The interviewees can act strategically in their relations with the manager in order not to hit the maternal wall. Managers expect high performance from the interviewees. This expectation does not change after birth or during pregnancy. In the case of low performance, the attitudes of the manager may change negatively according to the interviewees. The interviewers also described this as "being punished for having children (motherhood penalty) and being compared with other employees". In this case, taking "extra workload" appears as a coping strategy in order to deal with the negative attitudes of the manager.

In this process, it is seen that the interviewer prevents herself from “barriers” arising from her. Interviewees affected by the "intense motherhood ideology" may develop coping strategies such as quitting or changing jobs (work-family conflict). The interviewers kept the “pay issue” in the background during the interviews. The interviewees who did not hit the maternal wall, on the other hand, described themselves as "lucky" because they were out of the normalized process. It can be seen that the sustainable participation of women in the labor market is primarily related to the removal of the acceptance that they have to fulfill traditional gender roles.

During the pandemic process, "time flexible" and "place flexible" applications do not cause the emergence of experiences that will deeply affect the "maternal wall". It seems that more long-term experiences are needed for this. As a result, since there is no time problem in the pandemic, home office studies have been experienced from time to time and have not created permanent transformations that will have a permanent effect.

References

- Schwartz, F. N. (1989). Management Women and the New Facts of Life. *Harvard Business Review* January/February:65–76.
- Ciciolla, L., Gerstein, E. D., and Crnic, K. A. (2014). Reciprocity Among Maternal Distress, Child Behavior, And Parenting: Transactional Processes And Early Childhood Risk. *J. Clin. Child Adolesc. Psychol.* 43, 751–764. doi: 10.1080/15374416.2013.812038.
- Cohen, L., Duberley, J., & Musson, G. (2009). Work—Life Balance?: An Autoethnographic Exploration of Everyday Home—Work Dynamics. *Journal of Management Inquiry*, 18(3), 229–241. <https://doi.org/10.1177/1056492609332316>
- Cohen, P., and Huffman, M. (2003). Individuals, Jobs, and Labor Markets: The Devaluation of Women's Work. *American Sociological Review*, 68(3), 443-463. Retrieved February 8, 2021, from <http://www.jstor.org/stable/1519732>.
- Cohen, P., and Huffman, M. (2003). Occupational Segregation and the Devaluation of Women's Work across U.S. Labor Markets. *Social Forces*, 81(3), 881-908. Retrieved May 1, 2021, from <http://www.jstor.org/stable/3598179>
- Galperin, H. (2019). “This Gig Is Not for Women”: Gender Stereotyping in Online Hiring. *Social Science Computer Review*. <https://doi.org/10.1177/0894439319895757>
- Cotter, D. A., Hermsen, J. M., & Vanneman, R. (2004). *Gender inequality at work* (p. 110). New York: Russell Sage Foundation.
- Correll, S. J., Benard, S., & Paik, I. (2007). Getting a Job: Is There a Motherhood Penalty? 1. *American journal of sociology*, 112(5), 1297-1339.
- Jocelyn E. C. and Stanislav K. (2014). Flexible Work Options and Mothers' Perceptions of Career Harm. *The Sociological Quarterly*, 55:1, 168-195, DOI: 10.1111/tsq.12050
- Dolan, E. And Stancanelli, E. (2021). Women’s Employment, Wages, and the Household. *J Fam Econ Iss.* <https://doi.org/10.1007/s10834-020-09744-2>
- Çakır, A. (2011). Türkiye’de Esnek Çalışma ve Kadın İşgücü Üzerindeki Etkiler. Yüksek Lisans Tezi. Marmara SBE. İstanbul.
- Kossek EE, and Michel JS. (2011). Flexible work schedules. In Zedeck S (Ed.), *Handbook of industrial and organizational psychology: Building and developing the organization* (pp. 535–572). Washington, DC: American Psychological Association.
- Hammer LB, Neal MB, Newsom JT, Brockwood KJ, Colton CL. (2005). A longitudinal study of the effects of dual-earner couples' utilization of family-friendly workplace supports on work and family outcomes. *Journal of Applied Psychology*, 90(4), 799– 810.
- M.D.R. Evans, Jonathan Kelley, (2008). Trends in Women’s Labor Force Participation in Australia: 1984-2002. *Social Science Research*, 37(1).
- Hotar, N. (2011). Ekonomik Toplumsal Kalkınma ve Kadın istihdamı. *TÜRK – İŞ Dergisi*, Sayı: 392, Ankara s.84-86.
- Disk, Birleşik Metal İşçileri Sendikası, “Ev eksenli çalışanlar ve örgütlenmeleri””, İstanbul, Mart 2003.

Dolan, E. and Stancanelli, E. (2021). Women's Employment, Wages, and the Household. *J Fam Econ Iss.*
<https://doi.org/10.1007/s10834-020-09744-2>

Meadows, D. H and Meadows, D. (1972). *Limits to growth, Report to the Club of Rome*, New York: Universe Books.

Prime Ministry of the Republic of Turkey (2000). *Kadın İstihdamı İçin Yeni Perspektifler ve Kadın İşgücüne Muhtemel Talep*, Ankara, Başbakanlık Kadının Statüsü ve Sorunları Genel Müdürlüğü Yayınları.

TÜİK (2021). <https://tuikweb.tuik.gov.tr/PreHaberBultenleri.do?id=33732>

Eurostat (n.d) Employment Rate by Sex. <http://ec.europa.eu/eurostat/web/product-datasets/-/tesem120>

The Impact of Job Challenge and Job Satisfaction on Police Performance

Chris Bitner

Western Illinois University, USA

Niyazi Ekici

Western Illinois University, USA

Glenn Daugherty

Western Illinois University, USA

Abstract: Even in our present innovative period, police organizations are still largely reliant on dated worn-out traditional tactics of management and supervision that emphasize rules, regulations, orders, and directives over creativity and service. Today, we know this antiquated style of management is associated with service stagnation, decreased effort, and an erosion of motivation to meet present-day calls for public service improvements. We also know there is an accelerating urgency to improve police services as calls for enriched interactions with citizens grow increasingly resolute from social enterprises, civic projects, and government agencies. What we do not know is how job challenge, variety, and work satisfaction of officers can be leveraged to meet the emerging service demands of the people. We wondered if increasing the importance of police work itself and relieving officers from traditional supervision tactics could lead to better police service. To investigate this, we used a rigorous quasi- experimental cross-sectional survey to gather data that allowed for hypothesis testing through aggregation, scaling, counter-balancing and tabulation. The findings of this research came into view when we examined data through correlations, regression, ANOVA, and coefficient models. We found officers become disengaged with the importance of their work and put in less effort when they feel dissatisfied with job challenge, autonomy, and satisfaction. This examination tells us police agencies need effective management techniques and supervisors who recognize the contemporary perspectives of service expectations and challenge their officers to meet these expectations through engaging and challenging job assignments. We revealed doing this improves police services and enriches relationships between officers and the community they serve.

Keywords: Police, Police Performance, Job Satisfaction, Job Challenge, Job Importance

Introduction

Job Challenge and Autonomy

Through research and anecdotal observations, it is evident that police departments, even in our contemporary age, are still relying on traditional forms of supervision that emphasize hierarchy, compliance, and control over work. These forms of management are becoming increasingly outdated and have an impact on an officer's motivation to perform at their highest ability.

To assist the modern officer to use their intellect to the fullest, the police officer must receive training that allows them to develop their critical thinking abilities (Daugherty, 2017). For the purposes of this paper, critical thinking is defined as using reasoned thinking with a purpose to make decisions (Helsdingen, van Gog, & van Merriënboer, 2011). The predominant issue with critical thinking training is that students and teachers find this type of education unpleasant because it requires a great deal of personal reflection on the part of the student (Daugherty, 2017; Halx & Reybold, 2005). The challenge of critical thinking training and the use of critical thinking elements make it easier to avoid any training on critical thinking, however, by developing important activities that enhance critical thinking abilities, students are better able to understand why something has occurred as opposed to understanding that something occurred (Daugherty, 2017; Tsai, Chen, Chang, & Chang, 2013).

Indeed, it was over sixty years ago that Myren (1960) wrote that policing was in a crisis of management due to its failure to modernize and meet the needs of an emerging workforce. As early as the 1960's police officers were seeking challenging work assignments, increased responsibilities, autonomy on some decision making, and the freedom to develop tasks in creative ways. Officers wanted to use their intellect, their skills, and their social structures to address the needs of their community. Unfortunately, police departments have largely failed to meet these needs; which only stifles officer performance.

It is frequently noted in research that police departments largely follow a quasi-military style of operating. Police departments use ranks, titles, and hierarchy to organize their officers. It's no wonder police officers tend to identify more closely with military roles than the primary role of being responsible to service of citizens; seeing themselves as mostly a crime-fighter than a public servant (Brandstatter, 1970). Myren (1960) was arguing for a change in this approach decades ago, because the quasi-military form of organizing police work lent itself to stagnation, decreased worker energy, and an erosion of motivation to perform. The same sentiment can be found in more contemporary research, as illustrated by Shane (2010). Here, the same detrimental effects of stagnation, loss of energy, and decreased work initiative from over-reliance on compliance and rigid work structures were identified (Shane, 2010). The challenge regarding policy, rules, regulations, etc., is to create a reasonable set of regulations that will deter misconduct in dangerous situations, but will not be so restrictive as to inhibit proper discretionary use of force (Daugherty, 2017; Jaros, 2014). Recommendations by policing experts relate that instead of increasing restraints on police discretion there should be a reduction of hierarchy

constraints and the granting of more discretionary independence so that the police can use their professionalism and experience to make decisions regarding force (Daugherty, 2017; Skogan & Meares, 2004). In addition, the rules, regulations, and policies must be communicated properly to police personnel. To effectively communicate the written or verbal directives to police personnel, this communication involves complete understanding by officers and supervisors of general orders, policies, procedures, rules, laws, and regulations (Daugherty, 2017; LaFrance, 2011). If the policy is too vague or too complicated to comprehend, true understanding of the police cannot be realized (Daugherty, 2017; Jaros, 2014).

The move to the military model was an attempt to professionalize police agencies which were not deemed professional in the early 1900s (Daugherty, 2017; Weber, 1999). Early police departments consisted of officers who were barely trained, doled out curbside justice, and department discipline was nearly non-existent (Daugherty, 2017; Weber, 1999). To ensure the proper training and educational needs of policing the adoption of the military model for police organizations was the reaction against the political influence, internal affairs reports, and early police corruption (Daugherty, 2017; Singer, 2009). In early policing, the quasi-military commanders in police work believed that the military model helped to promote self-discipline, command presence, self-confidence, order, and respect (Daugherty, 2017; Bickel, 2013; Schafer, 2010; Shockey-Eckles, 2011; Shane, 2010; Vourensyryja & Malkia, 2011). Similar to a military leadership model, specific performance details were outlined in a proliferation of new law mandates and policies. Sanctions of officers who break policy guidelines and procedures were delineated within the procedures and for decades, this military model helped professionalize the police (Daugherty, 2017). Decades later however, a national survey from 2016 showed that the use of military equipment and tactics by police is “going too far” (Mosteller, 2021).

Tens years after Myren began arguing for a change to police hierarchy and structure, Brandstatter (1970) also wrote about changing work-climates in police departments. Brandstatter spoke of the need for police managers to create potential career opportunities for all personnel. These career opportunities should be built through mentally challenging work, supportive managers, helpful co-workers and a good working environment (Brandstatter, 1970); which includes training, chances to participate in departmental decisions, skill development and use, task clarity and significance, and fair treatment (Brody, DeMarco, & Lovrich, 2002; Kim, 2002; Li, Li, & Wang, 2009). These elements are often described in the aggregate as job satisfaction (Dubrin, 1981; Rainey H. G., 2003).

In 1968, Frederick Herzberg discovered characteristics of a work environment that either motivated workers or caused dissatisfaction among workers. He categorized these characteristics into two areas; the categories were named motivators and hygiene factors (Rainey H. G., 2003). Herzberg called this the Two-Factor Theory. Motivators were parts of work that produced motivation to perform well. Hygiene Factors were things about the job that caused workers to withhold effort and led to job dissatisfaction (Rosenbaum, 1982). Hygiene factors were things external to the employee; such as, organizational structure, work-climate, supervision style, lack of recognition, and uneven application of work policy (Rainey H. G., 2003; Rosenbaum, 1982). Poor hygiene factors could demotivate workers, but good hygiene factors helped make employees feel good. If employers are

looking for high performing employees, they should be evaluating company practices and administer them in a way that were fair and reasonable (Fazzi, 1994). Workplace policies that are apt for examination were equity of pay, work disruptions, management style, schedules, leave time, and the physical conditions of the work place (Brody et al., 2002).

Similarly, Kim (2002) found workers who have a positive perception or outlook of their workplace, related well with their co-workers and supervisors, reported higher levels of job satisfaction and performance. Likewise, Rainey (2003) reveals that job satisfaction is directly related to how a worker feels about their workplace. A positive work environment led to increased individual work performance and positive outcomes for the employer as well. Essentially, our job satisfaction shapes how employees perform. A positive workplace satisfaction and performance and a negative workplace creates dissatisfaction, fear, suffering, and tiredness (Staw et al., 1994).

Job Importance

When it comes to job satisfaction, Brody et al., (2002) found that police officers as a group were considerably lower in job satisfaction than virtually every other groups who worked in the public sector. Part of this is because police tend to be so far removed from the results of their work efforts. The police culture also plays a role in how officers view their job. Typically, this culture is male dominated, idealizes authority, thrill seeking, and a take-charge attitude. These cultural characteristics often clash with the legal system, due process rights, police management, and civilian control (Cochran & Bromley, 2003).

Whats more, the hightened levels of work stress associated with policing, the estrangement from society, changing expectations of responsibility, resentment of police, and police work fatigue all contribute to lower job satisfaction within the police ranks (Brody et al., 2002). This is regrettable since most officers spend a large part of their duty day responding to requests for service from citizens. That is why it is imperative for police supervisors to have a strong understanding of what it takes to win the respect and esteem of police officers, and understand they have a connection to the job satisfaction and can make workplace adjustments to the benefit of their supervisees (Dormann & Zapf, 2001; Riley, 1999).

Job Satisfaction: Job Autonomy, Challenge, and Variety

Brody et al. (2002) suggests that job satisfaction stems from three main sources in the workplace; and these are, the importance of the work, responsibility for the work, and recognition from doing the work. Comparably, Shane (2010) finds that three sources of job satisfaction are particularly important to contemporary police recruits, because they are more educated, seek work challenges, and seek autonomy in developing creative police responses. These emerging recruits don't place value in hierarchy, chain of command, or a quasi-military structure. Instead, they seek empowerment, team work, supportive management, task variety, meaningful work, and recognition (Brody et al., 2002; Dormann & Zapf, 2001).

Education, as mentioned in the paragraph above, can be an important element in job satisfaction because studies showed that officers with less than two years of college were four times more likely to face disciplinary sanctions than officers with more education for ethical and moral character issues (Daugherty, 2017; Chapman, 2012). The less an officer is disciplined the more they enjoy their career and do not face as many moral issues and potential burnout. Other studies revealed that more education for police leads to more humane and effective policing because the better-educated police officer relies more on communication, problem solving skills, and analytical thinking instead of force whenever practical (Daugherty, 2017; Delattre, 2002; Douglas, 2005; Holbert & Rose, 2004; Kelly, 1998). Thus, when an officer has to react to stressful and dangerous situations in the blink of an eye, they make decisions based on the relevant information at hand, their education, their training, and their experience, along with their moral and ethical beliefs (Daugherty, 2017; Broome, 2011; Hopkins, 2015; Morrison & Garner, 2011). By using all of their skills, education, and experience to successfully handle critical situations their self-efficacy grows and they continue to feel good about their career as a police officer (Daugherty, 2017).

When autonomy in work is referenced, it doesn't mean officers have no supervision. In policing, autonomy is designed to mean officers are given more latitude and discretion to work on problems longer than the typical traditional system of patrol-based assignments. In other words, officers are given time to address problems; which closely resembles the community-oriented model of policing. With greater autonomy, officers are allowed to determine how much time, effort, and resources are allocated for any given call for service. New police recruits feel that traditional styles of police management leaves too little time to address problems. New recruits do not want to go from call-to-call, or do anything other than make arrests. They want to resolve problems, they want to make a positive impact. In other words, new recruits desire the autonomy to emphasize innovative crime-prevention and relationship building. They want the freedom to be proactive, reduce boredom, increase variety of work and boost performance (Riley, 1999). Ultimately, Kim (2002) advises the challenge for police supervisors is to create a challenging work environment, build positive worker perceptions, provide encouragement, support skill development, and encourage creative responses to complex situations. The benefit of doing so is typically seen through decreased absenteeism, lower turnover, decreased stress, and a strong connection between outcomes and ownership for performance.

Research Design and Methods

This study uses a quasi-experimental cross-sectional survey and allowed for hypothesis testing through aggregation, scaling, counter-balancing, and tabulation of data developed from ordinal measurement of agreement answers. To collect this initial quantitative data, researchers surveyed active duty officers from four different police departments in central Illinois. The departments employed between 40 and 250 officers of both sexes, shared similarities in shifts, duties, and police services; such as, patrol, detectives, and specialty functions like a narcotics division and emergency response teams. One hundred forty-seven (147) surveys were returned of the three hundred seventy-three (373) distributed.

Statistical Process for this Research

Statistical applications used to measure relationship between workgroups and performance for this study include correlations, t test and regression. Correlation tables examine relationships between variables and can help identify statistical significance, magnitude (strength), and direction of variable relationships. Regression analysis further defines the predictive relationship between variables, and how one variable may impact a change in another.

Overview of Data

During examination of quantitative data gathered via survey, researchers first used Pearson Correlation tabulations to test for associations between the workgroups and performance variables and found a strong positive relationship between the variables. Next, a linear regression analysis completed also indicates a strong positive relationship between the variables with the high R value. It has been found that the difference between the two is statistically significant with a supported t value at $p < .001$ level. These statistical analyses help us determine if we can reject the null hypothesis or not. From the quantitative analysis we learn job challenge and autonomy are an important element in determining how police perform their duties. This finding comes into view when we examine the data through correlations, regression, and other related statistical tests. For the test purposes this research attempted to test the following Job Challenge and Autonomy hypotheses.

H_0 =Job Challenge has a relationship with police officer performance at work.

H_1 =Job Challenge has no relationship with police officer performance at work.

Job Challenge and Autonomy Analysis

There were 117 cases in the analysis excluding 1 missing response (Table 1). Positive evaluation accounted for 79.7% ($f=94$) whereas negative evaluation accounted for only 19.5% ($f=23$). Thus, the research responses were predominantly positive.

Table 1. Job Challenge Evaluation (N=117)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	positive evaluation	94	79.7	80.3	80.3
	negative evaluation	23	19.5	19.7	100.0
	Total	117	99.2	100.0	

The .50 Descriptive Statistic mean tells us the positive evaluation for Job Challenge and Autonomy received at work is moderately positive. The respondents may be cautiously neutral regarding Job Challenge and Autonomy they receive at work. The mean for performance were observed to be .54 with a standard deviation of .11 whereas job challenge had .50 mean and .16 standard deviation scores (see Table 2).

Table 2. Job Challenge Descriptive Statistics (N=103)

	Mean	Std. Deviation
Performance	.54	.11
Job Challenge	.50	.16

When a correlation analysis between Job Challenge and Autonomy and Performance were conducted, it showed that there is a moderately strong, positive, and significant relationship between the two ($r=.662$, $p<.001$). Furthermore, a Linear Regression analysis indicates a strong positive relationship and that Job Challenge and Autonomy accounts for 44% of the variance in Performance ($r\text{ squared}=.438$). The positive linear correlation between performance and job challenge can be seen in the figure below when the cases are plotted.

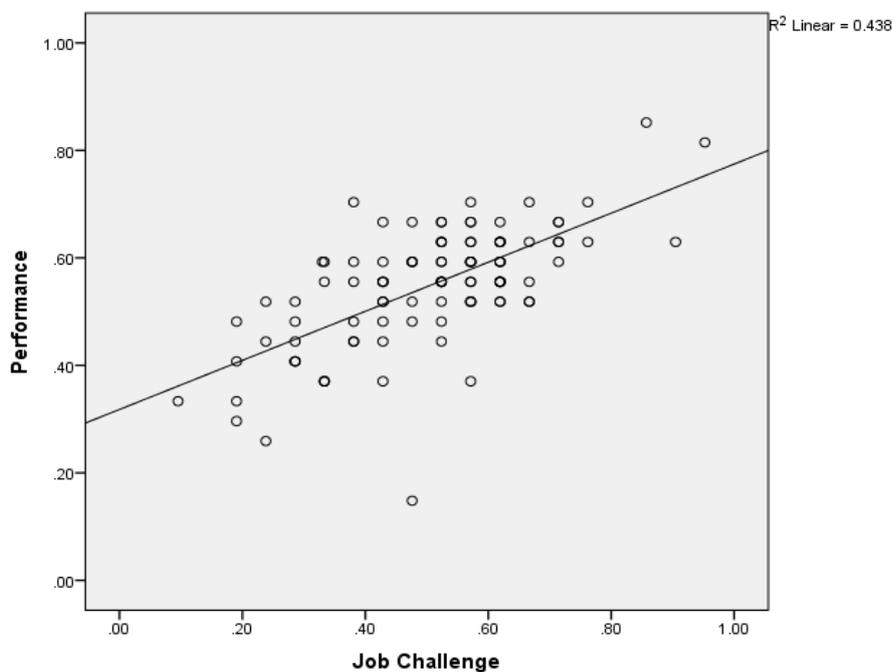


Figure 2. Job Challenge Linear Regression Graph

Additionally, the t test results indicates that job challenge and police performance are statistically different ($t=11.660$, $p<.001$) proving that the null hypothesis mentioned above is rejected. Meaning, a statistically significant relationship between job challenge and autonomy and police officer performance at work does exist.

Conclusion

This research has examined the problem of knowing the relationship between job challenge, autonomy and job satisfaction and their impact on police work performance. We discovered a positive and significant relationship exists between the variables. Meaning an officer's work performance is likely to suffer under a lack of job

challenge where dissatisfaction exists. When officers feel as if the job doesn't provide sufficient opportunities to be challenged, they begin to become disengaged in work and may withhold productive work activities. Specifically, the factors of job challenge and autonomy are identified as pertinent to work performance. Simultaneously, this study created practical guidance for practitioners, added scientific knowledge about police job challenge, autonomy, job satisfaction and their connection to work performance.

In conclusion, police executives are encouraged to challenge their officers through engaging assignments, and seek feedback on satisfaction. Police agencies need effective managers and supervisors who take their duties and the workplace seriously enough to build functional police departments. In the ever-changing world of police services, they owe this to the people they police for, because it can impact services and ultimately lives.

Notes

This is an original manuscript created in part from an unpublished section of a dissertation titled *Exploring the Relationship Between Work-Climate of Police Departments and Officer Performance at Work (2013)* submitted to University of Illinois at Springfield by Chris Bitner.

References

- Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavioral change. *Psychological Review*, 84(2), 191-215.
- Bandura, A. (1997). *Self-efficacy: The exercise of control*. New York, NY: W. H. Freeman.
- Bandura, A. (1989). Human agency in social cognitive theory. *American Psychologist*, 44 (1), 1175-1184.
- Bickel, K. A. (2013). Recruit training: Are we preparing officers for a community oriented department? *Cops*, 6(6), 1-5. Retrieved from: http://cops.usdoj.gov/html/dispatch/06-013/preparing_officers_for_a_community_oriented_department.asp.
- Brandstatter, A. F. (1970). A Career Concept for Police. *The Journal of Criminal Law, Criminology, and Police Science*, 438-445.
- Brody, D. C., DeMarco, C., & Lovrich, N. P. (2002). Community Policing and Job Satisfaction: Suggestive Evidence of Positive Workforce Effects from a Multijurisdictional Comparison in Washington State. *Police Quarterly*, 181-205.
- Broome, R. E. (2011). An empathetic psychological perspective of police deadly force training. *Journal of Phenomenological Psychology*, 42(2), 137-156.
- Chapman, C. (2012). Use of force in minority communities is related to police education, age, experience, and ethnicity. *Police Practice and Research*, 13(5), 421-436.
- Cochran, J. K., & Bromley, M. L. (2003). The Myth (?) of the Police Sub-culture. *Policing: An International Journal of Police Strategies & Management*, 88-117.

- Conger, J. A., & Kanungo, R. N. (1988). The empowerment process: Integrating theory and practice. *Academy of Management Review*, 13(1), 471-482.
- Daugherty, G. R. (2017). Influence of policy instruction on police use of deadly force: Exploratory Study (Doctoral Dissertation). Retrieved from <https://eric.ed.gov/?id=ED581200>.
- Delattre, E.J. (2002). *Character and cops: Ethics in policing* (4th ed.). Washington, DC: The AEI Press.
- Douglas, J. (2005). *John Douglas's guide to landing a career in law enforcement*. New York, NY: McGraw-Hill.
- Dubrin, A. J. (1981). *Personnel and Human Resource Management*. New York: D. Van Nostrand Company.
- Fazzi, R. A. (1994). *Management Plus: Maximizing Productivity through Motivation, Performance, and Commitment*. New York: Irwin.
- Halx, M., & Reybold, L. E. (2005). A pedagogy of force: Faculty perspectives of critical thinking capacity in undergraduate studies. *The Journal of General Education*, 54(4), 298-315.
- Helsdingen, A., van Gog, T., & van Merriënboer, J. (2011). The effects of practice schedule and critical thinking prompts on learning and transfer of a complex judgement task. *Journal of Educational Psychology*, 103(2), 383-398.
- Holbert, S., & Rose, L. (2004). *The color of guilt & innocence: Racial profiling and police practices in America*. San Ramon, CA: Page Marque Press.
- Hopkins, K. (2015). "Deadly force" revisited: Transparency and accountability for D. C. police use of force. *National Lawyers Guild Review*, 72(3), 129-160.
- Jaros, D. M. (2014). Preempting the police. *Boston College Law Review*, 55(4), 1149-1195.
- Kim, S. (2002). Participative Management and Job Satisfaction: Lessons for Management Leadership. *Public Administration Review*, 231-241.
- Kelly, P. (1998). *College education as an entry-level requirement in law enforcement*. Tallahassee, FL: Criminal Justice Standards and Training Commission.
- LaFrance, T. C. (2011). Targeting discretion: An exploration of organizational communication between rank levels in a medium-sized Southern US police department. *International Journal of Police Science & Management*, 13(2), 158-171.
- Morrison, G. B., & Garner, T. K. (2011). Latitude in deadly force training: Progress or problem? *Police Practice & Research*, 12(4), 341-361.
- Mosteller, J. (2021). Militarization of Police. *Charles Koch Institute*. Retrieved from: <https://www.charleskochinstitute.org/issue-areas/criminal-justice-policing-reform/militarization-of-police/>.
- Myren, R. A. (1960). A Crisis in Police Management. *The Journal of Criminal Law, Criminology, and Police Science*, 600-604.
- Powell, K. C. (2009). The role of concept of self and societal expectations in academic and career achievement. *Journal of Adult Education*, 38(2), 32-40.
- Rainey, H. G. (2003). *Understanding & Managing Public Organizations*. San Francisco: Jossey-Bass.
- Riley, J. (1999). Community-Policing: Utilizing the Knowledge of Organizational Personnel. *Policing: An International Journal of Police Strategies & Management*, 618-632.

- Rosenbaum, B. L. (1982). *How to Motivate Today's Workers: Motivational Models for Managers and Supervisors*. New York: McGraw-Hill Book Company.
- Schafer, J. A. (2010). Effective leaders and leadership in policing: Traits, assessment, development, and expansion. *Policing, 33*(4), 644-663.
- Schermukly, C. C., Meyer, B., & Dammer, L. (2013). Leader-member exchange and innovative behavior: The mediating role of psychological empowerment. *Journal of Personal Psychology, 12*(3), 132-142.
- Shane, J. M. (2010). Performance management in police agencies: A conceptual framework. *Policing, 33*(1), 6-29.
- Shockey-Eckles, M. L. (2011). Police culture and the perpetuation of the officer shuffle: The paradox of life behind "the blue wall". *Humanity & Society, 35*(3), 290-309.
- Singer, P. W. (2009). Tactical generals: Leaders, technology, and the perils of battlefield micromanagement. *Air & Space Power Journal, 23*(2), 78-87, 127.
- Skogan, W. G., & Meares, T. L. (2004). Lawful policing. *The Annals of the American Academy of Political and Social Science, 593*, 66-83.
- Staw, B. M., Sutton, R. I., & Pelled, L. H. (1994). Employee Positive Emotion and Favorable Outcomes at the Workplace. *Organization Science, 5*, 51-71.
- Thomas, K. W., & Velthouse, B. A. (1990). Cognitive elements of empowerment. *Academy of Management Review, 15*(1), 666-681.
- Tsai, P., Chen, S., Chang, H., & Chang, W. (2013). Effects of prompting critical reading of science news on seventh graders' cognitive achievement. *International Journal of Environmental & Science, 8*(1), 85-107.
- Vuorensyrja, M., & Malkia, M. (2011). Nonlinearity of the effects of police stressors on police officer burnout. *Policing, 34*(3), 382-402.
- Weber, D. C. (1999). Warrior cops: The ominous growth of paramilitarism in American police departments. *CATO Institute Briefing Papers, 50*(1), 1-13. Retrieved from: <http://www.cato.org/sites/cato.org/files/pubs/pdf/bp50.pdf>.

Validation through Classical Allusion: Creative Referencing as a Social Vector of Validity in Classical Chinese Medical Texts

Steve Jackowicz

University of Bridgeport, USA,  <https://orcid.org/0000-0002-9777-9318>

Abstract: Traditional Chinese Medicine (TCM) enjoys a long history of continuous practice. In the modern day, it has undergone rigorous testing to show medical efficacy. However, in the pre-modern period, the social forces that shaped Chinese culture carried a great influence into the validity metric of TCM. This paper examines the underlying social vectors, which supported a corpus of textual material, which was considered inviolate and canonical. Further, the canonical tradition developed several behavior patterns of self-validation. Unlike the modern approach of innovation and testing which allows results to drive acceptance and validity, the TCM approach of the classical period relied on validation through classical allusion; new ideas needed to be draped in overture to older canonical sources to be considered meaningful. However, the medical necessity to advance interventions to presenting conditions created a subtle social dynamic in the medical community of creative interpretation to clothe the new in reference to the old. This social vector continued through the majority of the history of Traditional Chinese Medicine and continues to have some subtle influence even in the modern day.

Keywords: Traditional Chinese Medicine, Medical Sociology, Medical History, Medical Anthropology, Chinese Cultural History

Introduction

Traditional Chinese Medicine describes the pre-modern medical system of the Sinitic Sphere; China, Japan, Korea, Vietnam. The term Traditional “Chinese” Medicine carries with it an intrinsic socio-political overtone that casts modern geopolitical power dynamics back into history by utilizing modern nation state terms to describe a medical system, which was somewhat amorphous in national boundary and rarely self-conscious of ethnic relativity in its approach. Perhaps the analogous term East Asian Medicine is a better substitute, yet it also inculcates a political stance bearing other subtle issues in interpretation. For the purposes of this paper, the term Traditional Chinese Medicine will suffice, albeit in acceptance of the referenced shortfalls.

Traditional Chinese Medicine (TCM) has experienced a melding with Western Medical concepts in the modern day, divorcing itself from certain historical elements, but maintaining four major approaches known as the Four

Pillars; acupuncture and moxibustion, herbs and diet, physical manipulation and massage, and therapeutic breathing techniques (Kohn, 2005). This four-part taxonomy includes a wide range of diagnostic approaches and treatment methods, however all of them revolve around a concept of an intrinsic orthopathic metabolic force, known as qi (气), which can be destabilized into heteropathic patterns forming a basis for the development of organic disease. The TCM practitioner seeks to correct these patterns and interrupt the pathomechanism of the disease process. To that end, there is an emphasis on integrative diagnostic data being coalesced into an encompassing pattern of heteropathy, which is correlated with observed and recurrent patterns derived from the corpus of classical medical literature, indicating traditionally accepted therapeutic approaches.

The cultural foundation of Chinese society led to the elevation of the classical medical texts to canonical status thereby shaping social vectors of interaction between doctor, patient, and the classics. These vectors are the focus of this inquiry.

Canonization

Canonization is an elevation of a text to a sacred status. As such, canonized texts are inviolate. Although canonization is a worldwide cultural phenomenon, in China, canonization occurred in Confucianism, Daoism, Buddhism, Military Theory, and Medicine. In TCM starting from the Han Dynasty (206 BCE-220 CE) medical texts were canonized under the aegis of the emperor and the state (Fairbank, 2006). Standardized editions were issued by the government, which purported to codify medicine, yet also created a political control expressed in medical prescriptions. “The spleen loves regularity,” is as much a political dynamic to encourage a reliable and dependable populace, as it is a medical rubric (Kohn, 2005).

The Confucian tradition, which formed the basis for the Chinese government and the bureaucratic examination system, emphasized the veneration of antiquity and the apocryphal sages whose insights were recorded in the classics. These sages were considered as beyond mortal ken and therefore a failure to understand their pronouncements was a shortcoming of the reader not the author (Rose, 1999). The relationship of the medical provider to the reserve of canonical literature shaped an interesting state of validation in the Chinese Medical Tradition. A given student of Chinese medicine traditionally could not simply develop and present a radically new idea. Rather the veneration of canons demanded justification through classical allusion; one needed to ground all ideas in the tradition. But medicine demands adaption and a level of originality to address new pathologies, so in the Chinese medical tradition there was a rise of creative interpretation as a means of originality.

The Originator- Commentator Relationship

Due to the veneration of ancestors and the canonization process innovation required justification via antiquity. It was more important to show how your idea was misunderstood from earlier texts than to present it as unique.

Therefore, a unique social dynamic developed; the originator-commentator relationship. A scholar with a new idea would creatively re-interpret a classical text, and argue that his understanding was a true inner teaching, which had been overlooked. Thereby veiling a new approach in reverence for the ancients and their wisdom. Within the Confucian worldview, which posited that man had degenerated from a utopian period of high antiquity, the concept that innovation and departure from tradition could advance society was absurd. However, the idea that the original meaning of the classics was obfuscated by the ignorance of the present was a more acceptable notion. This dynamic was a broad social phenomenon in all of Confucian East Asia. This process played out in intellectual history until the end of the Imperial Period (Waley, 2005).

In medicine, the originator-commentator relationship expressed itself in several distinct ways. First, changes in diet, lifestyle, infectious diseases and epidemics demanded an ever-evolving approach, yet the doctors were constrained to the veneration of the established classics. This led to the development of extensive commentary literature, in which metaphor and analogy were used to “explain” the meaning of the sections of the classics. However, these metaphors often radically departed from the original vocabulary in the source text. In the *Yellow Thearch’s Classic of Eighty-one Difficulties* (*Huangdi Bashiyi Nanjing* 黄帝八十一难经), *Difficulty 68* states that each regular acupuncture meridian has points of similar classified functions; *jing* 井 (well), *ying* 荣 (blossom), *shu* 俞 (transport), *jing* 经 (weave) · *he* 合 (unite) (*Yellow Thearch’s Classic of Eighty-one Difficulties, Difficulty 68*) . These points are located in a distal to proximal positioning which is consistent across all the meridians. Each point of a given class has the same functions metered in locus of effect by the meridian on which it is located. However, the classes of points do not have a relationship to each other based on the source text. Interestingly commentary literature evolved over hundreds of years after the text where these classes of points were interpreted in an overarching water analogy, determining them as, “well,” “spring,” “stream,” “river,” and “sea.” This interpretation altered the taxonomy of the point classifications, departing from the original canon. The water analogy became the accepted standard interpretation (Unschuld, 1986). This example illustrates how the “commentators” actually bring original material into the tradition while veiling it as an explanation of the “originator’s” work.

In the pre-modern period, access to source materials was very limited. Although canonical editions of the most revered books were produced and promulgated, depending on the time period in question, the availability of materials for reproduction, and the means of the doctor to acquire copies of the medical manuscripts, the potential for physician scholars to maintain regular access to the corpus of medical literature was limited. This material dynamic created a unique position of consciousness in the TCM providers of the classical period. The scarcity of the source materials allowed the fabrication of citation in conversation yielding weight to an opinion, which could not be easily countered in the moment. So the TCM doctor could often paraphrase an obscure text, thereby steeping himself in classical allusion, and being a “commentator” in the flow of discourse. Lacking access to the creatively quoted text, the listener would be inclined to agree with the doctor, unless of course he could produce another quotation from memory, which might have also been creatively “re-formatted” to suit the

occasion. The implications of the social position of the classical literature of medicine in shaping the conscious and subconscious actions of the doctor has a depth, which this paper can only begin to elucidate.

Clinical Event

Medicine of all traditions and periods is contingent upon its utility in a clinical event. The clinical event is the interaction of the doctor with the patient, which drives the background research, theorization, and contemplation of approach. The clinical event demands the application of medical principles in real time. The immediacy of the clinical event forces the doctor to act on a basis of knowledge and skill maintained in his consciousness and metered to the patient's body (Cockerham, 2017).

Although the doctor can quickly check a reference, which is at hand, the temporal necessity of treatment denies extensive research in the moment, especially in the pre-modern period, which lacked the technologically instantaneous access to information seen in the twenty-first century. Therefore, traditionally the doctor needed to act on a limited body of the potentially relevant medical data, which required retrieval from the doctor's memory. Humans being fallible creatures, the doctor's erudition held the potential for proper application of medical principle and treatment, while at the same time being a limited interface with the corpus of medical knowledge (Cockerham, 2017). In fact, much of the medical literature in TCM has warnings and admonitions against poor judgement, weak principles of medical theory, and the iatrogenic causation of disease:

Just from having or not having symptoms, the ailment cannot be known. Inspect the sequelae and the predecessors, know the disease by prior and later [symptoms]. In order to clear that which is replete, the work must not lose its principles. Whether you attain success or loss, the difficulty is in the principles.

若無若有者，疾不可知也。察後與先者，知病先後也。為虛與實者，工勿失其法。若得若失者，離其法也。(Yellow Thearch's Inner Canon Huangdi Neijing 黄帝内经)

Chapter 54 Zhen Jie 鍼解 Explanation of Needles <https://ctext.org/huangdi-neijing/zhen-jie>

Yet these dynamic impacts not only the doctor, but the patient as well. The patient is faced with a liminal undefined moment wherein the doctor's ability is questioned by the exigent demands of the clinical event. The corpus of the canonized medical texts may hold a revered position in the minds of doctors and patients alike, however the patient needs to rely upon the doctor as the arbiter of the hoary learned tradition, who may or may not preserved the patient's health and well-being. There is thus a specter of suspicion, which can undercut the authority of the doctor, and demands proper validation of the chosen methods to instill confidence (Bleakley, 2015).

Validity

Validity is a social dynamic composed of power, prestige, and performativity. Power is imbued socially to the medical provider to allow action. The doctor can touch the body without restriction, penetrate the orifices, cut

the skin, amputate, cauterize, etc., all in the name of medicine, while the average person cannot. The social power of the doctor allows the application of technique.

Prestige is commanded by the social position of the doctor. The doctor enjoys a level of status, which is borrowed from the respect for the medical tradition. He is respected, patients defer to him, and he is often addressed by a title, which differentiates him from a normal member of society. His prestige is also often conjoined with financial enfranchisement.

Performativity is a metric of how well the individual fills the social role. The doctor is a social position defined by expectations; he should be learned, competent, skillful, humble while being masterful. An individual may or may not live up to the social role. His performance as a doctor may have a gap from the expectation. The performativity metric is a measure of how well he can accord with the expected qualities considered intrinsic to the social role known as “doctor” (Norredam, 2007).

The Traditional Chinese Medical doctor enjoys a social role defined by the Confucian social mores. He is perceived as steeped in the classical medical canons using the transmitted wisdom from a hoary venerated past of ‘ancient masters’ to resolve the patient’s illness (Kohn, 2005). He is a gestalt of the classical tradition, as much an avatar of the wisdom, as a simple technician. Therefore, classical allusions to the canons of medicine will support the social matrix and improve the performativity metric thereby limiting the liminal experience of the patient and validating the course of treatment producing patient compliance to treatment plan. Effectively there is a social vector pushing the doctor to live up to the expectation, to quote the classics, creatively if necessary, and thereby be the erudite embodiment of the tradition for the patient at the moment. This behavior creates confidence in the patient, which is a necessary part of treatment as it bring compliance to the treatment plan. All medicine takes time to work; the patient must abide the result and follow the directives; attending treatment sessions, changing adverse behaviors, and ingesting medicines on a schedule.

The doctor’s relationship to the classical canons is complex. Influenced by memory, a varying interpretative base as his experience changes, lineage based interpretations of the classics, and the patient’s unique expression of disease, all create a changing relationship to the recorded medical literature. The clinical event requires action validated in both the practitioner’s mind and the patient’s mind thereby driving a social vector of allusion without specific foundation finding or creating validity for the current action based on a platform of “perceived” classical tradition. Thus referencing of the weight of the “classics” as a proof of erudition is a prestige metric that translates to a social power vector of validity facilitating the application of medicine in the real time clinical event.

Efficacy

Efficacy in medicine is a strangely problematic issue. Acute concerns allow assessment of efficacy through recovery, although it is often hard to discern whether the medicine led to the recovery, or time allowed the body

to recover on its own. Amelioration of symptoms in a timely manner perceived a faster than nature's course often serves as a basis for the assessment of efficacy in acute concerns.

Yet chronic concerns are informed by a *mélange* of factors, which color the experience in an ever-changing dynamic of perceived severity of symptomology. Pain, discomfort, infirmity, fatigue, etc., all can be evaluated as unbearable depending on the circumstances wherein they are being reviewed. Just as easily those factors can be considered as background to the lived experience of the moment, which are more readily ignored. Therefore the evaluation of the chronic concern holds many more pitfalls; some being challenges to the physical assessment, others being a sorting of attitudinal and psychological factors influencing the patient's perception (Wagner, 2001).

Further, qualitative changes and quantitative changes both present in medical cases. The qualitative changes in the patient's presentation are greatly influenced by the social dimensions of medicine as much as the physical factors which drive them. The belief and validation of the prestige and power of the doctor provides a "course through the forest of liminality" which is the disease process. Thus the patient is benefitted by the validity metric of the doctor. This process may be perceived as a subset of the placebo effects described in medical literature. However, it cannot be discounted as contributing to efficacy. The faith and confidence in the doctor can carry the patient through dark times and allay stress, which helps reduce inflammatory stress hormone response, as well as yielding higher compliance rates to the medical course of treatment. Therefore in TCM, during the classical period, the complex social vectors at play discussed above must be viewed as germane to the understanding of the efficacy and import of the tradition to the larger whole of Confucian East Asian society.

TCM in the Modern Day

The modern day has seen the rise of Western Medicine, which is based on a quantitative model of validity. Western Medicine uses numerically quantified studies as a gold standard for the validation of the efficacy of technique. Percentage of patients who recover in a study, numerical changes in blood cell count, enzyme assays, measured decreases in tumor sizes, measured survival times post chemotherapy, etc., are all respected measures to justify Western Medical approaches and techniques. However, the patient has not read the myriad studies to prove the course in question is a valid one. Rather, the patient trusts the doctor to have digested the body of research and be fluent in its application when often the doctor has only been briefed by the professional associations on the "best practice" determined protocol of intervention. However the validation vector is constructed of the same deep dynamic – the doctor whether Western or Chinese must validate the choices in the clinical event by reverence to a corpus of accepted knowledge which is not party to the event itself; the traditional doctor to canons, the modern doctor to studies.

Interestingly in the modern day, TCM has retained some of the pre-modern dynamics while being influenced by Western Medicine. Worldwide, Western Medicine has become the standard approach due to the complex history of the West's colonial period. Even in East Asia, Western Medicine is the predominant form (Kohn, 2005). Yet

TCM persists, and has spread worldwide, often in the form of an ‘alternative medicine.’ In the juxtaposed relationship of TCM and Western Medicine in the modern world then TCM is a foil of Western Medicine and is socially shaped to be the structuralist shadow. Western Medicine is quantitative in nature so TCM is pushed to be qualitative. Western Medicine is “scientifically” validated so TCM is pushed to be “classically” or “holistically” validated.

Although Western style quantitative studies are done on techniques of TCM; acupuncture, moxibustion, herbal medicines, etc., the social position of TCM has been one that stands apart from Western Medicine, often providing a venue for the treatment of chronic concerns which carries the complex issues of the assessment of efficacy discussed above. Further, the patients who seek TCM often come with Orientalist fantasies of an ancient tradition of high learning, which magically heals the body naturally, and can address issues outside a “limited” reductionist Western Medical lens (Jackowicz, 2020). The historical presence of a canonical tradition of medical literature fuels this fantastic view so that patients and Western students of TCM often regard the pre-modern textual tradition as mysterious and divine, able to unravel the mysteries of the mind, body, and spirit. Even though the classical texts are recorded in Classical Chinese, which is as distant from Modern Chinese as Roman Latin is from Modern Italian, and few of them have been accurately translated into Western languages, the Western student of TCM reveres them and perpetuates the pre-modern validity dynamic of TCM.

Conclusion

Thus, the validation vector perpetuates in the modern day. Although the modern practitioner is divorced from the classical corpus of canons by time, language, and interpretation. The modern TCM Doctor is forced to slide into creative allusional interpretation as a subconscious validity metric, akin to his pre-modern forebear. Referencing the “wisdom” of the “holistic” Chinese Medical Tradition and playing often into Orientalist fantasy of a gilded hoary golden age, the modern TCM Doctor derives validity, power, and prestige through a performativity metric cognate to his classical predecessor

Some aspects of the medicine have stood the test of time...

References

- Bleakley, A. (2015). *Medical Humanities and Medical Education*. New York, NY: Routledge.
- Cockerham, W. (2017). *Medical Sociology*. New York, NY: Routledge.
- Fairbank, J.K. & Goldman, M. (2006) *China: A New History, 2nd ed.* Cambridge, MA: Belknap.
- Holcombe, C. (2016). *A History of East Asia: From the Origins of Civilization to the Twenty-First Century, 2nd ed.* Cambridge, UK: Cambridge University Press.
- Jackowicz, Steve (2020). Self-Orientalization in the East Asian Medical Community. *International Journal on Engineering, Science and Technology*. Vol. 2, Issue 2, pp. 34-40.

- Kohn, L. (2005) *Health and Long Life: The Chinese Way*. Boston, MA: Three Pines Press.
- Norredam, M. & Album, D. (2007). Prestige and its significance for medical specialties and diseases. *Scandinavian Journal of Public Health*, Vol. 35, No. 6, pp. 655-661.
- Rose, Ken and Zhang Yuhuan. (1999). *Who Can Ride the Dragon?* Brookline, MA: Paradigm Publications.
- Unschuld, P. (2010) *Chinese Medicine: A History of Ideas*. Los Angeles, CA: University of California Press.
- Unschuld, P. (1986) *Nan-Ching: The Classic of Difficult Issues*. Los Angeles, CA: University of California Press.
- Waley, A. (2005). *Three Ways of Thought in Ancient China*. Stanford, CA: Stanford University Press.
- Wagner, E., Austin, B., Davis, C., Hindmarsh, M., Schaefer, J., & Bonomi, A. (2001, Nov/Dec) Improving Chronic Illness Care: Translating Evidence into Action. *Chronic Care in America: Health Affairs*, Vol. 20, No. 6. Retrieved from <https://doi.org/10.1377/hlthaff.20.6.64>
- Yellow Thearch's Classic of Eighty-one Difficulties (Huangdi Bashiyi Nanjing 黄帝八十一难经)*. Retrieved from https://baike.baidu.com/item/%E9%9A%BE%E7%BB%8F#5_68
- Yellow Thearch's Inner Canon (Huangdi Neijing 黄帝内经 Chapter 54 Zhen Jie 鍼解 Explanation of Needles)*. Retrieved from <https://ctext.org/huangdi-neijing/zhen-jie>

The Reality of Applying Teachers for Learning Disabilities Criteria According of Some Variables in Jubail City

Fareada Faiz Alshamry

Down Syndrome Center, Saudi Arabia

Kowthar Jamal Eldian

Imam Abed Alrahman Ibn Faisal University, Saudi Arabia

Abstract: The aim of the research is to identify the reality of learning disabilities teachers' application of the diagnostic tests with of some variables (gender, experience, academic qualification) in Jubail city. The descriptive comparative approach was used for its suitability to the nature of the current research. The sample was chosen from the research community of (29) teachers from them. (18) male teachers and (11) a female teacher, in an intentional way. The results of the research indicated that there are statistically significant at (0.05) level differences in the application and use of diagnostic criteria between male and female teachers and were in favor of teachers, as well as the existence of statistically significant differences in the application and use of diagnostic criteria between male and female teachers in favor of the higher educational qualification variable, and in favor of the more experience variable According to that.

Keywords: Learning disabilities, diagnostic tests teachers of learning disabilities

Introduction

Learning disabilities are widespread among school students, and are often diagnosed inaccurately, and can appear at any educational stage, and extend throughout a person's life and may be accompanied by some other problems, as the problem of learning difficulties stands in the way of the success of the educational process, and thus the weakness of the director The educational level, which is represented by poor reading, writing and attention, which leads to a low level of achievement (Mahmoud and Al Hindi, 2014), Measurement and evaluation (diagnosis) in education and psychology in general, and special education in particular, are essential in the components of special education programs (Al-Rousan, 1999).

The correct diagnosis is a cornerstone in the identification of unusual children, their classification, levels and mental abilities, and a special educational training program that suits their abilities and learning and practical needs, takes into account the individual differences between them and their ordinary peers, and since there is a

scarcity in the availability of diagnostic tools suitable for this purpose (Mdian, 2012).

Nevertheless, difficulties still surround the diagnostic rules and tools, the extent of their reliability and their ability to diagnose the difference, and based on the above, the idea of this research came to describe the reality of diagnosing students who suffer from learning difficulties at various levels, which makes dealing with this topic important.

Research Problem

The research problem is in the following question: What is the reality of applying learning disabilities teachers to diagnostic tests for students with learning disabilities in Jubail?

- Are there differences between the mean scores of the learning disabilities teachers 'application of the diagnostic tests due to the experience variable in Jubail?
- Are there differences between the mean scores of the learning disabilities teachers 'application of the diagnostic tests due to the scientific qualification variable in Jubail?

Research Hypotheses

- 1- There are statistically significant differences at the level of (0.05) between the averages of degrees of application of learning disabilities teachers for the diagnostic tests due to the experience variable in Jubail.
- 2- There are statistically significant differences at the level of (0.05) between the averages of degrees of application of learning disabilities teachers for the diagnostic tests due to the scientific qualification variable in the city of Jubail

Research objectives: This research seeks to achieve the following objectives:

- 1- Identifying the differences in the teaching disabilities teachers 'application of the diagnostic tests within primary schools that are attributed to the years of experience variable.
- 2- Identify the differences in the teaching disabilities teachers 'application of the diagnostic tests inside primary schools that are attributed to the scientific qualification variable

Importance of Research

Theoretical Importance

- 1- This research enriches libraries and provides an addition to them due to the lack of studies in this field (according to the researcher's knowledge).
- 2- It may provide objective data for those interested and specialists about the reality of applying diagnostic tests inside the learning resource room by teachers of learning disabilities.

Applied Importance

- 1- The research reveals the reality of the application of diagnostic tests by teachers with learning disabilities.
- 2- It may provide decision-makers with results that reflect the importance and necessity of applying diagnostic criteria.
- 3- The research may provide those interested with a tool that can be applied in diagnosing learning disabilities.

Search Limits

- 1- Objective limits: The current research is limited to dealing with the reality of applying the diagnostic tests for teachers of learning disabilities in Jubail.
- 2- Spatial boundaries: This research will be conducted in all schools within the city of Jubail in the Kingdom of Saudi Arabia in which programs for people with learning disabilities (resource room) are available in the primary stage.
- 3- Temporal boundaries: It was implemented during the first academic semester of the year 2020.
- 4- Human borders: This research includes teachers with learning disabilities in the primary stage

Search Terms

Teachers Learning Disabilities

Idiomatically: “They are persons qualified in special education at the bachelor’s level - the path of learning difficulties - and they participate directly in teaching people with learning disabilities” (General Secretariat for Special Education, 2001, p. 4).

Procedurally: male and female teachers who work in diagnosing, teaching and identifying those with learning disabilities, and making their own individual programs and plans, and they have experience in the field of their education and dealing with them in the classroom.

Diagnostic Criteria

Idiomatically: It means “a set of procedures through which information is collected with official and informal tools on every student with a disability, analyzed and interpreted to identify the quality of the need for services and the appropriate educational setting” (Organizational Guide for Special Education, 2015, pg. 17).

Procedurally: the researcher is defined as the approved tests used by special education teachers in diagnosing those with learning disabilities in the elementary stage in the resource room.

Theoretical Literature

Learning Disabilities

The category of people with learning disabilities is considered a relatively modern category, compared to other traditional groups, but it constitutes a large segment that exceeds all special education categories. It may be said that this category is thorny due to the multiplicity of its causes and manifestations. Difficulty, but the reason differs, that is, the same difficulty may be with two people, but the reasons for it are different, and the student may be late in one or more aspects, but he may be creative in other aspects (Al-Zahir, 2008, Wright et al., 2021).

The Concept of Learning Disabilities

For Arafa Kirk (1962), it "is a concept that refers to delay or disturbance in one or more processes of speech, language, reading, writing, arithmetic, or any other study material, as a result of the presence of a cerebral defect, or emotional disorders, Or behavioral, and academic. Delay is not due to mental retardation, or sensory deprivation, or to cultural or educational factors" (Al-Rousan, 2013, 125).

Classification of Learning Disabilities

- 1- Academic learning difficulties: They are the "problems that appear among students of school age. The term academic learning disabilities includes difficulties related to reading, writing, spelling, writing and arithmetic."
- 2- Developmental learning disabilities: "They include a disorder in the pre-learning skills (requirements) that the student needs for the purpose of achievement, such as perception, attention, memory, thinking and oral language" (Al-Khatib, 2013, 231 p.).

Theories Explaining Learning Disabilities

Behavioral Theory

Abdel Hamid and others (2013) pointed out that this theory is based on the assumption that a person's behavior is formed by experience, and despite the important role and influence of the environment in this theory, it does not diminish the role of genetic and physiological factors, and those who adopt this theory explain human behavior as a result of its influence on the environment. *External*. This theory also illustrated the academic curriculum, the tasks and duties assigned to the student, and the research into the characteristics of behavior for students with learning disabilities such as (low self-confidence, dependency, feeling frustrated, a decrease in self-esteem, an exaggerated appreciation of others, aggression, and hyperactivity (Al-Qasim, 2013, Jamal al-Din, 2011).

Cognitive Theory

Al-Tawari (2017) and Dostál (2015) stated the theory focuses on the amount of knowledge that the child or student possesses and this trend assumes that there are a set of mechanisms for processing and processing information within the organism, each of which performs a specific primary function and that these processes assume the organization and sequence in a certain way. This trend also focuses on how the individual processes information and how to analyze and organize it, and in light of this, learning difficulties are due according to this trend to a defect or disorder in one of the processes that may appear in the organization, retrieval or classification of information.

Supracognitive Theory

Swanson and Trahan (1996) indicates that the individual's awareness and control over his cognitive actions related to learning processes, and the individual's awareness of the cognitive processes and organizational mechanisms used to solve problems. The metacognitive theory includes control, planning to learn a task, monitoring the processes of understanding, and assessing the progress towards achieving the goal, and it is closely related to the intelligence ability (Abdul Hamid & others., 2013).

Perceptual Theory

Abd al-Hadi and others (2000) pointed out that perceptual theory is the ability to distinguish sensory information, as the mind can distinguish sensory stimuli, and perception is a skill acquired by the student and this matter must be aware of the teacher, and it has an important role in the process of teaching the perception skill to students with learning disabilities . This is done through teaching strategies, methods and methods that suit the abilities of students with learning disabilities and their perception, whether visual, auditory, sensory, or total or partial perception.

Neurological Theory

Students who suffer from learning disabilities due to a defect in the growth of one of the basic neurological functions, this defect leads to a delay in the growth of the neurological aspect, which leads to the presence of learning disabilities (Abdul Hadi and others, 2000), and Al-Qasim (2013) and Najmi (2019) mentioned. This theory focused on health problems, physical and physiological imbalances, and nervous system dysfunction, caused by biological factors such as meningitis, poisoning, and brain cell inflammation, or by environmental factors such as drug abuse, smoking and malnutrition of the pregnant mother, which are among the main causes of learning disabilities. As well as genetic and genetic causes have a great impact on the emergence of learning difficulties, and medical sciences have tended to explain learning difficulties and attention deficit disorder from a neurological perspective. On this basis, the medical trend is an important supporter and supporter of educational programs.

Environmental Theory

Al-Qassem (2013) mentioned that the owners of this trend focus on the external environmental factors that lead to learning disabilities, for example deprivation of appropriate environmental stimuli, malnutrition and economic and cultural deprivation are all examples of environmental factors, if they appear, it is expected that they will leave a number of children suffering from Learning disabilities.

Characteristics of People with Learning Disabilities

Shaker (2013) stated that most of the time the problems associated with learning difficulty may be hidden and unclear to teachers, because people with learning disabilities have good physical health in terms of vision, hearing, and other characteristics. Teachers may describe them as stupid at times and mental retardation or achievement at other times due to their low academic achievement, and a manifestation of learning disabilities. Attention disorders, impulsivity and impulsivity, memory difficulties, difficulties in thinking, excessive movement, difficulties in general cognition and disturbance of concepts, excessive withdrawal, difficulties in forming social relationships.

Diagnostic Criteria

The diagnosis process goes through several steps, including:

1. Conducting a comprehensive diagnosis to identify students with learning disabilities.
2. Conduct an educational evaluation to determine the current level of performance and to know their strengths and weaknesses.
3. Determining the educational process and the appropriate education strategies for the abilities of people with learning disabilities.
4. Clarify the reasons behind the inability of these students to learn.
5. Rule out the existence of any hearing, visual, movement or mental disabilities as causes of their learning disabilities.
6. Building an individual educational plan for each student according to his abilities and needs based on the results of the diagnosis and the strengths and weaknesses of their level of performance. (Abdul Hadi and others, 2000)

Scales by which studying difficulties can be identified and identified:

- 1- The test of divergence: It is intended that the student's achievement level in a subject differs from the expected level of him according to his status and has two manifestations:
(A) The different aspects of student achievement in the curricula or the academic subjects.
(B) The discrepancy between the student's mental abilities and the achievement level.
- 2- Scenario of exclusion: It is intended to exclude all cases whose failure to achieve achievement and the problems and difficulties that they suffer are due to other disabilities. (Jamal al-Din, 2011)

- 3- The criterion for special education: It is related to the test of exclusion, which means that people with learning disabilities are not suitable for them the traditional methods of teaching used with ordinary students in addition to the inappropriateness of the methods used with other disabilities, but it requires the provision of methods of special education that differ from what is prepared for the aforementioned groups. (Jamal al-Din, 2011)
- 4- The test of problems related to maturity: where we find growth rates differ from one child to another, which leads to the difficulty of preparing him for learning processes (Jamal El-Din, 2011)
- 5- Neurological signs test: pupils with learning disabilities are identified through organic damage in the brain or a minor injury in the brain that can be examined using a tomography of the brain or tracing the child's medical history. Through cognitive disturbances, inappropriate forms of behavior, difficulties with motor function (Hafez, 1998) and (Najmiy, 2011).

Associated Studies

Abdul Wahid study (2012) The study aimed to identify the criteria that are used in the detection of those with learning disabilities in Arab research in the period from (1988 - 2012) in twelve Arab countries, Median study (2012). The study aimed to prepare tools to diagnose students with high Educational difficulties in primary schools in Babylon, the semi-experimental curriculum was used, and the study sample was chosen from primary schools in Babylon, and the Al-Shafi'i study (2014). The study aimed to use a number of tests and diagnostic tools to verify its accuracy in diagnosing learning disabilities in the first three grades of the stage. Primary. And the study of Abu Al-Rub (2016). The study aimed to identify the problems of diagnosing students with learning difficulties from the point of view of a specialist in learning disabilities in Saudi Arabia, and the study of Najmiyyah (2019). The team is multidisciplinary. And the Shiha study (2019). The study aimed to measure the diagnostic accuracy of measurements of computational operations based on the curriculum.

(Linda & Sigel 1999) The study aimed to identify the procedures of the issues related to the identification and diagnosis of learning difficulties problems through the axes: pupil with learning difficulties, assessment of learning disabilities, and the competencies required for the person who determines learning disabilities. The study (Marley e al., 2002) aimed to identify the diagnostic tools for the indicator of learning disabilities. The descriptive method was used to identify students who suffer from learning disabilities that depend on the patterns of performance in cognitive tests. The study (William et al., 2006) develops diagnostic criteria for nonverbal learning disabilities in general, a study (Georgios & other, 2008), aimed to identify the extent of teacher bias in diagnosing students with learning disabilities, and in identifying the differences in the diagnosis of students with learning disabilities. And the study (Richard, 2014) aimed to identify the application of objective diagnostic criteria to students with learning difficulties by college students for learning disabilities. And the study (Rash, Shlomo 2016) aimed to identify the evaluation practices of students with learning difficulties in Lebanese private schools. And Solange Paterlin (2019), the study aimed to determine the level and features of pupils who suffer from poor school performance and to investigate the subjective effects that are most prevalent among them, All of these studies agreed on the importance of using diagnostic tests when

assessing and diagnosing people with learning difficulties, and the need for them to be included in the measurement and diagnostic tools.

Methodology

In this research the researcher followed the descriptive and comparative methodology, the study population and the sample: The original research community consists of (34) male and female teachers with learning disabilities for the elementary stage in the city of Jubail in the Kingdom of Saudi Arabia, of whom (21) teachers and (13) female teachers. All of them are the research sample.

Search Tool

By reviewing the theoretical framework and previous studies, such as Jamal al-Din's study (2011), Najmi study (2019) and Abu al-Rub (2016) study related to the research topic, to be used in preparing the questionnaire.

Description of the Questionnaire in its Initial Form

The questionnaire consists, in its initial form, of (33) paragraphs aiming to measure the reality of teachers' application of learning disabilities for diagnostic tests, distributed in two dimensions. The first dimension: shows the opinion of experts and specialists in general in the process of measuring and diagnosing learning disabilities, and it included (10) paragraphs, and the second dimension: The opinion of experts and specialists regarding the application of the criteria for the diagnosis of learning disabilities in Jubail, and it included (23) paragraphs.

Apparent Honesty (Veracity of Arbitrators):

The researcher presented the questionnaire to a number of (arbitrators) who specialize in special education to ensure the suitability of the tool for the subject of the research, and the arbitrators showed the suitability of the tool with the aim of the study. To facilitate the interpretation of the results, the weight of the alternatives was given as follows: (very much 5, large degree 4, moderate degree 3, little degree 2, very little degree 1).

Construction Validation

In order to achieve and increase the reliability of the questionnaire, the researcher applied it to an exploratory sample consisting of (15) male and female teachers from outside the research community, and to verify the correlation coefficients, Pearson correlation coefficient was conducted between the paragraph and the axis to which it belongs, the values of the correlation coefficient ranged between the paragraphs of the first dimension, which is the opinion of teachers And female teachers in general in the process of measuring and diagnosing

learning disabilities , which are (10) the first paragraphs, It ranged between (0.473 to 0.882) and all these values are statistically significant at the level of significance (0.05 and 0.01). It also shows the values of the correlation coefficient between the paragraphs of the second dimension, which is an assessment of the teacher's attitudes and opinions towards diagnosing learning disabilities in Jubail, which are (18) items, and it ranged between (0.466. to 0.888) and all of these values are statistically significant at the level of significance (0.05 and 0.01). And that these values are large and indicate the link between the paragraph and its axis, which indicates the consistency of the paragraphs with its dimension.

Internal Consistency Method

The coefficients of stability through internal consistency (Cronbach Alpha) for teachers on the tool as a whole reached (0.964) and it is considered a high and acceptable value for the purposes of applying the research, and the ratios of the research axes ranged between (0.934_ 0.975), the highest was for the axis of opinion of experts and specialists in general in the measurement process And the diagnosis of learning disabilities in the city of Jubail, the least of which is the axis of expert opinion about the application of the criteria for the diagnosis of learning disabilities in the city of Jubail.

Statistical Methods

- The reliability coefficient, Cronbach's Alpha, was calculated.
 - Arithmetic means, standard deviation and analysis of variance were used.
- To calculate the significance of the differences between the research variables, the T-test was used
- To demonstrate the significance of the statistical differences between the arithmetic means, the ANOVA test was used
 - The correlation coefficient was calculated between the research variables.

Results

As a result of the first hypothesis, "there are differences between the mean scores of the learning disabilities teachers' application of the diagnostic tests in the city of Jubail due to the experience variable." To answer this hypothesis, the arithmetic averages and standard deviations were extracted as shown in the following table.

Table 1 shows that there is an apparent variation in the arithmetic means and standard deviations of the responses of the research sample to the questionnaire on the reality of the application of learning disabilities teachers for the diagnostic tests in the city of Jubail according to the gender variable, and to demonstrate the significance of the statistical differences between the arithmetic averages.

Table 1. The Arithmetic Means and Standard Deviations of the Research Sample According to The Experience Variable

Groups	Arithmetic deviation	mean standard	Number
Less than five years	3.10	0.567	5
From 5 to 10 years	3,01	0.486	16
More than 10 years	3.33	0.559	9
Total	3,12	0.552	30

Table 2. (ANOVA) For The Research Sample According to The Experience Variable

The source of the contrast	Sum of square	Degrees of freedom	Average of squares	The computed (q) value	Indication level
Between groups	0.583	2	0.291	1.072	0.027
The error	7.343	27	0.272	-	-
Total	7.926	29	-	-	-

Table 2 shows the existence of statistically significant differences at the level of significance ($= 0.5\alpha$) for teachers of learning disabilities applying the diagnostic tests in Jubail, a value of (1.07) and a statistical significance of (0.027) in favor of more experienced teachers. The result of the research is consistent with what he referred to (Al-Rousan, 2013) when applying tests, tests, or standards, requires a number of special conditions, including those related to the competence of the examiner or specialist, the conditions of the student, the place and time of this test, and that the application of these standards requires knowledge High experience and competence in applying and correcting it, as it is not easy for the teacher or the novice examiner to apply it, correct it, or explain its results. Therefore, experience has a very important role in applying these diagnostic tests. The results of this hypothesis are consistent with the study of Richard (2014), which concluded with its results the importance of experience in dealing with diagnostic criteria, tools, and methods for students with learning disabilities. The difference may be due to the increased practice of more experienced teachers, providing more experiences and attitudes than their less experienced peers.

As a Result of the Second Hypothesis

"There are differences between the mean scores of the learning disabilities teachers' application of the diagnostic tests in the city of Jubail due to the scientific qualification variable." To answer this hypothesis, the arithmetic averages and standard deviations were extracted as shown in the following table.

Table 3. The Arithmetic Means and Standard Deviations of the Research Sample According To the Scientific Level Variable

Groups	SMA	standard deviation	the number
BA	3.05	0.45	12
Higher Diploma	3.23	0.61	18

Table 3 shows that there is an apparent variation in the arithmetic means and standard deviations of the responses of the individuals of the research sample to a questionnaire on the fact that teachers of learning disabilities apply to the diagnostic tests in the city of Jubail according to the scientific qualification variable. As shown in the following table.

Table 4. The T-Tests of the Research Sample According to the Scientific Qualification Variable

Variable	Standard error	Degrees of freedom	T value	Indication level
Scientific level	0.19546	28	-0.902	0.011

Table 4 shows that there are statistically significant differences at the level of significance ($= 0.5\alpha$) that teachers of learning disabilities apply to the diagnostic tests in Jubail. Acceptance of the research hypothesis that states that there are statistically significant differences at the level of significance ($= 0.50$) between the mean scores of the learning difficulties teachers' application of the diagnostic tests in the city of Jubail due to the higher academic qualification variable. The results of this research are consistent with Richard (2014)'s study on the importance of the academic level in identifying and dealing with the tests of people with learning disabilities. The difference is due to the high scientific level, which makes the teacher more familiar with the use of diagnostic tests and tests for the detection of students with learning disabilities.

References

- Abdel Hadi, Nabil and Nasrallah, Omar and Choucair, Samir. (2000). Slow learning and its disabilities. Amman, Jordan: Dar Wael (p. 123).
- Abdel Hamid, Manal Mahrous and Musa, Naamat and Adham, Marwa (2013). Learning disabilities in light of theories. Dammam, Saudi Arabia: University of Dammam, College of Education, Jubail.
- Abdel Wahid Youssef, Soliman. (2012). Dimensional analysis of some Arab research and studies in the field of learning disabilities during a quarter of a century within the framework of the criteria for recognition and diagnosis and psychological intervention programs. College of Education: Benha University. Retrieved.
- alakra, Nael, and Nasser, Mahmoud. (2013). Learning disabilities between theory and practice, Riyadh.
- Al-Batayneh Osama, Al-Rashdan Malik, Al-Sabayleh Obaid, Al-Khatatba Abdul Majeed (2012), Learning disabilities Theory and Practice, Dar Al-Masirah for Publishing and Distribution, Amman. (Pp. 35, 87).
- Al-Khalili, Khalil (2012). Fundamentals of educational scientific research. Manama, Bahrain: Dar Al-Qalam.
- Al-Khatib, Jamal (2013). The foundations of special education. Dammam, Kingdom of Saudi Arabia: Al-

Mutanabi Library, First Edition.

- Al-Ma'ayta, Dawood Mahmoud. (1996). Learning disability theories. Teacher's Message: The Ministry of Education Department of Educational Planning and Research, Volume 37, Vol. 2(3), 28-37. Retrieved.
- Al-Qasim, Jamal. (2013). Learning disabilities basics (2nd edition). Amman, Jordan: Safaa Publishing House.
- Al-Rousan, Farouk (2013). Introduction to special education. Amman, Jordan: Dar Al-Fikr Publishing (p. 225).
- Al-Rousan, Farouk. (1999). Methods of Measurement and Diagnosis in Special Education, Dar Al Fikr, Jordan.
- Al-Shafei, Ibrahim. (2014). Early diagnosis and intervention of learning disabilities in Arabic language and mathematics among the first three grades of elementary school in the Western Governorate. Research and articles.
- alshaks, Abdulaziz, Al-Tantawi, Mahmoud Mohamed (2015), Diagnostic Program Language Disorder Scale for Children, Journal of the Faculty of Education, Ain Shams University, Education and Psychology, p. 39, C4, Cairo.
- Al-Tawari, Saud (2017). Thought patterns. Kuwait: Al-Messila House for Publishing and Distribution.
- Al-Zahir, Qahtan Ahmad (2008). Learning disabilities. Second edition Jordan, Amman: Wael Publishing and Distribution House.
- Awad, Ahmad (2009), Early identification of developmental learning disabilities among pre-primary school children. The second scientific conference of the Institute of Higher Studies of Childhood, Ain Shams University, Cairo, pp. 304-341.
- Dostál J. (2015). Activating devices and their use in e-Learning—focussed on handicapped students. Procedia-Social and Behavioral Sciences 176 284-290
- Father of God, Muhammad. (2016). Problems of diagnosing students with learning difficulties from the point of view of the learning disabilities specialist in the Kingdom of Saudi Arabia. Research and articles. Retrieved from
- General Administration of Special Education (2015). The Ministry of Education's Organizational Guide for Special Education. Riyadh, Public Administration for Special Education Press.
- Gresham, F.M. and Elliott, S.N. (1989): Social skills deficits and a. pring disability, J. learning disabilities, Vol. 22, No.2 , p. 54.
- Hafez, Nabil Abdel Fattah. (1998). Difficulties in learning and remedial education. Cairo, Egypt: Zahraa Al Sharq Library.
- Hammill, D.D.1990; on defining learning disabilities: An emergine consensus, J. Learning disabilities, Vol. 23, N2 ,p 103.
- IBM corp. (2016). IBM SPSS Statistics for Windows, Version 24.0. Armonk, NY: IBM Corp.
- Jamal al-Din, Kawthar. (2011). The effectiveness of a treatment program to reduce attention deficit / hyperactivity disorder among pupils with learning disabilities in the primary stage in Khartoum locality. Khartoum, Sudan: College of Arts.
- Kirk, S.A. and Kirk , W.D. (1973): psycholinguistic learning disabilities. Diagnosis and remediation, Urbana, chicago, lonodon: University of Illions press.
- Larissa Solange Moreira Paterlin(2019) Screening and diagnosis of learning disabilities/disorders outcomes of interdisciplinary assessments, Rev. CEFAC vol.21 no.5 São Paulo Epub Nov 25, 2019 .

- Linda S. Siegel, (1999) Issues in the Definition and Diagnosis of Learning Disabilities: A Perspective on Guckenberger v. Boston University, *Journal of Learning Disabilities* , First Published July 1
- Mahmoud, Ayman Al-Hadi and Al-Nahdi, Ghalib bin Hamad (2014). The effectiveness of remedial computer-assisted education in developing some visual perception skills for students with learning disabilities in the second grade of primary school. *Journal of Special Education at Zagazig University*, 101-147.
- Marley W. Barbara A. Schaefer Joseph C, (2002), Diagnostic Utility of the Learning Disability Index. Kush Watkins First Published March 1, Research Article *Journal of Learning Disabilities*.
- mdean Nuri, Talac. (2012). Diagnosis of students with learning difficulties. *Journal of Human Sciences: University of Babylon College of Education for the Humanities*, No. 12, 261-276 Retrieved from.
- Ministry of Education (2002). Organizational rules for special education institutes and programs. General Secretariat for Special Education. Saudi Arabia.
- Myklebust, H(1973). Development and disorders of written language: studies of normal and exceptional children (Vol.2). New York: Grune & stratton, 1973, p 68.
- njmee, Ali. (2019). Evaluate the role of the multidisciplinary team from the teachers' point of view in learning disabilities programs. Research and articles. Retrieved.
- Rasha ElSaheli, Shlomo Sawilowsky,(2016), Assessment practices for students with learning disabilities in Lebanese private schools, A national survey, *Educational Assessment & Evaluation*, 7 December 2016.
- Richard Sparks. (2014), Learning Disability Documentation in Higher Education: What Are Students Submitting, *journalsPermissions.navDOI , Learning Disability Quarterly* 37(1):54-62
- Shaker, majeed. (2013). Characteristics of Children with Learning disabilities in the Primary Classes from the Perspective of Their Teachers, *University of Babylon, Journal of Human Sciences*.
- Sheikha, Safia Abdullah (2019), the diagnostic accuracy of measures of mathematical operations based on the curriculum in screening students exposed to mathematics learning disabilities in the fourth grade basic, *The Education Journal. Mg. 33, p. 131, c. 2* • June 2019.
- Sideridis, G. D., Antoniou, F. & Padeliaou, S. (2008). Teacher Biases In The Identification Of Learning Disabilities: An Application Of The Logistic Multilevel Model, 31.
- Smadi, Ali, Al Shamali, syah. (2017). Modern concepts of learning disabilities, 1st Edition, Dar Al Masirah, Jordan: Amman.
- Solodow, W., Sandy, S. V., Leventhal, F., Beszylko, S., Shepherd, M. J., Cohen, J., ... & Nass, R. (2006). Frequency and diagnostic criteria for nonverbal learning disabilities in a general learning disability school cohort. *Thalamus-The Journal of the International Academy for Research on Learning Disabilities*, 24, 17-33.
- Wright, S., Ryan, K., Taylor, K., Turnbull, S., Skinner, C., Beeson, T., Ciancio, D., & Billington, E. (2021). Computer-Based Reading Interventions with a Post-Secondary Student with Intellectual Disability: Self-Determined and Fixed Response Intervals. *International Journal on Social and Education Sciences (IJonSES)*, 3(3), 394-409. <https://doi.org/10.46328/ijonSES.193>

Evaluation and Quality Assurance for Higher Education in Morocco: the ANEAQ as the Main Actor

Omar Oustous

Ibn Tofail University, Morocco,  <https://orcid.org/0000-0001-9666-2583>

Adel Ihichr

Ibn Tofail University, Morocco,  <https://orcid.org/0000-0002-6280-3058>

Younès El Bouzekri El Idrissi

Ibn Tofail University, Morocco,  <https://orcid.org/0000-0003-4018-437X>

Ayoub Ait Lahcen

Ibn Tofail University, Morocco,  <https://orcid.org/0000-0001-8739-3369>

Abstract: The Moroccan higher education has undergone several attempts of reform. the latest being the adoption of a framework law based on the 2015-2030 strategic vision of the Higher Education Council in which evaluation is placed at the center of the reform. Thus, competition and competitiveness in the field of higher education at the national and international levels have prompted Moroccan universities to integrate evaluation into their continuous improvement process through strategic projects, cooperative or even voluntary initiatives, either partially or for the whole university, covering all domains or focusing on specific ones. The National Agency for Evaluation and Quality Assurance of Higher Education and Scientific Research (ANEAQ) is an autonomous instance in charge of evaluating the higher education system to guarantee its quality. Its field of action covers all national institutions and training programs. Despite this enormous scope of action and the difficulties encountered, it has been able to promote a quality culture and harmonize the practice of institutional evaluation through the implementation of the national reference system covering all the institution's activities. This article highlights the importance of evaluation and quality assurance in the Moroccan higher education sector, explores the scope of action and the role played by ANEAQ, and provides some ways for improving the evaluation process.

Keywords: Higher Education, Quality Assurance, Evaluation, ANEAQ

Introduction

The diversification of higher education systems and the entry of new providers into the field of training have made it necessary to set up mechanisms for evaluation and quality assurance.

The principle of continuous evaluation has always been at the heart of the reforms, notably articles 77, 78 and 79 of Law 01.00 (Ministry of Higher Education, 2000), the strategic vision of the reform (2015-2030) and the framework law n° 51.17 (Ministry of Higher Education, 2019) relating to the system of education, teaching, training and scientific research.

Moroccan universities have had rich experiences in terms of internal (self-evaluation) and external evaluation, either voluntarily or within the framework of projects (strategic or cooperative). These evaluations are mostly global, covering all domains of the institution, and sometimes partial covering a specific domain but irregularly (Wahabi et al., 2018). Thus, the Parliament adopted the law 80-12 (ANEAQ, 2014) relating to the creation of ANEAQ, with the aim of entrenching the principles of governance and accountability and implementing the requirements of section 79 of Law 01.00 (Ministry of Higher Education, 2000) while institutionalizing the practice of evaluation and quality assurance.

As indicated by its name, the objective of creating ANEAQ is to improve and ensure the quality, competitiveness and diversity of training, to promote scientific research and adapt training to the requirements of the work market in order to create a suitable environment for developing the Moroccan higher education system and scientific research.

The overall structure of the paper takes the form of six main chapters including this introductory chapter. The second chapter defines the main concepts, highlights the importance of evaluation and QA, presents the national reference system used in evaluation, gives a brief overview of ANEAQ's scope of action and illustrates the situation of QA in Moroccan universities. The main results of the agency's evaluation in the last five years and its discussion are presented in the third and fourth chapter respectively. The fifth chapter gives a brief summary of the main points discussed in this paper. The final chapter identifies some recommendations for improvement in the evaluation and QA process.

Evaluation and Quality Assurance in Higher Education

Definition of Concepts and General Overview

Quality assurance is a set of processes and mechanisms for evaluating the degree of achievement of objectives and agreeing on methods for continuous improvement of the institution's activities. Evaluation, on the other hand, is the systematic audit process aimed at measuring the institution's ability to meet specific requirements and achieve the objectives, by comparing the level of performance with the criteria or expectations of the

institution. It aims to identify the strengths and weaknesses of the institution which in return is required to respond to them given the public nature of the reports (ANEAQ, 2019).

Quality and evaluation are inseparable. On the one hand, evaluation allows the institution to get feedback on quality improvement actions, and on the other hand, the quality approach helps the institution to make what it does intelligible, to make a clear diagnosis and analysis of itself and to identify areas for improvement. Quality assurance and evaluation are main pillars of the reform of the higher education system to improve its performance and attractiveness.

The principle of continuous evaluation has been clearly mentioned in articles 77, 78 and 79 of Law 01.00 (Ministry of Higher Education, 2000) in addition to this, the strategic vision of the reform (2015-2030), redefining the objectives for the higher education sector, has identified in its methodological foundations: "The development of vigilant monitoring and systematic internal and external evaluation of the reform implementation process and its achievements, in order to design, in time, the necessary corrections and the continuous improvement of its results" (Higher Council of Education, Training and Scientific Research, 2015). The need for systematic and regular evaluation was also confirmed by Framework Law No. 51.17, in particular Article 4: "... The adoption of a methodology for the periodic and regular evaluation of the system in all its components and levels, in order to measure its cost-effectiveness, the achievement and attainment of the objectives set ..." (Ministry of Higher Education, 2019).

Evaluation and quality assurance play a key role in addressing the dramatic mismatch between the profile of graduates and the demand of the labor market. This mismatch is observed each year when the most selective higher education institutes provide the labor market with thousands of fresh graduates with high skill profiles, who, at the same time, cannot satisfy the needs of the market demand. This explains the high rates of highly educated unemployment which lead thousands of students to drop out before receiving a degree. While others choose to leave Morocco looking for better opportunities, usually in prestigious schools of France.

The higher education system has shifted from a *teacher-centered perspective and pedagogical input to a student-centered practice and teaching outcomes*, where a system of Student-Teacher Evaluation (STE) has been widely implemented. This approach makes teachers more aware of what they are teaching (e.g. classroom instruction, individual coaching, assistance with assignments) and the impact of their actions on student learning (Centra, 1993). It also supports the improvement of the quality of teaching by using the information provided by students through inquiries driven by the instructors themselves, that focuses more on awareness of their impact on student learning than on accountability to their administrative structure. Moreover, the STE process must be accompanied with the development of evaluation mechanisms for the *recognition and reward of teachers' merit*. It is an essential lever for enhancing the quality of teaching and scientific production (Kaaouachi, 2010).

Furthermore, the practice of evaluation and QA in education is one of the fundamentals for the development of any country as mentioned in UNESCO's report about education in Morocco "...the issue of quality is as

important today as much as all the new challenges and problems relevant to education. The young persons should nowadays be prepared to face those new challenges; they should be armed with new knowledge, techniques, skills and behaviors. The education values should be strengthened through a quality education that provides all students with an equitable access regardless from their geographical area of residence. The importance of the quality of education for the development is obvious given the level of priority that was granted to it in the Millennium Development Goals (MDG). The goals of the EFA defined during the international forum in Dakar in April 2000, brought up the issue of the quality of education and committed countries to improve all aspects of learning. This is why the quality of education is a must that goes beyond its importance or usefulness for development...” (UNESCO, 2014).

Besides, universities need to clarify their intentions and preferred approach and make evaluation part of their policy agenda. On a more operational level, a formal distinction must be made between formative evaluations and administrative procedures. The place of evaluation in institutional management should be explained by specifying the norms and values, and even the criteria used, as well as the roles of the various parties, and by designating the competent bodies. Finally, it is necessary to indicate the accompanying measures and the rights of appeal in relation to the evaluation (Nicole Rege Colet, 2008).

The practice of evaluation in the field of education in Morocco, as an essential step in any pedagogical renovation process, encompasses different organisms and institutions. Therefore, it should be noted here that the National Evaluation Instance (INE), created in 2007 within the Higher Council for Education, Training and Scientific Research, has as its main mission the overall evaluation of public policies in the area of training and education, while ANEAQ is particularly responsible of *evaluating the higher education sector* through its missions as indicated in its creation law No. 80-12, namely (ANEAQ, 2014) :

1. The evaluation of public and private higher education institutions;
2. The evaluation of training programs;
3. The evaluation of scientific research and the effectiveness of its structures;
4. The evaluation of university cooperation programs and projects.

Reference System of Evaluation and Quality Assurance

ANEAQ bases its *evaluation of training programs* on the *National Pedagogical Standards (CNPNS)* of 2014 as a reference (Ministry of Higher Education, 2014) and on the regulatory texts of private higher education. The goal of this evaluation is to obtain accreditation which is pronounced by the higher education department after the decision of the National Commission for the Coordination of Higher Education (CNaCES). This decision is based on the evaluation and expertise carried out by the Agency. This regulatory framework, CNPNS, defines the rules for the design and structure of programs at all cycles and levels. These standards are specific to each level and each type of degree. The CNPN consists of three main parts: stream standards (FL), module standards (MD) and standards for the regime of studies and evaluations (RG).

Concerning *the institutional evaluation*, and as an application of ANEAQ's Article 5 of Law No. 80-12, the Government Council adopted the National Quality Evaluation and Assurance Reference Framework setting the criteria for institutional evaluation of higher education institutions, published in the BO 05 August 2019. In the spirit of capitalizing on the results of previous projects of this type, the design and development of these quality criteria were based on various sources, including: The RECET (Renforcement des compétences en Évaluation Institutionnelle) project , The AQi-UMed project (*AQUIMED*, 2013), Standards and Guidelines for Quality Assurance in the European Higher Education Area: European Standards and Guidelines (European Students' Union (ESU) (Belgium) et al., 2015) . These criteria were the result of work carried out within the framework of the Technical Assistance project subsidized by the European Union (Program Succeed Advanced Status "RSA II"), They are also the result of active participation in the form of seminars and meetings in situ with representatives of all stakeholders: several departments of the Ministry of Higher Education and other national bodies, universities, public and private institutions and experts.

This reference system is designed in form and substance in order to be adopted in the internal and external evaluation of Moroccan public and private higher education institutions, is intended to be practical, and would enable these institutions to evaluate the extent to which this reference system interacts with the different national and international references of quality assurance in higher education namely:

- Self-understanding of the institution and its positioning at regional, national and international levels;
- Decision making through the institutional bodies and strategic management performance;
- Interest in implementing Quality Assurance process and the extent to which the implementation of its results contributes to decision making and strategic planning;
- Looking for continuous improvement for effective internal and external performance of the institution.

The Quality Assurance and Evaluation Reference System for Higher Education in Morocco, developed and recently published, outlines the requirements to which all institutions must refer in order to implement their QA procedures. It offers a battery of tools to support the structure in charge of QA in the continuous improvement of services rendered. It also provides tools for good governance of higher education institutions, and support in training and scientific research missions, as well as in all student support initiatives and their commitment to society.

This reference system consists of 5 domains divided up into 15 fields of activity involving 38 standards split into 146 criteria (see Table 1).

Table 1. Moroccan Reference of Evaluation and Quality Assurance

Domains	Fields	Standards	Criteria
Governance and Management of support functions	5	12	47
Training	3	6	32
Scientific Research	4	11	36
Accompanying students and student life	3	7	23
Service of the institution towards society	-	2	8
Total	15	38	146

The institutional evaluation is a two-step process (ANEAQ, 2020):

- The first step: the institution provides information corresponding to the criteria predefined in the reference. This data is integrated into a self-evaluation report that includes a critical analysis of the information.
- The second step: the analysis and validation of the institution's self-evaluation report and the on-site visit of ANEAQ's committee of experts are both used to elaborate the external report, which is sent to the institution for a final review. In addition, this report may also suggest follow-up and support for the institution in its action plans.

The external evaluation carried out by the Agency is based on the self-evaluation report drawn up by the self-evaluation committee within the institution. This report is not reduced to a compilation of data relating to the achievements and functioning of the establishment, but is rather analytical, evaluative and self-critical. Therefore, ANEAQ has developed a *self-evaluation guide* which is a synthetic and practical tool, intended for Moroccan higher education institutions, to accompany them in their self-evaluation process given the importance of the self-evaluation phase in the institutional evaluation process. The self-evaluation guide presents the principles and methodology followed in the drafting of the self-evaluation report, then proceeds through the phases of the evaluation process, namely:

1. preparation phase;
2. designation of the members of the self-evaluation committee phase;
3. data collection and processing phase.

then finally specifies the purposes, the structure and the process of validation and dissemination.

In addition, for the QA system to be effective as a whole, all stakeholders must be aware of and involved in its activities according to their roles within the Higher Education Institutions. It is essential that decision-making entities show support for all QA activities, from planning to implementation. Faculty members and staff should be encouraged to be more enthusiastic about implementing QA principles in their daily work.

Scope of ANEAQ's Action

Morocco's higher education system is marked by a dominance of public universities and a continued expansion of private universities. Currently, there are three main categories: public higher education, higher education in partnership and private higher education. Universities are composed of regulated and open-access institutions.

ANEAQ's task is to evaluate all public and private institutions at the national level. This includes for public higher education, 142 university-affiliated institutions (related to one of the 12 public universities) and 74 non-university affiliated institutions, 161 institutions in the private higher education (including Al akhawayne) and 32 institutions were created in the framework of the partnership (*Ministry of Higher Education, 2019*).

Aiming to establish a culture of quality and to institutionalize the practices of evaluation and continuous monitoring, ANEAQ is called upon to carry out the evaluation and expertise of public and private training programs at the national level. The number of training programs varies from year to year depending mainly on the number of accreditation renewals, which in return depends on the duration of accreditation, and the decisions made by the Ministry with regards to these accreditations.

To follow an improvement-oriented approach, the quality assurance agencies need to support the self-improvement process through a thoughtful self-evaluation exercise and an on-site visit by a team of quality assurance experts. The evaluation exercise will not be conducted as a ranking or rating tool instead it will provide conclusions and recommendations to agencies for their further development. In this regard, ANEAQ has been evaluated over a six-month period in 2018 (ANEAQ, 2019). The aim was to further test the evaluation methodology and promote awareness of ASG-QA and other aspects of the Pan-African Quality Assurance and Accreditation Framework (PAQAF), thereby contributing to the consolidation of the quality culture, a transparent and harmonized approach to quality assurance in African higher education. The Standards and Guidelines for Quality Assurance in the African Higher Education Area (ASG, 2018) were based on the existing standards and guidelines of higher education already in use in African countries and by regional quality assurance networks or associations such as the Inter University Council of East Africa (IUCEA), the Arab Network for Quality Assurance in Higher Education (ANQAHE) and the African and Malagache Council for Higher Education (CAMES) in Francophone Africa. Additionally, the ASG-QA were benchmarked with the Standards and Guidelines for Quality Assurance in the European Higher Education Area (ESG, 2015) and other international standards and guidelines.

Quality Assurance in Moroccan Universities

The situation of QA in Moroccan universities has been investigated within the framework of cooperation projects, in particular: the RECET Project (2013-2016) and the EQUAM_M Project (2017-2021) through university surveys (questionnaires). The RECET project (Reinforcement of Competencies in Institutional Evaluation) 2013-2016 is a TEMPUS IV project that aims to develop the QA culture of Moroccan Higher

Education by strengthening competencies in institutional evaluation. It was coordinated at the national level by Hassan I Settat University. It brought together

- 15 Moroccan universities;
- 22 academic and institutional partners from Morocco and the European Union;
- Institutional actors: Ministry of Higher Education, Scientific Research and Executive Training and the Higher Education Council (INE).

Following the analysis of the data extracted from the questionnaires received from the universities, an assessment of the current state of evaluation and quality assurance was carried out. The questionnaire contains 82 questions divided into 5 sections:

- General questions (10 Q),
- Theme 1: Strategy and institutional QA policy (4 Q),
- Theme 2: Functional and Institutional Quality Assurance System (5 Q),
- Theme 3: Evaluation and Quality Assurance Skills and Training (5 Q),
- Theme 4: Cooperation Projects (8 Q).

The main conclusions drawn from this survey are:

1. Quality Assurance constitutes for all Moroccan universities a strategic axis aiming at the reinforcement of its training offer, the improvement of the quality and the internal efficiency, the valorization and the development of modes of governance and the institutional relationship with the socio-economic environment;
2. Governance is a priority domain for QA in Moroccan universities;
3. Several universities have already conducted self-evaluation and external evaluation (RECET,2016).

With the aim of updating information on quality assurance management in Morocco, the European EQUAM-M (Enhancing Quality Assurance Management in Morocco) project has drawn up a status report on quality assurance in Moroccan higher education in 2020. This investigation was conducted on the basis of a questionnaire, that is composed of 7 axes, and inspired by the *National Reference System of Evaluation and Quality Assurance* elaborated by ANEAQ. It is divided into 46 items:

- Identification of the university (4 items);
- Governance (5 items);
- Training offer (3 items);
- Student life (2 items);
- Research (3 items);
- Cooperation (2 items);
- Quality assurance (27 items).

The survey revealed that:

- 78% of the universities surveyed have a QA structure (unit, service or other forms) attached to the presidency and composed of 1 to 2 part-time administrative staff plus 1 to 2 qualified teachers in QA;
- The relationship between the QA structure and the institutions is not formalized;
- All the universities have already undergone self-evaluation in the framework of international cooperation projects and self-evaluation reports have been drafted, but with no real follow-up;
- 75% of universities have already experienced external evaluation in the framework of international cooperation projects (the whole university or certain components), but the evaluation reports have not been diffused and action plans for improvement have not been established (EQUAM_M, 2020).

Results

The Agency has used electronic processing during the whole procedure of evaluation of training programs since 2017. It has conducted four sessions of evaluation of training programs (more than 2,000 training programs in public and private institutions were evaluated). In 2018, ANEAQ evaluated the progress and monitored a sample of training programs that had been accredited in 2017 (157 programs evaluated in all 12 public universities). The objective of this monitoring is firstly to evaluate the functioning of the programs, while highlighting their specificities. And secondly to draw up a qualitative and quantitative comparison tool based on the strengths and weaknesses observed, with a goal to improve them and identify potentially replicable good practices (ANEAQ, 2018). The documentation of this on-site visit is ensured by the article 5 of Law 80-12 of ANEAQ: "...In accordance with the missions assigned to it, the Agency conducts field surveys and visits to the institutions under evaluation. It can consult and examine all the necessary documents and information, and interview the responsables, teaching staff, administrative staff, students and certain economic actors who have relations with the institutions under evaluation. To this end, all the institutions concerned by the evaluation should make available to the Agency all the above-mentioned documents and information. "

After publication of the national reference, a first series of evaluations of institutions were launched in June 2020, concerning 12 schools and faculties, one institution per public university. The universities themselves proposed the institutions to be evaluated. A second series of evaluation has just been initiated for the five universities created within the framework of a partnership with the State (UIR, UM6SS, UIASS, UM6P, UEMF). Each will designate an institution to be evaluated. Then will come the turn of private schools and universities. According to a five-year program, ANEAQ will evaluate a total of more than 390 institutions, which will help lay the groundwork and promote a culture of quality assurance in higher education and present a holistic picture of the sector.

The Agency produces an annual report, to be submitted to the supervising ministry, including the year's activities and recommendations for improving the quality of the institutions subject to the evaluation (ANEAQ, 2014). It also submits a report to the Head of the Government on results and prospects that emerge from the operations of the evaluations carried out (ANEAQ, 2014). The Agency publishes its annual reports and

transmits to universities and institutions the reports on evaluations carried out for their benefit, in order to present them to their councils.

The standardization of evaluation on the basis of the National Reference System for evaluation and quality assurance will enable the Agency, after an accumulated experience and a global evaluation of all higher education institutions, to rank them at the national level according to well-defined criteria. This ranking will create more competitiveness between institutions in terms of academic and institutional performance. Each higher education institution seeks a good image at the national and international level, which will allow to ensure a sufficient level of attractiveness for students and teacher-researchers nationally and internationally, to develop exchange programs, recognition of diplomas and scientific cooperation with the best foreign institutions. The construction of this image increases the need for internal and external evaluation of the institution's various activities.

Discussion

Evaluation plays an important role in educational policy orientations and choices in Morocco. However, evaluation of academic institutions as a whole is not a regular activity in the Moroccan higher education system. It is carried out only at the time of major reforms or within the framework of strategic or cooperative projects and does not necessarily concern all domains of the institution's activity (governance, training, scientific research, student life and service to society).

This explains the importance of the Agency's evaluation of institutions which aims to *harmonize and standardize* the practice of evaluation (external and internal) based on the same criteria (*National reference system*) covering all activities of the institution and to reach a certain *regularity and periodicity* of evaluations in the medium term. In addition, institutions are invited to produce self-evaluation reports structured according to the National reference system, which will lead to greater *maturity* in terms of *self-evaluation*.

Conclusion

Evaluation and quality assurance have been at the heart of the reforms of the Higher Education system and have become a major requirement and concern at the national and international level. The creation and operationalization of ANEAQ were the first steps to institutionalize the quality approach by putting in place processes, procedures and mechanisms, both practical and documented, aimed at establishing evaluation and quality culture in the Moroccan higher education. The good start of the Agency and the accomplishment of its missions are the results of a participatory approach including the different stakeholders in the evaluation and quality assurance process and a capitalization of good practices and past experiences carried out by higher education institutions.

Despite the existence of certain limitations and constraints in terms of quality assurance in the Moroccan higher education system, the analysis of the state of the evaluation of higher education conducted by ANEAQ during the five years of its activity and the ones planned in the medium and long term, shows that the agency is on the right track in the implementation of the quality assurance culture through a gradual institutionalization of evaluation and quality assurance practices and activities, while producing a set of reports, studies and analyses that are deemed valuable for decision-makers, teachers, students, administrative staff and socio-professionals.

Finally, the primary responsibility for quality assurance lies with each institution, as agreed by the Ministers of Education of the countries participating in the Bologna Process (Conference of Ministers responsible for Higher Education, 2003).

Recommendations

Strengthening the credibility and effectiveness of the evaluation and quality assurance system initiated by the agency depends essentially on the regular evaluation of its practices and the ability to modify them in the light of feedback from stakeholders to ensure continuous quality improvement. It must continually prove its added value through innovation, since an evaluation that does not evolve ends up becoming useless because it becomes too predictable. Finally, it must accompany changes and new policies in education and scientific research to maintain its relevance and usefulness. It is with this in mind that we propose the following recommendations to improve the evaluation and QA process:

Institutional level:

- Create evaluation and quality assurance units at each institution, while ensuring that human resources in the field of evaluation and quality assurance are strengthened through training and practice;
 - Encourage and motivate institutions to set up internal evaluation activities;
 - Develop an information system that is reliable and capable of providing relevant indicators on the functioning and performance of institutions, their entities and, above all, their training provision, to support decision-making and ensure effective quality management;
 - Improve the budget allocated to the evaluation agency;
 - Strengthen the agency's autonomy by placing it under the authority of the head of government instead of the higher education sector;
 - Provide free access to the public of all the produced evaluation reports;
 - Help institutions to develop an institutional culture of evaluation making them increasingly autonomous in this area;
 - Provide a reference framework for evaluation and quality assurance for distance education.
- Training level:
- Integrate the socio-professional side in the evaluation process in order to target the needs of the labor market;
 - Add the mission of teacher evaluation to the agency, like other agencies;
 - Broaden the scope of evaluation of training courses through on-site visits and mid-term monitoring

instead of limiting it to checking papers alone;

- Review the CNPNs and the description books to give more precision to the definitions of the rules of the program's organization and management;
- Ensure the quality of the scientific evaluation of the courses (module contents) and the compliance of the descriptions with the CNPNs;
- Rehabilitate the oral exam as an important evaluation tool, especially during the selection of candidates for master's degrees, and motivate teachers more to this practice;
- Introduce elements related to the "personal development" (soft skills & soft employment) of the student is a judicious initiative. In its current form, it has a number of weaknesses and could be improved;
- Develop courses related to languages in order to facilitate learning;
- Integrate adequate performance measurement indicators in order to have more tools for quality management;
- Establish the training map of each institution (Faculties, Universities) with consolidation at the national level;
- Open the evaluation to other partners as a potential proposal (students, socio-economic actors, university partners, etc.);

References

- ANEAQ. (2020). *Référentiel d'évaluation d'assurance qualité*. Retrieved from http://www.aneaq.ma/wp-content/uploads/2020/04/Referentiel_ANEAQ_Fr_2020.pdf
- ANEAQ. (2020). *Guide d'Autoévaluation*. Retrieved from http://www.aneaq.ma/wp-content/uploads/2020/08/Guide_Auto%C3%A9valuation_ANEAQ_2020_Fr.pdf
- ANEAQ. (2018). *Rapport d'évaluation et de suivi d'un échantillon de filières à accès régulé accréditées au titre de la session 2017*. Retrieved from <http://www.aneaq.ma/rapport-devaluation-et-de-suivi-dun-echantillon-de-filieres-a-acces-regule-accreditees-au-titre-de-la-session-2017/>
- ANEAQ. (2014). *Loi de création de l'ANEAQ*. Retrieved from http://www.aneaq.ma/wp-content/uploads/2019/08/loi_aneaq.pdf
- AQIUMED. (2013). *Livret-aqiumed*. Retrieved from http://www.agence-erasmus.fr/docs/2161_livret-aqiumed.pdf
- Centra J. A. (1993). *Enhancing teaching and determining faculty effectiveness*, San Francisco: Jossey-Bass
- Conference of Ministers responsible for Higher Education. (2003). *Realising the European Higher Education Area*. Retrieved from http://www.ehea.info/Upload/document/ministerial_declarations/2003_Berlin_Communique_English_577284.pdf
- Conseil Supérieur de l'Éducation, de la Formation et de la Recherche Scientifique. (2015). *Vision stratégique de la réforme: Pour une école de l'équité, de la qualité et de la promotion*. Retrieved from <https://www.csefrs.ma/publications/vision-strategique-de-la-reforme/?lang=fr>
- EQUAM_M. (2020). *L'état des lieux de l'assurance qualité dans l'enseignement supérieur au maroc*. Retrieved

from <https://www.equamm.org/deliverables>

- European Students' Union (ESU) (Belgium), European University Association (EUA) (Belgium), European Association of Institutions in Higher Education (EURASHE) (Belgium), & European Association for Quality Assurance in Higher Education (ENQA) (Belgium). (2015). *Standards and Guidelines for Quality Assurance in the European Higher Education Area (ESG)*. Retrieved from <http://www.esu-online.org>
- Ghouati, A. (2010). *L'enseignement supérieur au Maroc : De l'autonomie à la dépendance ? Journal of Higher Education in Africa / Revue de l'enseignement supérieur en Afrique*, 8(1), 23-47.
- Kaaouachi, A. (2010). *L'évaluation dans le système d'enseignement supérieur au Maroc: Bilan des réalisations, limites et principaux défis*. Towards an Arab Higher Education Space: International Challenges and Societal Responsibilities, 409-422.
- Ministry of Higher Education. (2019). *La Loi-Cadre n° 51-17 relative au système d'éducation, de formation et de recherche scientifique*. Retrieved from http://www.aneaq.ma/wp-content/uploads/2020/12/Loi-Cadre-51.17-Vr.Fr_.pdf
- Ministry of Higher Education. (2019). *Brochure des statistiques 2019-2020*. Retrieved from https://www.enssup.gov.ma/sites/default/files/STATISTIQUES/5656/Brochure%20des%20statistiques%202019-2020%20VF_16092020.pdf
- Ministry of Higher Education. (2014). *Cahiers des Normes Pédagogiques Nationales (CNPNS)*. Retrieved from <https://www.aneaq.ma/en/npsg/>
- Ministry of Higher Education. (2000). *Loi numéro 01.00 Portant Organisation de l'Enseignement Supérieur*. Retrieved from https://www.enssup.gov.ma/sites/default/files/ETABLISSEMENT-SUP/Dahir_n-1-00-199_du19mai2000.pdf
- Nicole Rege Colet. (2008). *Évaluation des enseignements et pilotage de l'Université ; L'éducation en débats: analyse comparée*, Université de Genève, Vol 3.
- RECET. (2016). *État des lieux*. Retrieved from <https://sites.google.com/a/uhp.ac.ma/recet/evenements-mediathèque/colloque-etat-des-lieux-universit-al-akhawayn--ifrane>
- UNESCO. (2014). *Education for All 2015 National Review*. Retrieved from <https://unesdoc.unesco.org/ark:/48223/pf0000231799>
- Wahabi, R., Fahmi, S., Benjouid, Z., Idrissi, L., & Nejmeddine, A. (2018, juillet 9). *L'Évaluation et l'Assurance Qualité dans les Universités Marocaines*. *International Journal of Economics & Strategic Management of Business Process (ESMB)*, 56-61.

Examining the Picture Book Production Process: The Creative Autonomy of Picture Book Artist

Hsiang Ling Lin

National Cheng Kung University, Taiwan,  <https://orcid.org/0000-0001-7146-0766>

Abstract: The publishing industry is struggling and has been hard hit in recent years. When the entire publishing industry is declining, only children's books are growing steadily especially picture books. From the production side, in some cases, the picture book has two authors, which are writers and artists. In the process of creating picture books, the writer has his/her own picture in their head during the journey of creating the story, but the artists might have different ideas of the picture. Therefore, the editor becomes the middleman to communicate with these two authors. The aim of this article attempts to explore how picture book artists collaborate with editors and writers and from the perspective of artists and to see what extent the artist's creative autonomy has been realized. This article involved Semi-structured In-depth interviews and interviewing a publishing house that is willing to give the young artist the opportunity in Taiwan, and the interviewees comprised of three different roles which are artists, writers, and editors. This article may be importance of explaining the dynamic relationship between picture book artists, writers, and editors, as well as providing the picture book publisher with a better understanding of the diverse characteristics of artists and different possibilities of collaboration.

Keywords: Picture book, Artist, Editor, Writer, Creative Autonomy

Introduction

The Whole Publishing Industry is Decline only Children's Book is Growing

We live in a world full of visualization. Because of the advancement of technology, people are accustomed to read information on 3c devices such as mobile phones, and also people are accustomed to receiving a lot of pictures and videos in the daily life. Therefore, the traditional publishing industry has been greatly impacted. The traditional publishing industry is struggling and has been hard hit in recent years. But if you look closely at the number of children market, something will surprises you, according to IBISWorld, "The market size of the Children's Book Publishing industry in the U.S. has grown 0.9% per year on average between 2015 and 2020." When the entire publishing industry is in decline, only children's books are growing steadily.

According to the National Library of Taiwan' Report on the Status and Trends of Book Publishing in Taiwan in

2019, the number of new book publications has hit a record low since eighteen years ago, but the number of children's book publications increased for three years. And Hui-fang Wu, Associate of Commodity Department of Eslite Bookstore, explained that children's books' overall sales have grown by about 30% in the past three years (李雅筑, 2017). No matter the global trend or Taiwan's local publishing industry, we can see the growing number of children's books.

The Opportunity of Taiwan Original Picture Book

Compared with the history of Europe and the United States, Taiwan's picture book history is relatively new and inexperienced. Unlike Japan's picture book industry that has developed successfully and maturely. It can be seen in recent years that Taiwan's emphasis on and investment in picture books has been much better than the past. They have achieved good results in the *Feng Zikai Children's Picture Book Award* (豐子愷兒童圖畫書獎), the Bologna Ragazzi Award in Bologna, Italy, and the *Mike The Macmillan Prize*. According to statistics from *Dandelion Organization of Storytelling as Literacy Advocacy* (蒲公英故事閱讀推廣協會), an organization that dedicates to Taiwan original picture books hope to promote the local picture books, issued publishers published original picture books in Taiwan in 2015 of 76 new original picture books. 11 volumes were reprinted, a total of 87 works. Taiwan's picture book market has more than 1,000 publications a year, and original picture books account for less than 10% of the total (慰璋, 2016). How to change Taiwan's picture book market and sell Taiwan's picture books to other countries? Still a big challenge for Taiwan's picture book industry.

The Issue of Picture Book Stakeholder: Editor, Writer, Artist

There are three main roles in the process of making picture books: editor, writer, and artist. These three roles are the most important roles in the production process. Compared with the production process of other books, picture books have become more interesting and different because of the artists. In the current picture book industry, editors act as intermediate bridges and are responsible for communicating with writers and artists. The same way of collaboration has never changed.

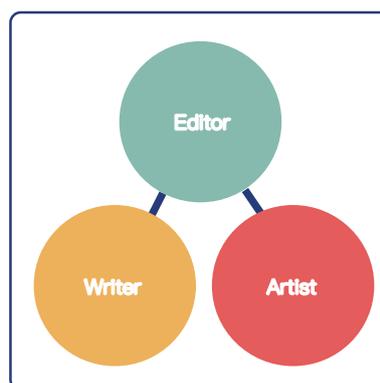


Figure 1. Picture Book Stakeholder

About Picture Book Production

The difference between picture books and other books in the publishing industry is that picture books have two authors. In Taiwan there is 70% of picture book have co-author. The publishing proses of a picture book can be divided into pre-production and postproduction. The pre-production work including to decide the theme of the picture book, creation, editing; the post-production including printing, marketing, and distribution. And I will focus on preproduction to see how the Picture book stakeholders work together.

Generally, the production process of a picture book is that the publisher obtains the manuscript from the text writer. The source of the manuscript can be roughly divided into 3 different types: 1) Individual submission 2.) Publishers decide the theme first, and the editor initiative to find the writers (王蕙瑄, 2007) 3.) The editor submit their own manuscript to publishing house. After having the manuscript, the editor will look for a suitable picture book artist to draw the picture book. The picture book artist will according to the manuscript and plot to draw the picture book.

The Weirdest Part of the Picture Book Production

In the production process of picture books, the writer and the artist have never met or talk to each other in person. The communication between writer and artist forms a gap and the editor become the middleman to communicate with each other.

The Middleman who Coordination Everything -Editor

Deirdre explained that when the wirter writing the story, the writer usually have already imagined the pictures. Writer might not like the creation because the pictures is not in the line with the imaginaion. This might limits the artists' autonomy and creativity. (Hunag, 2010) The editor is cultural intermediaries. Although these cultural intermediaries as the bridges between authors and readers, they have conflicting relationships with creators that are both cooperative and competing for dominance. This comes from the position of the cultural intermediary who has the right to gatekeeping for creativity.

On the other hand, it comes from the contradiction that cultural intermediaries shoulder the responsibility of balancing cultural values and commercial interests. The role of the editor is different from the past. The editor has gradually changed from the role of goalkeeper to producer (李令儀, 2014). Hao Kuang-tsai mentioned in the lecture of the Picture Book Salon hosted by the Kaohsiung public Library in 2020 that creators need to find an editor with wide view to help you to grow and shine (郝廣才, 2020). Therefore, the balanced between editors and creators, or editors and the market, is critical to the picture book industry.

The Current Situation of Taiwan Picture Book Industry

The proportion of "fiction" in Taiwan has continued to fall, and "children's books" and "comic books" have grown year after year. At a time when Taiwan's publishing industry was in a bad period, the proportion of children's books has increased for three consecutive years. The publishing trend is closely related to the pulse of society. In response to the 108 new syllabus (108 年新課綱), in addition to many books that guide parents and students to improve their reading literacy, a variety of children's books that inspire children's knowledge base have also promoted the growth of children's book publishing (108 台灣圖書出版現況及趨勢報告, 2019). Taiwanese picture books have become the mainstream of children's book publishing, but most picture books in Taiwan are mainly translated. The translation volume of imported books is as high as 90% (邱各容 2019). As one of the genres of children's literature, picture books are loved by readers of all ages because of the illustration, and the limited text length makes the reading process attractive. The ability and energy of picture book creation will show surprising performance at different stages. It not only reflects the changes of the times and the transition of thoughts, but also illustrates the different pursuits and aspirations between generations. In the sense of aesthetics and form, its inclusive characteristics and particularities have broadened readers of different ages (蔡明原, 2019).

The Barriers of Picture Book

Taiwan picture book industries have three characteristics: First, the problem of how editors deal with illustrations. Taiwan editors have less contact with images/illustrations, which often results in images/illustrations and texts cannot fit together. Second, there is still a broker/agent system to promote works for these creators, allowing the authors to focus on the creation of drawing illustrations. Third, the production mechanism of the Taiwan's book market is not mature, and there is no professional book planning. The first and third points are the resistance brought by the industry to creators. The objects involved include editors and the entire publishing industry (陳昱穎, 2014).

The current development in Taiwan, picture books have been overused, and some even regressed to the purpose of textbooks. Back to the era when picture books were thought to have illustrations. Most of them could not keep up with the aesthetic vision of the international development of picture books, and they are very likely to suppress picture books again. Development, let readers give up reading. This kind of purposeful reading begins with adults, who always expect children to have a certain effect when they do something. It unknowingly distorts the joy of reading, which is more worrying. Appreciating picture books is like appreciating literature, music, and art. From the perspective of timelessness, sharing, and inheritance, it is actually the field of continuous development of creation and reading (賴嘉綾, 2017).

Taiwan does not pay enough attention to the artists, and the aesthetics of picture book workers is insufficient. The editing of domestic picture books mostly starts with writing training, and the work is carried out by those

who have graduated with a Chinese-related degree, and those who have less major in art. Senior editors are also cultivated in a learning-by-doing way, and this is also the case abroad; but picture book editors need more aesthetics in addition to their sensitivity to text. The most respected way of professionalism is to cooperate with professional art editors. However, for many years, text editors and art editors have said their own words, so that many domestic creators have the ability to complete drafts and art editors on their own. This is difficult for many foreign editors to imagine of. Take the United States as an example. Ninety percent of picture books do not have the name of the essay or the United States on the copyright page (賴嘉綾, 2017).

The Struggling of Artists

A Taiwanese picture Book artist Smallx2 sharing her experience to participate in a lecture which was held by Dunnan Eslite in 2010. The lecture was invited by Deirdre Mcdermott who is the publisher and art director of the picture book department, a well-known children's book publishing company in the United Kingdom "Walker Books". In the article, Smallx2 shares her experience:

"Based on my and my friend's experience, taking cases, sometimes the case owner does not respect the picture book artists very much, or instead, people who are not art majors dominate the development of the work, which might put picture book artists in a fix. The remuneration is generally not high, and picture book artists are often in a weak position in the industry, so they feel frustrated with this job."

Deirdre responded that Walker Books give text and illustration the same respect. They have both a text editor and art editor at the same time, each of them dealing with text and illustrations separately. Even when Walker Books was founded thirty years ago, the first person hired as an art director.

Even 10 years later in 2020, a podcast program "Bu Tin" is talking about the freelancer and the related topic, in one episode the conversation was between the host and a young girl name Severus. She is a full-time illustrator and picture book artist, during the interview she said that she wanted to give herself one year limit to be a full-time artist. If this job can't support her life, she will take this job as her sideline.

This is a meaningful sharing, which points out the plight of Taiwanese picture book artists.

To compare with Europe, Taiwan's picture books are in the start stage. Taiwanese illustrators have had visible gains since 2014. Hiii Illustration, 2014, Wu Yi-Ting 無疑亭, JIA Illustration Competition, 2015, Bacon Devours, Bologna Illustrators Exhibition, 2016, Cindy Wume, Adobe Design Achievement Awards, 2019, 三木森 Mori...and so on. There are many new startup picture book artists are come from the international award and being discovered by publishers. These are the potential of Taiwanese artists, but the publishing environment of picture books has always been unfriendly to picture book artists.

Research Objectives and Questions

Objective 1 **Explore the positioning of picture books in the publishing industry.**

Objective 2 **To understand how the stakeholder work together.**

Objective 3 **To understand how artists perceive their value?**

In order to achieve the research objective, the following are research questions:

(1) What is the position of the picture book in the publishing industries?

Among the classifications of the publishing industry, picture books are one of the scopes of children's literature. The publishing industry was sluggish and the coming of the digital era, picture books performed prominently in the publishing industry. Therefore, this study wanted to explore the position and role of picture books in the publishing industries

(2) How the picture book stakeholder collaborate with each other? What is the responsibility of each roles?

To understand how the stakeholder of picture book collaborate with each other. The writers and artists of picture books do not meet each other and they communicate through the editor. If the three roles can really discuss together, it may change the publishing quality of picture books and reduce the generation gap in communication.

(3) How artists perceive their value? What resource they get or not?

After knowing the relationship between the stakeholder, the study can examine the current situation of the picture book artists and to have a suggestion for picture book publisher.

Research Methods

Research Concept

The purpose of this study is to explore the stakeholder of picture books: editors, writers, and artists. Picture books are a product of high creativity. How creative workers collaborate with each other to achieve a balance and make the work better through creative collaboration, this study is to examine how picture books cooperate through creative collaboration theory.

This study will review the current cooperation status of the picture book industry and have a deeper understanding of the production process of picture books. To understand how the stakeholders of picture book collaborate with each other. After knowing the relationship between the stakeholders, the study will examine the current publishing process and to have the new pattern for picture book publisher.

Research Process

After identified the research issues through the literature review on the current situation of picture book stakeholder in Taiwan.

First, Case study is focus on a picture book publisher, Pa Pa culture, and choose two representative picture books from it. Second, use semi-structured interview to compare two groups and try to examine the stakeholders.

Case study

A case study is an in-depth investigation of a single person, group, event or community. Usually, data is collected from various sources through multiple methods (such as observations and interviews). The case study can be either a single case or a case bounded by time and place. (Williams, 2007) The procedure used in the case study means that the researcher can provide a description of the behavior. This comes from interviews and other sources, such as observations. The customer also reports details of the incident from his or her perspective. Then, the researchers write case studies and explain the information from the above two sources. (McLeod, 2019) In this research, choose a publishing house that publishes Taiwanese original picture books, and select two different picture books as examples for comparison.

Semi-structured In-depth Interviews

An in-depth interview is an attempt by the researcher to understand the interviewee's emotions, motivations, attitudes, life history, etc. The purpose here is to allow interviewees to describe their experiences and reflections on them in detail. The direction and nature of the response is guided by the responder at least initially. The structure of the interview may be a very general topic and then gradually narrowed down to a specific topic. For example, interviewees may be asked to talk about their lives and then gradually focus on their work experience (Harvey, 2012) The extent to which semi-structured interviews develop the interviewee's frame of reference instead of getting detailed answers to questions pre-designed by researchers.

The goal is to get the interviewee to speak in their own way, so the questions are often less specific. If in the process of talking about one area, the interviewee provides answers to another area, then the interviewer includes the other area. The questions need not be asked in any given order, but should be asked in a way that promotes dialogue. Semi-structured interviews usually start from a more general question or topic, and develop freely within a framework. The interviewee can have a higher degree of freedom to discuss the topic in detail. (Adams, 2015) Therefore, this research hopes to be conducted in a small group interview. The participants of the interview are editors, writers, and artists. The three interviews are conducted at the same time, hoping to understand the relationship between the three roles and the process of communication.

Data Collection and Analysis

Criteria of Case Selection

In recent years, many organizations and publishers are working on cultivating original picture books in Taiwan. Not only are efforts aimed at publishing children's books, but also many potential picture book creators are being explored. They're giving many new generation creators opportunities and slowly driving picture books. Industrial activity. In order to get in touch with Taiwan's original picture book workers and to study the current situation of Taiwan's picture book publishing industry, PaPa culture, a small startup publishing house dedicated to publishing original picture books, was selected as the survey object of this research.

Case Introduction

The case study is chose PaPa culture which is a small publishing house in Taiwan. So far, only Taiwan's original picture books have been published, and it gives creators a lot of freedom. The founder was worked in a publishing house, because of a sickness, he went to a foreign country to recuperate. After returning to Taiwan, he established PaPa Publishing House. Unlike traditional publishing houses, he launched many experimental works and often went to elementary school to read stories and directly contact these picture book readers. It can be seen that PaPa culture has worked hard to break the old framework of children's books production over the years, and strive to add vitality to the children's book publishing industry.



Figure 2. Chief Editor and Editor of PaPa Culture Source:(謹淑婷, 2014)

Results

This is an ongoing research. This research choose, *The boy walking at night*, *Don't cut my hair!* to interview the stakeholders of two books.

The Boy Walking at Night

In this case, the writer Yen Zhi Hao submitted his work to PaPa culture and the editor Jing Lain Xiao discuss the detail with him. After the discussion the editor come up with a person who is the artist Hui Yin Hsiesh, because the editor think this story is very soft and warm, and the style is perfect for Hsiesh. The editor become the connection maker, according to the interview the artist said “I didn’t discuss anything with them during the painting. I painted according to the text and my own ideas. I finished the sketches before giving them to the publishing house. During this period, it was my own creation. We had a meeting and discussion once, and we discussed while having a meal. Fortunately, the author liked it very much, so our cooperation went smoothly. “ Editor” When I took the author to see the artist, I will know better why the other party did this. To meet with each other and talk is easier to understand.”

The writer said, “When I finished the draft, I felt that there was one page missing in the middle. I felt that I had to make up a page or it would be incomplete, but the editor felt that it was unnecessary. I thought that page was very important, so I asked to meet with the artist. If artist think we doesn’t need to add it, then don’t add it. On the day of meeting artist, she also thought it was right, that page was missing, so we added it. The PaPa culture agreed to add that page. "From this meeting, we can see that the PaPa culture gives creators a lot of respect and space for discussion, discussing and compromising with each other, the purpose is to make the work more complete.

Because of the editor’s arrangement, a meeting between the writer and the artist was formed. From the narration of previous documents, the artist and the writer did not know or contact each other. The editor played the role of spreading the word in the middle, but in the picture book of sleepwalking. It seems that the editor plays a role of not only communicating, but connecting writer and artist.



Figure 3. The Stakeholder of The Boy Walking at Night

Don't Cut my Hair!

In this case, the editor is the writer, which is common in the publishing industry, so use this case to examine how the editor as a writer transforms his identity.

According to the artist, "When the editor gave me a draft, she had already described the scene very clearly, and she would discuss it with me from time to time. They gave me a lot of time and flexibility."

The editor said "I really like the artist's pictures, so I will adjust my text and try my best to cooperate with her." Compared with the previous literature, the artist does not feel that it is not being respected, but feels full of self-sufficiency. Therefore, it is also very important in the process of collaboration and communication.



Figure 4. The Stakeholder of Don't Cut my Hair!

Discussion and Conclusion

From the communication and collaboration of picture books, it can be found that respect and dialogue are the most important thing. However, in traditional picture book production, publishers choose to ignore creation in order to be able to produce picture books quickly to sell the books to market. In the creative industry, the creativity and autonomy of creators can be used to contribute to the output of works. From the interview, we can see the helplessness and true feelings of the artists. PaPa culture forms a strong contrast, unlike other publishing houses, it cultivates feelings with the creators, which is like a pleasant experience of cooperation with friends.

Stories and Illustrations can Crash the Different Spark

Different publishing houses have different company structures and scales. Because of many power relations,

some large publishing houses have turned artists into drawing tools that they can only cooperate. What publishing houses say that artists can only agree and cannot enhance their creativity and charm. The editor Jing Lain Xiao said, "The story of a picture book and the illustration can sometimes be viewed separately or together. Not everyone has such a good imagination as the artist." The illustrations and the story are like two lines, not just figure to match the story, but to crash the spark and to create a new story.

The Vicious Circle of Taiwan's Original Picture Books

For the picture book market in Taiwan, publishers are eager to sell picture books, so they shorten a lot of production time, ignoring that creativity takes time to develop. Therefore, many picture books in the market have a fixed formula. The writer Zhi hao Yan said, "The creativity is being curtailed because everyone wants to be pleased with parents and the government. Only in this way can they be purchased and awarded. Taiwan original picture books are become more and more educational and not fun, because parents want their children to read a book must be learn something knowledgeable. So I think the literary of the children's literature is declining and the commerciality is increasing, which is a pity."

Creative ideas that have been neglected for a long time because of the commercial market have caused the enthusiasm of creators to be slowly disappear. Therefore, it is a vicious circle for original picture books in Taiwan.

Artist's Autonomy

On the other hand, in the process of artist Hsiesh's creation of picture books, although the pay is low, she still feels very satisfied in her heart, "There are many artists still want to do this work, because this satisfaction is above money."

The importance given to artists by PaPa culture allows artists to heal their hearts in the process of creation. Therefore, the picture book industry has become more diverse because of the unique PaPa culture.

References

- 108 台灣圖書出版現況及趨勢報告. (2019). Retrieved from
- 王蕙瑄. (2007). 2000 年以來台灣童書出版概況 與童書編輯的角色定位. (MA). 國立台東大學,
- 李令儀. (2014). 文化中介者的中介與介入: 出版產業創意生產的內在矛盾. 台灣社會學, 28, 97-147.
- 李雅筑. (2017). 暢銷榜頭一遭, 童書賣贏勵志書奪冠. 商業周刊.
- 林真美. (2010). 繪本之眼: 親子天下. 分享夢想-好繪芽萌芽 台灣原創繪本, (2020).
- 洪葦聿. (2014). 臺灣政府出版之兒童圖畫書出版調查. (MA). 國立臺灣師範大學,
- 大風吹, 吹什麼風? 國際繪本的風向和台灣繪本的未來, (2020).

- 陳昱穎. (2014). 台灣插畫創作者的文化勞動與科技中介. (MA). 國立臺灣師範大學,
Retrieved from <http://portal.lib.ntnu.edu.tw/bitstream/20.500.12235/85262/1/n069937008801.pdf>
- 陳慶安. (2017). 幽默手法應用於兒童繪本創作研究. (設計學系碩士班). 國立臺灣師範大學,
劉瑋婷, 伊. (2007). 台灣兒童圖畫書出版產業之困境與 願景:從插畫創作者之角度檢視.
教育資料與圖書館學, 44:3. 慰瑋. (2016). 王怡鳳:台灣原創繪本逆境求生長.
香港文匯報. 蔡明原. (2019). 2019 年年度臺灣原創繪本回顧. 臺灣出版與閱讀, 9, 104-106.
- 謔淑婷. (2014). 巴巴文化總編巴克利:笑聲會從我們的書,傳到孩子的心裡. 編輯·邊急·鞭擊. Retrieved from <https://okapi.books.com.tw/article/3137>
- 賴嘉綾. (2017). 看見圖畫書的幸福滋味:美國繪本編輯 Porter 與 作家 Bagley. 全國新書資訊月刊, 221, 9-13.
- 賴嘉綾. (2018). 繪本的「暗號」你接得到嗎?——繪本職人賴嘉綾帶你認識 8 個常見
圖像語言. Retrieved from <https://okapi.books.com.tw/article/10733> 蘇振明. (1987).
認識兒童圖書及教育價值. 幼教天地, 5, 27. 蘇振明. (1998).
認識兒童讀物插畫及其教育性. 91 p1-10.
- Adams, W. (2015). *Handbook of Practical Program Evaluation* (H. H. J. Wholey, K. Newcomer Ed. 4 ed.):
Jossey-Bass.
- Anderson, P. (2019). Audio Publishers Association Survey: Nearly \$1 Billion in 2018 US Sales. Retrieved from
<https://publishingperspectives.com/2019/07/audiopublishers-association-survey-nearly-1-billion-in-2018-sales/>
- Arnheim, R. (1993). Learning by looking and thinking. . *Educational Horizons*, 71 (2), 9498.
- Barone, D. M. (2010). *Children's literature in the classroom: Engaging lifelong readers*. New York: Guilford
Publications.
- Bennis, W., and Patricia Ward Biederman. (1997). *Organizing Genius: The Secrets of Creative Collaboration*.
- Cullinan, L. G. B. E. (2006). *Literature and the child*. Belmont, CA: Wadsworth Thomson Learning: Belmont,
CA : Wadsworth. Thomson Learning.
- Harper, L. (2016). Using Picture Books to Promote Social Emotional Literacy. *YC Young Children*, 71(3), 80-86.
- Harvey, L. (2012). Social Research Glossary. Retrieved from
https://www.qualityresearchinternational.com/socialresearch/interview.htm#semi_structuredinterview
- Hunag, Y. H. (2010). 圖畫書編輯專業講座 筆記與心得分享. Retrieved from
<https://www.smallx2.com/blog/picture-book-editor>
- Jarrard, S. (2016). Publishing Insights From the Nielsen Children's Book Summit. John-Steiner, V. (2000).
Creative Collaboration: Oxford University Press
- Kubala-Chuchnowska, P. (2020). 5 Digital Publishing Trends For 2020.
- Leon Mann, J. C. (2011). *Routledge Studies in Innovation, Organizations and Technology* (J. C. Leon Mann
Ed.).

- Library, N. D. (2018). History of Japanese Picture Books—From picture scrolls to contemporary picture books. *National Diet Library Newsletter*. Retrieved from https://www.ndl.go.jp/en/publication/ndl_newsletter/218/21801.html
- LIEFER, B. (2013). What is a picturebook? Across the borders of history. In *Picturebooks: Beyond the Borders of Art, Narrative and Culture*: Routledge.
- Lynch-Brown, C. T., C. . (2005). *Essentials of Children's Literature*, 5th edition. 76.
- McAusland, L. K. (2005). *Creativity, Collaboration, and Dialogue: Exploring the Convergence*. (MA). Antioch University,
- McCombes, S. (2020). How to do survey research. Retrieved from <https://www.scribbr.com/methodology/survey-research/>
- McCoy, J. (2019). Will Barnes & Noble Survive? How The Publishing Industry is Changing in an Internet-Based Era. Retrieved from <https://expresswriters.com/how-the-publishing-industry-is-changing/>
- McLeod, S. (2019). Case Study Method. Retrieved from <https://www.simplypsychology.org/case-study.html>
- MUKUNDARAJAN, A. (2017). History of Publishing.
- Nancy Frey & Douglas Fisher. (2008). *Teaching Visual Literacy: Using Comic Books, Graphic Novels, Anime, Cartoons, and More to Develop Comprehension and Thinking Skill*, .
- Nicholas, J. L. (2007). *An exploration of the impact of picture book illustrations on the comprehension skills and vocabulary development of emergent readers*. (Ph.D.). Louisiana State University and Agricultural & Mechanical College, Retrieved from <http://pqdd.sinica.edu.tw/doc/3256349>
數位化論文典藏聯盟(Digital Dissertation Consortium) database. (3256349)
- Noblit, C. (2020). The Top Ten Publishing Industry Trends Every Author Needs to Know in 2020. Retrieved from <https://www.writtenwordmedia.com/the-top-ten-2020-publishing-industry-trends-every-author-needs-to-know/>
- Oppenheimer, R. (2011). *THE STRANGE DANCE: 9 EVENINGS: THEATRE & ENGINEERING AS CREATIVE COLLABORATION*. (PHD). SIMON FRASER UNIVERSITY,
- Patricia J Cianciolo, W. C. B. C. P. (1970). *Illustrations in children's books*: Dubuque, Iowa : Wm. C. Brown Co.
- ReadersMagnet. (2019). Why 2019 is a Good Year for Publishing Children's Book? Retrieved from <https://www.readersmagnet.com/why-2019-is-a-good-year-for-publishing-childrens-book/>
- Rosala, M. (2019). How to Analyze Qualitative Data from UX Research: Thematic Analysis.
- Tate, N. (2019). The Strange Alchemy of Picture Books. Retrieved from <https://writingcooperative.com/the-strange-alchemy-of-picture-books433bc1d9198>
- Templeton, T. (2020). Picture perfect: The role of picture books in a secondary classroom. *Scan*, 39(6).
- W., M. (2020). Children's Books Sales. Retrieved from <https://start.askwonder.com/insights/size-childrens-books-market-us-s27f35au5>
- Williams, C. (2007). Research Methods. *Journal of Business & Economic Research*, 5, 6572.

Multidisciplinary Development of Sustainable Education

Fatma Khanim Bunyatova

Idrak Mektebi-Intellect school, Azerbaijan,  <https://orcid.org/0000-0002-1972-7176>

Aynur Bunyatova

Azerbaijan University, Azerbaijan,  <https://orcid.org/0000-0003-3287-9462>

Nigar Shahhuseynbayova

Azerbaijan University, Azerbaijan

Abstract: The reason for the interest in the use of learning technologies that protect health in education is not to harm the physical and psychological health of learners in the process of training and education. After the creation of new types of innovative educational institutions, the knowledge load of learners increases, the increasing learning load can disrupt the normal development of students' central nervous system, vision, musculoskeletal system. This seriously harms the health of students. Only 5-15% of school leavers are healthy. To partially eliminate this problem, the project "Healthy Education-Healthy Nation" is being implemented in Azerbaijan to develop education. During the implementation of the project, its goals were expanded psychopedagogically in a local school. The goal was to develop students' thinking while maintaining their health. To achieve this goal, changes were made in the learning process: - the purpose of training was replaced by the purpose of learning; - active training - replaced by constructive learning; - The structure of the knowledge of programs is based on a complete and fuzzy model; -Tasks that ensure the operational development of student thinking, price criteria were created to measure the level of development. The article reflected the work done within the project.

Keywords: healthy education 1, training on the move 2, transition from teaching to learning 3; constructive learning 4, fuzzy subject programs 5.

Introduction

The main goal of the "Healthy Education-Healthy Nation" [1] project was to raise a physically, mentally and spiritually healthy, progressive Azerbaijani citizen with high training and creative abilities. A working group under the President was established in the United States in the early 20th century with the problem of "healthy education". The group conducted research on "Environmental Impact on Children's Health" and concluded that

chemical, physical, social and psychological factors have a negative impact on children's health. The Congress stated that the results of the research were not satisfactory in comparison with the health status of children in other developed countries, and adopted the "Children's Health Program". [2] In Europe, 43 countries have joined the European School of Health Network, adopting health promotion as part of European education and health policies, and listing the damage to children's health. These are: the lack of rich and age-appropriate training materials with modern developmental knowledge; non-application of new psycho-pedagogical teaching methods to the learning process; failure to take into account the level of health; each child was not seen as an individual, and his inner development did not take into account his needs.

In order to solve these problems, the European Network of Schools of Health based its development on the development of the learning process, the structure of teaching materials in accordance with the structure of students' cognitive structures, and the needs of children.

The solution of these problems in the Azerbaijani education system requires serious renewal and modern reforms. At the state level, in 2016, within the framework of cooperation with the National Center for Educational Technologies, the project "Healthy Education - Healthy Nation" was launched. The main goal of the project is to protect the physiological and psychological health of children in schools and to develop their internal potential.

Materials

Within the framework of the project, the Center conducted medical-hygienic, social-psychological monitoring to study the current situation in Azerbaijan in terms of the problem and collect material and collected the following information:

1. The information on the state of medical services for students in 4,500 secondary schools in 65 cities and regions of the country, the latest date and purpose of medical examination of students.
2. The Ministry of Health provided information on the dynamics of students' health status by class, including the most common pathologies (scoliosis, deformities, nearsightedness, neuropsychiatric and cardiovascular diseases) in school-age children over the past five years.
3. The quality of psychological services was studied for the students, and proposals were given to the draft "Regulations on Psychological Services" for the purpose of training or retraining of practical psychologists.
4. The current state of the material and technical base of general education institutions was analyzed in terms of medical-hygienic and socio-psychological criteria.
5. Work was carried out to promote the urgency of the problem in preschool, general education, technical vocational, college and higher education institutions, and opinions and suggestions of the educational community: teachers, parents, pupils, students, organizations cooperating with the educational institution were collected.

6. With the involvement of specialists from the Azerbaijan Medical University, 2,500 students in Baku were examined

As a result of the analysis of the data obtained, "Healthy Education Classes" (HEC) were created in the country's schools. According to the project, a number of innovations were implemented in HEC, which distinguish the educational process from the traditional training process.

Technical Innovations

1. According to the hygienic norms, the HEC is designed for a maximum of 24 people, with a capacity of 2-2.5 m² per student in the classroom. As teaching in HEC is organized in a learning environment, the classrooms are equipped with tables for appropriate standing and sitting work, which are adjusted to the size of the students. The working surface of the tables was 160 inclined.

2. Pupils change their position every 15 minutes from a sitting position to a standing position and vice versa. To train the visual and vestibular apparatus on the ceiling of the classroom, a special prof. V. Bazarni's [3] "Universal Symbol Schemes" ("USS") and "Visual-Vestibular Coach" ("ZEVS") automated systems were installed. In the 15th minute of the lesson, the movements are performed using "ZEVS" and in the 30th minute by "USS". The level of lighting in the classrooms is 300-500 lux on the work surface.

3. Micro pauses are given every 15 minutes during the lesson. In this case, children perform exercises in the automated system "Universal Symbol Schemes" ("USS") and "Visual-vestibular trainer" ("ZEVS") to train the visual and vestibular apparatus. Through these movements, both the eye muscles and the muscles of the upper body are trained, and static work that requires attention is replaced by dynamic activity. After micro pauses, children take on a new work position by changing places (sitting and standing).

Unlike traditional classes, HEC does not involve regular work on the same muscle group, which helps to maintain a high level of mental and physical performance of students for a long time. In addition, the adjustment of the student's tables to the height of the children, the inclination of the working surface of the table at an angle of 160 degrees prevents excessive bending of the upper body and head during work. This promotes normal blood circulation, good nutrition of the body's organs and tissues, and adequate oxygen supply. Regulation of the number of children in the classroom according to the class area (2-2.5 m² per student) prevents excessive pollution of the classroom air with microorganisms and harmful gases and oxygen starvation, and 300-500 lux lighting levels during work.

Methodology

The project uses healthy educational technologies, and the main goal is to "produce the right" students - to protect and develop their body, soul, mind, health. The learning process in healthy educational technologies was

organized under the following conditions: ensuring physical activity and protection from psychological stress; increase learning interest and create a learning environment that causes students to love learning.

For this purpose, healthy educational technologies have been developed, which include medical-hygienic and socio-psychological aspects.

1st direction

medical hygiene.

The following elements were added to the design and equipment of the classroom to ensure the physical activity of students during the training process:

- height-adjustable standing and seating tables for students;
- eye trainers; reaction equipment; pendants; lighting; hand sanitizer.

2nd Direction: Socio-psychological

In order to ensure the emotional activity, psychological stability and socialization of students, the following activities were carried out:

- Creating a mild psychological climate through the "panorama effect";
- Preparation of psychological characteristics of each student;
- Ensuring an individual approach to students in classroom management and training;
- Creating a fertile environment for students to socialize in the learning process and outside of training;
- Providing psychological services to teachers and students;
- Support the regulation of the training load to protect students from psychological pressure.

Studies

In addition to medical and hygienic monitoring carried out within the project, socio-psychological research was planned to monitor the proper organization of the above work.

Monitoring at the beginning and end of the school year and analysis of the results were provided for a comparative study of the factors shown between HEC and control class-brief (CC) students.

Research objectives:

- To study the impact of HE technologies on students' social adjustment process and communication skills.
- Identify differences between HEC and CC students in terms of social adjustment and communication skills. To determine a satisfactory social environment for students.

As a result of the research, differences in the physical and psychological condition of HEC and CC students

after 3 years should be identified and optimally compared.

Organization and Methods of Research

Medical Hygienic Monitoring

Within the project, 650 children (300 HEC and 350 CC) were compared at the beginning of the school year and 3 years later by checking their height and weight, which are the main indicators of physical development, according to the "Baku city schoolchildren's physical development standards and assessment tables". [4]

Results:

- The number of healthy children among the CC students involved in the project decreased. Thus, during the study, 82.8% of students in these classes were physically healthy. After 3 years, this figure was 70.1%.
- The health of HEC students fell from 82.8% to 80.2%.
- The positive effect of dynamic control is the growth of students' height. Thus, the number of short boys in HEC decreased by 7.9 times and 3.2 times in CC students.
- Comparative studies of HEC and CC over 3 years have shown that the environment created in HEC classrooms ensures students' physical development and height growth. This is considered to be a technology that provides health protection.

Psychological Research

The main purpose of the psychological research conducted on the project was to assess the impact of new healthy educational technologies applied in this project on the cognitive and emotional-volitional processes of students from a psychological perspective.

Research Methods

In the choice of research methods, preference was given to methods that accurately and clearly show the dynamics of the development of basic cognitive, emotional-volitional processes of young students [5]

For first graders:

- Raven matrix methodology for studying the potential of the intellect.
- M. Luscher's color test to determine the emotional state of children.
- E. Varteg's "Circles" test on revealing children's creative potential.
- A. Etkind's test to determine children's emotional attitudes towards the class, the teacher, and themselves.
- F. Gudinaf's "Take a picture of a man" test to study the general intellectual level.

For second graders:

- D. Wexler's "Encryption" (11th subtest) test to determine attention.

- P. Rdichan's (TIP) methodology for studying the potential of the intellect.
- A. Etkind's test to determine children's emotional attitudes towards the class, the teacher, and themselves.
- M. Luscher's color test to find out the emotional state of children.
- E. Varteg's "Circles" test on revealing children's creative potential.
- F. Gudinaf's "Take a picture of a man" test to study the general intellectual level.

The following indicators were taken into account in the psychological research: the development of cognitive processes of students; emotional - the development of the volitional sphere and feelings; development of creative potential; personality development and interpersonal relationships. Statistical processing of the results was carried out in Microsoft Excel-2010, Pearson's X² (x-square) criterion and Fisher's Precision Method were applied in the analysis of quality indicators during the statistical analysis [6].

Comparative Analysis of Development Dynamics

Based on the results of the monitoring conducted in the 2nd HEC and 2nd Control Classes in October 2015 and May 2016, the dynamics of student development was systematized and compared. According to the analysis of the research materials, the positive development dynamics on the indicators indicated in HEC is observed as follows:

Attention-grabbing HEC as the main psychological indicator was studied at low, medium and high levels.

In October: *HEC - low-73.2%, medium 20.3%, high 6.5%*

CC - low-66.6%, medium 24%, high 1 8.8%; development dynamics were noted.

In May: *HEC-low -39.9%, medium, -20.6, high-39.5;*

CC low-41.6%, medium 23.8%, high 34.7%

As a result, the decrease in low attention was **HEC 30.1%**, while the decrease in **CC was 25%** (see Table 1.)

Table 1. Concentration

	Concentration	Concentration	Concentration	Concentration	Concentration	Concentration
Levels	HEC October	CC October-	HEC May-	CC May-	HEC and CC	HEC and CC
	2015	2015	2016	2016	October-2015	May-2016
Low	73,2	66,6	39,9	41,6	6,6	-1,7
Medium	20,3	24,6	20,6	23,8	-4,3	-3,2
High	6,5	8,8	39,5	34,7	-2,3	4,8

2) During the monitoring, IQ measurement was taken at 4 levels:

Level 1-55, Level 2-60-85; Level 3-90-110; Level 4 -115-135.

Monitoring indicators for October:

HEC 1-11.8%; 2- 29.7%; 3-28.1%; 4- 30.4%

CC 1-12.8%; 2- 30%; 3-30.2%; 4- 27%

Monitoring indicators for May:

HEC 1-9.1%; 2- 33.3%; 3-23.3%; 4- 34.3%

CC 1-12.8%; 2- 32.2% 3-30%; 4- 25%

Thus, the average *IQ level* of STS (90-110) decreased from 28.1% to 23.3%. While the high *IQ level* (115-135) increased from 30.4% to 34.3%, the CC, on the contrary, decreased from 34.9% to 25% (see Table 2.)

Table 2. IQ Measurement

Levels	Intelligence testing HEC October 2015	Intelligence testing CC October-2015	Intelligence testing HEC May-2016	Intelligence testing CC May-2016	Intelligence testing HEC and CC October-2015	Intelligence testing HEC and CC May-2016
	IQ 55	11,8	12,8	9,0	12,8	-1,0
IQ 60-85	29,7	30,0	33,3	32,2	-0,3	1,1
IQ 90-110	28,1	30,2	23,3	30,0	-2,1	-6,7
IQ 115-135	30,4	27,0	34,3	25,0	3,4	9,3

3) Towards the end of the school year, the creative skills of HEC students increase significantly. Thus, HEC originality increased from 0.5% to 4.0% when assessed on a 3-point scale. CC this figure was 1.7%. (See Table 3).

Table 3. Development of Creative Potential (Agility)

Creative potential (agility)	HEC 2015	October 2015	CC October-2015	HEC May-2016	CC May-2016	HEC and CC difference October-2015	STS and CC difference May-2016
	weak agility	40,4		46,6	17,6	24,8	-6,2
average agility	55,6		51,2	60,5	62,1	4,4	-1,6
strong agility	4,0		2,2	21,9	13,2	1,8	8,7

4). The development of agile creative potential is measured on three levels: weakly agile, moderately agile and strong agile.

HEC in October: weakly flexible - 40.4%; average agile -55.6%; strong flexible -4%

CC in October: weakly flexible - 46.6%; average agile -51.2%; strong flexible -2.2%

In May, the difference was as follows:

HEC in May: - weakly flexible - 17.6%; average agile -60.5%; strong agile -21.9

CC in May: weakly flexible - 24.7%; average agile -62.1%; strong flexible -13.2%

HEC's preference for extracurricular activities (organization of various programs, events, excursions, theater performances, art classes, competitions, etc.) had a positive effect on the development of students' creative potential, increasing their agile creativity from 4% to 21% during one school year. the increase was from 2.2% to 13.2%. (see Table 4)

Table 4. Results of Creative Potential (Originality)

Creative potential (originality)	HEC October 2015	CC October-2015	HEC May-2016	CC May-2016	HEC and CC difference October-2015	HEC and CC difference May-2016
No.	94,6	87,0	57,1	68,7	7,6	-11,6
1 point	1,5	7,2	15,9	16,4	-5,7	-0,5
2 point	3,4	5,0	22,9	13,2	-1,6	9,7
3 point	0,5	0,8	4	1,7	-0,3	2,3

5)The results of the comparative analysis showed that the adaptive skills of HEC students are also developing. A survey of students' emotional abilities in October revealed that:

HEC low adaptation - 6.3%, medium adaptation - 63.2%, high level 30.5%

CC low adaptation - 14.3%, medium adaptation - 61.7%, high level 25%

These indicators changed in May:

HEC low adaptation - 5.6%, medium adaptation - 60.3%, high level 34.1%

CC was low adaptation - 13.7%, medium adaptation - 60.2%, high level - 26.1%. (See Table 5)

Thus, the results of our research conducted in October and May 2016 prove that the "Healthy Teaching" conditions, organized in accordance with the hygienic norms of Healthy Education, optimizing the number of students in the classroom, physical activity develops students' mental processes, emotional states and creative potential. This development creates positive conditions for the reduction of students' negative attitude towards school and the formation of student personality.

Table 5. Adaptation Skills

	Emotional state HEC October 2015	Emotional state CC October-2015	Emotional state HEC May-2016	Emotional state CC May-2016	Emotional state HEC and CC October-2015	Emotional state HEC and CC May-2016
Low adaptation	6,3	14,3	5,6	13,7	-8,0	-8,1
Secondary adaptation	63,2	61,7	60,3	60,2	1,5	0,1
High adaptation	30,6	24,1	34,1	26,1	6,5	8,0

The comparative analysis showed that the development of HEC students is much higher than the potential development of students receiving traditional training.

Local multidisciplinary-psychopedagogical experiment of sustainable education in the project "Healthy Education - Healthy Nation": changing the purpose of training, technology, structural structure of subject programs and assessment criteria.

The HE project focused mainly on the physical and psychological development of students, with little attention paid to research in the psycho-pedagogical direction in the teaching process. However, when the "Transition from teaching to learning" project was implemented at City Experimental School No. 23, [7] several HECs joined the project at the initiative of the school principal. The aim was to observe how changes in the psycho-pedagogical direction - the "transition from teaching to learning" - will affect the cognitive development of students, along with their physiological and psychological development in the conditions of the created HEC. In order to carry out the observation, 4 target classes from primary school were involved in the experiment. One of these classes is the pilot class of the project "Transition from teaching to learning", in short - (PC); 2 Pilot HE class, short (PHEC), 3 control HEC, short CHEC and 4 Control traditional class, short (CC). Extensive comparative experiments made it possible to investigate and psycho-pedagogically evaluate the reasons for achieving the real results of the learning objectives set for each class.

The following work was done with PC and PHEC teachers as part of the local "Transition from Teaching to Learning" project implemented at the school:

- The structure of the traditional Azerbaijani language (mother tongue) program was compared with PC and PHEC teachers and the differences between the structure of the "Complete and fuzzy Azerbaijani language" program to be applied in the local project were investigated.

- PHEC teachers regularly participated in trainings for 2 years to help the pilot classes involved in the project - Bunyatova, who has the same cognitive learning technology as PC teachers, to conduct lessons with constructive learning technology [8]. Most of the trainings were conducted in a practical, "lesson by lesson" format. In addition, demonstration classes and mentoring were provided for teachers.
- State programs of the Azerbaijani language (mother tongue) used in primary school were given in a new structure in the structure of "Complete and fuzzy model of the Azerbaijani language" [9]. This model was modeled using the "Technology of modeling of integrity and fuzzy model of knowledge – IFMK" [10]. The technology of "completeness and fuzzy modeling of knowledge" was created on the basis of J. Piaget's logic of completeness [11]. and Zadeh's fuzzy logic [12].
- Mathematics programs were adapted to students' developmental levels.
- The number of knowledge-oriented tasks was reduced, and emphasis was placed on thought-provoking tasks (on Azerbaijani language and mathematics).
- The section on language skills, assignments and work with knowledge was built in the direction of J. Piaget's logical operativeness of thinking [11].
- It was determined what academic social and intellectual skills the students would acquire.
- New assessment criteria were developed and open and closed tests and logical tasks were developed in accordance with them

During the experiment in 4 classes: 1) PC, 2) Pilot HEC; 3) control HEC and 4) CC pre- and final monitoring. The purpose of the pre-program monitoring was to determine the level of program knowledge, and the results were the same in almost all classes with a difference of 10-15%.

At the end of the two school years, the final monitoring was conducted in the classes involved in the experiment for comparative analysis, measuring the level of cognitive development.

Monitoring was conducted in 3 formats to investigate the results of the experiment, the reasons for this result, and its authenticity:

1. Comparison of software materials and analysis of differences.
2. Observation of PC, PHEC, control HEC and CC demonstration lessons and analysis and comparison of their goals and results from a psychopedagogical approach.
3. Conducting cognitive tests.

Monitoring Results

Format 1: Review of the Programs Taught

1) The Azerbaijani language (mother tongue) was taught on the basis of the state program in the control HEC and CC. When the structure of program knowledge was analyzed logically, it became clear that knowledge was

studied as a unit of knowledge and that there were weak connections between them. Due to the lack of a systematic and sequential structure of knowledge units, students in primary school are not able to learn language skills in a concise, complete scheme of knowledge. Because students in the upper grades reach the full knowledge of different units of knowledge, they are not able to apply this knowledge in a systematic way in written and oral speech.

As we know, each language is governed by its own rules, which are hidden in itself, and these rules are transmitted to us by the mother through the mother tongue. And therefore, the goal of mother tongue programs should be to develop the ability to use the words of the transmitted language in local dialects, dialects and deformed in a correct, orderly written and oral manner.

2) The mother tongue programs taught in PC and PHEC were fuzzyly modeled by the technology of state programs "Technology of modeling of integrity and fuzzy model of knowledge – IFMK" [9].

During the analysis of the created "Complete and fuzzy Azerbaijani language" program, it was found that the capacity of the learning material given in the complete and fuzzy logical structure was 35-40% more than in the state programs.

The increase in the program's knowledge was due to the use of logical tools of Piaget's technology of "completeness and fuzzy modeling of knowledge" based on natural and Zadeh's fuzzy logic. In the program, knowledge was presented not as a unit of knowledge, but as logical knowledge structures. These knowledge structures were divided into invariant and variable knowledge structures and numbered. Continuous mental operations performed on logical knowledge structures, such as "multiplicative operations", "logical classification", "logical substitution", "logical enrichment", put that knowledge into a qualitatively new form. The knowledge in the new form refers to the knowledge that students will learn in the upper grades and in the future. According to this, the knowledge of PC and PHEC students participating in the project exceeds the knowledge of control HEC and CC students studying in the traditional program by 35-40%.

The "Complete and Fuzzy Azerbaijani Language" program develops the student's mind as a smart program. The student, who carries out logical operative operations of thinking on the knowledge based on completeness and fuzzy scheme, gradually develops his thinking mechanisms in this direction.

Format 2: Lessons for Demonstration

The purpose of this format of monitoring was to observe the use of psycho-pedagogical tools aimed at the development of thinking in the teaching process and to compare the results on the basis of cognitive development paradigms. The hearings were conducted in each of the four classes with a developed listening scheme that included questions and points indicating the "teaching and learning" indicator. (See Table 6.)

Table 6. Listening Scheme of Demonstration Lessons

Translation of knowledge by the teacher	How was the meaning (essence) of the topic revealed? What previous knowledge was used?	Types of questions. Rationale for the questions	Reflection of new knowledge	Building new knowledge (real and future)	Educational and mental activity of students.	Comparison of built knowledge with a tutorial

Results of the Hearings

PC- Pilot Class and PHEC-Pilot Healthy Education Class

1. PC and PHEC teachers participating in the project conducted classes with F. Bunyatova's constructive learning technology [8]. In constructive learning, the students at the center of the lesson were involved in cooperative collaboration and intellectual activity. After the students' level of understanding of the topic was revealed in these 4 activity activities, this meaning was transformed into new knowledge with the teacher's logical foundations and the addition of a new element of knowledge. This transformation is related to past and future knowledge. After consolidating the acquired knowledge, the work of how to reflect it in thinking takes place in activities 3 and 4.

2. Students used the knowledge and skills they acquired to answer the teacher's rationale and thought-provoking questions. In this process of acquiring cognitive knowledge, students who reasoned and answered the logical questions posed by the teacher demonstrated the ways in which new knowledge is formed by performing logical operations on knowledge. These actions are considered as an indicator of high thinking skills.

3. In the process of constructive teaching, the teacher asked a question in the role of managing learning, and when he received a question, he did not answer it himself. The question was discussed in teams and the answer was brought to the class discussion. It was clear during the discussion whether the answer was correct. Incorrect answers were not corrected by the teacher. This correction was made by the students themselves, who thought about the teacher's new question, which was a little closer to the answer, with a logical justification. Knowledge was reflected in 5 parameters:

1. Specificity of the acquired knowledge;
2. Their application
3. Tasks involving logical operations on knowledge;
4. Creative tasks;

5. "Animation" of new knowledge, ie personification of knowledge based on internal visions. In this animation, the students demonstrated their new knowledge in a thoughtful way, giving them an emotional color, talking to living and non-living images and explaining them in a new way.

Since most of the questions and assignments asked during the lessons were thought-provoking, the students came to a mental conclusion in the cooperative as a cooperative mental activity.

CHEC-Control Healthy Education Class and CC-Control Class

CHEC and CC teachers demonstrated their lessons through active training, working with government programs. In these lessons:

1. The knowledge-oriented questions posed by the teacher in the center of the lesson are aimed at revealing the acquisition of a large number of students' academic knowledge.
2. Cognitively passive students mechanically answered knowledge-oriented questions posed by the teacher with the knowledge they had memorized. At this time, students showed their level of knowledge by working with the acquired knowledge.
3. It was observed that teachers transfer new knowledge in a convenient way using technical means as a ready-made knowledge. The study of knowledge as a didactic unit, when students' past knowledge is not used in this learning, knowledge gradually becomes passive.
4. In order to acquire and memorize knowledge in the classroom, teachers gave knowledge-oriented tasks of the same type at different stages of the lesson. The students who completed these tasks worked with knowledge and tried to master it well.
5. The success of a group in large and small group work in active learning depends on the leader of the group. In addition to the responsibilities of one-person, other members of the group were less active

Comparing the structure of questions and assignments in the lessons with the questions of B. Bloom's cognitive taxonomy [13], the cognitive development of HEC and CC students studying in the state program was seen at the primary level, ie at the level of "knew, understood, applied".

Comparison of Results

An extensive discussion of the lessons in both formats led to the following conclusion:

1. The main goal of state programs is to master the data and apply it knowingly and correctly. That is, "I know, understand and apply." Fulfillment of these criteria was observed in the lessons of CHEC and CC.
2. Since most of the questions asked in the CHEC and CC were knowledge-oriented, the students only demonstrated their academic knowledge and skills in answering these questions. This demonstration was a demonstration of a kind of thinking.
3. PC and pilott HEC the structure of the questions and tasks asked by teachers and students in the teaching process depends on high cognitive skills - the acquisition of knowledge, their analysis and synthesis, practical

continuous change, their " animation".

4. During the discussion of the questions in a cooperative way, students of different forms of thinking shared their ways of thinking. During this sharing, their ways of thinking are enriched and developed in a multidisciplinary format of thinking.

5. Why and how are most of the questions asked by students and teachers? There were open-ended questions. And from the answers to these questions, it was possible to clearly see at what level the students think: intuitive, concrete and formal. In the process of researching an issue from several levels, the boundaries of the knowledge created by the students were removed and re-established. This dismantling and creation was evident in their answers. This process of creation is psychologically considered one of the highest abilities of the human mind.

Format 3: Cognitive Tests

Cognitive tests were developed to measure the mental development of students participating in the project. Each of the 6 questions in the tests was taken as an indicator of the level of development of cognitive skills. The questions were based on the mechanisms of thinking processes in J. Piaget's theory of cognition [11]. The evaluation criteria were the key words of B. Bloom's cognitive taxonomy. Tests were conducted on PC and pilot HEC, control HEC and CC involved in the project.

Content and Explanation of Cognitive Tests

1. Measuring the scope of knowledge given in the program with an open-ended question - (associative thinking; synthesis). Each correct answer is worth 2 points. Out-of-program answers are evaluated by 3 points.

2. Division of the set into elements: classification, analytical thinking. Each correct distribution is worth 3 points.

3. Continue the sequence of data (substitution operation, creative thinking). For each change ("+"); ("-") 2 points;

return ("x" ":") is given 4 points. Mixed ("+" "-" "x" ":") variables are given 6 points.

4. Solve (multiplicative operation; ability to find similarities). 2 points are given for each correct solution and 4 points for each solution that goes beyond the program.

5. Correction of geometric figures from the given (creative thinking). Each figure is given 4 points.

6. Continue the story (creative thinking). Interesting plot - 6 points; author's voice - 4 points; thought-provoking point - 6 points; 40–50 words - 4 points; 60–80 and more words are given 6 points. No mistakes - 5 points; 2–4 errors –4 points; 5–6 errors 3 points; 7 mistakes are given 2 points.

The test was evaluated on a 100-point scale. Students who score 51 or more have high thinking skills. Students who score below 50 and below have low thinking skills.

Test Results

1. Pilot class - PC Out of 29 students, 7 scored less than 51 points and 22 more than 50 points. 75% of students

showed a high level of cognition.

2. Pilot HE class - PHEC Out of 28 students, 8 scored less than 51 points and 20 scored more than 50 points. 71% of students showed a high level of cognition.

3. Control HE class - CHEC 15 out of 22 students of CHEC scored less than 51 points, 7 - more than 50 points. 31.8% of students showed a high level of cognition.

4. Control class - CC Out of 22 students, 16 scored less than 51 points and 6 more than 50 points. 27.7% of students showed a high level of cognition. (See Scheme 7.) (See Table 8.)

Scheme 7. Test Resultants

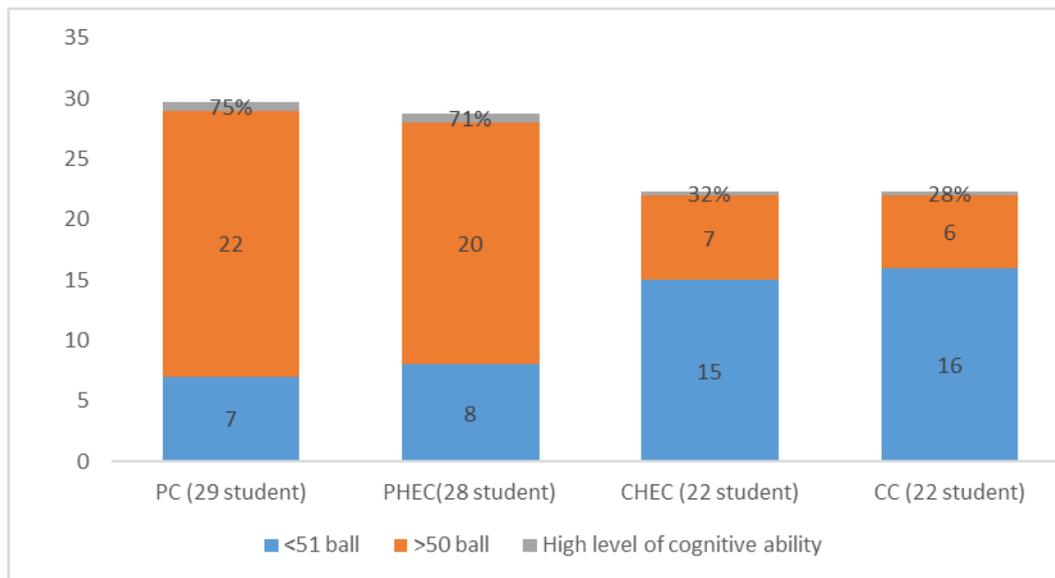


Table 8. The Level of Cognitive Ability

Level	PC (29 student)	PHEC(28 student)	CHEC (22 student)	CC (22 student)
<51 ball	7	8	15	16
>50 ball	22	20	7	6
High level of cognitive ability	75%	71%	31,8%	27,7%

Description

PC - pilot class; PHEC-pilot healthy education class; CHEC-controlled healthy education class; CC-control class

The results of the tests show that in the constructive learning environment created by the local experiment, the cognitive activity of PC and PHEC students who are trained with complete and fuzzy modeled subject programs

is very high in CHEC and CC.

The reason for this difference is that students are trained in a program based on a fuzzy model. When students create their knowledge with the logical operative actions at the heart of the program, they gradually turn it into their own thinking mechanism by building these structures in their minds in accordance with these actions. The results of the Cognitive Tests, which are used as a mechanism for measuring cognitive development, show that 73.6% of the pilot HEC and PC 57 students have high cognitive abilities. Only 29.5% of the control HEC and CC 44 students demonstrated high cognitive skills, scoring more than 50 points.

Conclusions

The following results were obtained when the Healthy Education - Healthy Nation project was implemented in the educational process for 3 academic years:

1. The automated system proposed by Professor Bazarny, mobile learning has a positive effect on maintaining the health of students, as well as a positive effect on the development of attention, which is the main cognitive process.
2. Increases the level of physical and mental abilities of students in the classroom when each student falls ergonomically (2-2.5 m2) in the classroom and when the training is moving, eliminates oxygen starvation of the body.
3. The application of HE technology, in addition to having a positive effect on the psychological stability, emotional activity and socialization of students, creates conditions for the reduction of negative attitudes in them.
4. In the experiment conducted in the local psycho-pedagogical direction, the knowledge capacity of "Complete and fuzzy Azerbaijani language programs" modeled by "Technology of modeling of integrity and fuzzy model of knowledge – IFMK" is 30-35% more than the knowledge capacity of state programs 30-35% of the time allocated to the subject program means a decrease.
5. If fundamental subject programs are modeled with the technology of "Technology of modeling of integrity and fuzzy model of knowledge – IFMK", then the time allocated to these subject programs in education will be reduced by 30-35%, which can give a strong impetus to the control-optimized education on a scientific basis.
6. Since the learning activities of students studying in the pilot STS are based on the principles of constructivism, in addition to learning skills, high operational mental skills: substitution, enrichment, multiplicative actions are formed in their minds. As students apply these mental skills to knowledge, these skills gradually become their personal thinking mechanism.
7. As early as the early 20th century, American scholars D. Gordon and W. Jannet, in their book *The Revolution in Education* [14], saw a change in education, a revolutionary turn, in the transition from the school of memory to the school of thought. According to the authors, 2-3% of thinking is used in education, and if this figure is increased to 10-15%, then there can be great changes in education. An

analysis of the work done within the framework of the project "Transition from teaching to learning", implemented at the level of local experiment, shows that the thinking activity in the classroom can be increased not even 10-15%, but even 40-50%.

8. PC and PHEC students' high cognitive skills in the local psycho-pedagogical experiment are based on the cognitive purpose of the training structure of the programs, the constructive learning environment, the thought-provoking tasks, the structure of the students' mental and learning activities and the evaluation criteria. has arrived.

9. The results of the local multidisciplinary experiment of sustainable education conducted within the project "Healthy Education-Healthy Nation" show that the pilot HEC, along with changes in the physiological development of students, changes the purpose, technology, structure of subject programs, assessment criteria, healthy psycho-physiological development of students. Along with socialization, their high thinking skills are also developed. In a healthy learning environment, when students are mentally developing, they grow up healthy and intelligent.

10. As the project "Healthy Education-Healthy Nation" is carried out in primary school, it is possible to observe the psychological, physiological and mental development of students only until the age of 10-12. If high school students are involved in this project in the future, then research in this area will be more extensive and in-depth.

Notes

1. We thank Y.I. Karimova, former director of T. Hasanov Secondary School No. 23 in Baku, for her support and psycho-pedagogical contribution to the successful implementation of the "Transition from Teaching to Learning" project.

2. We thank the staff of the project "Transition from teaching to learning": Hasanova S., Nabiyeva T. Isgandarova Z., Mustafaeva S., Suleymanova Sh., Shukurova A., Magarramova A., Aliyeva S., B. Nuriyeva for their efforts in the successful implementation of the program.

References

- Bazarny V.F. (2012) School of rebirth or school of degeneration. Moscow.
- Bunyatova F. C. & Hasanova S. (2017) Eğitimde Bütünlük ve Bulanık Mantığın Uygulanması
- Bunyatova F. C. (2008). Konstruktiv təlim: mahiyyəti, prinsipləri və dərslərdən nümunələr. Bakı.
- Bunyatova F. J. & Salamov G. B. Technology of modeling of integrity and fuzzy model of knowledge – IFMK
- Bunyatova F. J. (2008) Constructive learning: essence, principles and examples from lessons. Baku/
- Bunyatova F. J.& Hasanova S. (2017) Application in Education integrity and Fuzzy Logic
https://ejercongress.org/public/assets/images/B%20C4%20LD%20C4%20R%20C4%20_%20C3%2096ZETLER%20C4%20.pdf

- Bunyatova F.J. & Karimova Y. I. (2018). Transformation of education system supported by the government. Integrity (whole) and fuzzy education model. <https://ru.calameo.com/books/00630995462d949e8c493>
- Gordon D. & Jannet W. (2001) The Revolution in Education.
- Gürzəliyev S. A. and others. (2015) Physical development standards and assessment schedules of Baku schoolchildren methodical recommendations. Baku.
- Gürzəliyev S. A. və b. (2015) Bakı şəhəri məktəblilərinin fiziki inkişaf standartları və qiymətləndirmə cədvəlləri.
- Healty education-Healty nation <http://mttm.edu.az/en/about-project>
<https://www.congress.gov/111/plaws/publ3/PLAW-111publ3.pdf>
https://www.researchgate.net/publication/329561725_Technology_of_modeling_of_integrity_and_fuzzy_model_of_knowledge_-_IFMK
- Piajete J. (2001) The Selected Papers. Moscow. Пиаже Ж. (2001) Избранные труды. Москва
- Базарный В. Ф. (2012). Школа возрождения или школа вырождения. Москва.
- Лотфи –Заде А. (1976). Понятие лингвистической переменной и его применение к принятию приближенных решений. Москва. Мир. Lotfi A. Z. (1976) The concept of a linguistic variable and its application to making approximate decisions. Moscow. Mir. Bloom's Taxonomy
- Персов Б. З. (2006). Расчет и проектирование экспериментальных установок. Институт компьютерных исследований. Persov B. Z. (2006) Institute for Computer Research.
- Салмина Н. Г., Филимонова О. Г. (2006). Психологическая диагностика развития младшего школьника. Москва. МГППУ. Salmina N.G., Filimonova O.G. Psychological diagnostics of the development of a primary school student. Moscow. MGPPU.

Fintech for Growth: The Case of Albania

Merita Toska

POLIS University, Albania,  <https://orcid.org/0000-0003-3797-1057>

Eneida Thomaj

PayLink, Albania,  <https://orcid.org/0000-0002-0136-643X>

Ledia Bregu

Bank of Albania, Albania,  <https://orcid.org/0000-0003-1076-0460>

Abstract: This study aims at exploring the potential of financial sector innovation (fintech) as an instrument to boost economic development in Albania. Before the 2008 global financial and economic crisis, the Albanian economy witnessed high growth rates, slowing down and has not succeeded in recovering at the same pace. Amidst the economy's sluggishness, low innovation and ICT integration levels, structural reforms, EU integration aspiration, and consecutive natural disasters paralysed and kneeled heavily the economy. From a sectoral perspective, different sectors have sustained growth interchangeably, presenting high volatility and instability. Despite its immaturity and fragilities, the financial system in Albania has proved to be relatively stable, liquid, and well-capitalised (Bank of Albania, 2019). In this study, we use a questionnaire-based survey to explore: (i) customers' (current and potential) perspective towards innovative financial products and ii) strategies perspective on innovation and ICT integration in the financial market and approach to innovative financial products and fintech. Our findings suggest that there is little knowledge and awareness about financial products among customers while usage propensity is positive. Financial institutions have long relied on traditional products, while there are space and capacity to move towards more innovative products.

Keywords: Fintech, Albania, Innovation, Banks, Retail

Introduction

This study explores the potential of financial sector innovation (fintech) to boost economic development in Albania through a perception-based survey. There is a vast literature and an open debate on the role of the financial system in economic development tracked back since the seminal work of Bagehot (1873) "banks are the best engines that ever were invented for creating economic growth". Nowadays, the debate on the role of finance in economic development (sign, causality patterns, impact) is still a topic presenting academic and

practical interest. Dushku (2010), Kokaveshi & Kola (2013) and Sejko & Dushku (2018) found a bidirectional relationship between economic growth and financial development in Albania; Boka (2014) found a positive relationship between financial development and economic growth in the long run, "*with causality running from financial development to economic growth (Boka, 2014:118)*". In other words, financial market development and is important and can trigger growth in Albania.

In Albania, financial development has come as a passive response to economic growth (primarily based on the cyclical boom in the construction sector) and a risk-averse approach of banks, mediating financial resources using traditional products. The preference towards traditional products (both businesses and individuals) might be rooted in the recent history of the pyramid schemes collapse of 1997, where huge amounts of savings were lost. Banks dominate the financial market from a structural point of view, while capital markets are at an early stage of development and present limited activity. The financial/banking sector comprises 12 banks in 2019 (accounting for about 90% of total system assets), under a universal banking model providing mostly traditional products. There are 32 non-bank financial institutions, 15 unions and savings and loan associations (1 union and 14 associations) and 503 foreign exchange bureaus (Bank of Albania, 2019). All 12 banks offer electronic cards (debit, credit cards), 11/12 banks have ATMs and provide internet banking, 7/12 have POS, 2/12 have POS Virtual, 1/12 has PayBox, and 7/12 banks provide mobile banking services (Bank of Albania, 2019).

The data from the Bank of Albania show an upward trend in the number of payments performed as summarized in Figure 1 (+18.5% in 2020), with electronic credit transfers representing about 43.3% of total credit transfers initiated by customers (up by 13.7% in 2020 compared to the previous year). Internet banking is the most commonly used service within electronic credit transfers for about 67.5% of transactions (+65.8% in 2020). Mobile banking accounts for about 29.6% of the total transactions in 2020 (up by 6% in 2020). An accelerated twofold annual increase is registered payments with cards over the last three years (up by 36.8% in 2020).

About 85% of card payments are performed with debit cards, while credit cards transactions represent only 15% of transactions in 2020. The data show that the use of credit cards shrank progressively over the last five years, representing about 15% of transactions in 2020 from about 40% in 2015. Nevertheless, financial development in Albania is low, lags behind other countries in the Western Balkan countries according to Demirguç-Kunt, Klapper, Singer, Ansar, & Hess (2018) and challenged by increasing demand for new innovative, customer-centric financial products and services.

The World Bank (2020) lists a series of barriers to the advancement of fintech services among the Western Balkan countries, including Albania. These barriers are related to the low level of account ownership and use of digital services, risk aversion of banks, high level of cash in the economy (broadly driven by the informal economy), reduced trust in financial institutions, low levels of financial literacy, high costs of financial services and low access to financial and capital markets. Primarily, financial literacy represents a real barrier to the uptake of fintech services (The World Bank, 2020).

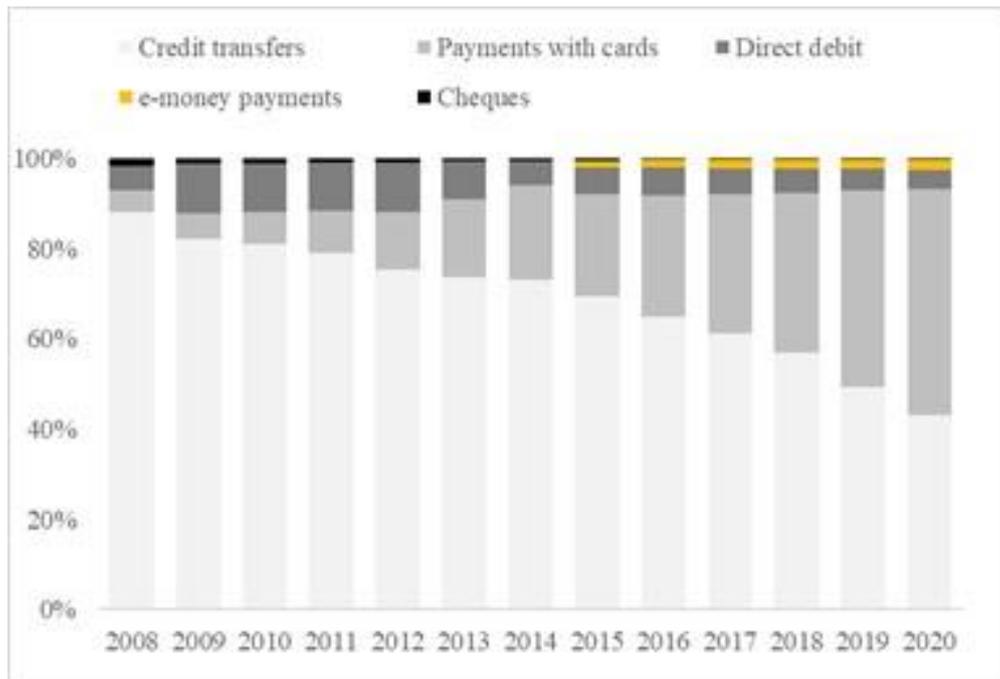


Figure 1. Payment by Instruments

(Source: Bank of Albania & Author's calculations)

Survey results from Atkinson & Messy (2012) in 14 countries show a low level of financial literacy in Albania. Agalliu (2014), using a sample of 400 students, found that students of economic science have a better understanding of financial products than students in other fields of study. However, both categories lack understanding of the role and function of the products, and financial culture was higher among men. Nano & Polo (2016) used a survey-based method to measure the literacy of Albanian students and found that master students were more financially literate than bachelor ones. Nevertheless, there is no difference in the attitude towards financial products between master and bachelor students, and both categories were financially incapable. Using a sample of young people and the explanatory factor analysis method, Çera and Tuzi (2018) found gender-based differences regarding financial literacy among young people.

Method

The study employs a survey-based method to assess fintech potential for growth in Albania from the demand and supply point of view. Two questionnaires were used: (i) a modified version of the Consumers and Mobile Financial Services of the Federal Reserve (FED, 2012) and (ii) a short ten open-ended questions questionnaire aimed at bank representatives prepared ad-hoc for the study. The customers' questionnaire aimed to capture customers' perception and attitude towards banking traditional and innovative products – the demand side. While the strategist questionnaire aimed at exploring the point of view of the supply side – heads of product development units in banks.

The original questionnaire Consumers and Mobile Financial Services of the Federal Reserve (FED, 2012) was revised, shortened from 86 questions to 44 questions and adapted to the Albanian context. It includes the following sections: (i) general information about the respondent (socio-economic questions); (ii) information and use of basic products of retail banking; (iii) information and use of innovative products in retail banking; (iv) consumer shopping behaviour. Before implementation, the questionnaire was tested among randomly selected customers and qualified experts for clarity and understanding of the questions. The questionnaire was administered in the Albanian language.

The questionnaire was administered in a mixed way, online for strategists or the supply side and hardcopy for customers (the questionnaire were sent via e-mail and self-filled and filled copies sent to the indicated address). This method was chosen to increase the response probability (the respondent would have enough time to respond) due to cost and time constraints. On the one side, the lack of physical contact reduces any possible influence on the respondent but, on the other side, does not allow for any clarification for the content of the questionnaire, increasing the risk of non-response. For a better understanding of the position of Albania vis-à-vis the Western Balkans, the same questionnaire was submitted to several customers in Macedonia and Kosovo. 368 customers filled questionnaires were received, out of 51 from outside Albania (Kosovo and Macedonia) from 400 questionnaires distributed. The strategists' questionnaire was sent to all 16 banks operating in Albania and a representative of the Bank of Albania (to have the regulator's point of view). Out of 16 banks, only 7 banks responded at the end of the surveying period. The data collection process initiated on January, 2020 and concluded on February, 2020. All data were processed in the SPSS software. Respondents' answers were summarized using frequencies and net balances.

For the targeted populations, customers and strategists, two sampling methods were used. For bank customers, a snowball convenience sampling method was used through a network of contacts, including employees in banks (so that we get current bank clients), universities (young age clients / potential new clients) and older people. In turn, first-round respondents identified potential respondents to fill the questionnaire. The sampling technique used in this survey does not ensure for representativity of the population, and findings cannot be generalised for Albania. Nevertheless, non-probabilistic sampling techniques such as the snowball are broadly used in research to investigate perceptions in the economy and social sciences.

The internal consistency of the survey data was tested using the Cronbach's coefficient alpha (α), a measure widely used to assess the reliability of survey results. In the case of surveys, an acceptable interval is $0.7 \leq \alpha < 0.8$. Lower values of the coefficient alpha ($\alpha \leq 0.7$) signal for lower reliability level, while higher values of the coefficient ($\alpha \geq 0.8$) signal for good to excellent reliability levels.

Results

The response rate in the case of bank customers, current and potential, was about 92% (368/400). Within this

category, about 14% of respondents are from outside Albania (Kosovo and Macedonia). While in the case of strategists, on the supply side, the response rate was about 41.2% (7/16). The response rate was relatively low among strategists and was argued by confidentiality, representing small – medium and big banks in Albania. Valuable was the submitted questionnaire from the Bank of Albania, providing for the "regulator's" perspective on innovative banking products. The Cronbach's alpha results for the selected groups of questions suggest a good internal consistency and reliability of the survey data.

Table 1. Internal Consistency and Reliability

(Source: Author's calculations)

Tested set of questions	Cronbach's (α)
C21 & Q25	0.8710
C32 & C33	0.7300
C34 - C44	0.8240

Customer's Perception of Retail Banking Products

The subsection includes a summary of findings from the customer's perception of retail banking products such as (i) the socio-economic profile of the respondents, (ii) information and use of traditional retail banking products; (iii) information and use of innovative retail banking products and, (iv) bank customer shopping behaviour.

Socio-economic profile of the respondent

Respondents' distribution by origin shows for good coverage of the country: respondents represent 43/61 municipalities or about 70% of total municipalities in Albania. From a territorial point of view, respondents are well distributed across the country. Out of the total, about 13.9% of respondents are Albanians living in Kosovo and Macedonia. Figure 2 summarizes the socio-economic characteristics of respondents.

From a gender point of view, 51.6% of respondents are women, and 48.4% are men; about 75% of respondents are in the age group 18-40 years old, and more than 90% have pursued higher education studies (BA, M.Sc., PhD). About 21.6% of respondents are employed in the public sector, 20% are self-employed and/or managers and 13.2% are students. Despite being a question presenting high sensibility, 12.8% of the respondents fall in the low-income category, 42% fall in the middle-income category and 45.2% fall in the high-income category.

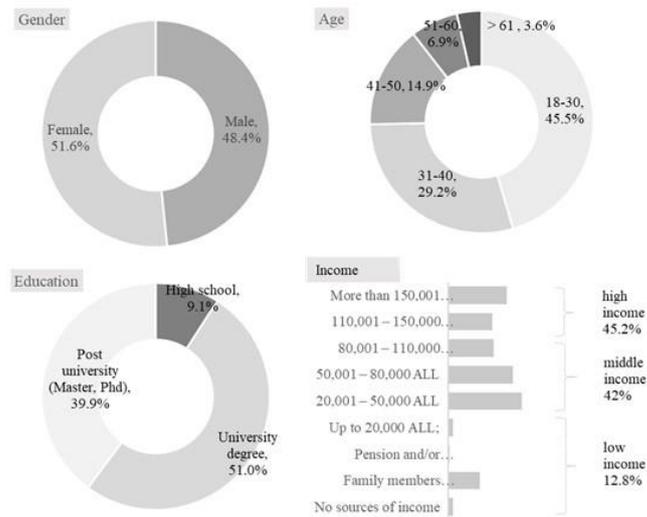


Figure 2. Socio-economic Profile of Respondents

(Source: Author's calculations)

Information and Use of Traditional Retail Banking Products

In this section survey, respondents answered a set of questions related to traditional bank products such as bank accounts and deposits, credit and debit cards, smartphones or mobile phones ownership and reasons behind their choice. This set of questions explores customers' interaction with financial institutions, knowledgeability of banking products, and technology in interacting with their bank.

The data for 2020 show a total number of bank accounts of 2.9 million, down by 0.9% compared to the previous year. Holding a bank account is widespread, with about 83.8% of respondents affirming to have a bank account and/or deposit indifferently from gender (see Figure 3). Out of them, 53.3% have changed their bank at least once, and 72.6% of respondents have not incurred switching costs. Among the 16.2% of respondents not having a bank account and/or deposit, about 73% of them had a bank account or deposit previously.

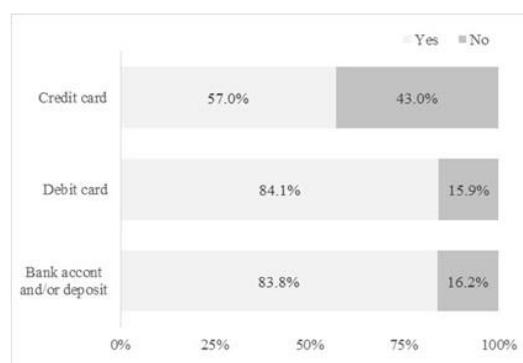


Figure 3. Ownership of Bank Products/Services (Q1, Q4, Q5)

(Source: Author's calculations)

About 27% of respondents do not have a bank account due to high minimum balance requirements (27.6%),

high services commissions (17.2%), do not prefer to have to do with banks (16.1%) and no confidence in banks (10.3%) as shown in Figure 4. About 84% of the respondents have a debit card, as shown in Figure 3 (a slightly higher percentage among men). On the contrary, credit cards seem to be less common among respondents. About 57% of respondents report having a credit card. Such percentage is higher among men (about 59%) than women (about 55%). Survey results are in line with factual data, which show good penetration of debit cards and stagnant credit card penetration (data for 2020 show that credit cards represent only 8.6% of total cards issued).

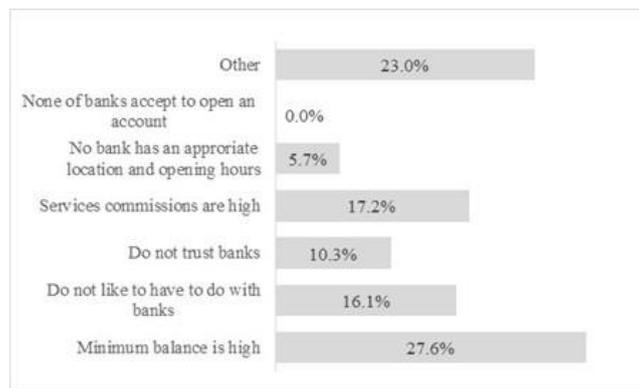


Figure 4. Reasons Why not Having a Bank Account/Deposit (Q1.2)

(Source: Author's calculations)

Over the last 12 months, the most used bank products were the debit card (selected 140 times or about 46.7% of total) and the credit card (selected 137 times or 45.7% of total) (see Figure 5). Respondents affirm that the other bank traditional products have been rarely used over the last 12 years.

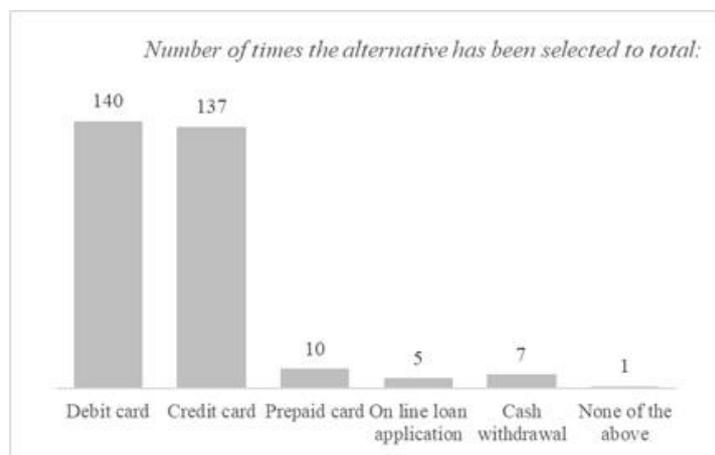


Figure 5. Most Used Bank Products (Q6)

(Source: Author's calculations)

Response distribution by age (see Table 2) shows that bank account and/or deposits, credit and debit cards are more present for the under 50 years old (with more than 80% of respondents ageing below 50 years old). The

same is valid for those not owning a bank account and/or deposit, credit and debit cards: about 61.4% of them lies in the age group between 18-30 years old. The latter could be related to the high unemployment rate in this age group and informal employment.

Table 2. Financial Product Ownership by Age
(Source: Author's calculations)

Age categories	Total	Account/Deposit		Debit Card		Credit Card	
		Yes	No	Yes	No	Yes	No
18-30	45.5%	42.5%	61.4%	41.8%	71.4%	39.3%	56.6%
31-40	29.2%	31.4%	17.5%	33.9%	7.1%	35.3%	22.4%
41-50	14.9%	15.7%	10.5%	15.5%	1.8%	16.9%	9.2%
51-60	6.9%	7.2%	5.3%	6.9%	7.1%	7.0%	5.3%
> 61	3.6%	3.3%	5.3%	2.0%	12.5%	1.5%	6.6%
Number of respondents	363	306	57	304	56	201	152
<i>in percentage</i>		84.3%	15.7%	84.4%	15.6%	56.9%	43.1%

The higher the educational attainment, the higher the respondent's affirmation of having a bank and/or deposit account (see Table 3): 44.7% of respondents holding M.Sc./PhD and 41.5% of those holding post-doc studies. In contrast, such a percentage is low among respondents owning a high school diploma and a BA degree.

Table 3. Bank Account and/or Deposit Ownership by Education
(Source: Author's calculations)

Age categories	Total	Account/Deposit		Debit Card		Credit Card	
		Yes	No	Yes	No	Yes	No
High school	9%	8.0%	9.3%	6.9%	22.9%	1.0%	20.6%
University degree	51%	50.5%	53.7%	52.9%	39.6%	52.9%	47.5%
Post university (Master, Phd)	40%	41.5%	37.0%	40.1%	37.5%	46.1%	31.9%
Number of respondents	341	275	54	289	48	191	141
<i>In percentage</i>		83.6%	16.4%	85.8%	14.2%	57.5%	42.5%

In Albania, mobile phone ownership has become a standard, especially over the last decade. Increased use of mobile phones has been triggered broadly by the higher competition in the telecommunication sector (which resulted in an increased number of operators and lower service fees). While serving its core function, mobile phones continuously have been enriched with applications providing different services, among which mobile banking (mobile banking services, mobile payments). Most of the banks in Albania have developed mobile banking apps which allow customers to have information on their account and make several transactions (such as payments, transfers, purchases and other services). The survey shows that about 96% of respondents have

access (owe) to a mobile phone, and for 96% of them, their mobile phone is a smartphone. The ownership of a mobile phone and a smartphone are widespread among the age categories 18-30 years old and 31-40 years old (more than 90% respectively). On the contrary, mobile phones and smartphones are less common for respondents over 50 years old. The ownership of a mobile phone (and a smartphone) is positively related to the respondents' educational attainment, employment, and income level.

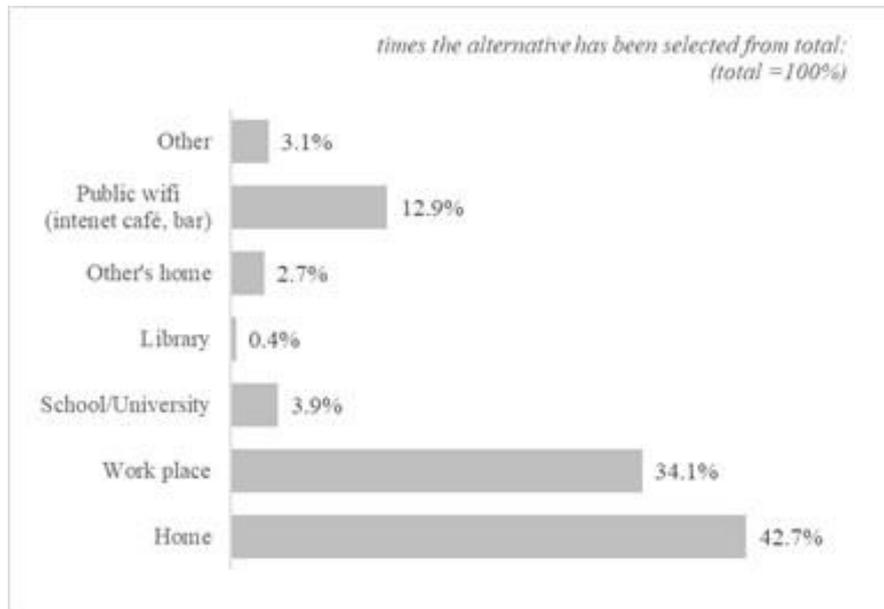


Figure 6. Use of Mobile Internet by Location (Q10)

(Source: Author's calculations)

Internet access is another important aspect to make use of mobile banking services and based on respondents' affirmations, about 93% of them have regular access to the internet (see Figure 6): from home, about 42.7%, workplace 34.1%, public WIFI (bar, internet café) about 12.9%. About 94.5% of respondents used mobile phone internet the last time over the last seven days. There is a 2% of respondents that did not ever use mobile internet.

Despite being so widespread, only 37.5% of respondents used their mobile phone to carry out bank transactions during the last 12 months. Among those using mobile banking, the most used services were the account balance check, transfers, and utility payments, as summarised in Table 4.

The availability of smartphones and internet access points (as suggested by the survey results) provide a breeding ground for the banking industry to enhance its supply of mobile services. While relatively in an early stage of development, the banking system (and other segments of the financial sector) can harvest the benefits of a positive general approach that Albanian consumers show towards the digitalisation of services. That was evident especially during the COVID-19 pandemic, where the number of online services provided increased and consumers adjusted their behaviour accordingly. Official data from the last Annual Report of Bank of Albania

show an upward trend in electronic payment instruments, including cards, electronic money and home banking.

Table 4. Mobile Bank Transactions over the Last 12 Months

(Source: Author's calculations)

	Times the alternative was selected	Frequency in %
Balance check	74	32.0%
Account to account money transfer	59	25.5%
Utility payment	51	22.1%
Customer services	16	6.9%
Deposit money	19	8.2%
Loan or credit card application	5	2.2%
Other	7	3.0%
Total times alternatives are selected	231	100%

In 2020, the use of electronic payment instruments recorded an upward trend compared with the previous year. Bank's reporting on payment instruments demonstrates that, up to year-end, there has been a continuous expansion of electronic payments such as card payments, electronic money payments (pre-paid cards), as well as home-banking. The volume of payment instruments during 2020 has increased by 18.5%, reaching a total level of around 22.06 million payments, while the total value of payments has slightly decreased by 2.9%. By instruments used, the payment analysis indicates a continuous expansion of electronic payments. Card payments are the main payment instruments accounting for 50.1% of the volume, surpassing for the first-time credit transfers in paper. This increase is also due to movement restrictions during the pandemic. E-money payments, a relatively new payment instrument, are being used exclusively by individuals, not businesses. Meanwhile, the same trend is noted in card payments, which continue to be used more by individuals than businesses (with a usage ratio of 97.2% for individuals and 2.8% for businesses). On the other hand, businesses continue to reflect a more traditional use of banking (credit transfer in paper form, non-paper, cheques etc.) compared with individuals. The initiation of credit transfers in electronic form is realised through "home banking" services, which are provided by 11 of the 12 banks that operate in Albania. These services are both increasingly widespread in the Albanian market, and used to carry out payments, not only for basic information services for the account, but also for on-line payments. In 2020, there was a significant increase in the volume of home banking payments, by 13.7%, and of the value of these transactions by 8.8%, compared to the previous year. Contributions to the upward trend of home banking were assessed to be the measures undertaken by the Bank of Albania and the policies of banks, in the framework of promoting these alternative payment means. These measures were reflected in an increase in remote accessible accounts by 32.6% and an increase, against the total account, of 19.8%. From the point of view of the use of internet accessible accounts, until the end of 2020, there were 7.03 transactions in non-cash payments per account, further approaching the level aimed by the National Strategy for Retail Payments (of 10 non-cash payments per capita by the end of 2022).

At the end of 2020, all the banks that operate in the Republic of Albania were licensed as card issuers, of which seven are licensed also as card acquirer. The infrastructure provided by these banks has trended upward in terms of the number of POS terminals (increasing by 8.5% compared with 2019). Despite the positive trend of the increase in the number of POS terminals, reflected in the POS ratio per 1.000.000 citizens (4268 in 2020), their concentration continues to remain high in the region of Tirana, at 88.5%. In 2020, debit cards issued increased by 5.6% and credit cards the issued decreased by 4.3%. Also, the functioning of electronic-money cards in the market increased by 7.5% compared with the previous year.

A considerable increase was experienced for the virtual POS terminals, by means of which card payments could be done online for e-commerce purposes. The banking system has offered such services since 2013, but the pace of expansion by merchants who want to conduct e-commerce, has been quite moderate. Meanwhile in 2020 the virtual POS terminals increased by 44 in number. The development of this infrastructure is quite welcomed in the framework of promoting the use of electronic payments. The implementation of the Law No 55/2020 “On Payment Services” a transposition of the EU’s PSD2 Directive will also have a positive impact in this regard.

At the end of 2020, the number of ATMs has increased at 738, compared with 707 terminals in 2019 . Although ATMs are used mainly for cash withdrawal, in 2020 there was an expansion of ATM functions for carrying out deposits and transfers.

Positive developments were shown for ATMs, the use of which increased, to 12.9%, compared to the end of 2019. Bolstering the use of electronic money instruments is estimated to have an impact on the financial inclusion of the population by enabling access to financial services to categories of the population that are not able access other services. Nevertheless, despite considered time and cost-saving advancements with electronic payment instruments, consumer protection security issues matters and financial education related to mobile bank services remain significant challenges to be understood, and addressed and raised awareness for.

Information and Use of Innovative Retail Banking Products

Innovation in the financial sector (primarily the banking industry) in Albania performs differently than pears in Western Balkans and EU countries (The World Bank, 2020; Demirguç-Kunt et al., 2018). Nevertheless, some attempts to innovate products and/or services have been made over the years, and some of them have found good use from customers. This section provides information about using innovative retail banking products, including prepaid cards, online banking, mobile banking and mobile payments, contactless payments and other services. Also, to some extent will assess the degree of satisfaction of customers with this category of products/services.

About 83.6% of respondents do not own any prepaid cards (see Figure 7); 6.9% of respondents own prepaid cards used to withdraw salaries, and 5.7% own a general prepaid card. From respondents owning a prepaid card, about 73% of them have not charged it over the last 12 months.

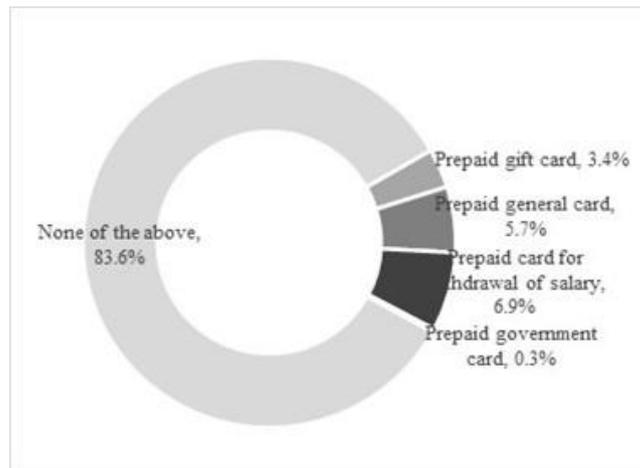


Figure 7. Prepaid Cards (Q14)

(Source: Author's calculations)

About 56.7% of respondents affirm to have used online banking on a computer or other device over the last 12 months. The most used services were the balance check, transfers and utility payment and others, as shown in Figure 8.

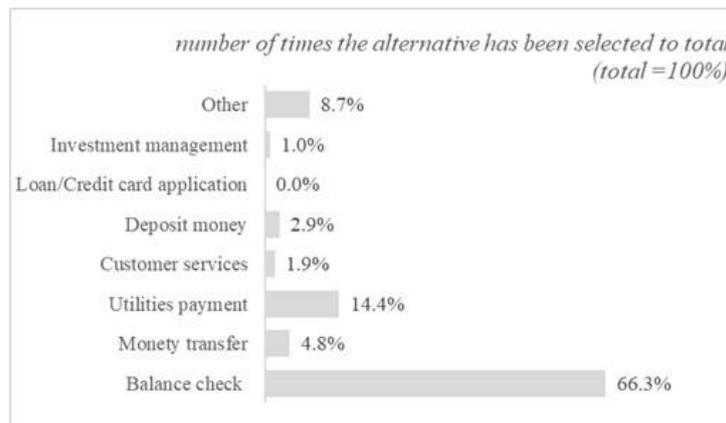


Figure 8. Transactions Performed (Q17)

(Source: Author's calculations)

About 51% of the respondents affirm using mobile banking over the last 12 months. Among those reporting not having used mobile banking over the last 12 months (about 49%), about 75% think that they can use it in the future (respondents selecting "absolutely" and "maybe" alternatives, see Table 5). On the contrary, 14.2% of respondents are almost sure that they will not make use of mobile banking in the future (respondents selecting "maybe I will use it" and "I will never use it" alternatives). There is an 11.2% of respondents who is indifferent on whether to use or not mobile banking.

Table 5. Future Use of Mobile Banking (Q19)
(Source: Author's calculations)

	No	%
Absolutely	43	21.8%
Maybe	104	52.8%
No idea	22	11.2%
Maybe I will not use	12	6.1%
I will never use it	16	8.1%
Total	197	100.0%

Over the last 12 months, the most performed services via mobile were: balance or transactions performed checking (30.1% of respondents); download of the mobile application (22.7% of respondents) and receipt of an SMS alert from the bank (14.1% of respondents).

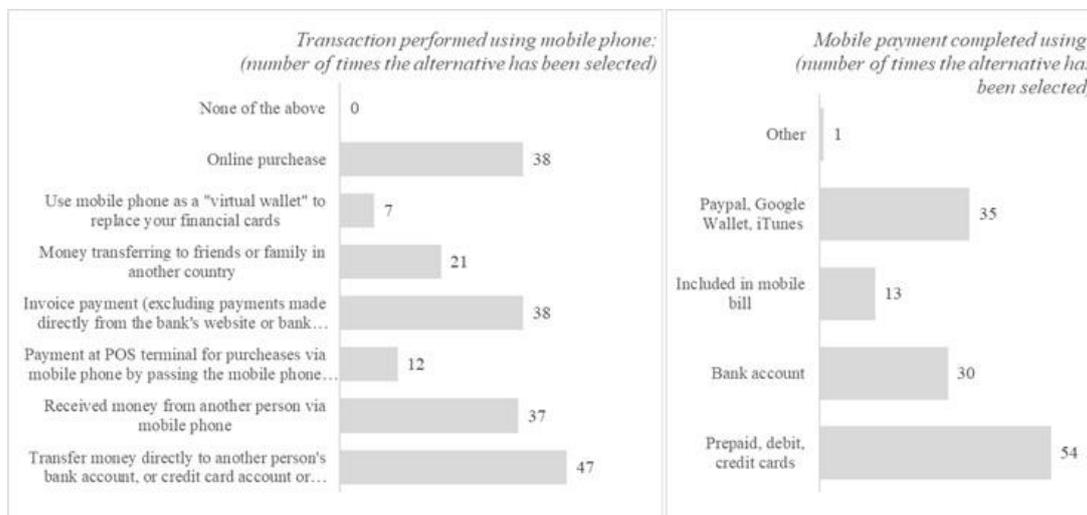


Figure 9. Transactions and Mobile Payments (Q23, Q24)
(Source: Author's calculations)

About 41% of respondents affirm to have completed a mobile payment transaction over the last 12 months. The most affirmed transaction is online purchases, money transferring to another bank account or credit card account and invoice payment (see Figure 9). Mobile payments have been performed mainly through prepaid, debit and credit cards (alternative selected 41% of total); Paypal, Google Wallet, iTunes (alternative selected 26.3% of total); bank account (alternative selected 22.6% of total).

In general, mobile banking users appear to be entirely satisfied with the service (net balance is positive and marks 33 percentage points) and quite satisfied with mobile payment service (net balance is positive and marks about 33 percentage points). For mobile banking services (see Table 6), 41.9% of respondents affirm to be very satisfied, and 26.6% affirm to be somewhat satisfied with the service. The share of respondents being very

satisfied with mobile payment is lower than that of mobile banking, about 36.6%, and the share of those being somewhat satisfied is 30.5% of total respondents.

Table 6. Satisfaction with Mobile Banking and Payments (Q21,25)
(Source: Author's calculations)

	Mobile banking		Mobile payments	
	No	%	No	%
Very satisfied	126	41.9%	109	36.6%
Somewhat satisfied	80	26.6%	91	30.5%
Indifferent	86	28.6%	95	31.9%
Somewhat unsatisfied	8	2.7%	1	0.3%
Completely unsatisfied	1	0.3%	2	0.7%
Total	301	100%	298	100.0%

While some degree of satisfaction can be observed among respondents, the share of those being indifferent with mobile banking and payments yet is high: about 28.6% in mobile banking and 31.9% in the case of mobile payment services. Also, those affirming unsatisfaction with mobile banking accounts for about 3% and mobile payment services 1% of total respondents respectively. Concern related to exposure of personal information while using mobile services is the main reason defining their dissatisfaction with mobile banking and mobile payment services (40.2% of respondents), hackers gaining access in the mobile phone (45.9% of respondents), someone stealing mobile phone (26.2% of respondents), data tracking and phone calls (9.9% of respondents), getting viruses through my mobile phone (10.5%) as shown in the pie chart in Figure 10. Nevertheless, there are also other reasons for being dissatisfied with mobile payments and banking. Among them, there are merchants not accepting mobile payments (14.1% of total respondents), transactions needed from the customer cannot be performed (9.5% of total respondents), mobile payments are more complicated as compared to other ways of payment (7.4% of total respondents).

In the case concerns affirmed from non-users of mobile banking were addressed and risks appropriately mitigated, there would be a positive attitude in using some of the activities included in Table 7: about 38.6% of respondents would perform balance and list of transaction checking, about 21.1% of respondents would download the mobile banking app, 19.3% of respondents would pay utility bills.

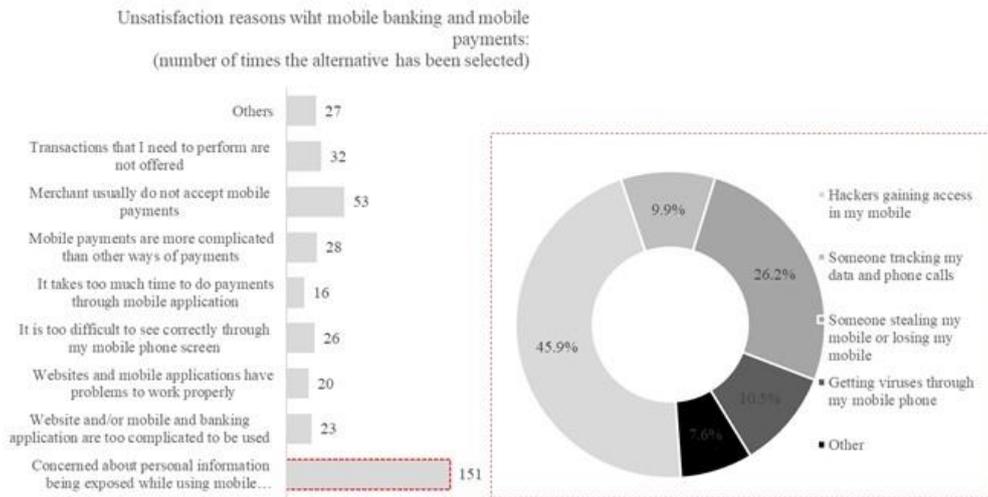


Figure 10. Unsatisfaction with Mobile Banking and Payments (Q26, Q27)

(Source: Author's calculations)

Table 7. Potential Mobile Phone Activities (Q28)

(Source: Author's calculations)

	No	%	Times the alternative has been selected	%
Downloading mobile banking application	36	21.1%	83	18.9%
Balance and transaction list checking	66	38.6%	111	25.3%
Utility payment through the online website or mobile banking application	33	19.3%	92	21.0%
SMS notification from the bank	12	7.0%	80	18.3%
Account to account money transfer	15	8.8%	67	15.3%
Other	9	5.3%	5	1.1%
Total	171	100.0%	438	100.0%

Similarly to mobile banking, respondents affirm that if concerns about mobile payments were addressed, they could use the service particularly for utility bill payment (45.8% of respondents), online purchases (15.6% of respondents), direct money transfers to friends or relatives (12.3% of respondents) and other services as shown in Table 8.

Another issue closely related to and hindering mobile banking and payment services is the issue of data protection. To a large extent, personal data protection is perceived as secure by respondents. The net balance is positive and marks about 21.1 percentage points. About 61% of respondents perceive personal data protection as secure: about 16.6% affirm that personal data protection is "very secure", and about 44.5% perceives personal data protection as "somewhat secure". On the contrary, about 18.9% of respondents affirm being insecure with regards to personal data protection (those selecting the alternatives "somehow insecure" and "very insecure").

Table 8. Potential Mobile Payment Activities (Q29)

(Source: Author's calculations)

	No	%	Times the alternative has been selected	%
Direct transfers (friends, relatives)	22	12.3%	58	12.9%
Payment in POS through mobile phone	5	2.8%	26	5.8%
Utilities bill payment	82	45.8%	93	20.8%
Money transferring outside AL	15	8.4%	54	12.1%
Mobile phone as a virtual wallet replacing physical cards	12	6.7%	33	7.4%
On line purchases	28	15.6%	86	19.2%
To receive or use coupons in the mobile phone	4	2.2%	38	8.5%
To receive discounts / offers	4	2.2%	59	13.2%
Other	7	3.9%	1	0.2%
	179	100.0%	448	100.0%

The variety of retail services provided through mobile phone has increased over the years, integrating mobile technology in everyday life activities. Respondents have suggested a list of possible activities/services that could be made available through mobile phone (see Figure 11) and asked whether they would make use of them if available. About 40.4% of total respondents would use a mobile phone to check their account balance or track their finances daily (the alternative is selected 16.7% of total times selected); about 17.1% of respondents would use the mobile phone to make purchases in POS (the second most selected alternative); about 11% of respondents to make price comparisons at purchase time (the third most selected alternative) as given in Figure 10.

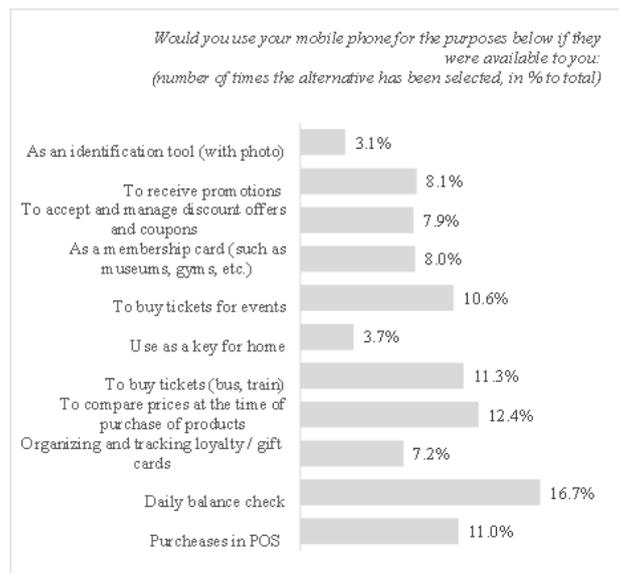


Figure 11. Potential Use of the Mobile Phone (Q31)

(Source: Author's calculations)

Contactless payments service is currently in use by about 12.6% of respondents participating in the survey (see Table 9). About 63% of respondents affirm that they probably would use the service if available (those selecting most probably and probably). On the contrary, for 9.8% of respondents, there is a low probability of using the service, and 14% of respondents will not use this service. There are good chances that over the next five years, contactless mobile payment services to become a primary form of payment in Albania for about 60.7% of total respondents (those selecting the alternatives "most likely" and "it is possible"). Nevertheless, 25.3% of respondents are not that optimistic and assess that there are few to no chances for contactless payment services to become the leading payment mean in Albania.

Table 9. Contactless Payment Services (Q32, Q33)

(Source: Author's calculations)

Use of contactless payments services:	Contactless mobile payments as a significant form of payment in the next five years?	
	No	%
Currently in use	45	12.6%
Most probably	93	26.1%
Probably	134	37.5%
Not probably	35	9.8%
I'll not use it	50	14.0%
Total	357	100.0%

Bank Customer Shopping Behaviour

The last section of the questionnaire investigates the bank customer behaviour and assesses potential links in their behaviour and approach to innovative products offered in retail banking. Mobile phones (smartphones) and access to the internet undoubtedly impact consumer behaviour in general. Surfing the net for products of all kinds, comparing prices and characteristics of products and services, check their availability, check reviews is as easy as a click nowadays.

The use of mobile phones to do online shopping is affirmed by about 53.5% of respondents to the survey (see Figure 12). On the contrary, about 46.5% affirm not making use of online shopping. About 67.7% of respondents affirm making price comparisons online in big purchases, and about 65.4% of them look at customers reviews online. Despite being a relative novelty for Albania, about 18% of respondents affirm having used the QR barcode scanning app to make price comparisons to find the best offer.

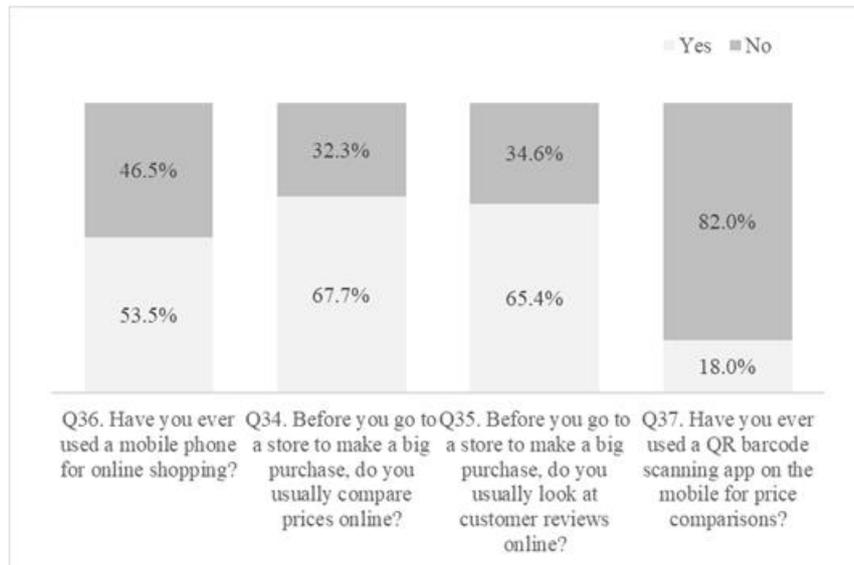


Figure 12. Online Shopping Behaviour

(Source: Author's calculations)

About 57.2% of respondents affirm to have used their mobile phone to see others opinions or reviews on a product while being at a retail store, and 58% of them have changed their decision to finalise the purchase. Also, before completing a purchase, about 50% of respondents have checked their account balance for funds availability (see Figure 13).

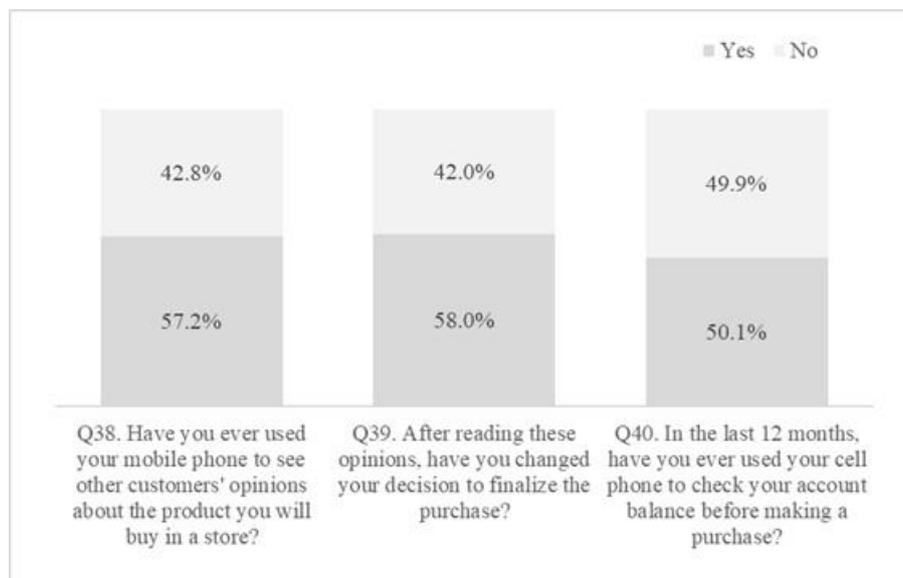


Figure 13. Impact of Reviews in Shopping Behaviour

(Source: Author's calculations)

The extended use of both the internet and mobile phones has opened new opportunities for retailers to advertise and outreach potential customers at contained costs. About 30.2% of respondents affirm to have signed to

receive coupons or special offers by e-mail from retail stores over the last 12 months. About 31.6% of them affirm having placed a purchase due to these coupons or special offers. Furthermore, about 40% of respondents have signed to receive coupons or offers from the website, and about 23.8% of them have benefited from these promotions (Figure 14).

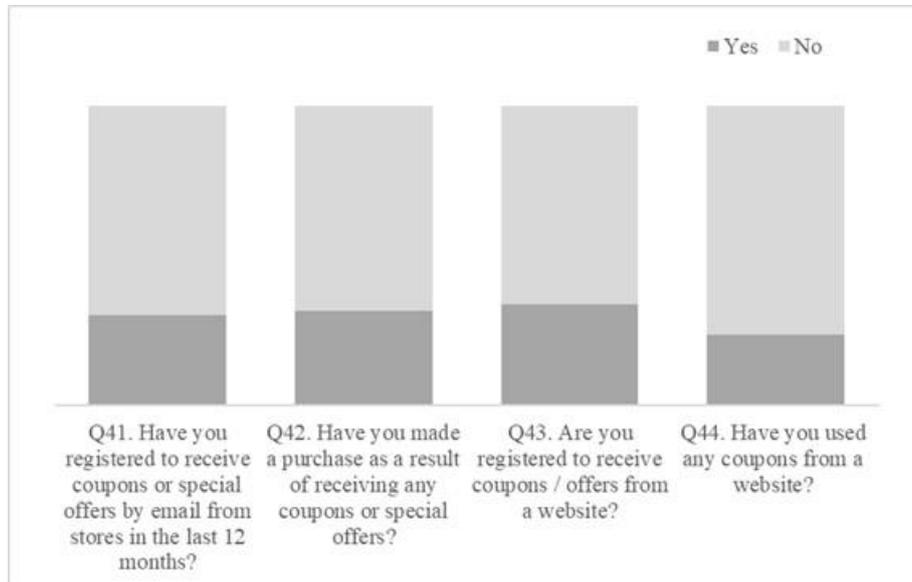


Figure 14. Impact of Promotions on Buying Behaviour

(Source: Author's calculations)

Strategist Perceptions on Retail Banking Products

Strategists perceptions on retail banking products are important for a full view of the potential of fintech for growth in Albania. The response rate was relatively low, with 7/16 banks submitting filled questionnaires and one questionnaire from the Bank of Albania. All respondents held positions of head of department or managerial level. From a gender perspective, 58% of respondents were women, and 42% were men. All respondents are relatively young, ranging from 32- to 45-year-old, and about 75% of them hold a university degree or higher. Strategist or the suppliers of retail banking services were asked about the bank industry's perceived challenges over the last years. In order of frequency of mentioning, perceived challenges include: investment in technology and data security breaching, cost efficiency through automation and increased quality of services provided, the financial situation the bank was going through and the current level of nonperforming loans, competition in the banking sector and difficulties in the introduction of new products and their embracement from customers, low financial inclusion ad culture, low digitalisation level and high informality, shortcomings in the regulatory framework and low trust in the governmental support. Despite the list of challenges the Albanian banking system is facing, it has become a must the move towards innovative products, though consolidating the traditional ones.

Among the factors hindering the advancement of digital solutions and innovation in the Albanian banking sector, respondents highlighted the following aspects:

- (i) Albania is a small market with a high level of under-developed rural areas and a marginal development of information technology infrastructure. Thus, large-sized investments lack profitability (no economies of scale) and determine high costs for the end-user. In particular, investments in innovative technologies are low and advance in small tranches, as affirmed by 25% of respondents. The size of the bank and the size of the Albanian market is a critical determinant in investment level. About 75% of respondents affirm that their investments mostly protect and potentially increase their market share and customer base since the evolving context conditions pose dramatic challenges for banks.
- (ii) In general, respondents affirm that financial culture and inclusion in Albania is weak, which makes it difficult for customers to understand innovative products and their advantages and risks resulting in added uncertainties and insecurities. In the “Albania National Retail Payments Strategy (NRPS) (2018-2023) approved in June 2018 by the National Payment System Committee of the Bank of Albania, two strategic objectives at the national level have been set that are strictly related to financial inclusion and usage of accounts: a) promote the intensive use of modern retail payment instruments across the whole country, with the goal of achieving 10 cashless payments per capita by end-2023; and b) broadening access to transaction accounts to achieve the overarching objective of adult account ownership ratio of 70% by 2023.
- (iii) Innovation is also a relative concept within respondents: about 17% of the respondents affirm that their bank was not focused on innovation at all; for about 50% of respondents, innovation means offering banks services online; and for about 33% of respondents' innovation meant digitalising all bank processes (aiming at minimisation of manual processes, process cutting while decreasing costs). Independently from size, bank managers have different views on competition behaviour in the market, ranging from being market makers and leaders to mere followers (follow what big banks do, locally and international).
- (iv) Strategists affirm that there is insufficient marketing from the banking system for retail products. About 20% of respondents affirm not applying any customer segmentation, making it challenging to apply customised marketing. Nevertheless, 80% of respondents affirm applying customer segmentation to orientate better marketing strategy and target customers for specific products/services.
- (v) Strategists perceive shortcomings in the regulatory framework and no governmental support for introducing and using innovative banking products. Nevertheless, recently Bank of Albania has made material progress by approving on April 2020 the Law 55/2020 “On Payment Services” a transposition of EU’s PSD2 Directive, which entered into force in January 2021. The adoption and implementation of this Law is expected to attract and support FinTechs and have a direct impact in promoting competition and innovation in the field of retail payments, thus promoting their efficiency and reducing the costs of their use. This Law aims to balance the spaces for payment services providing between banks and non-bank financial institutions, by allowing the later to open payment accounts and issue electronic payment instruments as well as introducing the concept of “Open Banking”. The Law creates a prudent consumer regime for the clients of the payment service providers and in the same time increases competition by

allowing payment institutions and e-money institutions offering such services. Furthermore, the introduction of payment initiation service in the market is evaluated to promote further the use of electronic credit transfers in the Albanian market. Additionally, aiming to further enhance the use of credit transfers especially the electronic ones, Bank of Albania through the revision of the regulatory framework of Albanian Interbank Payment System (AIPS) and Albanian Electronic Clearing House (AECH) created a fee regime for clients of the banks which promotes the use of home banking and at the same time has enlarged participation in AECH also for e-money and payment institutions aiming to enhance interoperability in the market and also promote competition.

(vi) High informality characterising the Albanian economy hinders development in the financial sector.

Strategists were asked about their performance in innovation. Responses include statements like: innovation is not applied in the bank; innovative to meet market standards but still amelioration is needed; very innovative and a step ahead of the competition; products and services supply is aligned to market demand, and compare themselves to peer institutions in the region; there is not present a tool to make comparisons among banks; two banks have developed some parameters to compare themselves with competitors in the markets such as providing secure access to services, time-saving products, high flexibility, working toward customer education and frequently offering new products, increasing self-services processes and focusing in making more online processes (by reducing commissions for online transactions). It is worth noting that only one bank considers having an innovation plan, an innovation team, and affecting the market by introducing innovative products. All respondents to the survey affirm to be very optimistic about the future of innovation and digitalization in Albania.

Discussions on Findings

Financial culture and financial inclusion are two essential topics to foster financial development. There is limited literature on financial literacy or culture in Albania. Nevertheless, existing literature (using different methods, techniques and samples) converge and suggest poor financial literacy and culture in Albania (Atkinson & Messy, 2012; Agalliu, 2014; Nano & Polo, 2016; Çera & Tuzi, 2018). Financial illiteracy might determine the current use in bank products and attitude towards innovative ones. While bank accounts and deposits, and debit cards are more or less known and used by Albanian customers, credit cards still face resistance, as suggested by the survey result. Furthermore, mobile banking, mobile payments, contactless payments services are still at an infant stage in Albania.

Bundo, Luçi, & Cane (2005) raised the credibility of some segments of the financial system as a factor hindering financial development in Albania. As suggested from the perceived risks of using mobile banking and mobile payments from the respondents in the survey, the issue is still present. Lack of trust or insecurity towards banks might be somehow related to asymmetric information between banks and customers. In this case, banks holding an advantageous position as compared to customers. Increasing the degree of information made

available to customers, relevant information in an understandable way might increase trust in banks and bank products, thus triggering the demand for innovation and innovative products.

Banks attitude towards product innovation is discouraging, independently from the gender of respondents. Also surprising was the fact that strategists had such different views on innovation meaning. Bank size (in terms of asset ratio to total assets of the system) was assessed as a determinant of the investment level of banks.

While respondents widely use mobile phones (and smartphones), their use for mobile payments, mobile banking and other mobile services is low. Several factors were identified from strategists and respondents hindering mobile services, including financial culture, knowledge of financial products, security issues.

Recommendations

Given findings from the survey, some recommendations are presented both for regulatory authorities and market players.

- There is a need for a review in regulation and support of fintech access to the payments market, which could lead to financial inclusion and substitution of cash-based transactions with electronic ones contributing to the formalisation of the economy. It is a win-win situation, where deepening financial development contributes to lowering the informal economy and open new opportunities for innovative businesses.
- Regulatory entities might introduce key indicators to monitor innovation, development, and comparative analysis between licensed subjects that offer payment services in the market, contributing to transparency and competition.
- Market players can dedicate resources to improve financial literacy and financial inclusion and participate proactively in ongoing national policy-driven engagements on financial education.
- More investment is needed in consumer protections, information and transparency on terms and conditions embedded in financial products and services. Information has to be processed and delivered in such a way to be easily understandable from the general public. Pages of notes written in small-sized fonts are not a good way to communicate with customers.
- Invest in the modernisation of payment systems to facilitate and allow cost efficiency of transactions;
- Design and adapt payment services products that are consumer-centric, target several needs and enhance consumer experience;
- More attention must be paid to informing and mitigating security issues and raising awareness on the safety of innovative banking products.

References

- Agalliu, A. (2014). Financial Culture among Albanian Young People and Its Impact on the Economy. *Mediterranean Journal of Social Sciences*, 5(23), 690 - 695. doi:10.5901/mjss.2014.v5n23p690
- Bank of Albania (2019). *Annual Supervision Report*. Tirana: Bank of Albania.
- Atkinson, A
- BIBLIOGRAPHY Agalliu, A. (2014). Financial Culture among Albanian Young People and Its Impact on the Economy. *Mediterranean Journal of Social Sciences*, 5(23), 690 - 695. doi:10.5901/mjss.2014.v5n23p690
- Bank of Albania (2019). *Annual Supervision Report*. Tirana: Bank of Albania.
- Atkinson, A., & Messy, F.-A. (2012). *Measuring Financial Literacy: Results of the OECD / International Network on Financial Education (INFE) Pilot Study*. Paris: OECD Working Papers on Finance, Insurance and Private Pensions, No. 15, OECD Publishing. doi:10.1787/5k9csfs90fr4-en
- The World Bank. (2020). *Fintech innovation in the Western Balkans: policy and regulatory implications and potential interventions*. Washington DC 2: International Bank for Reconstruction and Development / The World Bank Group.
- Boka, M. (2014). Financial Development and Economic Growth: Time Series Evidence from Albania. *PhD Dissertation*.
- Bundo, S., Luçi, E., & Cane, G. (2005). The Albanian financial system and the role of the intermediation institutions. *Central Banking in Integration Time* (pp. 279-294). Durrës: Bank of Albania.
- Demirguç-Kunt, A., Klapper, L., Singer, D., Ansar, S., & Hess, J. (2018). *The global finindex database 2017 - Measuring financial inclusion and the fintech revolution*. Washington, DC: The World Bank.
- Dushku, E. (2010). *Financial development and economic growth: the case of Albania*. Tirana: Bank of Albania.
- Kokaveshi, E., & Kola, T. (2013). The causality direction between financial development and economic growth. Case of Albania. *International Journal of Scientific & Engineering Research*, 4(11), 1063 - 1067. Retrieved from <https://www.ijser.org/researchpaper/The-Causality-Direction-Between-Financial-Development-and-Economic-Growth-Case-of-Albania.pdf>
- Nano, D., & Polo, A. (2016). Academic Status Differences in Financial Literacy among Albanian University Students. *EuroEconomica*, 35(1). Retrieved from <http://journals.univ-danubius.ro/index.php/euroeconomica/article/view/3045/3372>
- Sejko, G., & Dushku, E. (2018). Zhvillimi financiar dhe rritja ekonomike në Shqipëri: evidenca të reja. In G. Sejko, *Studime mbi sistemin bankar dhe zhvillimin ekonomik* (pp. 23-20). Tirana: Banka e Shqipërisë.
- Atkinson, A., & Messy, F.-A. (2012). *Measuring Financial Literacy: Results of the OECD / International Network on Financial Education (INFE) Pilot Study*. Paris: OECD Working Papers on Finance, Insurance and Private Pensions, No. 15, OECD Publishing. doi:10.1787/5k9csfs90fr4-en
- The World Bank. (2020). *Fintech innovation in the Western Balkans: policy and regulatory implications and potential interventions*. Washington DC 2: International Bank for Reconstruction and Development / The World Bank Group.

- Boka, M. (2014). Financial Development and Economic Growth: Time Series Evidence from Albania. *PhD Dissertation*.
- Bundo, S., Luçi, E., & Cane, G. (2005). The Albanian financial system and the role of the intermediation institutions. *Central Banking in Integration Time* (pp. 279-294). Durrës: Bank of Albania.
- Demirguç-Kunt, A., Klapper, L., Singer, D., Ansar, S., & Hess, J. (2018). *The global finindex database 2017 - Measuring financial inclusion and the fintech revolution*. Washington, DC: The World Bank.
- Dushku, E. (2010). *Financial development and economic growth: the case of Albania*. Tirana: Bank of Albania.
- Kokaveshi, E., & Kola, T. (2013). The causality direction between financial development and economic growth. Case of Albania. *International Journal of Scientific & Engineering Research*, 4(11), 1063 - 1067. Retrieved from <https://www.ijser.org/researchpaper/The-Causality-Direction-Between-Financial-Development-and-Economic-Growth-Case-of-Albania.pdf>
- Nano, D., & Polo, A. (2016). Academic Status Differences in Financial Literacy among Albanian University Students. *EuroEconomica*, 35(1). Retrieved from <http://journals.univ-danubius.ro/index.php/euroeconomica/article/view/3045/3372>
- Sejko, G., & Dushku, E. (2018). Zhvillimi financiar dhe rritja ekonomike në Shqipëri: evidenca të reja. In G. Sejko, *Studime mbi sistemin bankar dhe zhvillimin ekonomik* (pp. 23-20). Tirana: Banka e Shqipërisë.

Exploring Digital Transformation of Taipei City in Municipal Services: A Case Study in Taipei PASS

Yuen Tung Ho

National Cheng Kung University, Taiwan,  <https://orcid.org/0000-0003-2816-347X>

Abstract: With the rapid advances in technologies, the governments around the world actively in introducing and promoting digitalization of public services and developing smart cities in the recent decades. Taipei City Government has also taken a progressive step on digitalization of public services and launched Taipei PASS, a digitalized integration of municipal services established by Taipei City Government in 2020. Integrating government services can provide convenience and efficiency to citizens and facilitate the communication between citizens and the government. In addition, high dependency on smartphones and internet penetration has revealed a great opportunity to digitalize municipal services. However, some of the citizens have innovation rejection toward digitalization. This research aims to explore the digital transformation of Taipei City on municipal services, using the case of Taipei PASS, as well as reasons of citizens' refusal of use on digital municipal services. Drawing on the theoretical framework developed by Technology Acceptance Model and Diffusion of Innovation Theory, framing the factors that shaped users' attitudes and behavioural intentions to the use of digital municipal services, as convergent validation of understanding the current situations and limitations on promoting municipal services digitalization in Taiwan, to provide strategies for promotion of digital municipal services.

Keywords: Digital municipal services, Citizens' attitude, Taipei PASS, Digital transformation in Taiwan

Introduction

Developing digital municipal services and smart city become a trend in recent decade, and the governments in the leading cities are progressive in resource-implementation and promotion of digitalization transformation to smart government (Alawadhi & Morris, 2012), to achieve sustainability and increase their international competitiveness of the city. Generally, digitalization of municipal services refers to put government services into a digital format from a physical form (Cöster & Westelius, 2016) that can facilitate reducing the physical and human sources in service delivery. It would lead to behavioural changing of citizens, and increased degree of reliance on digital services at a result (Alter, 2020). It can also facilitate environmental benefits and shared economy using digital resources, thus, transform to an eco-friendly and sustainable city (Aksin-Sivrikaya & Bhattacharya, 2017). The objective of digitalization of municipal services is to provide better public services to

citizens and with the improved service quality and productivity, with the understanding of benefits of digitalization of municipal services, in the government sector. The digitalization of public services can be driven the effectiveness, efficiency, and the potential to provide good governance. To achieve those objectives, it is important to develop open, transparent, and accessible services, that citizens can get the services from various government department easily, to empower the current public services into more convenient and personalized ways (Duneja, Pichai, Lasku & Kilefors, 2018). With implementation of 5G network, it can provide them a more flexible way to link with the government and their services, which can encourage citizen participation, citizen co-production actively in public services with the government with a direct and efficient connections, such as the launch of mobile applications by city government, that they can involve more and do better for the community and themselves to express their ideas and satisfy their needs

Literature Review

Digital Government Transformation

E-government

Developing electronic government (or e-government) has become a trend all over the world. E-government is a concept of convenient and innovative public service delivery to citizens with the purpose of providing better quality of services via the use of new technologies. It can be divided into four stages with standards of complexity and integration (Layne & Lee, 2001). First at all, cataloging the public services by stating to put services online that citizen can only deal with several services via online system, such as browsing information and downloading government forms. Second, supporting online transaction with citizens with a decrease of physical resources and interaction, which allowed citizens to apply public services via the internet. Third, linking some similar services for vertical integration system. In the final stage, developing horizontal integration with the purpose to provide citizens real one-stop services, by integrating resources, data and services across different government ministries and entities. Many governments nowadays are ambitious and proactive in transformation of e-government and adopt the strategies of moving to public service integration (Alhusban, 2015), providing better services to citizens with a better use of systems.

Maturity of Digital Government Transformation

Many leading cities in Europe have already developed impressive e-government system which have a high score in the aspect of digital public services, even higher than the European Union average (European Commission, 2020). Nevertheless, building e-government is the initial step in the journey of digital transformation, under the maturity level of digital government transformation (Van der Meulen, 2017), by providing online services to citizens for achieving efficiency and flexibility in service delivery with low-cost and convenience, either in websites or mobile applications. The second level is development of openness and transparency government with accessible open data to government departments and citizens, which always co-existing with stage one. Building data-centric government is the coming next step. The difference between open government is the value

focus, shifting to proactive from passive in exploring the demands of citizens and creating new and innovative ways on strategies. In level four, it would move to the transformation to fully digital public services and be functioned in multichannel with an easier but better services and interactions, integrating from various departments which is under on the open data principles. The smart government would be the final phase, which is the final goal of digital government transformation, using smart and innovative machines and systems. Open data would be embedded deeply in the whole government for achieving sustainable development as a result.

Digital Maturity Framework

To achieve the final goal in digital government transformation, building a smart government, it required three major aspects according to the digital maturity framework (Eggers & Bellman, 2015). Digital maturity framework in digital municipal services refers to the degree of how digital technologies transformed the original service processes, talent engagement, and citizen quality of life. It emphasizes three main elements to achieve high level of digital maturity by (1) People, which focus on their digital skills, ability to use, workforce skill and talent; (2) Processes, which represents the innovation and collaboration, services for citizens and citizen participation; (3) Preparedness, which refers to the further strategy and performance and response based on the citizen feedback and the trend on the transformation of service digitalization.

Case Study

Digital Government Transformation in Taiwan

The project of digital transformation of Taiwan government started at 2017 with the aims to provide better and smarter public services by developing one-stop integrated services, implement transparent governance to create a collaborative environment and increase citizen participation, developing smart government as final goal (National Development Council, 2018). The development process is on the journey of achieving the final phase: Horizontal Integration, refer to the previous framework of e-government. For the overall performance in digital government in Taiwan in 2019, they are devoted in developing one-stop services with eight demonstrated public service and government cloud service infrastructure, both of which reached more than 75% on public satisfaction rate. Furthermore, maximizing and committing in government open data to enhance the administrative capabilities and government procedures. In addition, launching public policy online platform to increase to citizen participation, and the satisfaction rates were 85.9% (National Development Council, 2020). In fact, Taiwan had a position in 11th of overall digital competitiveness among 63 countries in IMD World Digital Competitiveness Ranking in 2020 (Bris & Cabolis, 2020), with a significant improvement of five places compared to last year.

However, due to the crisis of COVID-19, it brought the urgency impacts for services providers worldwide, including municipal services, which facilitated the demands and expansions of online services for reducing the physical interaction on service delivery (Seetharaman, 2020), accelerating the digital transformation of the

government. In view of this, Taiwan government have planned strategies on digital transformation and introduced a digital government program 2.0 of Taiwan for the coming 5 years. The program focuses on open data, administrative strategy, and innovative use of technologies. To deepen public-private cooperation, accelerating the release and reuse of government open data would be the first task of their future direction on digital government transformation. Thus, developing strategies on administration work for well-utilizing the citizens' information to facilitate a new and better governance. For the innovative use of technologies, it represents to use digital technologies to improve the current public services in a more innovative and citizen-centric ways (National Development Council, 2020). The anticipated usage on smart services would be 60% in 2025 of the Taiwan government under the program.

Smart Taipei City

Taipei City, as a capital of Taiwan, they are actively in the implementation of smart city and digitalization on public services. Taipei Smart City Project Management Office was established in 2016 for promoting smart city in Taipei, with the aims of solving citizen problems with innovative means and providing citizens a more livable and sustainable life. The direction of developing Taipei Smart City could be assigned to seven majors, including Smart Transportation, Smart Building, Smart Education, Smart Environment, Smart Economy, Smart Safety, and Smart Healthcare (Taipei City Government, 2018; 2020). Taipei PASS is defined as Smart Economy in seven major aspects of Taipei Smart City project, which is a main and important criterion in sustainable development and international competitiveness, facilitating innovative and digitalized concept and providing public welfare services, which also beneficial to environment for fulfil the goal of sustainability (Galperina, Girenko & Mazurenko, 2016).

Taipei PASS

The Taipei city government issued Taipei PASS in September 2020, which is more than traditional official applications launched by city government in Taiwan that providing single service in single app, but integrating various municipal services provided from different departments in Taipei city government, moving forward on transformation to smart city (Chris, 2020). Taipei PASS is an upgraded version of Taipei Card 3.0, putting services virtually from a physical card that users have to register with identity card for identity verification, as there is card integration function in Taipei PASS, virtualizing the cards like identity card, transport card, student card, library card and so on, without carrying lots of physical cards when hanging out (Taipei City Government, 2020). Taipei PASS is the first and unique mobile application with identity verification launched by city government currently, having the authority to allow users accessing the venues and services without carrying physical identity cards in Taipei city, that the function become vitally important especially under the COVID-19 pandemic. Apart from that, Taipei PASS currently integrated some online public services and bill payments in the application, which provided citizens a useful and convenient ways in checking municipal services information that related to themselves, for example the i-voting, taxing, parking fee, accumulating the welfare and the list goes on. In order to increase the interaction with citizens, putting the communication platform

“Hello Taipei” to allow citizens complain and express their ideas through the application, in the hope of designing and developing one-stop services for the citizens. In the meanwhile, offering the discount benefits as an encouragement and inducement to attract citizens to download and increase the intention to use.

Discussion

Current Situation

Based on the current study, Taiwan have just taken the first step of the journey of digital government transformation, in the stage of horizontal integration in e-government, providing integrated digital municipal services to the citizens. According to the figure from Department of Information Technology of Taipei City Government on March 2021, there are almost 300 thousand numbers of download of Taipei PASS with a continued growth. The population of 2.6 million people in Taipei City (Ministry of the Interior, 2021), which represents there are approximately 12% of Taipei citizens have downloaded the app after more than half year, however, the usage of Taipei PASS is still an unknown.

In addition to the uncertain and unpredictable variables after COVID-19, future would become unexpected due to the rapid change (David, 2020). It is uncertain on the demands of identity verification and digitalization of municipal services by citizens. In view of this, it is vital to understand the attitude of citizens towards digitalization of government services, for predicting the factors that influence their acceptance of public government digitalization, and further develop the strategies on how to promote. However, there are no related studies and research based on citizens' attitude towards municipal service digitalization in Taiwan.

Attitude towards Innovative Technologies

Technology Acceptance Model (TAM) and Diffusion of Innovation (DOI) is always used as theoretical frameworks in related research in the study of factors that influence the attitude and adoption about e-government and digital transformation in other countries (i.e., Alomari, 2014; Chatzoglou, Chatzoudes & Symeonidis, 2015; Mensah & Durrani, 2017; Almuraqab, 2021). TAM advocating two main factors: perceived usefulness and perceived ease of use, which was developed in 1989, theorizing the behavioural intention and actual action of people (Yi & Hwang, 2003). Attitude towards use of a new technology is determined by perceived usefulness and perceived ease of use toward their intention and actual behaviours. Perceived ease of use would simultaneously affect perceived usefulness (Davis, 1989). It can be used to predict a citizen's acceptance towards digital public services and explain the probabilities that might affect their intention to use. Diffusion of Innovation Theory (DOI) developed in 1962. Diffusion refers to a social process in response to a new idea, concept, or innovation and innovation-diffusion is a process of reducing uncertainty (Rogers, 1962). It can identify the factors might lead to the adoption of new innovations and technologies (Sahin, 2006). DOI proposed the five determinants: (1) Relative Advantage, (2) Compatibility, (3) Complexity, (4) Trialability, and (5) Observability, to reduce uncertainty on innovations-promotion, evaluating whether the innovations are

suitable for diffusion. In the study of attitude and adoption towards digital municipal services by citizens, there are many related researches in other countries, which introducing and promoting digital public services, identifying the other factors affecting the intention to use related digital municipal services or e-government services with new created frameworks, such as the Unified Acceptance and Use of Technology (UTAUT), and the Unified Model of Electronic Government Adoption (UMEGA), including facilitating condition, social influence, and perceived risk (Mensah, Zeng & Luo, 2020).

Conclusion

Digital government transformation is an indispensable and fundamental move and trend for a city to further satisfy the demands of citizen and provide them a more sustainable and livable life (OECD, 2019). Taiwan, as an initiator of digital municipal services, instead of the implementation of municipal service delivery, it is much more important on focusing the development on citizen-driven service design, which is a key enabler in strengthening municipal services digitalization. As IT resources are not bottleneck in creating digital public services anymore that the experiences and technical resources can be shared with different countries (Mattias, Axel, Abdulkader & Frauke, 2020). Therefore, public authorities of Taiwan should pay attention on the demands of citizens and create a delightful user experience. To investigate Taiwan citizens' behaviour and the reason of adoption and resistance on digitalization of public services, for exploring the barriers and current limitations of performance and promotion in digital municipal services in Taiwan in the coming future.

References

- Aksin-Sivrikaya, S., & Bhattacharya, C. B. (2017). Where digitalization meets sustainability: opportunities and challenges. In *Sustainability in a Digital World* (pp. 37-49). Springer, Cham.
- Alawadhi, S., & Morris, A. (2012). Adoption of e-government services in developing countries: An empirical evaluation. *Handbook of Research on E-Government in Emerging Economies: Adoption, E-Participation, and Legal Frameworks*, 496-520. doi:10.4018/978-1-4666-0324-0.ch025
- Alhusban, M. (2015). The Practicality of Public Service Integration. *Electronic Journal of e-Government*, 13(2).
- Almuraqab, N. A. S. (2021). Introduction to the critical success factors of E-government adoption of the utilization of emerging smart cities technologies. In *Solving Urban Infrastructure Problems Using Smart City Technologies* (pp. 3-15). Elsevier.
- Alomari, M. K. (2014). Discovering citizens reaction toward e-government: factors in e-government adoption. *JISTEM-Journal of Information Systems and Technology Management*, 11(1), 5-20.
- Alter, S. (2020). *How Well Do Service Concepts Apply to Digital Services and Service Digitalization?*
- Bris, A., & Cabolis, C. (2020). IMD World Digital Competitiveness Ranking 2020. *IMD World Competitiveness Center*.
- Calfee, R. C., & Valencia, R. R. (1991). *APA guide to preparing manuscripts for journal publication*. Washington, DC: American Psychological Association.

- Chatzoglou, P., Chatzoudes, D., & Symeonidis, S. (2015). Factors affecting the intention to use e-Government services. *2015 Federated Conference on Computer Science and Information Systems*.
- Chris C. (2020). Taiwanese capital launches Taipei PASS. *Taiwan News*.
- Cöster, M., & Westelius, A. (2016). Digitalisering. *Liber*.
- David S. (2020). Uncertainty and innovation at speed: How digital maturity can boost the ability to innovate.
- Davis, F., Bagozzi, R., & Warshaw, P. (1989). User Acceptance of Computer Technology: A Comparison of Two Theoretical Models. *Management Science*, 35, 982-1003. doi:10.1287/mnsc.35.8.982
- Duneja, R., Pichai, H., Lasku, A., & Kilefors, P. (2018). Digitalization of government services: Citizen wants an “experience” - not just great IT.
- Eggers, W. D., & Bellman, J. (2015). The journey to government’s digital transformation. Deloitte. Retrieved from <https://www2.deloitte.com/xe/en/insights/topics/digital-transformation/digital-transformation-in-government-summary.html>
- European Commission. (2020). The Digital Economy and Society Index (DESI).
- Galperina, L., Girenko, A., & Mazurenko, V. (2016). The Concept of Smart Economy as the Basis for Sustainable Development of Ukraine. *International Journal of Economics and Financial Issues*, 6, 307-314. Retrieved from <https://ir.kneu.edu.ua:443/handle/2010/20600>
- Layne, K., & Lee, J. (2001). Developing fully functional E-government: A four stage model. *Government Information Quarterly*, 18(2), 122-136. doi:[https://doi.org/10.1016/S0740-624X\(01\)00066-1](https://doi.org/10.1016/S0740-624X(01)00066-1)
- Mattias D., Axel D., Abdulkader L. & Frauke R. (2020). Digital public services: How to achieve fast transformation at scale.
- Mensah, I. K., Jianing, M., & Durrani, D. K. (2017). Factors Influencing Citizens' Intention to Use E-Government Services: A Case Study of South Korean Students in China. *International Journal of Electronic Government Research (IJEGR)*, 13(1), 14-32.
- Mensah, I. K., Zeng, G., & Luo, C. (2020). E-Government Services Adoption: An Extension of the Unified Model of Electronic Government Adoption. *SAGE Open*. <https://doi.org/10.1177/2158244020933593>
- Ministry of the Interior. (2021). Retrieved from <https://www.moi.gov.tw/english/>
- National Development Council. (2018). Digital Government Master Plans. Retrieved from
- National Development Council. (2020). Digital Government Master Plans. Retrieved from
- OECD (2019), “Strengthening digital government”, *OECD Going Digital Policy Note*, OECD, Paris, www.oecd.org/goingdigital/strengthening-digital-government.pdf.
- Rogers, E.M. (2003). Diffusion of innovations (5th ed.). *New York: Free Press*.
- Sahin, I. (2006). Detailed Review of Rogers' Diffusion of Innovations Theory and Educational Technology Related Studies Based on Rogers' Theory. *Turkish Online Journal of Educational Technology*, 5, 14-23.
- Seetharaman, P. (2020). Business models shifts: Impact of Covid-19. *International Journal of Information Management*, 54, 102173.
- Taipei City Government. (2018). Smart Taipei brochure in 2018. Retrieved from <https://163.29.36.132/posts/26?locale=en>
- Taipei City Government. (2020). Smart Taipei brochure in 2020. Retrieved from <https://163.29.36.132/posts/26?locale=en>

Van der Meulen, R. (2017). 5 Levels of Digital Government Maturity. *Smart With Gartner*. Retrieved from <https://www.gartner.com/smarterwithgartner/5-levels-of-digital-government-maturity/>

Yi, M., & Hwang, Y. (2003). Predicting the use of web-based information systems: Self-efficacy, enjoyment, learning goal orientation, and the technology acceptance model. *International Journal of Human-Computer Studies*, 59, 431-449. doi:10.1016/S1071-5819(03)00114-9

Exploring the Trend of Plant-Based Meat in Taiwan

Kuan-Ju Yen

National Cheng Kung University, Taiwan,  <https://orcid.org/0000-0002-7353-5431>

Abstract: Under the changes of global environment, climate and society, global agriculture sector started to suffer from the environmental impact. Following the generation, people pay attention to the environment, health problems and social issues, they hope they can reach the goal of sustainable environment through increase green food consumption and reduce conventional meat consumption. The year 2020 is the first year of plant-based meat in Taiwan., it also become one of the trends in food and agriculture industry. This new type of green diet is now all the rage in European countries and the United States. Plant-based Meat not only means eating plants, it also means people care about natural environment, animal welfare and fashionable style. After Bill Gates invest in Beyond Meat, plant-based meat started to be famous around the world, Taiwan also followed up on this trend. Taiwan introduced plant-based meat since two years ago, and the product of plant-based meat are sold and used in a variety of sales channels, such as fast food restaurant, coffee shop, hypermarket and supermarket. There are some plant-based meat companies which started to follow up, they have a strong capacity for innovation, but most local brands do not know how to market and promote. In Taiwan, plant-based meat is a new market. There is no academic research in this market. So, in this research, the researcher wants to explore the potential opportunities of plant-based meat in Taiwan and to see the opportunity for this potential market through literature review, document analysis, questionnaire survey and in-depth interview. The outcome of the research will provide the data for the related market references.

Keywords: Green consumption, consumer behavior, plant-based meat, vegan trend

Introduction

Global Change of Food and Agriculture: Raising the Awareness

In recent years, global changes have already threatened on our food security, poverty and the goal to reach sustainable environment. Greenhouse gas exhausted by human activities and livestock are significant driver of causing climate change and also global warming. Climate change will directly reflect on farmers' farming. The negative effects of agricultural production and livelihood of farmers already happened in many places. The serious thing is that the food productivity will decline with the serious problem on food security. It means that the many low-income people will suffer from hunger and poverty (FAO).

Following the climate change, people have change their eating habits to be more sustainable (Springmann et al.,

2016; Hartmann and Siegrist, 2017; Magrini et al., 2018; Hedin et al., 2019). More and more people started to change their attitude on consuming green food, such as eat plant-based, insect-based and seasonal products (Vermeir Iris, Weijters Bert, De Houwer Jan, Geuens Maggie, Slabbinck Hendrik, Spruyt Adriaan, Van Kerckhove Anneleen, Van Lippevelde Wendy, De Steur Hans, Verbeke Wim, 2020).

Vegetarian Population Grows Leading the Trends of Plant-Based Meat

Vegetarian is already becoming the trend of global diet culture, (Figure 1-1) shows the vegetarian situation in Asia, European and United States. In recent years, the population of vegetarian growing fast around the world, especially European and United States. However, there are more and more people who trying to become a “flexitarian” due to health, animal welfare and environment protection. The year 2019 is the year of Vegan (黃勢彰, 陳政弘, 2019).

(Mintel, 2018) point out that plant-based food will become the trend in food and beverage industry (黃勢彰, 陳政弘, 2019). Plant-based meat as one of the plant-based foods, and plant-based foods belong to green food. Plant-based meat is made from plants. It is different from traditional vegan meat. Consumers who eat plant-based meat believe in animal rights. Plant-based meat is part of the vegan diet. The people who have vegetarian eating lifestyle avoid animal-based food (Grand View Research, 2020). The increasing of population started to put more interest on plant-based eating, and the trend is coming from western country. The amazing thing is that the population of vegetarian in Taipei, Taiwan is in the top ten around global (Figure 1-2). More and more vegetarian population started to increase their awareness of health, so they prefer to consume more plant-based food, and this plant-based style trend has driven the plant-base Meat industry growing up.

Plant-based Meat Market Situation in Taiwan and Globally

The global plant-based meat market size was valued at USD 3.3 billion, and in 2019 is expected to grow at a compound annual growth rate (CAGR) of 19.4 between 2020-2027 (Grand View Research, 2020). Taiwan is the most vegan friendly country in Asia. It is seeing a potential plant-based meat market. In Taiwan, plant-based meat is already sold in some retail stores, such as FamilyMart, Carrefour and Starbucks. The market sales has reached to \$2.09 billion in Taiwan; also the global vegan food market is forecasted to reach over \$24 billion by 2026 (The Vegan Review, 2020).

Increasing Consumer Awareness of Food Consumption

Food is an action of life extension and also influences human history and social behavior deeply. Following the industrialization development, the changes of society and environment also brings the effect of diet behavior. When only single social habit changes, values transfer won't bring the effect to human diet behavior quickly, but the change of big environment will shape a new diet situation and concept (好食好事食農創新趨勢報告).

From the supply side, they also do some changes, the supply side wants to cut down 50 percent of red meat of production and consumption, and consume the substitution of plant-based proteins. Also, the diet shift to more plant-based foods, such as coarse grains, vegetables and pulses, seeds and also nuts. In many countries, the government also formulate some policies to protect the environment. They use huge amounts of taxpayer's money on subsidies to encourage the people to follow up the more sustainable meat and dairy production. The subsidies should be used on the sustainable farms which producing plant-based protein and the incentives for innovation on alternative proteins and technologies (Nicoletta Batini, 2019). Through the awareness of environmental protection, health problem and animal rights, many consumers have already shifted their diet habit. The food industry started to adapt by creating plant-based products which have a higher characteristic to animal protein foods such as burgers (Climate Strategies and Climate Policy Blog, 2019).

Trend of Food and Agriculture based Industry

According to the 2030 diet trend research by Barilla Center for Food & Nutrition (BCFN), and meanwhile consider the social environment then provide six representative key words. They are the trend of fewer children, aging, visibility, technology, sustainability and healthy. The four main Food and Agriculture business opportunities are Smart produce of food, decrease the waste of delivery and package, visibility of food innovation and fulfill with different need of food from consumer. In Taiwan, we have high techniques to create and enhance the quality of new food products, it is a good niche for Taiwan to follow the global trend of sustainability, healthy and green lifestyle, it also encourages more and more startups started to development their creative business (好食好事食農創新趨勢報告) .

In 2019, ITIS list 8 trends of Food industry. Following lifestyle and living attitude, the consumption preference of consumer is more focus on specific ingredients. Also, based on the innovative creativity and technology, consumer look forward to more healthy, green and animal friendly product. Meanwhile, the extension of innovative cuisines and products have been created. The report predicts that consumer prefer consuming plants, super ingredients and new ingredients. Also, the influence by the environment, body health and curiosity are the factors (陳麗婷, 2019) .

Concept of Green Food Consumption and Sustainable food Consumption

Green consumption is considered as a process which is strongly influences by consumer values, norms and habits (Peattie 2010). Green food consumption can guarantee consumer's life quality as well as green food production promoting, but Green Food consumption is not an easy task. We need government policy, consumer's environmental value and convenient channel. (Qinghua Zhu, Ying Li, Yong Geng, Yu Qi, 2013). Also, food choices, preferences and eating habits is difficult to change as their central aspect of lifestyles and socio-cultural environment. Otherwise, there is still a gap between attitudes and actual purchase actions remain to be bridged. Main cases of Environment sustainable Food Consumption includes consume more plant-based

(Lea et al., 2006) or insect-based foods (Megido et al., 2016), meanwhile decreasing meat consumption (Hoek et al., 2006) and consume more seasonal product (Macdiarmid, 2014), also, buying locally (MacGregor and Vorley, 2006) and organically produced food (Hunhner et al., 2007) can also achieve the goal of environmentally sustainable (Vermeir Iris, Weijters Bert, De Houwer Jan, Geuens Maggie, Slabbinck Hendrik, Spruyt Adriaan, Van Kerckhove Anneleen, Van Lippevelde Wendy, De Steur Hans, Verbeke Wim, 2020).

Food choices are also influenced by marketing efforts of food companies than caused changes in dietary norms, food and drink category preferences and in the cultural values supporting food behaviors (Cairus, 2019). However, food related decisions are complexity includes wide range of social, cognitive, affective and environmental influences (Buvlitz et al., 2010; Vermeir Iris et al., 2020).

What is Plant-based Meat?

Plant-based food is the product which can use more efficient way for converting natural resources into calories and nutrients for human food consumption. (Clark & Tilman, 2017; Aiking & de Boer, 2018; Lacroix, 2018; Poore & Nemecek, 2018). Also, the novel combining methods can deliver the complete culinary experience instead of consuming conventional meat. Many studies found that the environment impact (Table 2-1) would be reduce due to replacing conventional meat to plant-based meat (The Good Food institute, 2019).

From the words, Plant-based meat is the meat which made by plant. It also looks like, taste like and cook like conventional meat. Plant-based meat can be shaped and made as burger patty, sausages and nuggets etc. It becomes more popular in the market and shaking up the meat industry. With the trend of lab-grown meat comes up, consumer may come up with many questions about this innovative product for the components, materials and health problem. Actually, plant-based meat is similar as conventional meat. The differences between them is that plant-based meat is without cholesterol, but it is higher in sodium, and the special is it includes fiber. The invention of plant-based meat can help reduce people's red meat intake, and also promote a sustainable, environmentally friendly and animal welfare issues. (What is Plant-based Meat? <https://www.greenmatters.com/p/plant-based-meats>)

“Environmental & Healthy value” Presentation of Plant-based Meat

Global protein demand is increasing and the concept of health and sustainability related push the development of plant-based protein products and consumer trend of plant-based diets. (Aschemann-Witzel J, Gantriis RF, Fraga P, Perez-Cueto FJA, 2020)

- **Use Less Land**

“Plant-based Meat uses 47%-99% Less than the Conventional Meat.”

Totally, animal agriculture account 77% of all Agriculture land but only 17% for humanity's food supply. The

inefficiency drives the needs for agriculture yield expansion also cause ecosystem damage on land and ocean. Fortunately, utilize the farm land to grow the crops instead of raising animal will allow American farmer to feed more than twice of many people.

- **Emits Less Greenhouse Gas**

“Plant-based Meat emits 30%-90% less greenhouse gas.”

The report points out that the emissions exhausted by animal agriculture is more than entire transportation sector. There are three major sources cause the animal agriculture’s emissions. The first one is conversion of forests and prairies to pasture and cropland, the second is the production of animal feed, and the last one is animal digestion and waste decomposition. The main ingredients for making plant-based meats exhaust very low greenhouse gas, and only account 13%-26% for additional processing (The Good Food institute, 2019).

- **Uses Less Water**

Animal agriculture consume a third of water used of agriculture in Global. The “99.8% is used to cultivate the feed crops, the draining aquifers can be used for drinking water or wasting rainwater could be used to grow food for humans.” Water use for plant-based meat production cut down the water requirement in production of conventional meat (The Good Food institute, 2019).

- **Cause Less 51%-91% Less Nutrient Pollution**

“Plant-based meat causes 51%-91% less aquatic nutrient pollution than conventional meat.” Animal agriculture threat the global water quality by causing eutrophication. “Eutrophication occurs when nitrogen and phosphorus run off into waterways, stimulating growth of algal blooms that suffocate aquatic life.” Animal agriculture is harmful to the environment due to the fertilizer used for feeding crops and animal produce (The Good Food institute, 2019).

- **Plant-Based Meat Without Antibiotics**

Over 70% of medical related antibiotics be used in animal agriculture. In order to increase the speed of growing and disease preventing. Also, Plant-based meat can reduce the risk of antifungal resistance, because plant-based meat require less crop production than conventional meat.

Sustainable Food Supply

Plant-based meat has a huge potential to help build a sustainable food supply, but there is still a long way to go. Since 2013, “truly meat-like products have been widely available to consumers” (The Good Food institute, 2019).

Plant-based Meat Leading Plant-based lifestyle

“Flexitarian is the default lifestyle for much of the world, whereby meals based on plant materials provide the bulk of people’s calories.” Meat consumption is expected to surpass 376 million metric tons(MMT) by 2030, increasing adoption of plant-based diet can help re-evaluate the presents of animal welfare, nutrient value, distribution channels and food safety. And the trend is that more and more countries adopt Westernized eating. Although meat consumption has already accompanied human’s survival for years, but in the modern diets, the significance and privilege is being challenged by the increasing of flexitarians (Hicks Talia M., Knowles Scott O., Farouk Mustafa M., 2018).

The Implications in Diet Choices

Dietary patterns is not only present what people eat also the complicated social behavior, many factors need to be considered when encourage diet behavioral change to healthier diets (Food and Agriculture Organization of the United Nations Rome, 2017). Food selection of people may influenced by some factors, and it can be divided into three groups (Table 1-1):

Table 1-1 Implications in diet choices

Source: Hicks Talia M., Knowles Scott O., Farouk Mustafa M., 2018

Product-related	Physicochemical properties, nutrient contents, sensory attributes, and functionality (convenience, availability, packaging and durability)
Consumer-related	Demographic factors, metabolism (hunger and thirst), psychological dynamics (motives, attitudes and personality).
Environmental	Economic, social (Social group, family patterns, habits), cultural (traditions and religions), and context (place, time and company associated with eating)

For flexitarians, the factors of environmental and social considerations are more important than other factors to reduces the meat choice (Hicks Talia M., Knowles Scott O., Farouk Mustafa M., 2018).

Plant-based Meat Market around the World

In US, the market-sized of Plant-based Meat was valued at USD 3.3 billion in 2019, and the compound annual growth rate (CAGR) growth with 19.4% from 2020-2027. The growing of consumer interest in plant-based diet raising their awareness for animal rights then start to following plant-based lifestyle without animal based foods. Otherwise, the consumer demand for vegetarian food products that are with fiber, Vitamin C, low fat and calories, so the manufacturers following the consumer needs to boost the market growth (GRAND VIEW RESEARCH, 2020). Also, we can see that the sales of plant-based meat increasing almost 20% in the past two years (Figure 2-5).

Dollar sales of plant-based meat grew 18% in the past year and 38% over the past two years.

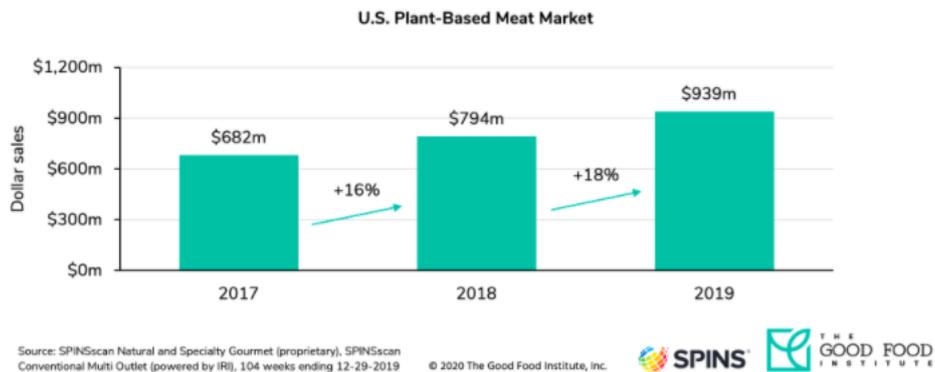


Figure 6. Plant-based meat dollar sales. SPINSscan Natural and Specialty Gourmet (proprietary), SPINSscan Conventional Multi Outlet (powered by IRI), 104 weeks ending 2019-Dec-29.

Figure 1-1 U.S Plant-based Meat Market

Resource: The Good Food Institute, 2019

Plant-based Meat Market in China and Taiwan

Taiwan is the most vegan friendly country in Asia, also it's seeing a potential huge in plant-based Meat market. The population of vegetarian rising from an estimated 2.5 million to 3.3 million in 2019 (Taiwan Today, 2020). To follow this growing popularity, some big companies started to capitalize on this potential plant-based meat market. Some retail chains such as Starbucks, Family Mart and Carrefour are still only selling just some of the \$2.09 billion per year in Taiwan. And the main consumers of the plant-based meat are the people who ages in 20s or 30s, and is a tech-savvy group willing to try new products (The Vegan Review, 2020).

Also, the global animal welfare organizations such as PETA (People for the Ethical Treatment for Animals) started to encourage people to have meat-free diet. In Asia Pacific plant-based meat market is predicted to be dominated by China.

Research Motivation

The new group of "flexitarian" is growing rapidly. Flexitarian means the people who eat less meat in their daily. The changes of awareness leading the trend of plant-based meat in Europe and worldwide. Also, the western diet style (Hicks Talia M., Knowles Scott O., Farouk Mustafa M., 2018) influence globally and approach similarly due to the frequency of trade and interaction (李宜映, 鄒簾生, 2010).

In Taiwan, the main group of plant-based meat consumption is 20s to 30s in age, and they are a tech-savvy group of people. Similarly, millennials, the people who ages between 23-38 is the most sustainable than other generation (Euromonitor International, 2016; Nielsen, 2015). They find products which are ethical, repairable

and long lasting (Euromonitor International, 2016). Otherwise, they have consciously consumption when they make the buying decision. Besides, Nielsen finds that the group of millennials are the generation who willing to pay extra for green products, especially which is with same value (Gazzola et al., 2017). and positive socio-environmental offering (The Nielsen Company, 2015; Bedard, SAN, Tolmie, CR, 2018).

From the perspectives of market and consumption, plant-based foods are already catch people's eyes in many industrialized western societies. Additionally, one evidence shows many consumers are not willing to change their eating habits (Graça et al., 2015; Hartmann & Siegrist, 2017; Lentz et al., 2018). So, one of the challenges in the market and consumption is to think about how to promote plant-based food to attract more consumers. However, in each different country, based on the society, economic, culture and geography factors, the eating habits, dining culture may influence the food consumption of people (Zhihong Wang, Fengying Zhai, Shufa Du and Barry Popkin, 2008).

Consumption is a core feature of contemporary societies, it brings forth public, media interest, political concern based on its role of "economic engine", also impact on the environment and represent social position and unveil some features across individuals and Groups. Besides, "Consumption is considered a fundamental social activity of everyday life, and consumers can have plural faces embedded in disparate socio-cultural orientations" (Gabriel & Lang, 2015; Warde, 2017). To know more how consumption orientations related to plant-based relevant variables is needed to help to make targeted strategies, products, campaigns and materials.

In order to Shape and sustain the plant-based diet in our life, the private/public organizations need to develop the strategies of this new eating habits and new lifestyle in positive or attractive way to target diverse audiences and consumers. (João Graça, Monica Truninger, Luis Junqueira, 2019)

Although regularly discussed and described in practice-based of plant-based meat, but there is no academic research which is focusing on the plant-based meat consumption and market in the region of Taiwan. So, in this research, the researcher wants to explore broadly to understand the plant-based meat consumption for millennials and the market in Taiwan.

For global food industry, there have 8 trends in 2019. One of the important trends is the "substitutes". It emphasizes the substitutes of ingredients, components and products. Also, it is the operation of new ingredients, new components, new choices, new tastes and new technologies. The famous substitute products includes plant-based meats, plant-based milk etc. Those new idea and innovation also give the new meaning to the technology (陳麗婷, 2019). The industry experts identify that technology and collaborations will lead the development of more functional foods (FOOD DIVE, 2020).

Research Objectives and Questions

Following the trend of plant-based meat market grows globally, this research aims to understand more about the global food and agriculture revolution, and the plant-based meat trend in Taiwan and also the consumer behaviour of plant-based meat. In the final, this research will provide the promotion guideline for the related industry. In order to correspondent the research topic and motivations, here come up with three objectives as follows.

Objectives

Objective 1: To explore the trend of plant-based meat in Taiwan.

Objective 2: To explore the consumer behavior of plant-based meat in Taiwan.

Objective 3: To identify the promotion guideline for promoting plant-based meat in Taiwan.

In order to correspondent the three objectives, the three questions come up as follows.

Questions

Question 1: What is the trend of plant-based meat in Taiwan?

Question 2: What are the consumer behavior of plant-based meat in Taiwan?

Question 3: What are the promotion guideline for promoting plant-based meat in Taiwan?

Method

Research Design

This research aims to understand deeply about revolution of food and agriculture globally and the plant-based meat market situation in Taiwan and to explore the consumer perception of plant-based meat and then provide the promoting suggestions for related industries and companies. In this research, in order to correspondent with three main questions, the use of method would be (1) Document Analysis, (2) Questionnaire Survey, (3) In-depth interview. Firstly, the research conduct questionnaire survey to have the initial understanding about plant-based meat consumers' experience, background knowledge, identity and influenced factors from the framework of green consumption. Secondly, the research will conduct in-depth interviews with Taiwan local plant-based meat brands to receive the ideas of global trend, brand management and promotion direction from their perspectives. Below is the three questions of this research. Finally, the researcher will combine the data to develop the future promotion guideline of plant-based meat in Taiwan.

Question 1: What is the trend of plant-based meat in Taiwan?

Question 2: What are the consumer behavior of plant-based meat in Taiwan?

Question 3: What are the promotion guideline for promoting plant-based meat in Taiwan?

Survey Participants

Data collection of online questionnaire survey was conducted in April 2021 in Taiwan by the researcher. The participants for questionnaire survey in this research are the consumers who had plant-based meat consuming experiences before. The participants is come from vegan, vegetarian flexitarian and Omnivore. The data analysis will analyse 107 participants' responses. Data collection of in-depth interview was conducted in May 2021 in Taiwan by the researcher. The participant is from the manager of VVeat(HoYa), the goal is to understand the global plant-based meat trend, brand management and promotion strategies of plant-based meat in Taiwan.

Results

Trend of Plant-based Meat in Taiwan

After data collection and analyzation, the researcher finds that the plant-based trend not only happened in European and United States. In Taiwan, the vegan population is reach to 14%, and more and more local food companies catch this opportunity on this plant-based trend. They have advantages on the technology research and development on the plant-based meat product, and the creative ability is important, so they create many types of meat substitutes, for instance, plant-based burger and plant-based seafood. Also, in Taiwan, people can see and buy the plant-based meat products in the convenient store, supermarket, hyper-supermarket, warehouse and coffee shop, even vegan restaurant.

Consumer Behavior of Plant-based Meat

From the results of the questionnaire, they are more than half of the plant-based meat participants are the young generation between who is aged in 19~30 and they are senior intellectuals. 70% of the consumers usually eat plant-based meat from the finished cook meal, only 24.2% of the consumer is cooked plant-based meat by themselves. However, plant-based meat is not an affordable product, but approximately 50% plant-based meat consumers are have no income or lower than 20,000(included) per month. So, from the frequency, we can see 45.7% of the consumers are irregular consumption consumer and 38.3% of the consumers only have once experience on it. Also, there are 57.9% of the consumer shows they are willing to buy plant-based meat continuing but still have 35.5% of the consumer thinks they are still in the observing stage. For the plant-based meat product, the price (81.3%), food additive (42.9%) and channels (37.3%) are the difficulties on consuming plant-based meat. For the promotion channel, the top four channels are Facebook (57.9%), YouTube(47.6%), Line vegan group(38.3%) and Instagram(36.4%).

Suggestions of Plant-based Meat Promotion from the Perspective of Taiwan local Brand's

1. *Change the concept and identity of eating vegan food*

In the past, most of the vegetarian eat vegan food and don't eat meat is because the religion. Even, when people

want to show their diet habit of vegan or vegetarian, other people will have the bias on them, because they are the people of a niche market. But in nowadays and even in the future, the brand wants to change the consumer identity by the product. Plant-based meat is not only the food for vegan or vegetarian, the product is for everyone who care about our environment and the animal also trying to eat less meat.

2. *Following the consumer's needs to find the channel and improve the product again and again*

In the society nowadays, people living with the busy life, they don't have much time to cook by themselves. So they eat outside and buy ready-to-eat meal. The brand not only sell their original brands' plant-based meat, also cooperate with other food brand to create more convenient product and meal. About the product, it still have many things need to overcome. It's important to create the flavor which can fulfill with Taiwanese taste.

3. *To let plant-based meat become more affordable and popularization*

Plant-based meat is still not an affordable product to the consumers. Due to many reasons, it is still a new product to people. Many consumers still don't have deeply understanding on plant-based meat. Maybe they are confusing and don't know the position about this product. From the Taiwan local brand's perspective, they hope they can promote this kind of product to each of the people, not limited with specific target audience. To let people can have another choice for their food.

Discussion

The result demonstrates some important point to the consumer eating habits and their perception on plant-based meat. Firstly, most of the plant-based meat consumers are in younger generation, they prefer new, fresh and sorts of product, also they usually eating outside. Secondly, they are price-conscious consumer and care about the convenience for buying product. Thirdly, they are social media active people. They are easily influenced by the information shows on social platform, such as Facebook, Instagram and YouTube. In corresponding to the response from plant-based meat brand VVeat. They test the product for hundred times, whatever the flavor and texture and trying to promote the product with affordable price to the convenient store to match the consumer needs. Otherwise, they want to change the impression of vegan food to all the people by this plant-based meat product.

From the research, there are still have a large space for brands and channels to find out real customer needs and to fulfill their needs. In Taiwan, this market is still new, there are many people are keep observing of this product and market. Maybe it still need a long time to promote this kind of new perception and product to the consumers in a reliable and appropriate way. Changing one's eating behavior is not easy, so the promoting units need to use more effective and patience on the consumer. The survey is only focus on the research in Taiwan with a small group of people, maybe in the future, the research can focus on other groups in other countries.

Conclusion

In Taiwan, this product is still in the development stage, it still have many places need to try and to modify. Following the trend of vegan in Taiwan, this plant-based meat market have the potential opportunity to develop in Taiwan. Plant-based meat product is not a product belongs to any type of food, it just a new choice for all the people. In the future, the promotion guide for plant-based meat can more focus on the flavor, price and channels to fulfill with customer needs. For the information promoting, the brands can strongly use the social media to spread this kind of plant-based idea and invite some people who have influence on someone to sponsored for this product. In this research, we couldn't conclude large group of consumers, but we can use a small survey to connect the consumer side and brand side and then match the ideas then develop the promotion guidelines.

Recommendations

Following the results from this research, here is come up with some future research directions. In this research, the focus in on the consumer behavior and promotion guideline. But maybe in the future, the researcher from other fields can do other type of research, such as food development and technical development.

Acknowledgements

The research wants to thank for the support from the questionnaire survey participants and the manager from the plant-based meat brand, if without their ideas and thoughts, this research couldn't be finished.

References

- Angie Clonan, Michelle Holdsworth (September 2012), The challenges of eating a healthy and sustainable diet, *The American Journal of Clinical Nutrition*, Volume 96, Issue 3, September 2012, Pages 459–460
- Aschemann-Witzel J, Gantriis RF, Fraga P, Perez-Cueto FJA. (2020) Plant-based food and protein trend from a business perspective: markets, consumers, and the challenges and opportunities in the future. *Crit Rev Food Sci Nutr*. 2020 Jul 13:1-10. Epub ahead of print. PMID: 32654499.
- Australian Government, Department of Agriculture, Water and the Environment ABARES. (2020). Meat Consumption <https://www.agriculture.gov.au/abares/research-topics/agricultural-outlook/meat-consumption>
- Aytekin FIRAT & Kemal Y. KUTUCUOGLU & Isil ARIKAN SALTIK & Ozgur TUNCEL. (2013). "Consumption, Consumer Culture And Consumer Society," *Journal of Community Positive Practices, Catalactica NGO*, issue 1, pages 182-203.
- Bedard, SAN, Tolmie, CR. Millennials' green consumption behaviour: exploring the role of social media. *Corp Soc Resp Env Ma*. 2018; 25: 1388– 1396.
- Bizcommunity. (2018). Eat green 2018: Sustainable consumption, plant-based foods the order of the day,

<https://www.bizcommunity.com/Article/196/358/172441.html>

- Chen TB, Chai LT. (2010). Attitude towards the environment and green products: consumers' perspective. *Management Science and Engineering*, 24:27-39.
- Dangelico, R.M., Pujari, D. Mainstreaming Green Product Innovation: Why and How Companies Integrate Environmental Sustainability. *J Bus Ethics* 95, 471–486 (2010).
- DOIT經濟部技術處. (2013). 產業技術白皮書
- Elain Watson. (2020). Beyond Meat to go on the offensive in wake of attacks on 'ultra-processed' plant-based meat: 'We're proud of our ingredients and process'. <https://www.foodnavigator-usa.com/Article/2020/02/28/Beyond-Meat-to-go-on-the-offensive-in-wake-of-attacks-on-ultra-processed-plant-based-meat-We-re-proud-of-our-ingredients-and-process>The Vegan review, Taiwan's plant-based meat market is on the rise, 2020, <https://theveganreview.com/taiwans-plant-based-meat-market-is-on-the-rise/>
- Emiko Terazono. (2019). Plant-based meat craze drives demand for yellow peas. <https://www.ft.com/content/8802db8a-9813-11e9-8cfb-30c211dcd229>
- Euromonitor International. (2016). "Global changemakers: real market impact of empowered consumers" (accessed 26 August 2017).
- Felicity Curtain and Sara Grafenauer, Plant-Based Meat Substitutes in the Flexitarian Age: An Audit of Products on Supermarket Shelves, *Nutrients*, 11(11), 2603, 2019
- Food and Agriculture Organization of the United Nations Rome. (2017).
- Gazzola, P., Colombo, G., Pezzetti, R. and Nicolescu, L. (2017), "Consumer empowerment in the digital economy: availing sustainable purchasing decisions", *Sustainability*, Vol. 9 No. 5, p. 693.
- Grand View Research. (2020). Plant-based Meat Market Size, Share & Trends Analysis Report By Source (Soy, Pea), By Product (Burgers, Sausages), By Type (Chicken, Fish), By End-user (Retail, HORECA), By Storage, By Region, And Segment Forecasts, 2020 – 2027, 2020, <https://www.grandviewresearch.com/industry-analysis/plant-based-meat-market>
- Happer, C., Wellesley, L. (2019). Meat consumption, behaviour and the media environment: a focus group analysis across four countries. *Food Sec.* 11, 123–139 (2019).
- Hicks Talia M., Knowles Scott O., Farouk Mustafa M., Global Provisioning of Red Meat for Flexitarian Diets , *JOURNAL=Frontiers in Nutrition*, 5, 2018, page 50
- Iman Naderi, Eric Van Steenburg, (2018) "Me first, then the environment: young Millennials as green consumers", *Young Consumers*
- Jang YJ, Kim WG, Bonn, MA. (2011). Generation Y consumers' selection attributes and behavioral intentions concerning green restaurants. *International Journal of Hospitality Management*, 30:803-811.
- Jatin Srivastava & Jennifer J. Moreland (2012) Diffusion of Innovations: Communication Evolution and Influences, *The Communication Review*, 15:4, 294-312
- Jes 14320-14325, ISBN 9780080430768, <https://doi.org/10.1016/B0-08-043076-7/01805-2>.
- João Graça, Monica Truninger, Luís Junqueira, Luisa Schmidt,. (2019) Consumption orientations may support (or hinder) transitions to more plant-based diets, *Appetite*, Volume 140, 2019, Pages 19-26

- K. Izuma., (2017). Chapter 16 - The Neural Bases of Social Influence on Valuation and Behavior, Editor(s): Jean-Claude Dreher, Léon Tremblay, Decision Neuroscience, Academic Press, 2017, Pages 199-209, ISBN 9780128053089, <https://doi.org/10.1016/B978-0-12-805308-9.00016-6>.)
- Kanchanapibul M, Lacka E, Wang X, Chan HK. (2014). An empirical investigation of green purchase behaviour among the young generation. *Journal of Cleaner Production*, 66:528- 536.
- Kelly Her. (2020). Taiwan food service industry embraces vegetarianism, <https://taiwantoday.tw/news.php?unit=3,7,11,16,19&post=180584>
- Lee K. (2008). Opportunities for green marketing: Young consumers. *Marketing Intelligence & Planning*, 26:573-586
- Lillianna Byington, Megan Poiniski, Christopher. (2020). 6 trends that will shape the food and beverage industry in 2020, <https://www.fooddive.com/news/6-trends-that-will-shape-the-food-and-beverage-industry-in-2020/569791/>
- Mainieri T, Barnett EG, Valdero TR, Unipan JB, Oskamp S. (1997). Green buying: The influence of environmental concern on consumer behavior. *Journal of Social Psychology*, 137:189- 204.
- Marian Swain, Linus Blomqvist, James McNamara, William J. Ripple, Reducing the environmental impact of global diets, *Science of The Total Environment*, Volumes 610–611, 2018, Pages 1207-1209
- Meisch, Simon. (2013). Green food consumption: Whose responsibility?. 10.3920/978-90-8686-784-4_25.
- Monica Watrous. (2019). Trend of the year: Plant-based foods, <https://www.foodbusinessnews.net/articles/15105-trend-of-the-year-plant-based-foods>
- Muralidharan S, Xue F. (2016). Personal networks as a precursor to a green future: A study of “green” consumer socialization among young millennials from India and China. *Young Consumers*, 17:226-242
- Naderi, I. and Van Steenburg, E. (2018). "Me first, then the environment: young Millennials as green consumers", *Young Consumers*, Vol. 19 No. 3, pp. 280-295.
- Newman GE, Gorlin M, Dhar R. (2014). When going green backfires: How firm intentions shape the evaluation of socially beneficial product enhancements. *Journal of Consumer Research*, 41: 823-839
- Nicoletta Batini. (2019). Smart changes to how we farm and eat can have a huge impact on
- Nielsen. (2015). “The sustainability imperative: new insights on consumer expectations” (accessed 26 August 2017).
- Ottman JA, Stafford ER, Hartman CL. (2006). Avoiding green marketing myopia: Ways to improve consumer appeal for environmentally preferable products. *Environment*, 48, 22-36
- Peattie K. (2010). Green consumption: Behavior and norms. *Annual Review of Environment and Resources*, 35:195-228
- Philip G. Pardey, Jason M. Beddow, Terrance M. Hurley, Timothy K.M. Beatty, Vernon R. Eidman(2014), A Bounds Analysis of World Food Futures: Global Agriculture Through to 2050†, Volume 58, Issue4, Special Issue: Global Food Security, Pages 571-589
- Qinghua Zhu, Ying Li, Yong Geng, Yu Qi., (2013). Green food consumption intention, behaviors and influencing factors among Chinese consumers, *Food Quality and Preference*, Volume 28, Issue 1, 2013, Pages 279-286, ISSN 0950-3293
- Stephanie Osmanski. (2019). What is Plant-based Meat? <https://www.greenmatters.com/p/plant-based-meats>

- The Good Food Institute. (2020). Plant-Based Meat Market OverviewThe good Food Institute (<https://www.gfi.org/marketresearch>)
- The Vegan Review. (2020). Taiwan's plant-base meat market is on the rise, <https://theveganreview.com/taiwans-plant-based-meat-market-is-on-the-rise/>
- Vermeir Iris, Weijters Bert, De Houwer Jan, Geuens Maggie, Slabbinck Hendrik, Spruyt Adriaan, Van Kerckhove Anneleen, Van Lippevelde Wendy, De Steur Hans, Verbeke Wim ,(2020) Environmentally Sustainable Food Consumption: A Review and Research Agenda From a Goal-Directed Perspective, *Frontiers in Psychology*, 11, 2020, 1603, 1664-1078
- Wang Z, Zhai F, Du S, Popkin B. Dynamic shifts in Chinese eating behaviors. *Asia Pac J Clin Nutr*. 2008.
- Wang, J., Nguyen, N., & Bu, X. (2020). Exploring the Roles of Green Food Consumption and Social Trust in the Relationship between Perceived Consumer Effectiveness and Psychological Wellbeing. *International journal of environmental research and public health*, 17(13), 4676.
- Welbloom. (2019). 專新智誌 Vol13 逢興生技為素食及漢方萃營養-上篇<https://www.welbloom.com.tw/reportandnewinvol13/>
- Wild, Florian & Czerny, Michael & Janssen, Anke & Kole, Adriaan & Zunabovic, Marija & Domig, Konrad. (2014). The evolution of a plant-based alternative to meat: From niche markets to widely accepted meat alternatives. *Agro Food Industry Hi-Tech*. 25. 45-49.
- 大全一貫 (2019). 「食」、「農」斷裂沒關係？錯！兩大產業其實緊緊相依！, 食力
- 好食好事. (2020). 創新個案分析-蛋白攝取途徑大革命<https://www.hao-shi.org/casestudy/case/beyond-meat>
- 李宜映, 鄒簾生 (2010). 台灣經濟研究院生物科技產業研究中心-台灣農業科技發展新契機-2025農業科技前瞻
- 陳麗婷 (2019). 全球食品產業趨勢-ITIS觀點, 產業評析
- 黃勢璋, 陳政弘 (2019). 從全球素食經濟浪潮看我國素食產業發展-中華經濟研究院

Decentralisation in Albania: Achievements, Challenges, and Perspectives

Merita Toska

POLIS University, Albania,  <https://orcid.org/0000-0003-3797-1057>

Aida Ciro

POLIS University, Albania,  <https://orcid.org/0000-0002-0935-1048>

Ogerta Gjikhuri

POLIS University, Albania,  <https://orcid.org/0000-0001-5824-3847>

Abstract: Decentralisation of local governance is a relatively new process in Albania, progressing at a different pace in its political, administrative, and fiscal/financial dimensions. The year 2015 marks a turning point for decentralisation in Albania. The Government of Albania implemented several changes aiming at deepening decentralisation in Albania, improving the efficiency and effectiveness of local public service provision in all 61 municipalities in the country. Since then, municipalities have become responsible for a series of services with a broad impact on citizens' quality of life. In the process, GoA introduced a transparent and predictable framework for the unconditional transfer. While the size of total available financial resources spent by municipalities has widened from 1.8% in 2015 to 3.1% of nominal GDP in 2019, municipalities in Albania lack financial autonomy or are highly dependent on intergovernmental transfers (Toska & Bejko, 2018; Co-PLAN, 2020; Toska & Shutina, 2020). This study aims at providing a critical view on decentralisation reform in Albania, outlining the achievements, challenges, and perspectives following the COVID-19 pandemic. Our findings suggest that the decentralising reforms and the decentralisation model implemented failed to produce the intended results, especially in municipalities' fiscal/financial autonomy.

Keywords: Decentralisation, Public Finance, Fiscal Autonomy, COVID-19

Introduction

Decentralisation – political, administrative, fiscal and market, is a trending topic worldwide, assuming different characteristics, implications and factors defining its success. There is no unique definition of decentralisation. Nevertheless, in general, the concept includes the shift of power and/or responsibilities from higher levels of governance towards lower levels of governance, i.e. from central to local government (Chapman, 1999; Shah, 2006; Slack, 2009; Ebohon, Osemwota, & Agbebaku, 2011; Scutariu & Scutariu, 2015; OECD/UCLG, 2019).

The European Charter of Local Self-Government (1985), among others, stresses the need for an adequate relationship between freely disposable financial resources and tasks carried out, proportional to the responsibilities local authorities carry out. The economic rationale pro decentralisation is related to the increased allocative efficiency. Subnational governments are closer to local constituencies and better understand the needs and demand for services vis-à-vis central authorities (Oates, 1972). Also, alignment of services to preferences and priorities of citizens triggers competitiveness among subnational governments and innovation, and willingness to pay for services is higher in the case they are involved in decision-making for these services (Ahmad et al., 2001). The decentralisation process in Albania is relatively recent and progressed discontinuously. Over the years, we identify two critical moments: first over 2000-2001 and second over 2015-2017. The symmetrical decentralisation model implemented has been primarily driven by the potential economic gains obtained through the strengthened role of local governments (Toska and Bejko, 2018; Co-PLAN, 2019). For municipalities to succeed and harvest the benefits of decentralisation, autonomy in raising and spending financial resources is crucial. That makes fiscal decentralisation an essential ingredient for a successful and functionally decentralised local governance. Decentralising at a glance and municipal finance's structure set the background to highlight the achievements, challenges and perspectives for municipalities in Albania, especially amidst the COVID-19 pandemic.

The Decentralisation at a Glance

Decentralisation in Albania has been discontinued in time in its political, market, administrative and fiscal dimensions. These dimensions are interconnected and ideally should progress simultaneously to harvest the benefits of decentralisation and avoid situations of "unfunded mandates" – cases in which municipalities are devolved responsibilities without adequate financial resources. The first steps towards decentralisation started with the ratification of the European Charter of Local Self-Government by the Albanian Parliament (Law no. 8548/1999 "On the ratification of the European Charter of Local Self-Government"), whose principles were enshrined in the Constitution of the Republic of Albania (Law no. 8417/1998 "Constitution of the Republic of Albania", amended). To follow, the adoption of the National Strategy for Decentralization (1999), the law no. 8652/2000 "On the organisation and functioning of local government" and law no. 8653/2000 "On the administrative-territorial division of local government units in the Republic of Albania". The national strategy and law on the organisation and functioning of local government in Albania, reinforced the constitutionally established local autonomy principle, adding the subsidiarity and collaboration principles regarding relations between LGUs and LGUs and central government.

Regarding fiscal decentralisation, the regulatory framework included the unconditional transfer concept and higher autonomy on collecting local taxes and fees for the first time. Over the years, the central government transferred more competencies and responsibilities to local government units (LGUs) such as water supply and sewerage, primary healthcare, pre-university education, social centres etc. (Brahimi, Stafa, & Frroku, 2016). High fragmentation of the territory and lack of efficiency in services delivery, lack of human resources and weak financial capacities, political disagreement and incomplete legal framework, hindered the progress of

decentralising reforms in Albania.

In 2014, amidst a heated political debate, the Albanian Parliament approved the Territorial and Administrative Reform (TAR), which amalgamated 373 local government units (municipalities and communes) into 61 municipalities (merging in average six LGUs into one larger municipality). Cost efficiency, better access and higher quality of local public services, and development of a democratic local government were among the fundamentals of the new reforms, which marked a second momentum for decentralisation in Albania. Following the implementation of TAR, local governance is organised at two levels: 61 municipalities, the first-tier local government and 12 qarks, the second-tier local government. The territorial reorganisation paved the way for other decentralisation actions, which materialised in the approval of (i) National Crosscutting Strategy for Decentralization and Local Governance 2015-2020; (ii) approval of law no. 139/2015 "On Local Self-Governance"; (iii) approval of the first law no. 68/2017 "On local self-government finances" and other amendments to the regulatory framework. The new law no. 139/2015 "On local self-government" entirely replaced the existing law on the organisation and functioning of local governance and provided for the devolution of new functions to municipalities. These new functions included administering local roads, irrigation and drainage canals, pre-university education, social services and other services.

All functions directly impacted the citizens' quality of life. The financial means to be used for local public services provision were defined in law no. 68/2017 "On local self-government finances", both those from own source revenues (taxes, fees, and charges) and intergovernmental transfers (unconditional and conditional, shared taxes). Municipalities funded the newly devolved functions through specific transfers, defined based on the level of expenditures incurred by the devolving institutions. After the transition phase from central to local government, the specific transfer became part of the unconditional transfer (which has a general part distributed by formula and sectoral for the new functions). Another novelty introduced with the local finances new law was stabilising the size and predictability of the unconditional transfer of 1% of nominal GDP and not lower than its level in the previous year. Since 2017, a new formula was approved to distribute the unconditional transfer among 61 municipalities in Albania. The TAR and other decentralisation reforms converge on strengthening local government by creating the conditions for increasing local capacities in delivering quality services and increasing efficiency in managing available resources. *"Strengthening local governance and deepening decentralisation is potentially expected to strengthen financial and functional positions, increase local fiscal autonomy, increase institutional efficiency, enhance good governance and enforcement of citizens' rights, and contribute to the country's economic growth and development (CSDLG 2015-2020)."*

The System of Municipal Finances

The fiscal dimension of decentralising is key for a successful decentralised local governance. That means that municipalities must have an adequate and diversified pool of financial resources to perform their mandated competencies and functions and thus be accountable for them. The system of municipal finances is regulated by law no. 68/2017 "On the local self-government finance" defining the rules, principles, and sources of finance for

local government units in Albania. Law no. 68/2017 "On the local self-government finance" co-exist with Law no. 9632/2006 ", On local taxes system" which has been subject to more than 21 amendments and not fully aligned among each other and other bylaws. The current system of municipal finances builds on three main streams of revenues:

- i. own source revenues, including revenues, from local taxes, user fees, donations and borrowing;
- ii. intergovernmental transfers, including unconditional transfers composed of a general part distributed by approved formula and a sectoral part aimed at financing the new competencies devolved in 2016; conditional transfers which are provided for the exercise of delegated functions and for special projects (considered to be of local, regional or national interest) requiring the cooperation of local government authorities);
- iii. shared taxes include 97% of the property ownership transfer tax imposed on individuals, physical and juridical persons; 25% of the revenue from the annual used vehicle circulation tax; 5% of the revenue from mining royalties; and 2% of the revenue from the personal income tax.

Municipalities use in full autonomy own-source revenues, unconditional transfers and shared taxes. Nevertheless, the law on local finances conditions the use of revenues from the infrastructure impact tax on new construction "primarily" for investments and revenues from the shared tax on mineral rent also has to be used for investments (based on local taxes). In a recent study, Co-PLAN (2021) suggests that municipalities in Albania have low taxing power. Tax base and rates are defined centrally, and municipalities have some authority to introduce tax reliefs. Tax autonomy is a complex issue. Based on OECD/UCLG (2019, p. 70) that there is not a net cut between sources of revenues, but rather "a continuum with fuzzy delimitations ranging from very little autonomy (earmarked grants) to high autonomy (own-source taxes for which subnational governments have the power to set rates and bases)". Between these two extremes, different combinations and arrangements can take place, as shown in Figure 1.

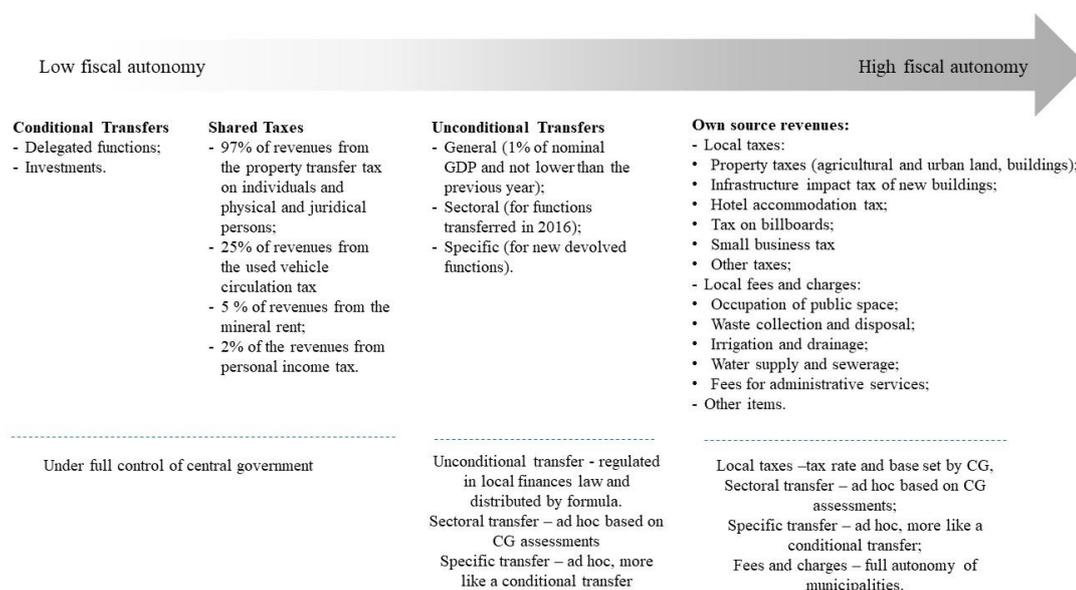


Figure 1. Municipal Finances and Autonomy. Source: Adapted from OECD/UCLG (2020)

Sources of Revenues in Local Budget

Municipal own source revenues present high volatility in growth rates over the period 2010 – 2020. Following an increase of 28.5% in 2016, the annual growth rate moderated progressively to about 5.5% in 2019 and became negative during 2020. On average, own-source revenues represented approximately 28.2% of total revenues during 2016-2020, up by 2.6 percentage points compared to the average registered over 2010 – 2015. In 2019, own-source revenues accounted for about 31.4% of total revenues, the highest share recorded over the considered period. Due to consecutive natural disasters (the end of 2019 devastating earthquakes) and the COVID-19 pandemic in early 2020, own-source revenues contracted by 5.3% annually, representing about 26.6% of total revenues available to municipalities). On average, for 100 ALL available in the municipal budget, 28.2 ALL come from their own sources, and 71.8 ALL from intergovernmental transfers. The low share of own-source revenues in the revenues structure suggest a low financial autonomy of municipalities. In other words, municipalities are highly dependent on the money that the central government transfers in conditional and unconditional transfers.

Analysis at the municipal level suggests that while increasing in nominal terms, own-source revenues are mainly reliant on revenues from the infrastructure impact tax and, to a lesser extent, the property tax. More than 80% of revenues from these taxes are collected in the municipality of Tiranë, which accounts for the largest share in population and number of active enterprises in the country. Despite several interventions in the regulatory framework, which increased tax rates and base (with law no. 106/2017 "On some amendments and additions to Law no. 9632, dated 30.10.2006, 'On the local tax system', as amended"), tightening fiscal policies applied by municipalities (increase in the tax rate of the infrastructure impact tax, the billboard tax, hotel accommodation tax, and higher user fees applied by municipalities), own-source revenues did not mark any particular advancement in municipalities financial structure. Also, own-source revenues revealed high sensibility to internal/external shocks (end of 2019 earthquakes and COVID-19 pandemic) as suggested in Toto, Toska, Shutina, Farrici, & Limaj (2020).

Intergovernmental transfers are essential in the municipal budget, aiming to smooth vertical and horizontal fiscal imbalances among municipalities. Historically, intergovernmental transfers have dominated the structure of municipal finances in Albania. Over 2010-2015, intergovernmental transfers represented an average of 74.4% of total revenues and during 2016-2020 represented about 71.8% of total revenues. In 2020, transfers from the central government accounted for about 73.4% of total revenues, down by 1.4 percentage points compared to 2015. *Conditional transfers* still play a significant role in the local budget despite their average share to total financial resources of municipalities shrank by approximately ten percentage points in the last five years. In 2020, conditional transfers increased and represented about 42.8% of total resources (up by 6.5 percentage points compared to the same indicator the previous year due to support measures for vulnerable categories introduced by GOA during the COVID-19 pandemics as showed in Toska, Nikolov, Andonova, & Trajkov, 2020). *Unconditional transfers* weight in the municipal budget increased from an average share of 21.3% during 2010-2015 to about 29% in 2016-2020 as a result of (i) the devolution of new functions in 2016; (ii) the

stabilisation of the size of the unconditional grant (iii) approval of the formula for the distribution of the unconditional transfer (the general part). Revenues from *shared taxes* still play a marginal role in local budgets accounting, on average for about 1.9% of total revenues during the 2015-2020 period. To note that revenues from TAP have not been shared till 2020.

Table 1. Structure of Municipal Revenues

Source: www.financatvendore.al & Author's calculations

	Average 2010 - 2015	Average 2016 - 2020	2015	2018	2019	2020
<i>as a percentage of total financial resources</i>						
Own source revenues	25.6%	28.2%	25.2%	29.1%	31.4%	26.6%
Taxes	16.9%	17.4%	16.1%	17.6%	19.6%	16.7%
Property taxes	5.4%	6.3%	7.6%	6.2%	6.4%	5.6%
Infrastructure impact tax	4.4%	7.8%	2.7%	8.7%	10.4%	8.7%
Fees and charges	0.8%	1.1%	0.9%	1.1%	1.1%	1.0%
Public services	3.3%	5.1%	4.0%	5.4%	5.3%	4.8%
Occupation of public space	0.7%	1.3%	0.6%	1.6%	1.7%	1.3%
Other administrative fees	3.9%	4.2%	4.2%	4.3%	4.4%	3.5%
Other	0.8%	0.3%	0.2%	0.2%	0.3%	0.4%
Unconditional transfers	21.3%	29.0%	21.7%	28.4%	30.3%	28.1%
Shared taxes	2.5%	1.9%	2.2%	1.7%	2.1%	2.5%
Conditional transfers	50.5%	40.8%	50.9%	40.7%	36.3%	42.8%
Total financial resources	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Municipalities in Albania can legally borrow short-term loans to cover liquidity needs or long-term loans to finance capital expenditures or refinancing an existing loan, based on the terms and conditions set in law no. 9869/2008 "On local government borrowing". This instrument is used by 6 LGUs up to 2014, and none of 61 municipalities has accessed loans up to date. Local government debt stock was about ALL 432 million, or about 0.026% of nominal GDP (values from Fiscal Indicators of MFE), and presents a marginal contribution to the total public debt in Albania.

While no borrowing is registered, some municipalities have addressed their necessities to invest through PPP schemes, often broadly discussed for their feasibility and long-term sustainability. Alongside PPPs and limited space for borrowing, municipalities accumulated an outstanding stock of arrears (evidenced for the first time in 2015). At the end of 2020 were estimated at ALL 6.9 billion, 16 times higher than the local government debt stock and assessed at about 0.42% of nominal GDP.

Expenditure Responsibilities

In Albania, competencies and functions are decentralised symmetrically to all municipalities. All municipalities are equally responsible for more than 41 functions and competencies in the fields of infrastructure and public services; social services; cultural, sports and entertainment services; services in the field of environmental protection; agriculture, rural development, public forests and pastures, nature and biodiversity; local economic development; and public safety (as defined in law no. 139/2015 "On local self-government", articles from 21 – 30). In addition, municipalities exercise delegated functions, which the central government delegates for implementation at the local level (such as civil register, economic assistance and disability payments) financed through conditional transfers. Figure 2 shows expenditures by the source of funding based on the COFOG classification. Social protection is a function funded historically for more than 90% through conditional transfers from the central government (social assistance and disability payments), given its redistributive nature. Alongside funds allocated from the central government, municipalities can add additional resources for this function. In the function of housing and communities' amenities, conditional funds have gained territory, jumping to about 54% of the total in 2020, up from a level of about 28% in 2019 and more than double as compared to the year 2015 (about 23% of total expenditures in housing and communities' amenities). While in social protection function transfers and subsidies play a significant role in conditional expenditure, almost half of funds are used for investment purposes in housing and community amenities function. Own funds fully cover public order and safety, health, environmental protection, recreation culture, religion, and general public services. Expenditures in education and economic affairs functions are broadly covered with own funds while a particular share is covered with conditional funds (especially for infrastructural investments).

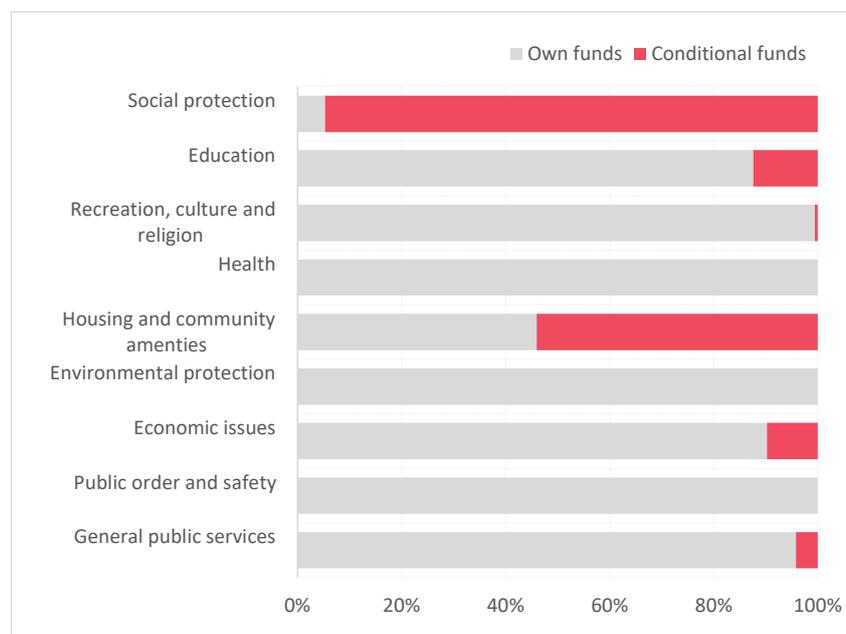


Figure 2. Financing of Functions of Municipalities

Source: www.financatvendore.al & Author's calculations

From a structural point of view, as shown in Figure 3, on average, about 33% of the total resources available are spent on social protection (which are covered mainly by conditional funds from the Ministry of Health and Social Protection). Housing and community amenities function accounts for about 19% of total expenditures, almost half of which are made available from the central government under conditional transfers for investments. Spending in the function of economic issues account for about 16% of total expenditures and present some volatility over time due to infrequent conditional transfers from the central government for investments. Education has gained weight in expenditure structure due to the devolution of new competencies in 2016 related to pre-school and pre-university education and dormitories (partly covered by specific/sectoral transfer). Municipalities role in health services is related to primary healthcare infrastructure and awareness campaigns, but expenditures in this function have been marginal over the years.

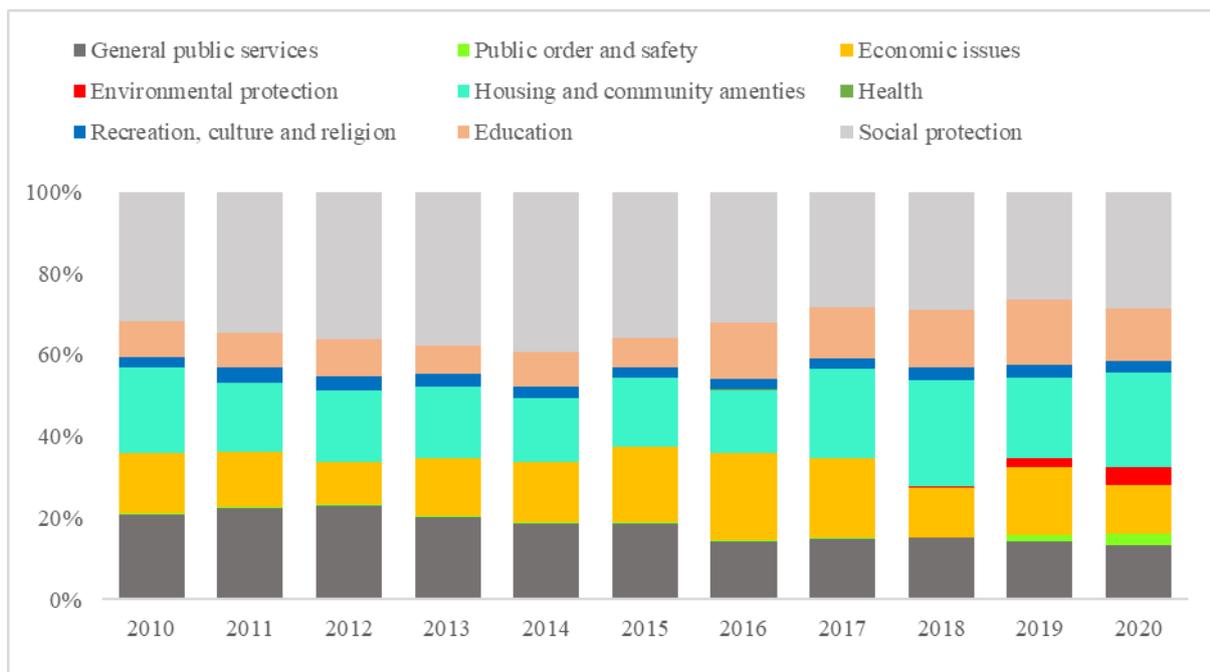


Figure 3. Use of Available Resources by Functions

Source: www.financatvendore.al & Author's calculations

Based on the economic classification, on average current expenditures account for more than 70% of total spending over the period 2010-2020. Post TAR, the share of current expenditures to total expenditures contracted somehow registering 70.9% in 2019 and increased to 75.8% at the end of 2020. Such a jump in current expenditures was driven by higher expenditures in the social protection function due to increased transfers to household budgets amidst COVID-19 pandemics. Personnel expenditures widened significantly after the decentralising reforms: from about 19.4% in 2010 – 2015 to an average of approximately 25.1% during 2016-2020. Higher personnel expenditures are related to transferring the new functions from central to municipalities in the year 2016 and follow an upward trend (Co-PLAN, 2021). The higher the current expenditures, the lower the money left for investments. The investment level has been volatile over the considered period, often sustained by funds transferred by the central government for investments. In 2020,

investments accounted for about 24.2% of total expenditures incurred by municipalities, down by about 12% compared to the previous year. Because of the pandemic of COVID-19, municipalities seem to have broadly cut investment expenditures while re-directed funds to cover emergent needs

Table 1. Structure of Expenditures by Economic Nature

Source: www.financatvendore.al & Author's calculations

	2010-2015	2016-2020	2015	2018	2019	2020
Current	73.8%	71.2%	72.1%	71.6%	70.9%	75.8%
Personnel	19.4%	25.1%	18.5%	25.8%	26.2%	25.4%
Operative	16.5%	16.5%	16.2%	17.5%	18.3%	17.9%
Subsidies	2.1%	1.0%	0.8%	1.3%	0.7%	1.0%
Transfers	35.7%	28.4%	36.4%	26.8%	25.5%	31.3%
Interests	0.1%	0.2%	0.1%	0.2%	0.2%	0.2%
Capital	26.2%	28.8%	27.9%	28.4%	29.1%	24.2%

Method

Decentralisation is a multidimensional topic. There is no unique indicator and/or index to fully describe and capture all dimensions it offers (Martinez-Vazquez, Lago-Peñas, & Sacchi, 2005). A mixed quantitative and qualitative approach is adopted to assess the achievements, challenges, and perspectives of decentralisation in Albania over 2015-2020. Special attention will be paid to fiscal decentralisation assessment using a set of indicators broadly used in the international literature (see Schneider, 2003; Toska & Bejko, 2019). On the revenues side, fiscal decentralisation will be assessed based on two sets of indicators: (i) the share of own source, disposable and total revenues to nominal GDP and (ii) the share of own-source and disposable revenues to general government revenues. On the expenditure side, we use indicators of own source, conditional and total expenditures to nominal GDP; own source and total expenditures to general government expenditures; public investments, own source and total investments to nominal GDP. We will refer to several research papers and reports for a critical view on decentralisation in Albania alongside the story data show. The data used in the analysis are from www.financatvendore.al, refer to 61 municipalities, are expressed in local currency (Albanian Lek, ALL) and cover the period 2010 – 2020. Other data from the Albanian Institute of Statistics and Ministry of Finance and Economy will complement the analysis.

Results

In the aftermath of decentralising reforms introduced by GoA, total financial resources available to municipalities have followed an increasing trend. Figure 3 shows a slowdown in decentralisation indicators in 2019 because of two subsequent natural disasters that hit and impacted 11 municipalities (earthquakes of

September and November 2019) and an increase during the year 2020. The indicator of own-source revenues to GDP registered the level of 1.5% in the year 2020, stabilised at this level for the third consecutive year and compared to the year 2015 marked an increase of about 0.6 percentage points. During the post TAR period, several municipalities have increased taxes and fees rates for all categories of taxpayers. Nevertheless, the own-source revenues growth rate has been volatile and broadly determined from the performance in one municipality (the municipality of Tirana) and two taxes (infrastructure impact tax and building tax, more than 75% of total revenues from these taxes collected in the municipality of Tiranë). The pandemic of COVID-19 impacted the performance of its own source revenues, which shrank by about 5% at the end of 2020.

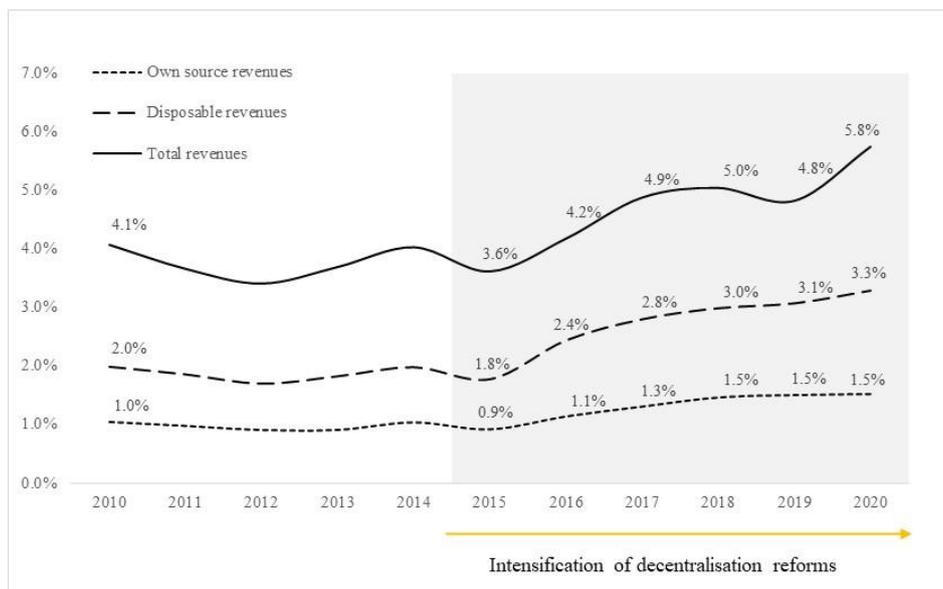


Figure 3. Indicators of Local Revenues to GDP

Source: www.financatvendore.al, MFE & Author's calculations

The indicator of disposable revenues to GDP shows similar patterns to that of own-source revenues to GDP, a progressive, stable increase over the last five years. Disposable revenues to GDP indicator marked a jump in 2016 (of about 0.6 percentage points) because of the devolution of new function to municipalities and establishing the specific transfer to finance them. Another factor assessed to have contributed to the stable growth of this indicator is related to the stabilisation and increase of the unconditional transfer perceived by municipalities. Conditional transfers for delegated functions and investments play a relevant and increasing role financial resources structure of Albanian municipalities. This role is evident in the performance of the total financial resources to GDP indicator over the considered period, particularly over the year 2020. During the pandemic of COVID-19, the Albanian government doubled economic assistance and disabilities payments. Such an increase is confirmed to continue over the first half of 2021, based on decision No. 85/2021 "For an addition to decision No. 597, dated 04/09/2019 of the Council of Ministers, "On the determination of procedures, documentation and size of the monthly payment of economic assistance and the use of the additional,

conditional fund for economic assistance". The indicator registered the highest level in 2020, about 5.8% of GDP, up by 1 percentage points compared to 2019 and up by 2.2 percentage points compared to 2015.

The indicators of municipal revenues (own source, disposable and total) as a share of general government revenues show an increased role of municipalities. In 2020, own-source revenues to general government revenues represented about 5.7%, slightly higher than the previous year. Compared to 2015, this indicator has increased by 2.3 percentage points, especially during 2015-2017. The higher role of municipalities in general government revenues is more noticeable in the annual performance of disposable revenues and total financial resources to general government revenues. The indicator of disposable revenues to general government revenues registered a level of about 12.2% at the end of 2020, almost doubled compared to its level in 2015. The same is valid for the indicator of total financial resources to general government revenues, which registered about 21.4% in 2020, up by 7.7 percentage points compared to its level in 2015.

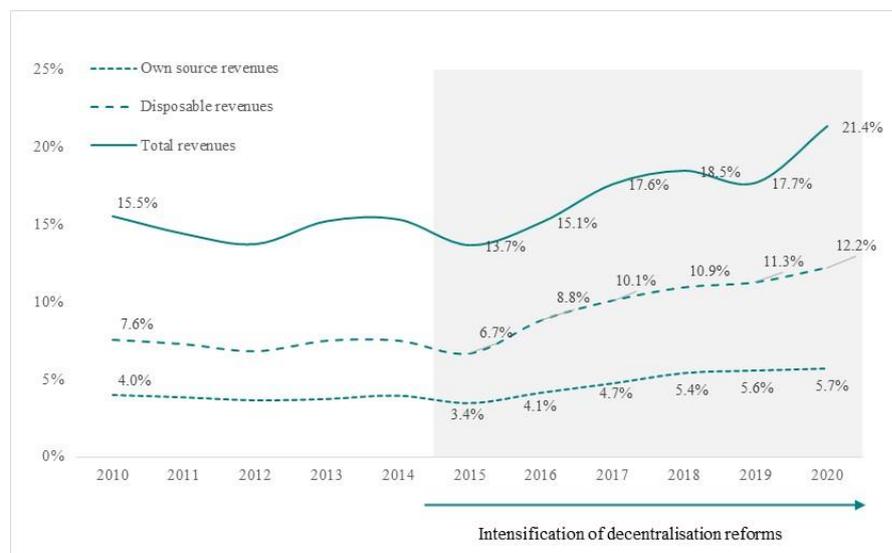


Figure 4. Indicators of Local Revenues to GG Revenues

Source: www.financatvendore.al, MFE & Author's calculations

Since 2015, decentralisation indicators have increased, thus suggesting the advancement of this process quantitatively. The increased level of the indicators has been broadly defined from the higher level of intergovernmental transfers (conditional and unconditional), while own source revenues do not mark any particular improvement. The fiscal capacity of the 61 municipalities in Albania vary greatly. Data for 2020 show that about 57% of own-source revenues are collected in the municipality of Tirana, and 10 municipalities collect more than 80% of own-source revenues. Furthermore, two tax items determine performance in own-source revenues: the infrastructure impact tax of new construction (in 2020, 65% of IIT revenues collected in the municipality of Tiranë) and the property taxes. The latter has been reformed radically by Law No. 106/2017 "On some changes and additions to Law No. 9632, dated 30.10.2006 "On the local taxes system", as amended, data for 2019. Natural disasters at the end of the 2019 situation and the COVID-19 pandemic highlighted fragilities and exposure of municipal budgets to internal and external shocks, challenging the provision of local public

services to constituencies.

Municipalities in Albania are responsible to the same extent for more than 41 functions and competencies, as suggested by the symmetrical decentralisation model in place. The performance of expenditure indicators on GDP displays similar patterns with those build on revenues (as shown in figure 5). Own source expenditures to nominal GDP indicator marked some improvement over the considered period, from about 2.3% in 2015 to about 3.2% of GDP in 2020. Once absorbed the effects induced by regulatory framework changes, the indicator of own source expenditures to nominal GDP has been slightly volatile around a 3% average. The indicator of conditional expenditures to nominal GDP registered about 1.8% in 2015 and almost doubled at the end of 2020. Overall, municipalities total expenditures to GDP indicator has improved, recording about 5.7% in 2020, up by 0.6 percentage points compared to the previous year and up by about 1.6 percentage points compared to its level in 2015.

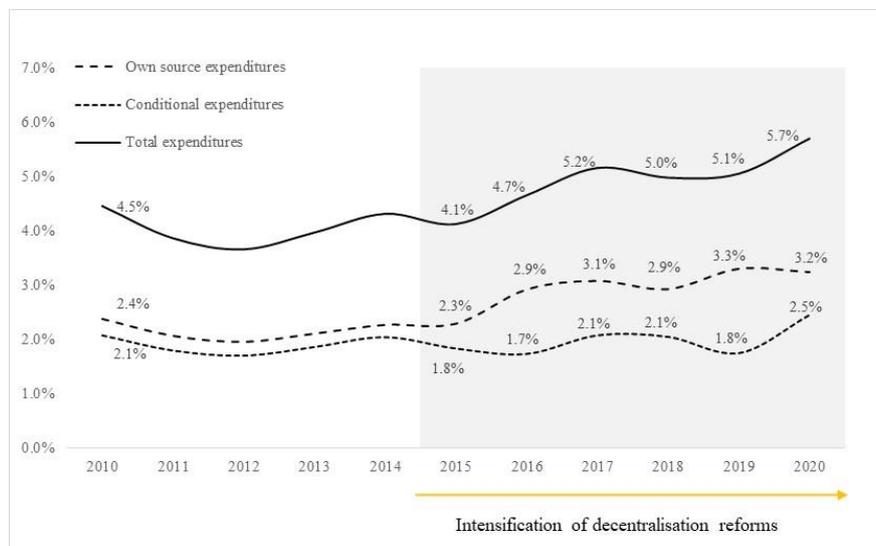


Figure 5. Indicators of Local Expenditures to GDP

Source: www.financatvendore.al, MFE & Author's calculations

Own source and conditional expenditure indicators as a share of general government expenditures in 2020 increased compared to the level recorded in 2015 (see figure 6). Own source funded expenditures registered 9.6% of GG expenditures in 2020, down by 1.8 percentage points compared to 2019. On the contrary, conditionally funded expenditures to GG expenditures increased from 6% to 7.3% at the end of 2020. The increased level of conditional expenditures registered during 2020 could not counterbalance the cut in own source funded expenditures, thus determining a contraction in total expenditures to the GG expenditure indicator from 17.4% to about 16.8%.

In pursuing their development visions and providing services, municipalities carry out expenditures, current and capital ones. While current expenditures have widened progressively, capital ones (or investments) did not

follow the same pace. Own source funded investments accounted for about 0.8% of GDP in 2020, the lowest level registered post TAR and down by 0.2 percentage points compared to its level the previous year. Including investments carried out with conditional transfers from central government, total investments of municipalities account for about 1.4% of GDP, down by 0.1 percentage points annually.

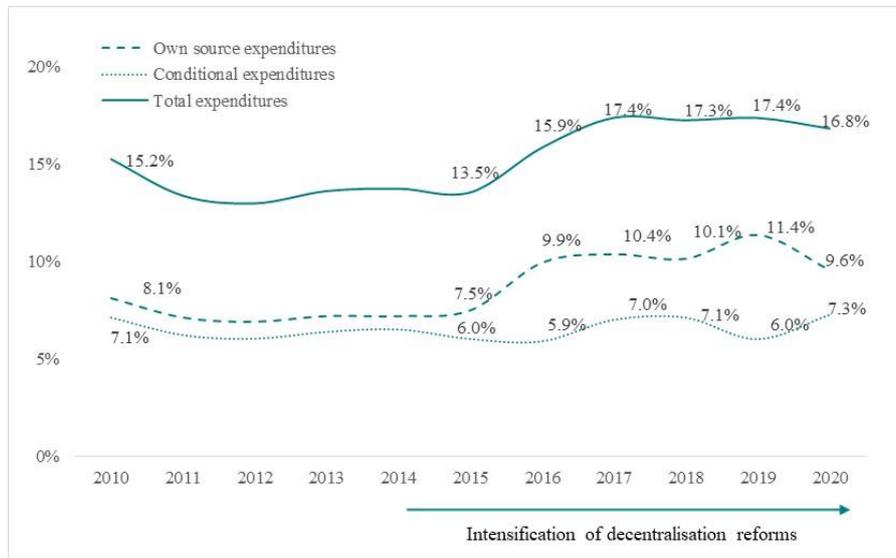


Figure 6. Indicators of Local Expenditures to GG Expenditures
Source: www.financatvendore.al, MFE & Author's calculations

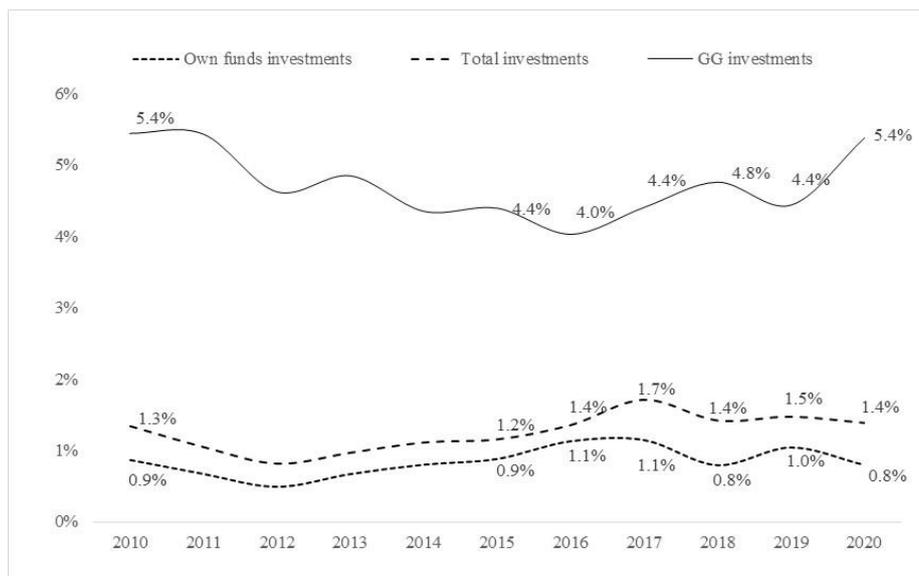


Figure 7. Indicators Local Investments to GDP
Source: www.financatvendore.al, MFE & Author's calculations

Conclusions

The decentralisation process in Albania had a second momentum in 2015. The decentralisation agenda included

a territorial and administrative organisation (from 373 to 61 municipalities), a new strategic and regulatory framework. All these processes took place in a relatively short period from 2015 – 2017, and municipalities had limited time at their disposal to adapt. While TAR might have reduced fragmentation of local governance (not subject of this study), disparities among 61 municipalities persist and have widened post TAR (municipalities in Albania differ significantly in term of population density, income level, spending needs and fiscal capacities). The system of intergovernmental transfers tends to smooth somehow these differences, but at the same time limits their autonomy. Alongside differences in fiscal capacities, there are also differences in management and administrative capacities in Albanian municipalities. Short term electoral purposes might have been a critical ingredient in the decentralising reform. O'Neill (2003) and Lyon (2013) despite being normatively attractive, decentralisation of local governance's might be deeply rooted in the desire of central governments to control and hold real power on local governance.

Quantitative indicators on revenues and expenditures as a share of GDP and general government revenues show some progress in decentralisation. Nevertheless, the higher level of decentralisation from the revenues and expenditures side has not reduced municipalities' dependence on central government funding. The situation of natural disasters and the COVID-19 pandemic showed that central government transfers "cushioned" the immediate effects of shrinking own source revenues and expenditures. These results are in line with those in Toska & Bejko (2018), Co-PLAN (2020), Toska & Shutina (2020). Decentralising reform has improved only nominally the pool of funds available to municipalities failing to improve their financial autonomy. Thus, whether the decentralisation reform agenda has been conducive to higher fiscal and financial autonomy is questionable.

It seems that municipalities fail to utilise the mandated fiscal space fully. Failing to collect taxes and fees adds risks to local budgets and limits the investment capacity of municipalities. Real decentralisation and strong municipalities must fully utilise the available fiscal space, ensuring a better balance in the ratio between own-source revenues and intergovernmental transfers, leading to real fiscal decentralisation. Boosting the financial independence of municipalities in Albania would enable them to meet citizens' needs for local public services and undertake investments to pursue municipal priorities.

Municipalities in Albania use more than 70% of available financial resources in current expenditures. Investment level carried out with own funds is assessed as low and in case of financial distress is the first item to be omitted.

Recommendations

Aside from political influences, policymakers need to re-think decentralisation in Albania. That is to say a clear assignment of competencies, adequate financial resources commensurate to the cost of public services to be delivered, transparent decision making and accountability of locally elected representatives, and alignment to

local priorities. That allows for locally elected officials to be accountable for their promises and decisions.

The decentralisation model implemented in Albania has deepened disparities among municipalities, with over 43/61 of them not being able to comply with assigned functions fully, owing to both financial and human resource constraints. Policymakers are recommended to re-think the decentralisation model and adapt to local circumstances. That includes testing or implementing other arrangements (asymmetric decentralisation) to enable municipalities to perform local services mandated to and local constituencies being served adequately.

Fiscal autonomy and utilisation of fiscal space are critical for real decentralisation. Local governance must enjoy an appropriate level of fiscal independence from central government, quantitatively defined as 50:50 share in total revenues between own source revenues and intergovernmental transfers. It is essential to estimate the cost of local public services and make real assessments on municipalities capacities to provide local services. Citizens must be aware of these costs and how they are covered, and ought to be informed about decisions affecting public service provision

References

- Ahmad, J., Blair, H., Talib, E., Ford, J., Hoffman, B., Kerr, G., . . . Weist, D. (2001). Decentralization Briefing Notes. (J. Litvack, & J. Seddon, Eds.) Washington, D.C: World Bank Institute Working Papers . Retrieved From [Http://Documents.Worldbank.Org/Curated/En/873631468739470623/Decentralization-Briefing-Notes](http://documents.worldbank.org/curated/en/873631468739470623/Decentralization-Briefing-Notes)
- Brahimi, F., Stafa, E., & Frroku, M. (2016). The New Territorial Reform And The Need To Revise The Intergovernmental Fiscal Transfers. Risk Of Economic Growth, Challenges Of Local Policies And European Integration. Proceedings Of The Seventh International Conference For Risk (Pp. 49-66). Tirana: Albanian Centre For Risk .
- Chapman, J. I. (1999). Local Government, Fiscal Autonomy And Fiscal Stress: The Case Of California. Lincoln Institute Of Land Policy, School Of Public Affairs, Arizona State University.
- Co-PLAN. (2018). Status Report Local Public Finances Year 2017. Co-PLAN, Institute For Habitat Development. Retrieved April 2020, From [Https://Drive.Google.Com/File/D/1ggtx_Z-Jqd0XmzXAFSpwaQBddHR1ELzK/View](https://drive.google.com/file/d/1ggtx_Z-Jqd0XmzXAFSpwaQBddHR1ELzK/view)
- Co-PLAN. (2020). Local Public Finances In Albania: Status Report 2019. Tiranë: Co-PLAN, Institute For Habitat Development.
- Co-PLAN. (2020, January). Një Analizë Mbi Numrin E Të Punësuarve Dhe Shpenzimet E Personelit Në 61 Bashki. Co-PLAN, Instituti Për Zhvillimin E Habitatit. Retrieved From [Http://Financatvendore.Al/Pub/Raporte](http://financatvendore.al/pub/raporte)
- Co-PLAN (2019). Financat Publike Vendore 9M2020. Co-PLAN, Instituti Për Zhvillimin E Habitatit. Doi:[Http://Financatvendore.Al/Pub/Raporte](http://financatvendore.al/pub/raporte)
- Ebohon, S. I., Osemwota, O., & Agbebaku, P. (2011). Autonomy And Local Capacity: An Analysis Of The Performance Profile Of EDO State Local Government Council. *The Social Sciences*, 6(3), 235-240.

- Council Of Europe. (1985). European Charter Of Local Self-Government. Strasbourg.
- Lyon, A. (2013). Challenges To Municipal Fiscal Autonomy In Macedonia. *The Journal Of Federalism*, 1-26. Doi:10.1093/Publius/Pjt032
- Martinez-Vazquez, J., Lago-Peñas, S., & Sacchi, A. (2005). The Impact Of Fiscal Decentralisation: A Survey. International Center For Public Policy.
- Nikolov, M., & Trajkov, S. (2020). The Potential Impact Of The COVID-19 Pandemic On Local Governments' Financial Health In North Macedonia: Developing Alternative Financial Scenarios For The Municipality Of Gazi Baba – Skopje. Urban Partnership Program. Washington DC: The World Bank.
- O'Neill, K. (2003). Decentralization As An Electoral Strategy. *Comparative Political Studies*, 1068–91.
- OECD/UCLG. (2020, February). Tax Autonomy Survey: Methodological Guide. OECD Fiscal Federalism Network.
- OECD/UCLG. (2019). 2019 Report Of The World Observatory On Subnational Government Finance And Investment – Key Findings.
- Schneider, A. (2003). Decentralization: Conceptualization And Measurement. *Studies In Comparative International Development*, 32-56. Doi:10.1007/BF02686198
- Scutariu, A. L., & Scutariu, P. (2015). The Link Between Financial Autonomy And Local Development. The Case Of Romania. *Procedia Economics And Finance*, 32, 542-549.
- Shah, A. (Ed.). (2006). *Local Governance In Developing Countries*. Washington, DC: The International Bank For Reconstruction And Development / The World Bank.
- Slack, E. (2009). *Guide To Municipal Finance*. Nairobi: UN-HABITAT, United Nations Human Settlements Programme.
- Timpmann, K., Reiljan, J., & Olenko, K. (N.D.). Fiscal Constraints In Decentralisation Process: Case Of Estonia. Retrieved From [Http://www3.ekf.tuke.sk/Cers/Cers2005/Doc/Timpmann_Reiljan_Olenko.Pdf](http://www3.ekf.tuke.sk/Cers/Cers2005/Doc/Timpmann_Reiljan_Olenko.Pdf)
- Toska, M., & Bejko, A. (2019). Decentralisation And Local Economic Development. *Annual Review Of Territorial Governance In The Western Balkans*, 53-68. Doi:10.32034/CP-TGWBAR-I01-05
- Toska, M., & Bejko, A. G. (2018). Territorial Administrative Reform And The Decentralization Strategy - Progress Towards The Desired Objectives After A Governing Mandate. *Annual Review Of Territorial Governance In Albania*, 69-83. Doi:10.32034/CP-TGAR-I01-05
- Toska, M., & Shutina, D. (2020). How The COVID-19 Pandemic Might Affect Municipal Financial Health In Albania: Alternative Scenarios For The Municipality Of Shkodër. The World Bank (Forthcoming).
- Toska, M., Nikolov, M., Andonova, V. G., & Trajkov, S. (2020). Municipal Finances In The COVID-19 Context: The Case Of Gazi Baba And Shkodër Municipalities. *Annual Review Of Territorial Governance In The Western Balkans, II*, 73-95. Doi:10.32034/CP-TGWBAR-I02-06
- Toto, R., Toska, M., Shutina, D., Farrici, A., & Limaj, A. (2020). *The Response Of Local Governments During COVID-19 Emergency In Albania: January - April 2020*. Tirana, Albania: Co-Plan, Institute For Habitat Development.

Investigation of Teachers' Risk-taking and Life Satisfaction Levels during the COVID-19 Pandemic

Davut Atilgan

Kahramanmaraş Sutçu İmam University, Turkey,  <https://orcid.org/0000-0002-8475-4488>

Abstract: This study aims to determine the relationship between the life satisfaction and risk-taking levels of teachers during the COVID-19 pandemic, their views on some demographic variables, and whether there is a difference in these views. The research is a quantitative study carried out in a relational survey model. The sample consists of 293 participants. The data of the research were analyzed using the Jamovi 1.6.12 statistical software program. It was determined that the participants' mean score for the risk-taking dimension was high, and the mean score for the life satisfaction scale was found to be in the moderate level range. There was no significant difference in the branch variable in the scores of the participants regarding the risk-taking dimension while there was a significant difference in terms of gender and doing sport variables. According to the life satisfaction scale, there was no significant difference in terms of gender and branch variables, on the other hand; there was a significant difference in terms of doing sport variables. It was found that there was a significant relationship between the participants' risk-taking factor and their life satisfaction levels and that the risk-taking dimension was a significant predictor of the participants' life satisfaction. Conducting this research based on a current topic makes it significant. It is anticipated that the results of this research will contribute significantly to researchers in the field to pave the way for conducting new studies.

Keywords: COVID-19, teacher, risk-taking, life satisfaction.

Introduction

Today, the rapid spread of the COVID-19 virus has shown its effect in all areas including particularly the issue of health problems. Education workers are among the groups affected personally and in terms of their work systems. The COVID-19 virus has caused educational institutions all over the world to shut down from time to time for days. Therefore, these long interruptions led countries to provide online teaching methods such as Microsoft Teams, Google Hangouts, Zoom, and WhatsApp to fill the learning gap caused by disruptions in education. The Education and Information Network (EBA) online platform, established by the Ministry of Education and the General Directorate of Innovation and Educational Technology, has been launched for providing distance education services at all levels of education.

As reported by Akkoyunlu, Altun, and Soylu (2008), a modern education system is expected to keep up with the emerging innovations and to renew itself by determining the available requirements of the time (Akkoyunlu,

Altun & Soyulu, 2008). In this context, the success of distance learning, which is also an innovative practice, depends on a structure that has an innovative teacher staff as well as a communication technologies infrastructure (Atasoy, Özden & Kara, 2020). This may help teachers and students contribute to acquiring functional skills for life and develop higher-order skills such as creativity and critical thinking (Aydoğmuş & Tükel, 2019). Innovativeness is defined as the degree to which an individual is relatively earlier in adopting new ideas than other members of a system (Rogers, 1995) and as desirability for innovation and change (Hurt, Joseph & Cook, 1977). The individual innovativeness is a persistent trait or trend which is an important determinant of how an individual perceives and reacts to an innovation (Yi et al., 2006). Accordingly, the "innovation diffusion" theory, which explains how individuals perceive innovations, the differences in their adoption processes, and their reasons, groups individuals into five different categories in terms of innovation. These categories are innovators (innovative adopters) (2.5%), early adopters (13.5%), early majorities (34%), late majorities (34%), and laggards (16%), from the first of the group to adopt innovation to the slowest ones to adopt an innovation (Rogers, 1983).

Although innovation is a crucial indicator of life satisfaction, there is sparse research on this issue (Nimrod, 2008). It was also suggested that innovation's impact on wellbeing is not direct, and that the most significant role of innovation is in creating an opportunity for broadening and deepening the sense of meaning in life, a sense that leads to greater wellbeing and satisfaction with life. Huhtala and Parzefall (2007) proposed that innovativeness and well-being have a two-way relationship where they may mutually enhance each other (a 'virtuous cycle') or mutually inhibit each other (a 'vicious cycle'). Essentially, innovation is about changes that involve risk-taking and that may pose a threat to interested parties. Therefore, innovativeness can also lead to unwanted costs for innovators despite their intention to benefit (Janssen, Van De Vliert & West, 2004). Honkaniemi, Lehtonen, and Hasu (2015) suggest that high innovativeness connects to high well-being and vice versa.

This study examines the relationship between life satisfaction and risk-taking levels of teachers during the COVID-19 pandemic and their views on the variables of gender, the type of branch, and participation in sports and whether there is a difference among the relevant views.

Method

Research Model

The research was quantitatively conducted via the relational survey model. Relational survey models are aimed at determining whether there is a relationship between more than one variable, and if any, the level and degree of the relationship (Karasar, 2014). Approval was obtained from all teachers participating in this study with the 'Informed Consent Form'.

Population and Sample

The population of the study consists of the Physical Education and Sports Teachers and Class Teachers and teachers of other branches who work in the city center of Kahramanmaraş in Turkey. Teachers working in

schools randomly selected among the teachers from the schools located in the city center were included in the research sample. The scale forms were sent to the participants online with usable feedback provided from 293 participants. Table 1 reveals that surprisingly a majority of Physical Education and Sports teachers do not participate in sports regularly. This situation, suggests that it can be caused by the impact of the COVID-19 Pandemic.

Table 1. Information of Participants Included in the Research Sample

Demographic Variables		N	%
Gender	Female	90	30.7
	Male	203	69.3
Type of Branch	Physical Education	121	41.3
	Class Teacher	55	18.8
	Other Branches	117	39.9
Participation in sports	Not at all	49	16.7
	Sometimes	176	60.1
	Regularly	68	23.2

Data Collection Tools

Individual Innovativeness Scale

The scale was first developed by Hurt, Joseph, and Cook (1977) and adapted into Turkish by Kılıçer and Odabaşı (2010). The scale, which consists of 20 items, was arranged as a five-point Likert scale ranging between 1 = strongly disagree and 5 = strongly agree to determine the individual innovativeness levels of the participants. The scale has 4 dimensions and within the scope of this study, the "risk-taking" dimension was used and evaluated in the analysis. Kılıçer and Odabaşı (2010) calculated the Cronbach's Alpha coefficient as .63 for the risk-taking dimension as a result of their reliability analysis. In this study, the Cronbach's Alpha coefficient for the risk-taking dimension was found as .73.

Satisfaction with Life Scale

Developed by Diener, Emmons, Larsen, and Griffin (1985), the "Satisfaction with Life Scale" was adapted into Turkish by Dağlı and Baysal (2016). The original form of the scale consists of a factor, five items, and is rated in a 7-point Likert type. The Turkish adaptation of the scale was previously made by Köker (1991) and used by various researchers in Turkey in a 7-point Likert type. The Cronbach's alpha internal consistency coefficient of the scale was determined as .88. In this study, the Cronbach's Alpha coefficient was found to be .86.

Data Analysis

The data of the research were analyzed using the Jamovi 1.6.12 statistical software program. Whether the scores obtained for the determination of the tests Show a normal distribution was examined by the skewness coefficient method (Büyüköztürk, 2018, p. 40). The skewness values obtained in the analysis were calculated as "-.550" for

the dimension of "Risk-taking" under the "Individual Innovativeness Scale" and as "-.600" for the "Satisfaction with Life Scale". Since the values ranged between +1 and -1, the distribution was accepted as normal. The t-test and One-Way Analysis of Variance (ANOVA) tests were used to determine the differentiation of participants' views in terms of demographic variables. Post-Hoc tests were used to determine the source of the difference in groups with significant differences. Also, whether there was a significant relationship between the dimension of "Risk-taking" under the "Individual Innovativeness Scale" and the "Satisfaction with Life Scale" was subjected to an analysis.

Results

This section includes the findings of this study, which was conducted to determine the relationship between life satisfaction and risk-taking levels of teachers during the COVID-19 pandemic process, and their views based on the variables of gender, type of branch and participation in sports. Table 2 reveals that the mean score for the risk-taking dimension is high while the mean score of the satisfaction with life scale is moderate.

Table 2. Arithmetic Average Scores and Standard Deviation Values of Participants in the Dimension of Risk-taking under the Individual Innovativeness Scale and Satisfaction with Life Scale

Scales	N	Min-Max	\bar{X}	SS
Risk-taking	293	1-5	3.37	.79
Satisfaction with Life	293	1-7	4.42	1.30

Table 3 reveals that the t-test results demonstrate that there is no statistically significant difference based on the gender variable in the scores of the satisfaction with life scale $t(291)=-.296; p<0.05$. while there is a statistically significant difference in the scores of risk-taking $t(297)=-3.89; p<0.05$. The risk-taking levels of female participants were observed to have significantly lower ($\bar{X}_{\text{female}}=3.10, SS_{\text{female}}=.91$) than those of male participants ($\bar{X}_{\text{male}}=3.48, SS_{\text{male}}=.71$).

Table 3. Independent Group T-Test Results According to the Scores of the Gender Variable of the Participants

Scale/Dimensions	Gender	N	\bar{X}	SS	sd	t	p
Risk-taking	Female	90	3.10	.91			
	Male	203	3.48	.71	291	-3.89	.000*
Satisfaction with Life	Female	90	4.46	1.19			
	Male	203	4.41	1.35	291	.296	.767

*($p<0.05$)

Table 4 reveals that there are statistically significant differences between the scores in the dimension of risk-taking ($F=8.19; p=.000$) and the satisfaction with life ($F=4.41; p=.013$) based on participation in sports ($p<0.05$), indicating that those participating in sports sometimes and regularly had significantly higher scores than those who do not participate in sports at all.

Table 4. One-Way Analysis of Variance (ANOVA) Results of Participants' Scores in the Dimension of Risk-taking and the Satisfaction with Life Based on Participation in Sports

Scales/Factors	Participation in Sports	N	\bar{X}	SS	F	p	Groups with difference (Post-Hoc Test)
Risk-taking	Not at all (a)	49	2.98	.87	8.19	.000*	b, c - a
	Sometimes (b)	176	3.40	.75			
	Regularly (c)	68	3.55	.77			
Satisfaction with Life	Not at all (a)	49	3.93	1.28	4.41	.013*	b, c - a
	Sometimes (b)	176	4.53	1.24			
	Regularly (c)	68	4.50	1.38			

*($p < 0.05$)

Table 5 reveals that there is no statistically significant difference between the scores in the dimension of risk-taking ($F=1.73$; $p=.178$) and the satisfaction with life ($F=2.90$; $p=.056$) based on the type of branch ($p < 0.05$).

Table 5. One-Way Analysis of Variance (ANOVA) Results of Participants' Scores in the Dimension of Risk-taking and the Satisfaction with Life Based on the Type of Branch

Scales/Factors	Branch	N	\bar{X}	SS	F	p
Risk-taking	Physical Education (a)	121	3.45	.71	1.73	.178
	Class Teacher (b)	55	3.41	.78		
	Other Branches (c)	117	3.26	.87		
Satisfaction with Life	Physical Education (a)	121	4.56	1.41	2.90	.056
	Class Teacher (b)	55	4.61	1.12		
	Other Branches (c)	117	4.20	1.24		

*($p < 0.05$)

Table 6 reveals that there is a positive and significant relationship between the scores of risk-taking and the satisfaction with life scales ($r=.130$) (sig .026, $p < .05$). This indicates that as the perceived risk-taking grows, life satisfaction grows.

Table 6. Results of Correlation between the Risk-taking Factor and the Satisfaction with Life Scale

Variable	Satisfaction with Life
Risk-taking	.130
N= 293	
* $p < .05$	

Table 7 reveals that there is a low-level and significant relationship between the scores of the risk-taking factor and the satisfaction with life scale ($R= 0.130$, $R^2=0.17$, $p < 0.05$). The risk-taking factor explains 13% of the total variance of the satisfaction with life scale. The results related to the significance of the regression coefficients reveal that the dimension of “risk-taking” is a significant predictor of life satisfaction of the participants.

Table 7. Standard Regression Analysis Results Related to the Predictive Power of Risk-taking Factor on Life Satisfaction

Variable	B	Sh	B	T	p
Fixed	3.710	.329		11.275	.000*
Risk-taking	.212	.095	.130	2.230	.026*

R= 0.130 R²= 0.17
F(1. 291)=4. 975 p= .000

Results and Discussion

Designed to determine the relationship between life satisfaction and risk-taking levels of teachers during the COVID-19 pandemic process and their views based on some demographic variables and to determine whether there is a difference in terms of these views, this study revealed that the mean score of the participants in the dimension of risk-taking was high while the mean score of the satisfaction with life scale was moderate. This indicates that the majority of teachers are innovators and ready to take risks during the pandemic process.

Innovators and early adopters are earlier in adopting new ideas than other members of a system (Moore, 1999; Rogers, 1983, 2003). Agarwal and Prasad (1998) reported that some individuals have a higher risk-taking tendency than others. When the studies on the life satisfaction levels of individuals in the period before the pandemic (Akyol, Başaran & Yeşilbaş, 2018; Çivitçi, 2012; Dorahy et al., 2000; Gündoğar et al., 2007) were compared with the results of this study, the life satisfaction of the individuals was found to be at higher levels before the pandemic.

While there was no significant difference in satisfaction with life scale scores in terms of the gender variable, the risk-taking level of female participants was significantly lower than male participants in the risk-taking factor. It may be implied that male teachers are more willing to take risks. Agarwal and Prasad (1998) defined individual innovativeness as “the willingness of an individual to try out any new information technology” in the field of new information technologies. Gündüz (2020) found that male teachers' risk-taking levels were higher than female teachers.

It was determined that those who sometimes and regularly participate in sports had significantly higher scores than those who do not participate in sports at all in terms of the dimension of risk-taking and satisfaction with life scores. This indicates that the capacity of the participants to take risks increases with an increased life satisfaction following participation in sports regularly during the pandemic and an increased perceived individual innovation. Tükel (2020) found that participants actively engaged in sports during the COVID-19 process had high levels of leisure time satisfaction. Furthermore, Thompson (1992) focused on the benefits of taking on a new activity and reported that those who are engaged in new sports activities get special pleasure and happiness and that individuals who are innovative, that is, who make a difference in their daily activities, have higher life satisfaction scores. Consumer and Basic (2020) and Karaaslan et al. (2020) reported that voluntary recreation-based physical activity is closely related to life satisfaction and happiness. Those doing sports are more advantageous in self-confidence and social competence and generally have higher life

satisfaction due to their more positive attitude towards life, and sports play an important role in reducing mental fatigue (Atılğan, 2018; Bingöl & Alpkaya 2016; Dalkıran & Tuncel, 2007; Koca et al., 2018; Kuru 2003).

In terms of the branch variable, no significant difference was found in the scores of risk-taking and the satisfaction with life scale. This suggests that the COVID-19 pandemic correlatively affects all teachers. The findings of this study show similarity with the innovation studies in the literature (Gündüz, 2020; Adıgüzel et al., 2014; Örün et al., 2015). It is observed that life satisfaction is affected more by personal and psychological factors than by gender and income level (Myers & Diener, 1995). Demir et al. (2021) stated that the quality of life, life satisfaction, and psychological well-being levels of pre-service teachers do not differ significantly according to the frequency of technology use.

It is suggested that there is a positive and low-level significant relationship between the participants' risk-taking and satisfaction with life scores and as the perceived risk-taking increases, life satisfaction increases. It was also concluded that 'risk-taking' is a significant predictor of the life satisfaction of the participants. In this case, it should be noted that while individuals get opportunities, which is the most important role of innovation, their risk-taking levels increase, thus bringing forth a high sense of life satisfaction. Nimrod and Kleiber (2007) reported that individuals behave more dynamically and daringly when trying new things. Accordingly, it was confirmed by Nimrod's (2008) findings that innovative individuals are more likely to accept that they achieve what they expect from life and show significantly higher satisfaction with life than non-innovative individuals.

In conclusion, a significant relationship was found between the risk-taking factor and satisfaction with life scale scores in this study. Huhtala and Parzefall (2007) mentioned that innovativeness, initiatives, and activities are perceivable as resources that help individuals achieve their goals and increase their life satisfaction. One may notice that the pandemic has led to changes in the risk-taking and life satisfaction levels of individuals to a certain extent. This study was conducted during the pandemic process and thus is considered to be enlightening when it comes to the psychological effects of the COVID-19 pandemic on teachers. The results of this study are expected to be useful in the field of knowledge for current education management and future researchers to better understand how a global pandemic determines teachers' satisfaction with life and their ability to succeed in academic education.

Acknowledgements

I would like to thank the teachers who are at the forefront of education and training activities and strive to provide students with the best information, whether sometimes online or face-to-face, throughout the COVID-19 pandemic, as well as the 293 participating teachers in this study, for their cooperation and willingness to respond to this research.

References

Adıgüzel, A., Kaya, A., Balay, R. & Göçen, A. (2014). The relationship between teacher candidates' individual innovativeness and their learning attitudes. *National Education*, 204(44), 135-154.

- Agarwal, R., & Prasad, J. (1998). A conceptual and operational definition of personal innovativeness in the domain of information technology. *Information Systems Research*, 9(2), 204-215.
- Akkoyunlu, B., Altun, A. & Soylu, M. Y. (2008). *Instructional design..* Ankara: Maya Academy.
- Akyol, B., Başaran, R., & Yeşilbaş, Y. (2018). Life satisfaction level and lifelong learning tendencies of Public Education Center Tramees. *Mehmet Akif Ersoy University Journal of Education Faculty*, (48), 301-324. .
- Atasoy, R., Özden, C., & Kara, D. N. (2020). Evaluation of the effectiveness of e-course practices during the covid-19 pandemic from the students' perspective. *Electronic Turkish Studies*, 15(6), 95-122.
- Atılğan, D. & Kaya, A. (2018). A research on the mental and physical health of the students who do and don't do sports with licence at high schools which belongs to Ministry of National Education. *The Journal of Academic Social Science*, 6(83), 268-289. <http://dx.doi.org/10.16992/ASOS.14387>
- Aydoğmuş, M., & Tükel, Y. (2019). Testing the mediating role of collective efficacy perceptions on the relationship between teachers' perceptions of professional burnout and organizational commitment. *IE: Inquiry in Education*, 11(2), 2. Retrieved from: <https://digitalcommons.nl.edu/ie/vol11/iss2/2>
- Büyüköztürk, Ş. (2018). *Manual of data analysis for social sciences*. 24. Edition. Ankara: Pegem Academy.
- Bingöl, C. & Alpkaya, U. (2016). The investigation of the self - esteem level of the athletes and non-athletes in high school students. *Marmara University Journal of Sports Sciences*, 1(1), 31-37.
- Çivitçi, D. (2012). The relationships between global life satisfaction and psychological needs in university students. *Çukurova University Journal of Social Sciences Institute*, 21(2), 321-336.
- Dağlı, A. & Baysal, N. (2016). Adaptation of the satisfaction with life scale into Turkish: the study of validity and reliability. *Electronic Journal of Social Sciences*, 15(59), 1250-1262.
- Dalkıran, O. & Tuncel, F. (2007). Evaluation of physical education lessons as elective courses in secondary education schools by students. *SPORMETRE The Journal of Physical Education and Sport Sciences*, 5(1), 37-42. https://doi.org/10.1501/Sporm_0000000121
- Demir, R., Tanhan, A., Çiçek, İlhan, Yerlikaya, İbrahim, Çırak Kurt, S., & Ünverdi, B. (2021). Psychological Well-being and Life Satisfaction as Predictors of Quality of Life. *Journal of Education for Life*, 35(1), 192-206. <https://doi.org/10.33308/26674874.2021351256>
- Diener, E., Emmons, R.A., Larsen, R.J. & Griffin, S. (1985). The satisfaction with life scale. *Journal of Personality Assessment*, 49(1), 71-75. https://doi.org/10.1207/s15327752jpa4901_13
- Dorahy, M., J., Lewis, C., A., Schumaker, J., F., Akuamoah-Boateng, R., Duze, M., C., & Sibiya, T., E. (2000). Depression and life satisfaction among Australian, Ghanaian, Nigerian, Northern Irish, and Swazi University Students. *Journal of Social Behavior and Personality*, 15(4), 569-580.
- Gündoğar D., Gül S., S., Uskun E., Demirci S., & Keçeci D. (2007). Investigation of the Predictors of Life Satisfaction in University Students. *J Clin Psy.*, 10(1), 14-27.
- Gündüz, Ş. (2020). Examining the relationship between individual innovativeness and digital nativeness levels of teachers. *Education and Science*, 46(205), 261-277. <http://dx.doi.org/10.15390/EB.2020.9006>
- Huhtala, H., & Parzefall, M. R. (2007). A review of employee well-being and innovativeness: An opportunity for a mutual benefit. *Creativity and Innovation Management*, 16(3), 299-306.
- Honkaniemi, L., Lehtonen, M. H. & Hasu, M. (2015). Well-being and innovativeness: motivational trigger points for mutual enhancement. *European Journal of Training and Development*, 39(5), 393-408.
- Hurt, H. T., Joseph, K., & Cook, C. D. (1977). Scales for the measurement of innovativeness. *Human Communication Research*, 4(1), 58-65.

- Janssen, O., Van de Vliert, E., & West, M. (2004). The bright and dark sides of individual and group innovation: A special issue introduction. *Journal of organizational behavior*, 25(2), 129-145.
- Karaaslan, İ , Uslu, T , Esen, S . (2020). Research on occupational burnout, job satisfaction and life satisfaction of Physical Education Teachers. *Journal of Health and Sport Sciences*, 3(1), 7-18.
- Karasar, N. (2014). *Scientific research method*. 26. Printing. Ankara: Nobel Publishing.
- Kılıçer, K. & Odabaşı, H. F. (2010). Individual innovativeness scale (is): the study of adaptation to Turkish, validity and reliability. *Hacettepe University Journal of Education Faculty*, 38(38), 150-164.
- Koca, F. İmamoğlu, G. & İmamoğlu, O. (2018). Sports status of high school students and investigation of personality characteristics by gender. *The Journal of Academic Social Science*, 6(80), 31-42.
- Kuru, E. (2003). The personal features of students in the department of physical education at different statuses. *Gazi University Journal of Gazi Education Faculty*, 23(1), 175–191.
- Köker, S. (1991). *Comparison of life satisfaction levels of normal and problem adolescents*. Unpublished Master's Thesis, Ankara University Institute of Social Sciences, Ankara.
- Moore, G. A. (1999). *Crossing the chasm (2nd ed.)*. New York : HarperCollins.
- Myers, D. G. & Diener, E. (1995). Who is happy?. *Psychological Science*, 6(1), 10-19.
- Nimrod, G. & Kleiber, D. A. (2007). Reconsidering change and continuity in later life: toward an innovation theory of successful aging. *International Journal of Aging and Human Development*, 65(1), 1-22.
- Nimrod, G. (2008). In support of innovation theory: Innovation in activity patterns and life satisfaction among recently retired individuals. *Ageing and Society*, 28(6), 831.
- Örün, Ö., Orhan, D., Dönmez, P. & Kurt, A. A. (2015). Exploring the relationship between individual innovativeness and technology attitude of teacher candidates. *Trakya University Journal of Education*, 5(1), 65-76. <https://dergipark.org.tr/tr/pub/trkefd/issue/21481/230217>
- Rogers, E.M. (1983). *Diffusion of innovations (3rd ed.)*. New York: Free Press.
- Rogers, E. M. (2003). *Diffusion of innovations (5th ed.)*. New York : Free Press.
- Thompson, P. 1992. I don't feel old': subjective aging and the search for meaning in later life. *Ageing & Society*, 12(1), 23-47.
- Tükel, Y. & Temel, A. S. (2020). Examining the levels of freedom, life satisfaction and happiness perceived by college students in leisure time. *International Journal of Research in Education and Science (IJRES)*, 6(4), 668-678.
- Tükel, Y. (2020). *Investigation of the leisure satisfaction of individuals during the COVID-19*. X. Umteb International Congress On Vocational & Technical Sciences. Nakhchivan University, Azerbaijan. 16-18 October, 2020, p. 416-425.
- Yi, M. Y., Fiedler, K. D., & Park, J. S. (2006). Understanding the role of individual innovativeness in the acceptance of IT-based innovations: Comparative analyses of models and measures. *Decision Sciences*, 37(3), 393-426.

Exploring CRM Involved in Digital Era for Generation X

Yi Chun Shen

National Cheng Kung University, Taiwan,  <https://orcid.org/0000-0002-3708-6368>

Abstract: With the integration of the Internet and consumption, Internet technology reconfigured the traditional consumption patterns and has prompted the emergence of new Customer Relationship Management (CRM). Previous research has primarily indicated the trend of the retail industry is from the single, multi, cross to omnichannel. Generation X people who born and grown in the year without the internet faced the information age when they graduated from school. This study aims to explore the evolution of Customer Relationship Management and how generation X involves in the digital era. We used the data collected by quantitative method and secondary business strategy report from the case of the eslite book store to decompose their omnichannel Customer Relationship Management. The results showed that the omnichannel CRM for generation X is providing fast and omnipresence information online to attract them visit the comfortable and suitable tangible service offline store. To conclude, this study dedicated X-Generation consumption to business strategy in the digital transformation.

Keywords: Customer Relationship Management, Generation X, Cultural Retail Industry

Introduction

Strategic CRM and Customer Satisfaction

It is often to use CRM as an information technology term, for example, SFA. However, CRM was not only related to technology, it was also a business strategy management term. Various definition of strategy has been proposed over the course of decades of research. Seminal work on describing and defining CRM was carried out by Payne and Frow (2005). They define CRM into three perspectives which is from narrowly and tactically technological solution, customer-oriented technology solution to broadly and strategically approach to create shareholder value.

CRM is centered on meeting customer needs, improving customer satisfaction and achieving the highest profitability of the company (Chen & Popovich, 2003; Swift, 2001). Customer satisfaction will drive customer loyalty that the customer commits to maintaining a long-term relationship with a certain brand or company. (李嘉崑 & 陳信助, 2020). Maintaining existing customers is more important and cost-saving than acquiring new ones. The research shows that the company need 4 to 10 times cost to develop a new customer than maintaining existing customers, and maintaining customer loyalty can increase the company's profits by 25-85%

(Chablo, 2000). Satisfaction and loyal customers are the core values of CRM, also the criteria element for satisfaction have been provided by scholars. The five dimensions consider distinct components of CRM are (1) Assurance: knowledge and courtesy of CRM employees and their ability to inspire trust and confidence (2) Reliability: ability to perform the promised service dependably and accurately (3) Empathy: caring, individualized attention the service provider gives its customers (4) Responsiveness: willingness to help customers and provide prompt service (5) Tangibles: physical facilities, equipment, and appearance of personnel (Kim, Suh, & Hwang, 2003).

New Digital Trend in Retail Industry

Omnichannel

A number of researches have shown that we are moving from a multi-channel to an omni-channel retailing model. With the increase in mobile phone usage, customers have new expectations for their shopping methods. They want the experience to cross various channels seamlessly and these channel should be accessible anytime and anywhere (Desai, Potia, & Salsberg, 2017). Enabling consumers to seamlessly use offline and online channels is the theme of the omnichannel (Brynjolfsson, Hu, & Rahman, 2013; Verhoef, Kannan, & Inman, 2015). Omnichannel retailing defined as the set of activities involved in selling merchandise or services through all widespread channels, whereby the customer can trigger full channel interaction and/or the retailer controls full channel integration. (Verhoef et al., 2015)

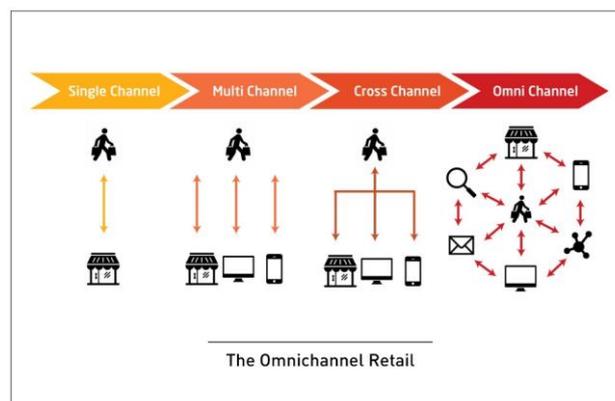


Figure 1. The Retail Evolution from Single, Multi, Cross to Omnichannel

(Source : <https://omnichannelsolution.wordpress.com/2017/09/11/what-is-omnichannel/>)

APP Enhance Customer Loyalty

Research indicates that retailers can use apps to increase customer loyalty and has a positive effect on loyalty towards the retailer (Ieva & Ziliani, 2018; Molinillo, Navarro-García, Anaya-Sánchez, & Japutra, 2020). Many retailer launch their own branded apps which is defined as a mobile software that “prominently displays a brand identity, often via the name of the app and the appearance of a brand logo or icon, throughout the user experience” (Bellman, Potter, Treleaven-Hassard, Robinson, & Varan, 2011). Baek (2018) consumer-oriented

branded app usability scale is designed to examine the relationship between users and brands, which including the five factors of User-Friendliness, Personalization, Speed, Fun and Omnipresence.

Channel Integration in CRM

Ronald S. Swift (2001) define CRM is improving the process to communicate with right customer, providing right offer, through right channel and at the right time. Among the 5 process in Payne and Frow's strategic framework of CRM, the multichannel integration process can be described as the most important process in CRM because it is the connection between firms and customers (Payne & Frow, 2005). In the recent document shows Forrester's customer reference online survey showed that one of the main trends in CRM in 2018 is omnichannel. Harvard Business Review proves that omnichannel has a positive impact on the implemented enterprises. The study of 46,000 Shoppers pointed out that if retailers conduct online research on their own site or the sites of other retailers, the in-store consumption of omnichannel increased by 13%, within six months who under omnichannel shopping experience, these customers have recorded a 23% increase in repeated visits the store and were more likely to recommend the brand to family and friends compared to those using a single channel (Emma Sopadjieva, Dholakia, & Benjamin, 2017). Customers naturally get a better experience by merging their favorite channels to conduct business; thus, it is imperative to have an omnichannel solution in today's business environment. This review from the literature indicates that channel plays a significant role in CRM.

Generation X Cultural Consumption

There are many claims about the exact birth year of the Generation X. William Straus and Neil Howe, the demographers, defined the birth years from 1961 to 1981. Gurau, however, places the birth years from 1961 to 1980 (Pitta & Gurău, 2012). In a board definition of the birth rate could be seen as people born between the 1960s and 1980s.

Several studies have examined the various consumption behavior that be effect by their characteristic and experience in digital era. Information about consumers, including their attention, the conceivable outcomes and potential of the currency, is crucial (Wu, Wang, Zhang, & Cai, 2018). Based in different generation group, firms used the corresponding channel to reach their target audience. Knowledge and proper understanding of different generations' cultural consumption and experience preferences is an essential goal of a retail enterprise. Taiwan Consumer Generation Lifestlye Report (2014) indicates that youngers and elders groups significantly choose different activities in their leisure time. Young respondents are more inclined to listen to music, play video and online games, while older respondents tend to travel, watch TV, read, and eat and other relatively static leisure activities.



	Z世代	千禧世代	X世代	嬰兒潮世代
聽音樂	37%	20%	18%	19%
玩線上遊戲	27%	23%	12%	3%
與親朋好友共度時光及聯絡感情	26%	20%	17%	18%
網路購物	22%	13%	12%	3%
看電視	20%	22%	34%	21%
旅遊	19%	26%	30%	29%
看電影/參觀博物館/美術館	19%	20%	21%	10%
運動	17%	20%	16%	16%
閱讀及檢視社群媒體內容	15%	17%	19%	19%
參加戶外活動	15%	12%	12%	16%
逛街	15%	12%	9%	5%
閱讀	14%	20%	21%	21%
享受美食	13%	22%	19%	21%

Figure 2. Favorite Activities in Free Time (Taiwan Consumer Generation Lifestyle Report, 2014)

Method

This research aims to investigate CRM in omnichannel and making the strategy suggestion. This paper takes customer loyalty as the company goal, and data were collected primarily by means of case study and online questionnaire.

Case Study Method

Case study is an empirical inquiry that inquire into the contemporary phenomenon in real-life, especially when it has lots variables needed to prove by multiple source of evidence (Yin, 2017). The Case Study method examines a person, place, event, phenomenon or other analytical topics to extrapolate key theme and results that help predict future trends, clarify issues and applied to practice before, and/or provide a means to understand an vital research problem clearly (USCLibraries, 2020).

This research use eslite to be the single case that Benbasat, Goldstein& Mead (1987) discover that the single case is suitable for the early stage of theory or the theory test in the later period. The purpose it to clarify the naturally occurring sources of information, for example the customer online and offline shopping behavior preference. eslite is the representative cultural and creative department in Asia. It also meet the all criteria that the author listed in the above chapter. The case is inspirable and pivotal.

Case Critiria

This study required a business to engage in the present phenomenon in the natural environment. Our primary

objectives are highlight the service experience and strategy in omnichannel CRM in a cultural and creative organization from this case study. This case need to meet the criteria of valuing CRM, conducting omnichannel strategy and be a cultural and creative enterprise. Therefore, eslite is a critical case that satisfies all conditions and being an representative cultural and creative firms in Asia. Through the study of particular case, we understand the insights of omnichannel CRM phenomenon. We choose the instrumental case which to gain a deeper understanding of the phenomenon itself.

Case Introduction

According to the selected criteria mentioned above, the research choose eslite spectrum as a case study, and explore the customer relationship and suggestion for the business strategies. The selected reason can be seen in the following enterprise background introduction terms. eslite philosophy is sharing the joy of books with people, and integrate humanities, the arts, and creativity into life. They are not only a department store, they are a platform in cultural and creative industries. eslite spectrum is defined as the omnichannel platform for creative and cultural commerce, which connecting culture, creativity and commercial activities to develop omnichannel of lifestyle brands, restaurants and hotels (eslite, 2020). After three years organized and constructed, eslite step into omnichannel in 2020. The purpose of this is to be able to run events or disseminate messages to specific customer groups, Mercy Wu (吳曼潔)said (張玉鉉, 2020a). For the existing 2.57 million members of eslite, the APP and the membership system were launched on September first. Members are crucial for eslite. Before the epidemic period, the members consume contributed about 50% of our revenue, and under the epidemic their contribution is higher to 60%, so we hope to move toward to 70% in the future(張玉鉉, 2020b).



Figure 3. Eslite Spectrum Logo (Source: <http://www.eslitespectrum.com.tw/>, 2020)

Online Questionnaire

An increasing communicative activity that takes place through the internet led to increased use of online surveys. A study indicates the advantage and disadvantages of online surveys (Doody & Noonan, 2013). Advantages include access to participants who in distant and difficult to contact, and the convenience of data collection automatically, which reduces cost and researcher time and effort. Disadvantages of online survey research include uncertain of data and sampling, and the concerns of the design, implementation, and evaluation of online surveys.

In order to get the general thinking, feeling and motivation of generation X consumption behavior in omnichannel, we conducted an online questionnaire to identify the key factors in retail service experience and CRM improvement suggestion. The questionnaire design is based on the consumption experience data collection from the customer satisfaction scale and APP usability scale. The subject who have experience shopping in eslite spectrum can fill up the online questionnaire which collected information concerning their eslite spectrum consumption behavior, customer satisfaction and App usability. Responses are quantified on a 5-point Likert-type scale according to the satisfaction or agreement which experiences occurred, with 1 = "strongly dissatisfied/ disagreed " and 5 = "strongly satisfied/ agreed. The questionnaire consists of 35 items and divided into four parts:

- Basic information: gender, age, monthly cultural consumption, eslite membership levels
- Part 1: Survey on the eslite spectrum's customer satisfaction
- Part 2: Survey of eslite spectrum's omnichannel usage habits, purchasing habits
- Part 3: Survey on the usage habits and usability of the eslite App

Data Analysis

We use SPSS statistical software package to analyze the data. First, descriptive statistics were computed to analyze basic information, omnichannel usage habits of two customer groups in order to understand the sample distribution. Next part of the analysis used *t*-test to detect significant the difference between the two groups.

Results and Discussion

This research conducts an online questionnaire from 17th April 2021 to 13th May 2021. We conduct quantitative research of online questionnaire survey to collect opinion from those who have consumed experience in eslite spectrum. This questionnaire is conducted through the SurveyCake online questionnaire. The questionnaire distribution channels are Facebook community and fan page related to the cultural and creative industry, including "Book Reading Association", "Art and Literature, Big and Small Events", "Design Friends", "Art-Works Exhibition Platform" and many more. A total of 277 people answered.

Basic information

This part is mainly to understand the status, consumption habits and eslite spectrum membership level. Approximately 70% of the respondents are 20-29 years old, and the remaining respondents are relatively distributed across 30-39 years old(11.1%), 40-49 years old (7.9%), under 20 years old(4.6%), 50-59 years old(4.3%), 60-69 years old(1%) and above 70 years old(0.3%). In eslite spectrum membership demonstrates that around half of respondents is member of eslite spectrum, and the other half of respondents 31% are white level, 15.8% are gold level and 3.6% are black level.

Table 1. Basic Information

Variables		N(%)
Gender	Male	67(24.1%)
	Female	210(75.8%)
Age	≤ 20	13(4.6%)
	20-29	195(70.3%)
	30-39	31(11.1%)
	40-49	22(7.9%)
	50-59	12(4.3%)
	60-69	3(1%)
	≥70	1(0.3%)
Monthly Cultural Consumption (NTD)	≤500	90(32.4%)
	501-1,000	107(38.6%)
	1,001-5,000	68(24.5%)
	5,001-10,000	8(2.8%)
	10,001-30,000	3(1%)
eslite Membership Levels	≥30,001	1(0.3%)
	White	86(31%)
	Gold	44(15.8%)
	Black	10(3.6%)
	None	137(49.4%)
Total		277

Part 1: Survey on the eslite spectrum's customer satisfaction

Subjects were divided into two groups in terms of age between 40 to 59 years old and others, with 34 number subjects in generation X group and 243 number subjects in other age groups. We have carried out an independent-sample t-test to compare these 2 groups. When Table 2 is examined, it was observed that most of the elements show that there was no significant difference in generation X and other group score averages due to active sports ($p > 0.05$). However, the t-test analysis indicates a significant difference in “Physical facilities and equipment” of “Tangibles Components” between means of generation X groups. $t = -3.266$, $p = .001$, $p < .05$. Overall, the results have been positive about generation X's attitude toward eslite spectrum CRM. However, below table 2 also shows that the “Physical facilities and equipment” is relatively unsatisfied for generation X.

Table 2. Comparison of Generation X and Other Generation Groups according to the Customer Satisfaction Elements

Variables	<i>M (SD)</i>			
	Generation X (<i>N</i> =34)	Others (<i>N</i> =243)	<i>t</i>	<i>p</i>
1. Accurate Service	3.44(.660)	3.57(.743)	-.943	.346
2. Dependable Service	3.74(.666)	3.79(.687)	-.437	.662
3. Caring Service	3.29(.676)	3.51(.735)	-1.621	.106
4. Individualized Service	3.21(.687)	3.27(.765)	-.445	.657
5. Willingness to provide prompt service	3.38(.853)	3.65(.802)	-1.700	.264
6. Willingness to provide immediate service	3.26(.828)	3.53(.849)	-1.744	.82
7. Commodity	3.68(.589)	3.92(.714)	-1.913	.057
8. Physical facilities and equipment	3.79(.729)	4.23(.728)	-3.266	.001*
9. Knowledge of employees inspire trust and confidence	3.65(.774)	3.88(.726)	-1.743	.082
10. Courtesy of employees inspire trust and confidence	3.71(.799)	3.94(.704)	-1.772	.078

Part 2: Survey of eslite spectrum's omnichannel usage habits, purchasing habits

Table 3. Comparison of Generation X and Other Generation Groups according to the Channel Satisfaction Elements

Variables	<i>M (SD)</i>			
	Generation X (<i>N</i> ≤34)	Others (<i>N</i> ≤243)	<i>t</i>	<i>p</i>
Physical store	3.71(.693)	4.21(.626)	-4.084	.000*
eslite APP	3.28(.669)	3.51(.729)	-1.287	.200
eslite. com	3.33(.686)	3.52(.777)	-.982	.328
Social Media	3.31(.479)	3.61(.707)	-2.248	.035*
Podcast	3.33(.492)	3.34(.673)	-.050	.960
Physical News and Magazine	3.5(.511)	3.59(.669)	-.647	.518
Online News and Magazine	3.32(.477)	3.59(.705)	-2.384	.023*
Post Mail	3.28(.669)	3.37(.752)	-.486	.628
E-mail	3.26(.653)	3.55(.747)	-1.616	.108
Call Center	3.31(.630)	3.41(.839)	-4.07	.685
SMS	3.50(.760)	3.49(.784)	.058	.954
Off-line Advertising	3.46(.509)	3.63(.778)	-1.021	.309

In this part, we are testing two groups of people's levels of channel satisfaction. Notably, there are not all people have experience with all the channels, therefore, we eliminate invalid respondents (Undecided) in the corresponding channel analysis. The t-test statistic in Table 3 show that exclude social media, physical stores and online news and magazine, most of the channel satisfaction test is not significant. The independent t-test indicates that there is a significant difference in physical store $t = -4.084$, $p = .000$ $p < .05$, social media $t = -2.248$, $p = .035$ $p < .05$ and online news and magazine $t = -2.384$, $p = .023$ $p < .05$. Results of the statistical analysis reveal that not only the online “Social Media” and “News and magazine” doesn’t satisfy generation X, but also physical store provides more negative feeling to generation X than other generation.

Part 3: Survey on the usage habits and usability of the eslite App

The result of the t-test shows a significant effect of the “Processes input immediately” of the “Speed” component and the “Find information at any time” of the “Omnipresence” component(see Table 4). There are significant difference score of “Processes input immediately” amongst generation X($M=2.63$, $SD=.744$) and others($M=3.48$, $SD=.741$), $t = -3.099$, $p = .003$, $p < .05$. Also, there is a statistically significant difference of “Find information at any time” between generation X($M=3.13$, $SD=.641$) and others($M=3.66$, $SD=.671$), $t = 88$, $p = .034$, $p < .05$. Clearly, the findings indicate that the eslite App process input and information finding is more negative for generation X.

Table 4. Comparison of Generation X and Other Generation Groups according to the Usability of the Eslite App

Variables	<i>M (SD)</i>		<i>t</i>	<i>p</i>
	Generation X (<i>N</i> =8)	Others (<i>N</i> =82)		
1. Clear and understandable	3.5(.756)	3.67(.589)	-.763	.447
2. Easy to use	3.38(.744)	3.66(.724)	-1.031	.331
3. Feeling I am unique customer	3.13(.835)	3.10(.730)	1.00	.920
4. Customized information and activities	2.63(.916)	3.06(.743)	-1.553	.124
5. Processes input immediately	2.63(.744)	3.48(.741)	-3.099	.003*
6. Obtain the information immediately	3.31(.641)	3.59(.753)	-1.669	.099
7. Feel entertained	3.00(.535)	3.44(.755)	9.959	.060
8. Feel pleased	3.25(.707)	3.51(.724)	-.979	.330
9. Find information at any time	3.13(.641)	3.66(.671)	88	.034*
10. Find information at any place	3.25(.707)	3.63(.676)	88	.130

Conclusion

These results are consistent with the Taiwan Consumer Generation Lifestyle Report(2014) for different generation leisure activities and draw several implications from the statistic about generation X. The most important findings from these data suggest that generation X has a negative feeling to the channel of eslite spectrum. Generation X doesn't shop online much, but they concerned about the speed and anytime they could acquire the wanted information from eslite App. In addition, they use fewer apps, websites and social media compare to other generations, but watch more both physical and online news and magazine. They would like to shop in a physical store, however, the physical facilities and equipment of store tangible service need to be improved. In other words, the omnichannel CRM for generation X is providing fast and omnipresence information online to attract them to visit the comfortable and suitable tangible service offline store.

Results of different surveys are discussed, and a comparison is made between the omnichannel definition from previous scholars and eslite spectrum omnichannel strategy. Up to this point, the customer is not using the omnichannel interact with eslite spectrum. Customers are only using one or more than one channel, but not all the channels, and that is the phase of multichannel or probably crosschannel. Although the omnichannel CRM of eslite spectrum is not conclusive, they are certainly in the right direction. Future work will hopefully clarify what is generation X omnichannel CRM expectation and imaginary. More extensive research would be necessary to definite the generation's inner voice and emotional feeling along these lines.

References

- Baek, T. H., & Yoo, C. Y. (2018). Branded app usability: Conceptualization, measurement, and prediction of consumer loyalty. *Journal of Advertising*, 47(1), 70-82.
- Bellman, S., Potter, R. F., Treleven-Hassard, S., Robinson, J. A., & Varan, D. (2011). The effectiveness of branded mobile phone apps. *Journal of interactive Marketing*, 25(4), 191-200.
- Brynjolfsson, E., Hu, Y. J., & Rahman, M. S. (2013). *Competing in the age of omnichannel retailing*: MIT Cambridge, MA.
- Chablo, E. (2000). The importance of marketing data intelligence in delivering successful CRM. In *Customer Relationship Management* (pp. 57-70): Springer.
- Chen, I. J., & Popovich, K. (2003). Understanding customer relationship management (CRM). *Business process management journal*.
- Desai, P., Potia, A., & Salsberg, B. (2017). *Retail 4.0: The Future of Retail Grocery in a Digital World*. Retrieved from
- Doody, O., & Noonan, M. (2013). Preparing and conducting interviews to collect data. *Nurse researcher*, 20(5).
- Emma Sopadjieva, Dholakia, U. M., & Benjamin, B. (2017). A Study of 46,000 Shoppers Shows That Omnichannel Retailing Works.

- eslite. (2020). 經營內容. Retrieved from https://www.eslitecorp.com/eslite/index.jsp?site_id=eslite_tw&func_id=39d4c7f715
- Ieva, M., & Ziliani, C. (2018). The role of customer experience touchpoints in driving loyalty intentions in services. *The TQM Journal*.
- Kim, J., Suh, E., & Hwang, H. (2003). A model for evaluating the effectiveness of CRM using the balanced scorecard. *Journal of interactive Marketing*, 17(2), 5-19.
- Molinillo, S., Navarro-García, A., Anaya-Sánchez, R., & Japutra, A. (2020). The impact of affective and cognitive app experiences on loyalty towards retailers. *Journal of Retailing and Consumer Services*, 54, 101948.
- Payne, A., & Frow, P. (2005). A strategic framework for customer relationship management. *Journal of marketing*, 69(4), 167-176.
- Pitta, D., & Gurău, C. (2012). A life-stage analysis of consumer loyalty profile: comparing Generation X and Millennial consumers. *Journal of consumer Marketing*.
- Swift, R. S. (2001). *Accelerating customer relationships: Using CRM and relationship technologies*: Prentice Hall Professional.
- Taiwan Consumer Generation Lifestyle Report*. (2014). Retrieved from https://www.nielsen.com/wp-content/uploads/sites/3/2019/04/Taiwan_Consumer_Generation_Lifestyle_report_CHI_DIGITAL_FINAL.pdf
- USCLibraries. (2020). Writing a Case Study. Retrieved from <https://libguides.usc.edu/writingguide/casestudy>
- Verhoef, P. C., Kannan, P. K., & Inman, J. J. (2015). From multi-channel retailing to omni-channel retailing: introduction to the special issue on multi-channel retailing. *Journal of retailing*, 91(2), 174-181.
- Wu, J., Wang, Y., Zhang, R., & Cai, J. (2018). An approach to discovering product/service improvement priorities: Using dynamic importance-performance analysis. *Sustainability*, 10(10), 3564.
- Yin, R. K. (2017). *Case study research and applications: Design and methods*: Sage publications.
- 李嘉崑, & 陳信助. (2020). 台灣主題遊樂園品牌形象管理指標建構研究－以南部地區為例. [Developing indices of brand image management for the theme parks in southern Taiwan]. *人文與社會學報*, 3(9), 93-127.
- 張玉鉉. (2020a, 2020.09.09). 上半年首嘗赤字苦果！這次誠品按下轉型啟動鍵 掌門人吳旻潔：我已準備三年. *今周刊*, 1238. Retrieved from <https://www.businesstoday.com.tw/article/category/80408/post/202009090005/>
- 張玉鉉. (2020b). 「寧願不開店也要守住誠品精神！」董座吳旻潔：2021年要結束舊包袱，迎接新常態. *今周刊*. Retrieved from <https://www.businesstoday.com.tw/article/category/183016/post/202009040011>

Design Thinking as an Educational Innovation Way: A Case Study of Design for Change Taiwan (DFC Taiwan)

Wan-Ting Lin

National Cheng Kung University, Taiwan,  <https://orcid.org/0000-0001-6731-3974>

Abstract: A skills gap from theoretical knowledge to practical application is always a critical issue in Taiwan's education field. The launch of 12- year Basic Education Curriculum and the emergence of the educational innovation industry arouse the awareness of project-based competency-oriented curriculum design. Introducing design thinking into the educational field has received significant attention in recent years owing to the fact that the characteristics of design thinking track with a similar vision of the "core competency" listed in the 12- year Basic Education Curriculum, including emphasizing on exploring and doing, interdisciplinary integration, and the real-world scenario. This research takes the "Campus Ambassador Program" held by Design for Change Taiwan (DFC Taiwan), an educational innovation organization, as a case study. The method of semi-constructed in-depth interview is selected to gather the information from the student teachers of the program's participants as well as the staffs of DFC Taiwan who are responsible for this program, in order to know the effectiveness of the student teachers' design thinking education program.

Keywords: 12- year Basic Education Curriculum, educational innovation, design thinking, student teacher education program

Introduction

Recent years have seen increased attention being given to future competencies in several pieces of literature. According to the World Economic Forum's Future of Jobs Report (2020), the top five competencies required in the future are respectively analytical thinking and innovation, active learning and learning strategies, complex problem-solving, critical thinking and analysis, and creativity, presenting almost 50% of employees will need to re-develop their skills by 2025. There is a skills gap from theoretical knowledge to practical application, which leads to the insufficient of talents become one of the critical problems in Taiwan (IBM, 2018). Over the last few decades, various issues of significance have emerged, leading to substantial changes in the social and economic phenomenon, such as population aging, attention to ecologically sustainable development, and rapid development of technology. Due to the uncertainty, what a school can prepare for children are the jobs which haven't exist, the technology which hasn't been invented, and the social issues which haven't emerge (OECD, 2018). The increasing mobility among countries and the integration of various culture, human beings in this

global village require a brand-new way to communicate and cooperate with each other (European Commission, 2018). Education is the primary channel to make the goals of sustainable development been achieved, which bear the burden of delivering the knowledge and skills to the expected future (Giangrande et al., 2019). The educators, education experts, and the educational leaders are compelled to practice in complex conditions and ever changing environment (An, 2020, 2021; Basuhail, 2019; Gentile & Oswald, 2021; Robertson & Webber, 2002), in order to support students sufficient competencies to succeed in work, life and citizenship (Battelle for Kids, 2019). The issues mentioned above not only bring challenges to education but also displayed that it's essential to make the educational system keep pace with the global trends and social needs (Ministry of Education, 2014).

The Launch of 12- year Basic Education Curriculum in Taiwan

In order to cultivate the ability to solve future challenges, the Ministry of Education in Taiwan launched the 12-year Basic Education Curriculum in 2014 and activated in 2019, which claimed the new visions with core competencies as its highest priority. According to the new guideline of education curriculum, these core competencies can be divided into three broad dimensions and nine items, with the spirit of lifelong learning (Ministry of Education, 2014). These three basic dimensions, namely, spontaneity, communication and interaction, and social participation, respectively includes three items as the more detailed skills (See Figure 1). For spontaneity dimension, it involves physical and mental wellness and self-advancement, logical thinking and problem solving, and planning, execution, innovation and adaptation. Next, communication and interaction dimension entails semiotics and expression, information and technology literacy and media literacy, and artistic appreciation and aesthetic literacy. Last, social participation contains the concept of moral praxis and citizenship, interpersonal relationships and teamwork, and cultural and global understanding. The concept of competency can be formally defined by Ministry of Education (2014) as “core competency encompasses all information, ability, and attitude that a person should possess to equip him or her for daily life and for tackling future challenges.”

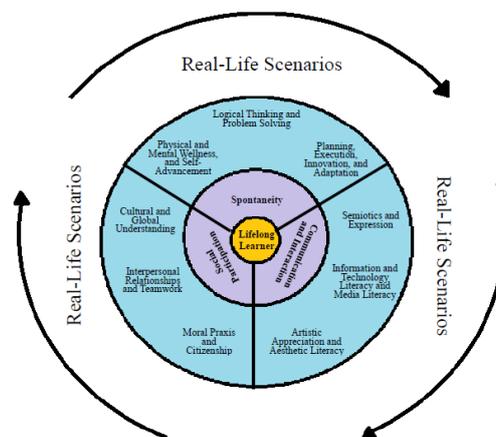


Figure 1. Wheel-in-action Diagram of Core Competencies

(Source: Ministry of Education in Taiwan, 2014)

Core competencies, as the central basis of curriculum development for general education domains and subjects, are adopted to ensure continuity among educational stages. This new guideline pays attention to competency-oriented teaching and focuses on the combination of learning and living. Transfer of learning occurs when students transfer the learning in school to the future learning process and impact their performance in another context (Perkins & Salomon, 1992). Only when transfer learning exists, students equip the abilities to solve problems in real life (陳雅慧, 2019). The primary goal for equipping core competencies is to make every student encompass the knowledge, abilities, and attitude to adapt to a rapid-changing world and conquer the difficulties in the future (Ministry of Education, 2014). Under the vision of the new guidelines, teachers are expected to equip with the abilities to establish a project-based framework of courses integrating different subjects (范正祥, 2020). Teachers have to develop cross-disciplinary and project-based hands-on learning content to cultivate students' skills of integrating their learning and applying them into real-world situations (Ministry of Education, 2014).

Design Thinking as an Educational Way

Over the past few decades of research on innovation methods, a number of approaches emerges with the purpose to satisfy the demand of increasing interdisciplinary cooperation under the rapid-changing world. Design thinking, as one of the innovative approach, appears and make its way to operate in all industries (Arkin Efeoglu1, 2013). Act as a concrete framework working on wicked problems (Rittel & Webber, 1973), design thinking integrates and applies the knowledge through actual practices and interdisciplinary grouping, with the aim of solving current issues (Noweski et al., 2012). The concept of wicked problems is raised by Horst Rittel (Rittel & Webber, 1973) with the statement "class of social system problems which are ill-formulated, where the information is confusing, where there are many clients and decision makers with conflicting values, and where the ramifications in the whole system are thoroughly confusing." (Buchanan, 1992). Based on the nature of embracing challenges, design thinking enables innovation to replace strategic management as an approach to tackle the wicked problems in the complex society (Brown & Wyatt, 2010; Johansson-Sköldberg, Woodilla, & Çetinkaya, 2013). An interdisciplinary team and project-based design work, therefore, become the key characteristic of design thinking, which as well as represent the feature that design thinking is opened for those without a design background (Brown & Katz, 2011; Dunne & Martin, 2006; Johansson-Sköldberg et al., 2013; Scheer, Noweski, & Meinel, 2012).

David Kelley proposed that a "design-thinker" involves eight core design abilities which is indispensable to solve the complex problems in creative ways within Design Thinking methodology (IDEO U, 2020). These eight abilities refer to the primary competencies as a creative problem solver (See Figure 2): 1. Navigate ambiguity; 2. Learn from others (people and contexts); 3. Synthesize information; 4. Experiment rapidly; 5. Move between concrete and abstract; 6. Build and craft things intentionally; 7. Communicate deliberately; 8. Design your design work. The above abilities are all about how a designer tackle real-world issues by discovering the phenomenon through the interaction with the world, analyzing current situation and data,

conducting the experiments practically, and evaluating possible outcome. These characteristics of design thinking track with a similar vision of the core competency, especially the concept of learning through experience within the authentic tasks, building knowledge through interaction with external contexts (Noweski et al., 2012; Scheer et al., 2012).



Figure 2. The 8 Design Abilities of Creative Problem Solvers
(Source: IDEO U, 2020)

From instructor perspective, teachers as facilitators to help different students go through their individual learning process by establish a learning scaffold. Considering students' participation and engagement, teachers can design the learning experience to motivate students through selecting the theme related to their interests or background (Noweski et al., 2012; Scheer et al., 2012). Under Design Thinking process, teachers need to offer timely supports and create a suitable learning atmosphere to students. Therefore, one of the effective ways to introduce design thinking into education will be arming the existing teachers and student teachers with the abilities to adopt design thinking. Some of the educational innovation organizations have tried to create the possibilities to induce the training programs for teachers with the hope to empower teachers to equip skills to teach interdisciplinary project-based courses.

The Emergence of Design Thinking Educational Innovation Organization

Educational innovation is to provide better educational services in novel ways to achieve educational goals, and it is also the practice of creativity (林偉文, 2019). OECD (2017) presumed that educational innovation organizations are those whose aim is to improve the provision of education through different approaches, including: 1. New products and services, such as new syllabus, textbooks or educational resources; 2. New processes for delivering their services, such as e-learning services; 3. New ways of organizing their activities, for example communicating with students and parents through digital technologies; 4. New marketing techniques, such as differential pricing of postgraduate courses. Educational innovation organizations can be viewed from different aspects. First, the organizations are broadly referred to as education-related groups, such as schools, training centers, universities, education publishers, and teaching communities. Next, from the perspective of the field to practice, educational innovation can be practiced in classrooms, specific activities,

online groups, certain organizations, the whole education system, and society. When it comes to the form of educational innovation, it may occur in not only formal education but also informal education (林偉文, 2019).

Design thinking can be viewed as a new teaching process or a new teaching way within educational context. Under the trend of educational innovation, some of the design thinking organizations gradually put their stress on the industry of educational innovation. The K12 Lab program, originated from d.school at Stanford University, is a teacher-training project which aims to teach teachers an innovative pedagogy to engage every student with creative and inspiring learning experiences. With the vision to alleviate educational inequality, repeal the opportunity gaps, and ensure an inspiring learning experience, The K12 Lab provides educational activities such as workshops, events, and resources for the global K-12 educators and teachers. Design for Change (DFC) is an international organization that aims to equip children with the abilities to be aware of the world around them, take action for certain issues, and be empowered to design a sustainable society. Design for Change Taiwan (DFC Taiwan), the national affiliate of Design for Change World (DFC World), aims to make the impact of changing children's mindset in Taiwan. Along with the vision of DFC World, DFC Taiwan believes that every child will be willing to face the future challenge by using the simple four steps formula originated from design thinking. Bringing new curriculum design methods and novel pedagogy into schools, DFC Taiwan provides Taiwanese educators to facilitate their students to make a transformation from empathizing with the surrounding to taking real social action.

Method

Case Introduction: Design for Change Taiwan

Design for Change Taiwan (DFC Taiwan), as a typical example of educational innovation organizations, devotes to help children become creative, proactive, empathetic and responsible citizens. As the national affiliate of Design for Change World (DFC World) which is founded by Kiran Bir Sethi in 2001 at India, DFC Taiwan followed a simple four steps formula– Feel, Imagine, Do, and Share (FIDS) –to make every child establish “I CAN” mindset (Design for Change, 2020). Following the FIDS design process, which is one of the design thinking frameworks, children will get through multiple trials and errors from empathizing with the world around them to coming up with several new solutions. Through the “Design for Change Challenge” which is held around the world, it has solved more than 18,000 problems in more than 40 countries, 48,000 schools, more than 60,000 teachers and 2 million children worldwide in only 7 years. Most of the affiliates of DFC are operated by the name of social enterprises or non-profit organizations. DFC Taiwan, established in 2010 and operated by a non-profit organization, has solved more than 800 problems conducted by more than 300 teachers and 3600 children till 2019.

In addition to the support for children, DFC Taiwan has conducted teacher training program in order to empower teachers and build the bridge between design thinking as constructivist learning pedagogy and teachers in schools. Through bringing new curriculum design methods and novel pedagogy into schools, DFC

Taiwan has cooperated with the domestic elementary schools and secondary schools to hold more than 500 speeches and 500 workshops in schools. In addition, DFC Taiwan has developed the “Seed Schools Project (種子學校計畫)” and cultivated the “Seed Teachers Certification Program (種子教師培訓計畫)” as a way to introduce design thinking methods into the formal schools. Through long-term training and support, DFC Taiwan helps the traditional school system to transform into a project-based, interdisciplinary, competency-oriented learning environment. In recent years, DFC Taiwan collaborates with the National Taipei University of Education and operate the “Campus Ambassador Program (校園大使計畫)”, which aims to develop student teachers training system. Under this program, the participants will receive training and supervision from DFC Taiwan to design curriculum structure and develop suitable pedagogy on the basis of design thinking.

Overall, DFC Taiwan is an educational innovation organization that takes the design thinking process as the constructivist learning methods to develop the project-based curriculum design for all the educators and students in Taiwan. This study will focus on the program of student teachers training, that is, “Campus Ambassador Program” held by DFC Taiwan, due to the dual role at student and teacher simultaneously, which are able to take a holistic view on training process. Furthermore, every participant of Campus Ambassador Program will accept the assessment from DFC Taiwan in order to evaluate the effectiveness of learning, which offers the evaluation mechanism of design thinking curriculum design.

Research Method

To investigate how design thinking evaluation mechanism is worked to assess the learner’s performance, the study was designed based on a qualitative approach to data collection. With qualitative method research, it provides the opportunities to describe a phenomenon in context and explore the in-depth insight into the complex problems (Baxter & Jack, 2008). The researcher uses qualitative method to understand how their target audience experience the world. By collecting their opinions, concepts, and experiences, the researcher is able to gather the deeper perception or generate new ideas (Pritha Bhandari, 2020).

This study takes case study and semi-structured in-depth interview as the data collection methods. Case study approach was selected in this research due to its features that gaining concrete, contextual, in-depth knowledge from a certain subject in real-world phenomenon (Shona McCombes, 2020). As the only non-profit informal educational innovation organization that introduce design thinking pedagogy into elementary schools, DFC Taiwan embeds the unique position. The Campus Ambassador Program can be described as a special project because it focuses on equipping student teachers with the capabilities to design a project-based competency-oriented curriculum and constructivist learning pedagogy based on design thinking methodology. Therefore, taking DFC Taiwan as a case study is helpful for the research to investigate the in-depth insights and generate new ideas from the exploration of the selected program.

As one of the qualitative research methods, the in-depth interview approach is a technique that aims to discover

the perspectives and opinions on a certain program, issue, or feature from an individual or a small number of participants (Boyce & Neale, 2006). Through conducting intensive interviews, this data collection method provides opportunities to gather abundant non-numerical information on people's perspectives and behaviors (B2B International, 2020). Semi-structured interviews, between structured and non-structured interviews, are the in-depth interview with a freedom structure that the researcher will preset open-ended questions for the respondents but also propose the associated non-prepared problems during interviews (Jamshed, 2014). The researcher allows for a discussion with the participants without strictly following formalized questions, which encourage two-way communication in order to gain a comprehensive understanding of the participants' opinions (Alison Doyle, 2020). Under the interviews with the staff of DFC Taiwan as well as the participants of the Campus Ambassador Program, the researcher can collect qualitative data on their point of views and behaviors with the aim to dig deeper insight from the non-numerical information.

Results

Interview Structure

This research was conducted to interview the staff of DFC Taiwan and the student teachers participating in the Campus Ambassador Program with the purpose to get more information on design thinking courses planning and evaluating and the feedback of these design thinking courses. The total four interviewees are as follows (Table 1): first is Ms. Deng, The person in charge of the Campus Ambassador Program in DFC Taiwan. She is in charge of the administration of the Campus Ambassador Program and also designs the curriculum for the participants of this program, which will offer information about design thinking curriculum design. The second and Third interviewees are Ms. Sun and Ms. He, the student-teacher participants of the Campus Ambassador Program. They represent the opinion and feedback from the trainees of design thinking courses, which will provide the information of learning results of the design thinking training program.

Table 1. Interviewee Profiles

Name	Job Title	Description	Interview Date
Ms. Deng	Member of Curriculum Service Team in DFC Taiwan	The person in charge of the Campus Ambassador Program in DFC Taiwan	2021, 02/01
Ms. Sun	Student in National Taipei University of Education, major in Special Education	Take part in the student-teacher program and participate in Campus Ambassador Program	2021, 03/13
Ms. He	Student in National Taipei University of Education, major in Education	Take part in the student-teacher program and participate in Campus Ambassador Program	2021, 03/15

With the aim to understand the detailed expected learning goals, evaluating mechanism, and the lesson plans for the student teachers who participate in the Campus Ambassador Program, the researcher categorized the

interview questions into three parts, which are desired results, assessment evidence, and lesson planning (See Table 2). The same interview questions will be asked in each phase of FIDS.

Table 2. Curriculum Design Interview Questions

Desired Results	In this course, what do you expect students to understand, to learn, or to be able to do after learning? What elements need to be learned by students? How will we know if students have achieved the desired results? How will we evaluate student performance and what are the evaluation criteria?
Assessment Evidence	What will we accept as evidence of student understanding and their ability to use (transfer) their learning in new situations (the "proof of acquisition" ex: learning sheet, experiment history, paper and pencil test, etc. that students can provide)?
Lesson Planning	Based on the desired results and assessment evidence mentioned above, what are your planned curriculum design and teaching methods (the current curriculum content and pedagogy)?

In order to examine the learning transfer results and the effectiveness of design thinking education provided by the selected case, the researcher collects the viewpoints on the training courses of the student teachers. Based on the desired results answered by DFC Taiwan in the previous, the participants' "learning results evaluation" and the "lesson plan application and practice" will be explored to evaluate their understanding of design thinking. The interview questions will be divided into two parts. The same interview questions will be asked in each phase of FIDS (See Table 3):

Table 3. Participants' Feedback Interview Questions

Learning Results Evaluation	Do you think you have acquired the ability mentioned by DFC Taiwan? Where did you acquire this ability?
Lesson Plan Application and Practice	After acquiring this ability, how did you teach other students this ability? (How to apply on or design the curriculum?) Please share the course you have designed.

Data Analysis

From the interview with Ms. Deng, the person in charge of the Campus Ambassador Program in DFC Taiwan, the researcher can collect the information of program introduction as well as design thinking curriculum design. In this Campus Ambassador Program, most of the participants are sophomores and juniors. All the participants should make their own lesson plans for elementary school students under the DFC context as their final results.

After the training program, there will be expected to hold a winter camp for participants to teach the elementary school students in Taitung county, which is canceled due to the COVID-19, however. In this training program, DFC Taiwan hopes to establish a kind of mindset in the participants' mind and then integrate design thinking into the curriculum. The participants will go through the full version of design thinking, which follows the 5-step version from IDEO company, and then start to learn the 4-step version of DFC Taiwan.

As mentioned above, the interview with the staff of DFC Taiwan will follow the structure of desired results, assessment evidence, and lesson planning. Table 4 has presented the interview results on each phase, which provides substantial information about the detailed curriculum arrangement of the Campus Ambassador Program.

Table 4. The Summary of the Response from DFC Taiwan

Feel phase

Desired Results	<ul style="list-style-type: none">• The concept of human-oriented, which is to understand users' demands and solve the problems with the users
Assessment Evidence	<ul style="list-style-type: none">• The interview questions listed by the participants.• Observe students' performance based on the interview process and iteration process.• Evaluate their "POV" sentence and insight.
Lesson Planning	<ul style="list-style-type: none">• 1st: Introduce the topic, get to know all the possible problems, and let the students share their feeling about the given topic.• 2nd: Let students discover the possible problems and think from multiple perspectives through asking questions and using different design tools, such as empathy map and analysis of personnel, time and feature.• 3rd: Remind students to focus on human-oriented concept and do interviews and observation.• 4th: Converge the possible problems through the interview data and define the key problem. Create their own "POV sentence".

Imagine phase

Desired Results	<ul style="list-style-type: none">• Creative confidence, creativity, and delayed criticism
Assessment Evidence	<ul style="list-style-type: none">• Observe students' behavior during the discussion process.• Evaluate students' brainstorming results.• Observe the situation and atmosphere of teamwork.• Examine students' lesson plan.

-
- | | |
|-----------------|---|
| Lesson Planning | <ul style="list-style-type: none">• Create and let students experience a comfortable conversation environment through some activities, such as Story Solitaire.• Set up a discussion rules during the ideation phase.• Set up the goal and POV sentence.• Brainstorming in stages.• Set up idea selection criteria. |
|-----------------|---|

Do phase

- | | |
|---------------------|---|
| Desired Results | Work division and action planning |
| Assessment Evidence | <ul style="list-style-type: none">• Observe whether the team finishes the lesson plan in time.• Observe the situation of homework submission. |
| Lesson Planning | <ul style="list-style-type: none">• Team building activities.• Three phases:<ol style="list-style-type: none">1. Planning period: ask team members to think about how to plan the follow-up actions and what else should be complete before the deadline. Teach them how to use the given form to arrange their actions.2. Execution period: use " Work Division Manual" to teach students how to divide the work effectively and how to support each other member. Students have to finish their own manual by answering the following three questions: how can you communicate/cooperate with me, which cooperation way I prefer, and the way I'm used to expression.3. Closing period: use "feedback capture grid" to collect the feedback from target users by recording the points they like, the points they suggest, the points they're confused about, and the points they're surprised. |

Share phase

- | | |
|---------------------|---|
| Desired Results | Expression and the tips to give a speech |
| Assessment Evidence | <ul style="list-style-type: none">• The results of their sharing• Whether the students care about their audience category. |
| Lesson Planning | <ul style="list-style-type: none">• Prepare the Exhibition of Learning Process Achievements.• Guide the students to organize their own learning process portfolio.• Assist students in practicing how to give a speech. |
-

From the interviews with Ms. Sun and Ms. He, the participants of the Campus Ambassador Program, the researcher can collect the information of the learning results and lesson plan application and practice under this program. Table 5 has organized the participants' feedback on each phase, which offers the evidence of learning

effectiveness on design thinking training program.

Table 5. The Summary of the Response from the Program's Participants

<i>Feel phase</i>	
Learning Results	The participants learned the concept of human-oriented and acquire the abilities to understanding users' needs and empathize with others' situations.
Lesson Plan Application and Practice	The children's cognition is one of the main points when designing the lesson plan. The lesson of the Feel phase will go through a warm-up activity, doing field research, making a feeling map, making the analysis of personnel time and feature, doing interviews, giving feedback, making an empathy map, and define their point of view (POV).
<i>Imagine phase</i>	
Learning Results	The participants enjoy the brainstorming process and are more willing to share different ideas and embrace the ideas from different perspectives.
Lesson Plan Application and Practice	The participants prepared several methods of association and also the rules of ideation to conduct the brainstorming activities.
<i>Do phase</i>	
Learning Results	The participants have already acquired the abilities of work division and action planning, but they also agree that these abilities are strengthened through the training. In addition, the participants also acquired the methods of leading other people to divide their work.
Lesson Plan Application and Practice	Based on the forms and study sheets introduced by DFC Taiwan, the participants will use them to guide the children to explore each other's advantages. Besides, the concept of the prototype is introduced to the children in an understandable way.
<i>Share phase</i>	
Learning Results	The participants think that the abilities of expression and the tips to give a speech are cultivated while they grew up, but they also agree that these abilities are strengthened through the training.
Lesson Plan Application and Practice	The user testing activity and the final presentation are carried out. An interview is selected to do user testing and a form of Feedback Capture Grid is given to the children.

Discussion

Based on the information collected from the staff of DFC Taiwan and the participants of the Campus Ambassador Program, the researcher discovered some confusing points and structural problems through the conducted interviews. This section will illustrate the key core issues which are highlighted by the researcher according to the collected data.

For the structural problems, according to the interview data, apparently, it is difficult to evaluate individual performance in this design thinking training program. Due to the fact that this program takes a group as a unit to conduct its lesson activities, the assessment evidence provided by the participants will be the result of teamwork instead of personal work. This problem can be traced back to one of the natures of design thinking, which is interdisciplinary collaboration, as well as project-based course design. Second, there are no certain evaluating criteria that can be measured. The result of collected data shows that the assessment evidence in each course is from the listed interview questions, the observation of discussion situations, the brainstorming results, and the result of the presentation, which is subjective and vague. It is hard to decide whether the outcomes made by the participants are correct or not owing to the fact that there is no right answer under the design thinking context.

From the lesson plan application and practice which is designed by the participants, it can be observed that most of the course activities follow the arrangement of DFC Taiwan. The participants tend to use the tools and forms introduced by DFC Taiwan to their own lesson plan, which result in the high similarity between the course design by DFC Taiwan and by the participants. This situation represents the possibility that it is challenging for the participants to design their own lesson plans even though they have acquired the abilities of design thinking. In addition, according to the interview result, each participant takes responsibility for a certain part of the lesson plan based on their work division, which leads to a fragmented understanding for the participants because they won't take care of other parts of the lesson plan. The participants are not familiar with their teammate's lesson plan although they design the activities for the same course.

For the confusing points, the researcher has gathered the information from the participants in each course. Owing to the fact that the objective of the Campus Ambassador Program for the participants is to teach elementary school students under the context of design thinking, they are asked to design the lesson plan with the aim to cultivate the children's basic abilities of design thinking. However, the gap in cognition between the adult and the children results in the importance of understandable language. The fact can be seen from the participants' feedback that they are uncertain as to whether the children can understand the message they deliver as well as the concept they teach. Additionally, it is difficult to predict the children's behavior because the participants have no experience in teaching students in elementary school. Although there will be a user testing stage for the participants to review and adjust their lesson plans, the tested users are not real elementary school students but the staff of DFC Taiwan. Therefore, the simplified instruction and the interpreted concept of design thinking might become the core elements while designing the course for the children.

Conclusion

As the only non-profit educational innovation organization which focuses on introducing design thinking into education, DFC Taiwan has a special role in Taiwan's educational system. With a simple four steps formula, DFC Taiwan devotes itself to make every child establish an "I CAN" mindset that children will get through multiple trials and errors from empathizing with the world around them to coming up with several new solutions. Not only the support for children, but DFC Taiwan has also conducted a series of teacher training programs in order to empower teachers and build the bridge between design thinking and teachers in schools.

This research takes the "Campus Ambassador Program", which aims to develop student teachers' training system, as a case to study the effectiveness of design thinking training program. The case study approach and semi-structured in-depth interview are selected as the data collection methods with the aim to get deeper information from the interviewees' perspectives. The research results show affirmative responses that the participants hold a positive attitude toward the design thinking training program. Based on the desired results raised by DFC Taiwan, the opinions from the participants represent that the abilities of design thinking are cultivated, which means that DFC Taiwan effectively introducing design thinking to education to a certain degree.

However, due to some limitations and structural problems, the simplified instruction and the interpreted concept of design thinking might become the core elements while designing the course for the children. The researcher hopes that this research can provide follow-up suggestions for those who pay attention to design thinking in elementary school while designing the curriculum for the children.

Recommendations

As mentioned above, individual performance is hard to evaluate in a group project. Although it is proved by the feedback of participants that they have acquired the corresponding abilities, it's challenging for teachers to control their lecture's tempo and follow up planning. Besides, the researcher cannot ensure that the participants had truly developed the abilities or not owing to the fact that there are no certain evaluation criteria for participants to check whether they have learned the concept. Based on these potential issues, it's recommended to pay attention to the assessment methods of individual performance under the group project in future work.

Acknowledgements

The author wishes to acknowledge the help of Design for Change Taiwan in data collection and analysis. I am grateful for the cooperation and interest of the person in charge of the Campus Ambassador Program in DFC Taiwan and the student teachers who are willing to accept my interview invitation. Besides, the quality of this research was greatly enhanced by the gracious assistance of Professor Chia-Han Yang, Institute of Creative

Industries Design at National Chen's Kung University, Taiwan, whose advice on the experimental design was invaluable for me.

References

- An, Y. (2020). Designing Effective Gamified Learning Experiences. *International Journal of Technology in Education (IJTE)*, 3(2), 62-69.
- An, Y. (2021). A History of Instructional Media, Instructional Design, and Theories. *International Journal of Technology in Education (IJTE)*, 4(1), 1-21. <https://doi.org/10.46328/ijte.35>
- Arkin Efeoglu1, C. M., Michel Sérié3, Harry Boer2. (2013). DESIGN THINKING: CHARACTERISTICS AND PROMISES.
- Basuhail, A. (2019). e-Learning Objects Designing Approach for Programming-based Problem Solving. *International Journal of Technology in Education (IJTE)*, 2(1), 32-41.
- Baxter, P., & Jack, S. (2008). Qualitative case study methodology: Study design and implementation for novice researchers. *The qualitative report*, 13(4), 544-559.
- Boyce, C., & Neale, P. (2006). Conducting in-depth interviews: A guide for designing and conducting in-depth interviews for evaluation input.
- Brown, T., & Katz, B. (2011). Change by design. *Journal of product innovation management*, 28(3), 381-383.
- Brown, T., & Wyatt, J. (2010). Design thinking for social innovation. *Development Outreach*, 12(1), 29-43.
- Buchanan, R. (1992). Wicked problems in design thinking. *Design issues*, 8(2), 5-21.
- Dunne, D., & Martin, R. (2006). Design thinking and how it will change management education: An interview and discussion. *Academy of Management Learning & Education*, 5(4), 512-523.
- Gentile, A., & Oswald, A. M. (2021). The Oswald-Gentile Model of Instruction: A Holistic Approach. *International Journal of Technology in Education (IJTE)*, 4(2), 229-246. <https://doi.org/10.46328/ijte.49>
- Giangrande, N., White, R. M., East, M., Jackson, R., Clarke, T., Saloff Coste, M., & Penha-Lopes, G. (2019). A competency framework to assess and activate education for sustainable development: Addressing the UN sustainable development goals 4.7 challenge. *Sustainability*, 11(10), 2832.
- Jamshed, S. (2014). Qualitative research method-interviewing and observation. *Journal of basic and clinical pharmacy*, 5(4), 87.
- Johansson-Sköldberg, U., Woodilla, J., & Çetinkaya, M. (2013). Design thinking: past, present and possible futures. *Creativity and innovation management*, 22(2), 121-146.
- Noweski, C., Scheer, A., Büttner, N., von Thienen, J., Erdmann, J., & Meinel, C. (2012). Towards a paradigm shift in education practice: Developing twenty-first century skills with design thinking. In *Design thinking research* (pp. 71-94): Springer.
- Perkins, D. N., & Salomon, G. (1992). Transfer of learning. *International encyclopedia of education*, 2, 6452-6457.
- Rittel, H. W., & Webber, M. M. (1973). planning problems are wicked. *Polity*, 4(155), e169.

- Robertson, J. M., & Webber, C. F. (2002). Boundary-breaking leadership: A must for tomorrow's learning communities. In *Second international handbook of educational leadership and administration* (pp. 519-553): Springer.
- Scheer, A., Noweski, C., & Meinel, C. (2012). Transforming Constructivist Learning into Action: Design Thinking in education. *Design and Technology Education: An International Journal*, 17(3).
- Ministry of Education (2014). Curriculum Guidelines of the 12-Year Basic Education. General Guidelines.
- Ministry of Education (2020, November). 教育部設計思考跨域人才培育計畫(苗圃計畫). Retrieved November 9, 2020, from <https://www.design-thinking.tw/introduction>
- IBM Institute for Business Value (2018, August). 傳統企業逆襲! 最新《IBM 全球高階主管調查報告》出爐. Retrieved November 8, 2020, from <https://www.ibm.com/news/tw/zh/2018/08/15/Z907725M74641Z92.html>
- 陳雅慧 (2019, September). 什麼是核心素養? 跨越科目疆界、把知識用出來. Retrieved November 9, 2020, from <https://www.parenting.com.tw/article/5073674-/>
- 范正祥 (2020, October). 全中教工會: 108課綱施行後 教師負擔變重. Retrieved November 9, 2020, from <https://www.cna.com.tw/news/ahel/202010150138.aspx>
- 林偉文 (2019, December). 創造力的複合觀點: 以教育創新為例 (上) . Retrieved November 29, 2020, from <https://medium.com/%E9%AD%9A%E6%B0%B4%E6%95%99%E8%82%B2%E5%82%AC%E5%8C%96%E5%8A%91-to-be-educational-catalyst/%E5%89%B5%E9%80%A0%E5%8A%9B%E7%9A%84%E8%A4%87%E5%90%88%E8%A7%80%E9%BB%9E-%E4%BB%A5%E6%95%99%E8%82%B2%E5%89%B5%E6%96%B0%E7%82%BA%E4%BE%8B-%E4%B8%8A-2ae2fad1fa14>
- 林偉文 (2019, December). 創造力的複合觀點: 以教育創新為例 (下) . Retrieved November 29, 2020, from <https://medium.com/%E9%AD%9A%E6%B0%B4%E6%95%99%E8%82%B2%E5%82%AC%E5%8C%96%E5%8A%91-to-be-educational-catalyst/%E5%89%B5%E9%80%A0%E5%8A%9B%E7%9A%84%E8%A4%87%E5%90%88%E8%A7%80%E9%BB%9E-%E4%BB%A5%E6%95%99%E8%82%B2%E5%89%B5%E6%96%B0%E7%82%BA%E4%BE%8B-%E4%B8%8B-1c48b4edd059>
- Alison Doyle (2020, June). What Is a Semi-Structured Interview? Definition & Examples of a Semi-Structured Interview. Retrieved November 30, 2020, from <https://www.thebalancecareers.com/what-is-a-semi-structured-interview-2061632>
- Battelle for Kids (2019). Framework for 21st Century Learning Definitions. Retrieved November 16, 2020, from http://static.battelleforkids.org/documents/p21/P21_Framework_DefinitionsBFK.pdf

- B2B International (2020). What is an in-depth interview?. Retrieved November 30, 2020, from <https://www.b2binternational.com/research/methods/faq/what-is-a-depth-interview/>
- European Commission (2018, January). Proposal for a Council Recommendation on Key Competences for LifeLong Learning. Retrieved November 16, 2020, from <https://data.consilium.europa.eu/doc/document/ST-5464-2018-ADD-2/EN/pdf>
- IDEO U (2020). David Kelley on the 8 Design Abilities of Creative Problem Solvers. Retrieved November 21, 2020, from <https://www.ideo.com/blogs/inspiration/david-kelley-on-the-8-design-abilities-of-creative-problem-solvers>
- OECD (2017). Measuring Innovation in Education, A JOURNEY TO THE FUTURE. Retrieved November 29, 2020, from https://www.oecd.org/education/ceri/Measuring_Innovation_16x23_ebook.pdf
- Organization for Economic Cooperation and Development (2018, Apr). Future of Education and Skills, Education 2030. Retrieved November 16, 2020, from [https://www.oecd.org/education/2030/E2030%20Position%20Paper%20\(05.04.2018\).pdf](https://www.oecd.org/education/2030/E2030%20Position%20Paper%20(05.04.2018).pdf)
- Pritha Bhandari (2020, July). An introduction to qualitative research. Retrieved November 30, 2020, from <https://www.scribbr.com/methodology/qualitative-research/>
- Shona McCombes (2020, June). How to do a case study. Retrieved November 30, 2020, from <https://www.scribbr.com/methodology/case-study/>
- World Economic Forum (2020, Oct). The Future of Jobs Report 2020. Retrieved November 17, 2020, from http://www3.weforum.org/docs/WEF_Future_of_Jobs_2020.pdf

Analysis of Croatian Book Blog Audience's Habits and Behavior Using Mixed Methodology

Silvija Skoda

University North, Croatia

Zeljka Bagaric

University North, Croatia,  <https://orcid.org/0000-0002-4085-8736>

Abstract: Blogs are a widespread and popular internet form of very diverse content that provides the opportunity to interact, exchange opinions and experiences of their users. The phenomenon of growing popularity of Book blogs on social networks and the Internet is the subject of recent media research in terms of the extent of such interaction through liking and commenting and the ways in which this interaction can be measured and observed. Blogs are problematized in several ways, some research looks at different forms of interactions of administrators of such blogs, some are related to their role and marketing forms of popularization of literature. This paper explores the behavior, specifics and reaction of the audience to posts published via the Facebook page of the most widely read Croatian book blog 'Čitaj knjigu'. For this purpose, a mixed methodology approach were used. Data were processed by manual content analysis and netnography method. The results showed that the audience regularly follow the blog page, that the most common interaction was with photos and statuses, that posts which contain book's quotes drives most reaction; that the contents lead them to reflection or further research; that the dynamics and scope of posts' depend on the characteristics of the site, and that the role of the administrator on a book blog is very large. Given the scarcity of research on book blog audiences, the results obtained can serve to gain a deeper insight into the user habits and behavior of the media audience and a quality basis for further research.

Keywords: blog, Facebook, media audience behavior, netnography

Introduction

Blogs make a very widespread and still growing online form, created in 1994 as a student online diary (Links.net). They appear in different areas and have different purposes. The word blog was chosen as Merriam-Webster's Word of the Year in 2004 and is defined as a website that contains an online personal diary with reflections, comments, and numerous hyperlinks provided by the writer. The popularity of blogs has grown through the Gizmodo platform (science and technology news); Gawker (global gossip); Google and others. In

2020, a third of all websites were blogs, and that number continues to grow.

Blog-part of Participatory Culture

A blog is a communication channel that provides its active audience with exceptional opportunities to interact, exchange opinions, experiences and recommendations, enabling them to participate in the context of prosumer and participatory culture, a phenomenon that appears as an antipode to passive media audience consumerism. Participatory refers to the new characteristic of the media audience to simultaneously consume and produce media content in digital and media space. Media audiences are no longer passive consumers of media content but someone who through innovative forms of collaborative activities take a critical approach, reflect on phenomena in the digital space and take an active role in society and participate in democratic processes (Toffler, 1980; McLuhan & Nevitt, 1972; Jenkins et al., 2006; Kobayashi et al., 2015). By its convergent nature, a blog is part of a process in which technology, audience, text, and markets are re-positioned and re-examined (Jenkins, 2006). Along with the increasing popularity of social networks, especially Facebook and Instagram, most blog content is shared on these networks, and often social networks are more popular than the blog format itself. It should be taken into consideration that the high fluidity, overlap and interaction of the published content and media, and the rapid multiplication of various data generate a number of difficulties when screening research subjects and problems. Therefore, research related to blogs is still scarce, subject to certain limitations, and requires the application of combined methodological tools designed for communication and interaction in digital public spaces. However, the appearance of scientific blogs has provided an effective platform for sharing new insights which competes with journals because of its fluidity and interactivity. In this way, immediate reach is enabled to all interested stakeholders, but also to the general public; the scientific community of the specific area is strengthened or the student population supported (McGlynn, 2017; Saunders et al., 2017). In addition, a great value of this way of communication is in the fact that blogging does not require much time, which is generally the biggest obstacle for scientists in regular digital communication; it increases the visibility of the scientific community, and pages focusing on culture and entrepreneurship in the scientific context have an impact of between 10,000 and 40,000 views per month (Brown & Woolstone, 2018: 136).

Book Blogs

Steiner (2010) says that literary bloggers were described in 2007 *as insufficiently qualified dilettantes with overemphasized attitudes*, and in 2009 blog culture established itself as an important and integral part of book market and influenced the publishing, marketing and distribution of literature in North America and many European countries. The phenomenon of growing popularity of literary blogs on social networks and the Internet is a subject of some recent media research on user habits and characteristics of user behavior in the digital space in terms of the extent of interaction expressed through liking and commenting and ways in which this interaction can be observed and measured. The acquired knowledge can be applied in a marketing context or in popularizing literature and books as well as to encourage and promote reading, (Duic & Andic, 2019; Kolaric et al, 2013; Foasberg, 2012). However, it seems that it has not yet been fully determined whether

studying book bloggers' habits and characteristic can provide insight into ways of approaching literature of the general reading population, given that certain aspects of reading as social activities change depending on the environment and social networks (Juric, 2017; Foasberg, 2012). Therefore, research focuses not only on the modalities of interaction between readers, but also on different motives and forms of interaction between users and/or administrators of such blogs in order to monetize blogging activity (Goins, 2016) or with the marketing significance of certain patterns and characteristics of cultural rituals that page and blog followers have (Scissors et al. 2016, Steiner, 2010). Book Blogs are often associated with reading club activities, as well as the library system. Yi (2016) refers to new ways of promoting library services in the academic libraries' context, supported by new technologies such as blogs, social networks, *YouTube* and various applications that can be applied to library business and are used for promoting reading. In this sense, the role of libraries in the context of running literary blogs and clubs for children and young people is often emphasized (Duic & Andic, 2019; Kolaric et al., 2013; Thompson, 2010).

Croatian Book Blog Čitaj knjigu (Read the Book)

Čitaj knjigu is a popular Facebook page and professional blog that brings together all book lovers, who, in addition to recommending what to read, can also enjoy beautiful photos and various inspirational quotes related to reading. Facebook page was launched on 18 September 2013. At the time of writing this paper it had more than 567,700 followers, and even more page visits. (see the link: <https://citajknjigu.com/>). On Čitaj knjigu site and Facebook page, many written word and reading fans enthusiastically exchange their impressions, opinions, emotions, share textual and visual content from other similar social networks and media, and contribute to advocating reading in the Croatian media space and beyond (followers from Croatian diaspora also reach out). Čitaj knjigu site generally leads or takes respondents to further reflect or explore topics that are problematized on the site's posts. According to the results of a previous survey (Matijasic & Skoda, 2019) conducted on the Facebook of Čitaj knjigu blog (N = 111; F = 84.7%) Čitaj knjigu posts mainly influence for 18% of respondents and for 28.8% of respondents the choice of book they will read. Also, 41.4% of survey respondents stated that they recommend Čitaj knjigu site to other people. Within the stated problem and theoretical framework, the purpose of this paper is to define the informational behavior of bloggers according to the Facebook posts of one of the most popular Croatian literary sites Čitaj knjigu.



Figure 1. Blog's Facebook



Figure 2. Blog's Home Page

Method

The aim of this paper is to investigate how Facebook users who are either active or passive site followers react to posts and define the characteristics of user reactions to posts on the Facebook page of Čitaj knjigu site. The research was conducted as a part of Media Research course and makes an integral part of student's final paper. This paper relates the obtained results to the research problem objective.

Based on the problem framework proceeding from the above mentioned literature review, this paper raises the following main research questions:

RQ1. What is the intensity of following posts on the site's Facebook page?

RQ2. How do followers react to posts given their form and content?

RQ3. What is the followers' interaction with posts like?

RQ4. How do posts affect the information behavior of followers?

A mixed methodology approach was used. Data were processed by simple (manual) content analysis and netnography method. Random sampling frame was used. An analysis unit consists of posts on Čitaj knjigu Facebook page, and of all reaction forms used by followers in their reactions to the post.

Simple Content Analysis

Krippendorff (2004, p. 18) defined the content analysis as a *research method used to draw reproducible and valid conclusions from a text (or any other meaningful material) about the context within which it was used*, that is as a *research method that uses a set of procedures to make valid conclusions from the text* (Weber 1990, p. 9). Holsti (1969, p. 14) defines method as *any technique for making inferences by objectively and systematically identifying specified characteristics of messages*. To conduct a content analysis, according to Bryman (2008: 274), *content is quantified in terms of predefined categories in a systematic and repetitious way*.

The study used a simple content analysis to perform content coding and to define the categories included in the matrix. According to Weber's reliability or *reproducibility* test, people using the same matrix can encode the same text in the same way (Weber, 1990, p. 17). For this purpose, Holsti's formula (Holsti; 1969, p. 140) was applied to test the reliability with two independent coders on 50 randomly selected posts from the sample. The average test result for all applied categories amounted to 0.89, which is a good result.

Netnography

The ethnographic research used the netnography method, i.e. a set of methods that involve direct and social contexts, and plenty of written materials related to recording and representation of full human experience, which are conducted in a digital environment (Kozinets, 2015). According to Kozinets (1999, p. 28) information

behavior is transformed into personal and social capital: *fact-based information is learned alongside knowledge of the online community's specialized language and sensitized concepts, norms, values, rituals, practices, preferences, and the identities of experts and other group members. As personal details and stories are shared, cultural cohesion ripens and empathy blooms. A group structure of power and status relationships is learned. What began primarily as a search for information transforms into a source of community and understanding.* In this research, a random sampling frame was used. An analysis unit consists of 15 consecutive publications on the book blog Čitaj knjigu published on May 20, 2019. The research protocol covered all 5 phases: cultural entrée; data collection and processing; ensuring credibility of the interpretation, ethics of research conducting and feedback of culture members (Kozinets, 1999).

Limitations and Ethical Consideration

In all the procedures and stages of research, as well as during data processing and interpretation, all ethical principles and norms applicable to these samples were respected. Although the research included various online sources available through free access, in order to collect and process the data obtained from the Facebook page Čitaj knjigu, an informed consent of Čitaj knjigu blog followers and FB group members was previously obtained. Given the random and small sample obtained, results should be observed only at the sample level and without any generalization of research findings.

Results

Simple Content Analysis

Posts were analyzed in the period from 6 May - 12 May 2019, by 4 pm (it is necessary to specify a timeline in order to limit the number of interactions for the research, because users can react to any post published in that period even after this research was done). 3 Code Books were created; according to the implementation protocol by methodical analysis steps.

Coding

The first Code Book (Table 1) refers to the classification of posts. In order to avoid overlaps, we limited the types of posts to statuses (Figure 3), photos (Figure 4), links (Figure 5), and videos (Figure 6).

Table 1. Code Book 1: Classification

Posts	Code
Statuses	A
Photographs	B
Links	C
Videos	D



Figure 3. Post – status



Figure 4. Post – photo



Figure 5. Post – link



Figure 6. Post – video

The second Code Book (Table 2) contains thematic post categories. We noticed that the post topics on Čitaj knjigu site are also different and that they are repeated in all forms of posts. In the analysis, we characterized the posts as: a brief overview of the work (Figure 7), interesting facts and pastime (Figure 8), a review of a person, a link to a blog post, a book presentation, an event review (Figure 9), and a quote (Figure 10).

Table 2. Code Book 2: Categorization

Categories	Code
Brief overview of the work	1
Review of a person	2
Quote	3
Link to a blog post	4
Book presentation	5
<i>Event review – status update</i>	6
Interesting facts and pastime	7



Figure 7. Review



Figure 8. Post – fun



Figure 9. Event



Figure 10. Post - quote

The third Code Book (Table 3) includes the number of posts, likes, comments and shares on those posts. Note: the number of likes and the percentage of likes include other reactions to Facebook posts, such as a heart or a smiley emoticon. So, the number of likes includes the likes themselves, but also other available reactions that Facebook has introduced into its system of reacting to a post.

Table 3. Code Book 3: Numerical data

Categories	Code
Number of posts	N
Number of likes	NI
Number of comments	Nk
Number of shares	Np
Percentage of posts	%
Percentage of likes	%l
Percentage of comments	%k
Percentage of shares	%p

Analysis

The analysis was performed with the help of analytical matrices, and the first analytical matrix of the basic post distribution (Table 4) in which Code Book 1 and Code Book 3 were used showed that a total of 92 posts were published on the Facebook page Čitaj knjigu. Those posts had 89903 likes, 1533 comments and 7399 shares. These results show a large number of likes, as well as a somewhat surprising number of shares. Looking at the categories themselves, i.e. post shares, it is surprising that out of 92 posts, 85 contain a photograph. This result is by no means expected because we assumed that Čitaj knjigu Facebook page contains an equal number of statuses and photos and a slightly smaller number of links and videos. Only 2 published posts are statuses, 4 posts are links and only 1 published post contained a video. 85 published photos received a total of 85283 likes, 1456 comments and 7080 shares. In percentages, that amounts to 92% of all likes, 94% of all comments and 95% of all shares. Published statuses received 4172 likes, 57 comments and 299 shares, published links 311 likes, 13 comments and 11 shares, and the video received 137 likes, 7 comments and 9 shares. Photos are mostly posted on the Facebook page and make up 92% of all posts, which is why users react to them the most.

Table 4. Analytical matrix - Basic divisions of posts

Basic division	N (total)	NI	Nk	Np	%	%l	%k	%p
A	2	4172	57	299	2.17	4.64	3.72	4.04
B	85	85283	1456	7080	92.39	94.86	94.97	95.69
C	4	311	13	11	4.35	0.35	0.85	0.15
D	1	137	7	9	1.09	0.15	0.46	0.12
Total (N)	92	89903	1533	7399				
Total (%)					100	100	100	100

It can be noticed that each post (regardless the basic division) has its topic and meaning. Most published photos contained information in the description of the post or in the photo itself, some sort of description, i.e.

something that defines them and that can be categorized. A small number of photographs that did not contain a description were outlined by their clear visual content.

From the analytical matrix of post distribution by thematic categories (Table 5) in which Code Book 2 and Code Book 3 out of a total of 92 publications were used, 29 publications were categorized as publications whose subject is a quote. Quotes collected a total of 57,430 likes, 715 comments and 4,815 shares through 29 posts. In percentages, that amounts to 63% of all likes, 46% of all comments and 65% of all shares. Quotes with the photo proved to be the most popular posts on Čitaj knjigu Facebook profile. They are the most popular precisely because they get 63% likes.

It is the likes, as stated by Scissors et al. (2016), in the paper *What's in a Like? Attitudes and behaviors around receiving Likes on Facebook* which show popularity of a post, but also determine what the followers of a Facebook page prefer in terms of content. According to the authors of the article, likes can be understood as sort of signals to the administrators of Facebook pages about what kind of content they should prepare for their followers.

The quotes are followed by status updates, i.e. posts that the administrator publishes from the real world such as travels. There were 18 such posts published, and that post topic gained a total of 6,296 likes, 146 comments and 589 shares. 15 publications belong to short work presentations. This topic received 6811 likes, 255 comments and 292 shares. 9 posts contain interesting facts and pastime. This post topic received 10,742 likes, 220 comments and 748 shares.

Although the number of posts for interesting facts and pastime is equal to the number of posts of book presentations, the latter collected 3,356 likes, 66 comments and 512 shares. 8 posts can be categorized as reviews of persons. This topic received 4,957 likes, 118 comments and 432 shares. In conclusion, only 4 posts belong to the links to blog posts topic. This topic received 311 likes, 13 comments and 11 shares.

So it can be concluded that the users most often reacted to the published quotes, and the portal administrator published the most posts whose topic were precisely quotes ($N = 29$). In a 2011 research (Pletikosa Cvijkj et al., 2011), there were several Facebook pages which showed how much content diversity as well as post timing affects the interaction of followers and Facebook users. The analysis showed that posts from the early morning hours do not have as much interaction - comments and likes, while those from the afternoon have.

The conducted content analysis showed that most of the posts were photograph related. Photos are the trigger to which users and followers of Čitaj knjigu react the most on the Facebook social network. More than 90% of all summed up likes in a period of seven days belong to the posts that contain a photo. Users also often comment on such posts. It is also surprising to note a large number of user interactions through the option share. Users mostly share photos with quotes in which the authors of the Facebook page Čitaj knjigu write either quotes from

literary works or some world-famous public figures.

Table 5. Analytical matrix - Division of posts by topical categories

Post topics	N	Nl	Nk	Np	%	%l	%k	%p
1	15	6811	255	292	16.30	7.58	16.63	3.95
2	8	4957	118	432	8.70	5.51	7.70	5.84
3	29	57430	715	4815	31.52	63.88	46.64	65.08
4	4	311	13	11	4.35	0.35	0.85	0.15
5	9	3356	66	512	9.78	3.73	4.31	6.92
6	18	6296	146	589	19.57	7	9.52	7.96
7	9	10742	220	748	9.78	11.95	14.35	10.11
Total (N)	92	89903	1533	7399				
Total (%)					100	100	100	100

Netnography

The first observed post was published on May 20, 2019 at 10:33 p.m. (Figure 11) According to category, a post is a photo with a quote and at the time of the analysis it got eight follower comments. Next to the photo is a quote *Only people of the highest and lowest character do not change.* Confucius It got 838 user responses with 807 likes and 32 *heart* reactions. Also, this post was shared 49 times. Eight comments were recorded, mostly responses and *feedback* to the post. Users identified themselves with Confucius quote and expressed their opinion and point of view. Apart from one response to a comment in which two users agreed that the quote was true, there was no additional interaction between users on that post. Also, users gave very short comments with a small amount of information, so *Yes, I agree* and *True* are the most common form of comments by which users expressed their opinion (Figure 12).

Regarding the presence and interaction of the page administrator with users, the *Facebook* page *Čitaj knjigu* gave three comments a *Like*.

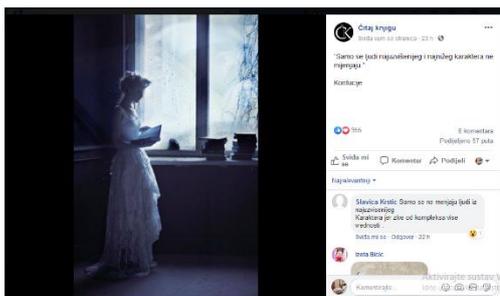


Figure 11. Screenshot of post 1



Figure 12. Screenshot of comment on post 1

The second observed post (Figure 13) was published on May 20 at 9:34 p.m. and by category it is a photograph - quote. It got a smaller number of comments, only two. In this case, the photo does not contain any description. However, a quote is included in the photo itself. The post got 307 reactions, out of which there were 249 likes, 13 heart reactions and 1 funny reaction, and it was shared 12 times. Only 2 comments were left, one of which is of rather vulgar content with another photo attached. Since the quote focuses on making money and how this is connected with the attitude towards people, the comment can actually be viewed as a response to the content of the photo post, i.e. as user interaction and expression of opinion. There was no additional response to the comment or any involvement from Čitaj knjigu Facebook page in this case.



Figure 13. Screenshot of post 2



Figure 14. Screenshot of post 3

The third observed post (Figure 14) was published at 8:22 p.m. and is also a photograph with a quote in the post description. In this case, it is a text by Charlie Chaplin, which, unlike previous descriptions, is much longer and users had to put more effort into reading it. Interestingly, this post had 57 comments. In addition, the post collected 1900 likes, 285 heart reactions and 10 surprised reactions. Also, users shared this post 295 times. As for the comments, out of 35, 21 comments are actually tagging another person, that is, the posted comment is actually an invitation to another person to read the published post, that is the text. In the remaining comments, users publish their opinions on the read text and mostly agree with the published content. In some way, by commenting, they give their feedback and opinion about the post itself. *Beautiful text, so much truth and beauty in this text* and *Wonderful, it's life wisdom <3 thanks* are just some of the comments. Regarding the page inclusion in the comments of this post, we noticed that Čitaj knjigu page responded to one of the comments: *I really needed this today. Someone from above sent you to me Thank you* is a comment that greatly praises the post as well as Čitaj knjigu Facebook page. The page administrators responded to this comment with two additional comments visible in Figure 15. Also, additional user comments can be seen in Figure 16.



Figure 15. Screenshot of comment on post 3



Figure 16. Screenshot of comment on post 3

The fourth observed post (Figure 17) was published at 7:31 p.m. and it consists of several photographs (album) in the description of which is the National Library in Dubrovnik - in the Old Town. *To admire!* Since the administrator of *Čitaj knjigu* site was in Dubrovnik at the time, this is actually a post *from the site*. The post got 421 reactions, out of which 381 were likes, 25 *heart* reactions and 13 *surprised* reactions. It has 11 comments and was shared 7 times. As for the comments, in 3 comments a person is tagged, and the other comments are actually a reaction to the published content. *It is beautiful, Beautiful !!!, Respect !!!* are some comments on published photos. So, in this case the users' reaction is positive and in a way they agree with the post.

Regarding the inclusion in the comments by *Čitaj knjigu*, Administrator A. M. replied to a comment, and the post screenshot is visible in Figure 18.



Figure 17. Screenshot of post 4

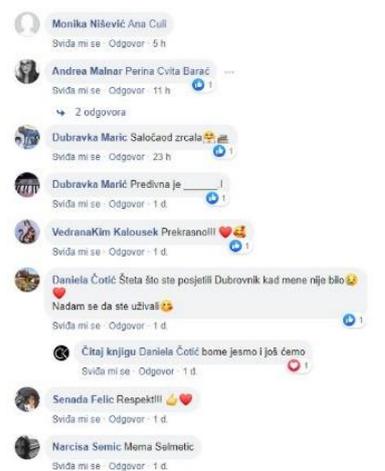


Figure 18 Screenshot of comment on post 4

The fifth post (Figure 19) published at 6:36 p.m. is a photo with a quote in the description of the photo. Out of a total of 4.7 thousand reactions, 4.1 thousand are likes, 498 *heart reactions*, 22 *sad* reactions and 2 *funny* reactions. The post was shared 948 times and had 43 comments. Out of 43 comments, 4 had a tag of another person. Other comments were reactions to the post, and users reiterated their views on the quote and expressed their views on the topic. In this post we see greater and more diverse user involvement, as well as very positive reactions and comments, some of which are shown in Figure 20.

Through comments, users actually most often expressed their opinion on a topic. Users also interacted with each other in the comments, and this further boosted their interaction. Regarding the involvement of *Čitaj knjigu* administrator in comments, at the time of writing, no form of interaction of the page with users had been observed in this post.



Figure 19. Screenshot of post 5

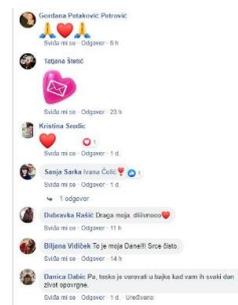


Figure 20. Screenshot of comment on post 5

The sixth observed post was a link that leads to another site's link. Therefore, it is not too surprising that it got only 42 reactions and one share, and not a single comment. This post is actually an announcement for an event that will take place, and in which one of the participants will be A. M., *Čitaj knjigu*, the site administrator. It was noticed that the posts related to the administrator did not get much reaction from followers.



Figure 21. Screenshot of post 6



Figure 22. Screenshot of post 7

The seventh post (Figure 21) published at 4:34 p.m. falls into the category of photos with a quote in the description. In previous examples we have noticed this type of post has great reactions in terms of follower interaction. A small number of interactions in this case is a bit surprising. 195 reactions, out of which 185 likes, 12 *heart* reactions and 1 *surprised* reaction. This post was also shared twice. A possible reason for low interaction is that the photo shows founder A. M. while most of the other photos have a photo taken from the Internet that is thematically related to the text or post description (Figure 22).

The eighth observed post (Figure 23) is also a photograph, and the subject is a quote. It got 693 reactions: 632 likes, 58 *heart* reactions, 2 *surprised* reactions and 1 *sad* reaction. Furthermore, 15 comments were shared 48 times. In this case, too, the users expressed their opinion on what was published, i.e. the opinion on the quote that was published in the post description. We can see that the post encouraged some form of discussion in which users commented their attitudes and discussed the post topic with each other through comments (Figure 24). *Čitaj knjigu* site liked 4 comments, and there was no additional site involvement.



Figure 23. Screenshot of post 8



Figure 24. Screenshot of comment on post 8

The ninth post (Figure 25) published at 2:30 p.m. is both a photo and status update. In terms of reactions, this post collected 466 reactions, out of which 431 likes, 32 *heart* reactions, 2 *surprised* reactions and 1 *sad* reaction. In addition, the post got 11 comments and was shared 9 times. The comments in this case relate to the post itself (Figure 26). Users re-express their opinion on the above mentioned from the picture and express agreement with the mentioned quote. It is interesting that this announcement was not as popular as you might think, and that it was not *better* noticed. Especially taking into consideration we were making this observation only a few days after the announcement on the last season of *Game of Thrones*, which is actually the topic of this post. Only 3 users expressed some form of opinion and comment on the end of the series and the series itself, while the rest mostly reacted positively to it. *Čitaj knjigu* site was included in comments, it like 5 user comments.



Figure 25. Screenshot of post 9



Figure 26. Screenshot of comment on post 9

The tenth observed post (Figure 27) is once again a photograph. However, its description is this time not accompanied by a quote, but a brief book presentation. The administrators bring a short overview of the novel, determine its genre and describe the plot briefly. This post had 73 user reactions at time of writing - likes and moods using a heart emoticon. Also, the post was shared only once and had two comments visible on the photo. In one comment, the user expresses her reaction to the release of the new book. In the other, she writes to other users that this was one of the most read titles of the year. The administrators of *Čitaj knjigu* site responded to users' posts by liking the post.



Figure 27. Screenshot of post 10

In the next, eleventh post (Figure 28), *Čitaj knjigu* page has a link to a text written by the administrators or the page owner for *Telegram* site. The thematically written text provides an overview of the books that thrilled the author of *Čitaj knjigu*, A. M., this summer. In this way, administrators want the users of the *Facebook* page *Čitaj knjigu* to get an insight into the fact that they write not only for their site/blog, but for some other sites as well. The photo clearly shows which titles it concerns, so the follower does not necessarily have to open the link. This post got 144 reactions in very short time, either likes, or mood reactions using a heart emoticon. The post was shared 15 times which means users wanted their *Facebook* friends to see this article as well. The post has 22 comments where followers commented if they read any of the books listed in the post. Followers express their opinions about the books they have read, but also their wishes about which book they would like to read. It is interesting that the author of *Čitaj knjigu Facebook* page responds to comments (Figure 29). The answers always follow up comments made by followers. *Čitaj knjigu* agrees with the written comments in that way, and even motivates some users to read the books that were mentioned in the post.



Figure 28. Screenshot pf post 11

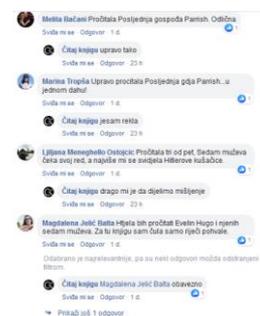


Figure 29 Screenshot of comment on post 11

In addition to photos with quotes, *Čitaj knjigu* page also publishes photos with reviews dedicated to certain prominent personalities, such as the following, twelfth observed post (Figure 30) published at 11:34 a.m. shows. This post brings a review of Mira Zore-Armanda and her book. The post has a photograph of some pages from a new edition of *Čitaj knjigu* by *Iris Ilirya* publisher, which tells the story of 50 fearless Croatian women. It is interesting that the text from the page can be read on the photo, but the same text was written next to the post of the photo. No additional effort was made to give some new information about the edition to the followers. *Čitaj knjigu* page at the end of the text asks users if they had heard about the mentioned Croatian woman. Users

responded 83 times, using likes and reactions. This post was shared only 4 times and has 2 comments. A user who comments the post is also posting an unrelated photo of *Čitaj knjigu* administrator A.M., which she downloaded from her *Instagram* profile. *Čitaj knjigu* page gave her feedback that the comment was seen; so by liking the comment she confirmed seeing it.



Figure 30. Screenshot of post 12

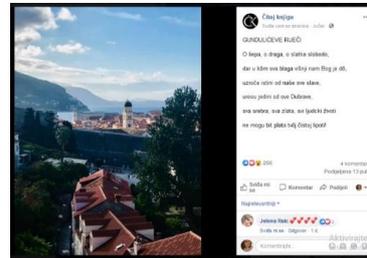


Figure 31. Screenshot of post 13

In the thirteenth observed post, *Čitaj knjigu* site publishes a photograph of Dubrovnik. We know from previous posts that A. M. stayed in Dubrovnik to shoot an interview. Along with the photograph of Dubrovnik, she fittingly puts the verses of Ivan Gundulić - Hymn to Freedom. There were 266 page users and followers reaction to the post, and it was shared 13 times. The post had 4 comments in which users post heart emoticons. There are no textual reactions in the comments. *Čitaj knjigu* page put likes to all the comments.

The fourteenth post (Figure 32) has once again a quote graphically decorated. *Čitaj knjigu* page takes a poem by the literary sensation Rumi and links it with the sentence *Monday is ideal for decisions*. At the time of our observation this post had more than 1400 reactions, either likes or emoticons. It was shared 116 times and had 16 comments. Users in the comments express their opinion on the written text in the photo or reply to comments. Their comments are often commented on and liked by other users. In this way, a mutual interaction of *Čitaj knjigu* page followers is achieved. Some of the comments were also liked by *Čitaj knjigu* page.



Figure 32. Screenshot of post 14

And the last, fifteenth observed post (Figure 33), also the first that *Čitaj knjigu* administrators shared with their followers on May 20, is a photograph of a book. There is a quote from the photographed book next to the photo. Also, *Čitaj knjigu* page shares this thought: *I am deeply grateful for a morning like this with the most beautiful view*. Dubrovnik location was added to the post. The post had 636 user reactions - likes and other emoticon reactions. Also, it was shared 11 times and had 11 comments. It is interesting to note that the followers of *Čitaj*

knjigu page welcomed A.M. to Dubrovnik, expressing their wish to meet her in that city. Also, this is a post where most of the comments have an attached photo, which can be seen in Figure 34. *Čitaj knjigu* page responds to the picture comments by liking them and does not encourage further interaction.



Figure 33. Screenshot of post 15



Figure 34. Screenshot of comment on post 15

Discussion

The analysis of the content also showed that the posts on *Facebook* page *Čitaj knjigu* are extremely regular and that the administrators try to share something interesting with their followers every hour or two. It is interesting to note that a small number of posts have any video links. We expected that number to be higher, given the literature consulted, according to which videos are the most popular on *Facebook* social network. The reason for their unpopularity on *Čitaj knjigu* page may be the fact there are very specific topics on the page related to literature. The conducted content analysis showed how much effort, but also imagination is needed in order to offer users new and interesting content. It also showed how one page dedicated to literature can problematize many other topics - politics, society, culture, etc.

By observing and analyzing the followers' reactions to the *Facebook* post of *Čitaj knjigu* site, we noticed several things. Firstly, it is surprising how many posts a day *Čitaj knjigu* page has and that the interval between each post is about an hour. Additionally, posts are not monotonous and do not follow the same pattern. Although photo posts and quotes prevail, an effort is always made for the posts not to be thematically equal. Therefore, in one hour a new title is presented, a place that A.M. visited or even someone's quote. Depending on the time of posting, user interaction varies; posts in the early morning do not have as much reactions or comments. It can be noticed that most posts with user reactions react contain some well-known quotes from a well-known work. Posts in which the administrator asks followers a question have the most comment answers. In such posts, the interaction between the followers of *Čitaj knjigu* page is visible, where they tag each other, inviting each other to see the post. The posts of A. M. herself in the photo did not get too many reactions when compared to the quotes. By observing the posts, it can be noticed that the interaction of *Čitaj knjigu Facebook* page administrator is insignificant and comes down to just liking followers' comments. There is rarely feedback to their comments. This example is most visible in the last observed post 15.

Observations direct attention to the complexity of the posts. It can be concluded that they also consist of photographs that Čitaj knjigu itself takes and of photographs with incorporated text. We also notice that administrators follow which recent titles are currently popular (Rumi, Stories of Fearless Croatian Women), which makes more users react to such posts. At the same time, administrators follow the activities of Čitaj knjigu site. We can see they share links to texts the author writes for other portals, and follow the events the author participates in (stay in Dubrovnik). Although we know that Čitaj knjigu page also does certain product promotions, this is noticed in only a handful of posts through tagging a certain company that is being promoted.

Conclusion

The conducted research answered previously posed research questions: RQ1. What is the intensity of following posts on the site's Facebook page? RQ2. How do followers react to posts given their form and content? RQ3. What is the followers' interaction with posts like? And RQ4. How do posts affect the information behavior of followers?

The results of the analyzes conducted on this sample showed that Čitaj knjigu book blog followers love literature and regularly follow events from the world of literature. As Facebook users they are also familiar with Čitaj knjigu page. They interact when they like something on the page or want to express their opinion. The intensity of interaction varies depending on the time of posting; posts early in the morning do not have as many reactions and comments. It is noticed that most of the posts with user reactions have some quotes from a well-known work. Posts in which the administrator asks her followers a question have the most comments. In such posts, the mutual interaction between the followers of Čitaj knjigu page is visible, where they tag each other, inviting each other to see the post. The posts featuring the administrator herself in the photo did not get too many reactions, when compared to ones with quotes. Further on, the most common interaction was recorded on photo and status posts. It is interesting to note that, unlike the findings from the literature on the popularity of videos on Facebook social network, in this sample video links do not lead to any noticeable reactions from followers, and are rarely published. The reason for their unpopularity on Čitaj knjigu site may lie in the fact that the page topic is very specific and related to literature. The followers are particularly focused on communication forms based on the written word.

Regarding the observed characteristics of the administrator's behavior, the results showed that the admin interaction to user's posts is occasional, and comes down only to liking follower's comments. Their comments are rarely given any feedback. However, the admin contribution to page content is frequent and noticeable. Administrators follow recent events and novelties in the world of literature, but also the activities of Čitaj knjigu site. That is why we can see them share links to texts that the author writes for other portals, follow the events where the author is (stay in Dubrovnik). Čitaj knjigu administrators use the Facebook page also as a specific platform on which the site itself is popularized and made more accessible to readers. Although we know that

Čitaj knjigu page also does certain product promotions, it can be seen in only a handful of posts through tagging a certain company that is being promoted.

It proved that running a Facebook page is not such a simple and easy task. It is a job behind which, according to the type, topic and category of content, there is a lot of well-thought-out effort and knowledge of the content itself. It is a job that requires being constantly well-informed and present in the events within the literary scene. The interaction of Facebook users with the posts of Čitaj knjigu site is very complex to research and is influenced by many factors. This research provided a deeper insight into forms and habits of user behavior, and opened up views and provided a quality starting point for some further, more complex research.

Recommendations

Possible further directions of research could be related to ways of presenting and selling the book itself via book bloggers. It would be useful to explore omnipresent notion of influencers today; how they sell a product to an audience and how blog advertising works in general. It also seems important to establish how some content within a blogosphere becomes viral and what are the virality factors? In this context, it would be interesting to bring in other digital communication channels into the research.

Čitaj knjigu site is also active on *Instagram*. The question is whether and what are the differences in the way *Instagram* profile is managed and in the behavior of readers towards posts on *Instagram*? Can we conclude whether user behavior varies from page/profile to page/profile or is there a *formula* that applies to everyone?

Notes

The publication of this paper was funded by the scientific research support *Continuing development of intercultural competence and communication skills with vulnerable groups* of University North, Ref. No. 2137-0336-09-20-5 from 12 March 2020.

References

- Brown, E. and Woolston, C. (2018). Why science blogging still matters. *Nature*, 554(7690), 135–137. <https://doi.org/10.1038/d41586-018-01414-6>. (April 14 2019).
- Bryman, A. (2008). *Social research methods*. 3rd Edition, Oxford University Press., New York.
- Duic, M. and Andic, M. (2019). Čitateljski klubovi u narodnim knjižnicama velikih hrvatskih gradova [Book Clubs in the Public Libraries of Large Croatian Cities]. *Vjesnik bibliotekara Hrvatske* 62(2), 89-111. <https://doi.org/10.30754/vbh.62.2.764>. (February 7 2020).
- Foasberg, N. M. (2012). Online Reading Communities: From Book Clubs to Book Blogs. *The Journal of Social Media in Society* 1(1), 30 – 53. <http://www.thejsms.org/tsmri/index.php/TSMRI> (April 4 2019).
- Goins, J. *The Blogger's Guide to Facebook*. <https://goinswriter.com/facebook-for-bloggers/> (April 3 2019).

- Holsti, O. R. (1969). *Content analysis for the social sciences and humanities*. Reading: Addison-Wesley Pub. Co.
- Jenkins, H. (2006). *Convergence Culture: Where Old and New Media Collide*. New York: New York University Press.
- Jenkins, H., Purushotma, R., Weigel, M., Clinton, K. and Robison, A. J. (2006). *Confronting the Challenges of Participatory Culture: Media Education for the 21st Century*. Chicago: MacArthur Foundation.
- Juric, M. (2017). Segmenting reading habits of university students. *5th International Conference on Publishing – trends and contexts*. Zadar, Croatia. Retrieved from <https://www.bib.irb.hr/911187> (March 4 2020).
- Kobayashi, L.C., Wardle, J. and von Wagner, C. (2015). Internet use, social engagement and health literacy decline during ageing in a longitudinal cohort of older English adults. *Journal of Epidemiology and Community Health*, 69, 278–83.
- Kolarić, A., Šimić, S., Štivić, V. and Žentil Barić, Ž. (2013). Čitateljski blogovi Tragači I Knjiški frikovi – usluge za djecu i mlade na Web-u 2.0. [Blogs *Tragači* and *Knjiški frikovi* – Library Services for Children and Young Adults on the Web 2.0]. *Vjesnik bibliotekara Hrvatske* 56(3), 91-100 <https://hrcak.srce.hr/115196> (February 6 2020).
- Kozinets, R. V. (1999). E-tribalized marketing? The strategic implications of virtual communities of consumption. *European management journal* 1(3), 252-264. (March 27 2019).
- Kozinets, R. V. (2015). *Netnography: Seeking Understanding in a Networked Communication Society*. Toronto: York University. <https://www.researchgate.net/publication/325942107> (April 15 2019).
- Krippendorff, K. (2004). *Content Analysis: An Introduction to Its Methodology* (2nd ed.). Thousand Oaks, CA: Sage.
- Matijasic, T. and Skoda, S. (2019). Analiza korisničkih navika i ponašanja medijske publike portala Čitaj knjigu. University North, Croatia. Unpublished paper.
- McGlynn, T. P. (2017). Identity Matters: Communicating About Equity and Opportunity for Students in Minority-Serving Institutions. *Annals of the Entomological Society of America*, 110(5), 480–483.doi: 10.1093/aesa/sax050 (February 7 2020).
- McLuhan, M. and Nevitt, B. (1972). *Take Today: The Executive as Drop Out*. Orlando: Harcourt Brace Jovanovich.
- Mewburn, I. and Thomson, P. (2013) Why do academics blog? An analysis of audiences, purposes and challenges. *Studies in Higher Education*, 38, 1105–1119. (October 4 2019).
- Moeller, S. (2019). *The 2019 Ultimate Guide to Facebook Engagement*. <https://buzzsumo.com/blog/> (April 16 2019)
- Paul, T., Puscher, D. and Strufe, T. (2015). *The user behaviour in Facebook and its Development from 2009 until 2014*. Cornell University. <https://pdfs.semanticscholar.org/9cba/> (April 13 2019)
- Pletikosa Cvijikj, I., Dubach Spiegler, E. and Michahelles, F. (2011). The Effect of Post Type, Category and Posting Day on User Interaction Level on Facebook. *2011 IEEE International Conference on Privacy, Security, Risk, and Trust, and IEEE International Conference on Social Computing*, 810-813.http://cocoa.ethz.ch/downloads/2013/05/1189_06113221.pdf (April 2 2019)
- Saunders, M. E., Duffy, M. A.; Heard, S. B., Kosmala, M., Leather, S., R., McGlynn, T. P., Ollerton, J. and

- Parachnowitsch, A. L. (2017). Bringing ecology blogging into the scientific fold: measuring reach and impact of science community blogs. *Royal Society Open Science*, 4(10). doi: 10.1098/rsos.170957.
- Scissors, L., Burke, M., and Wengrovitz, S. (2016). What's in a Like? Attitudes and behaviors around receiving Likes on Facebook. *CSCW '16 Proceedings of the 19th ACM Conference on Computer-Supported Cooperative Work & Social Computing*, <http://www.thoughtcrumbs.com/publications/> (April 2 2019)
- Steiner, A. (2010). Personal reading and public texts: Book blogs and Online writing about literature. *Culture Unbound. Journal of Current Cultural Research*, 2,471–494. <http://www.cultureunbound.ep.liu> (April 11 2019)
- Toffler, A. (1980). *The Third Wave*. New York: William Morrow.
- Weber, R. P. (1990). *Basic content analysis* (2nd ed.). Sage University paper series on quantitative applications in social sciences, No. 07-049. Sage Publications, Inc.
- Yi, Z. (2016). Effective techniques for the promotion of library services and resources. *Information Research*, 21(1), Retrieved from <http://InformationR.net/ir/21-1/paper702.htm> (April 2 2020)

Security for Online Exams: Digital Proctoring

Yasemin Bertiz

Kırklareli University, Turkey,  <https://orcid.org/0000-0001-7388-5901>

Mustafa Tevfik Hebecci

Necmettin Erbakan University, Turkey,  <https://orcid.org/0000-0002-2337-5345>

Abstract: Sustainability of education has become of paramount importance during the COVID-19 pandemic at all educational levels worldwide. In this process, the assessment process, which is one of the most important steps of education and teaching activities, started to be applied as online exams. In addition to being compulsory during epidemic periods, the fact that it has various advantages such as reducing costs, suitability for new teaching approaches, preparing a large pool of questions, being time and place independent has led to an increase in the use of online exams. In addition to the advantages that online exams have due to their structure, they have also brought some disadvantages. Some limitations arising from the lack of synonymous proctors during the exam are among these disadvantages. There are a number of digital proctoring tools developed to reduce this limitation. These tools aim to increase exam security by recording the movements of students during the exam process. In this study, information was given about the add-ons used to make online exams safer and more reliable, and a general evaluation was made about the add-ons to provide in-depth knowledge to online exam practitioners.

Keywords: Moodle, distance education, exam security, digital proctoring

Introduction

Distance education becoming widespread day by day due to its convenience of increasing access to learning opportunities (Koçdar, 2011), reaching individuals who are geographically distant, and teaching individuals who cannot be in the classroom environment due to physical disabilities (Frank, Reich & Humphreys 2003) has also made it possible to take exams online. Herand & Hatipoğlu (2014) suggest that the assessment of students' knowledge who have completed their education through distance education should also be done by distance education. Otherwise, it is not deemed practical due to the students being in remote places, and it also contradicts the flexibility principle of e-learning (Levy & Ramim, 2007).

Conducting online exams without a proctor can cause academic irregularities (Bozkurt & Uçar, 2018). King et al. (2009) stated that there are various cheating situations in online exams, such as using books, taking the exam

for someone else, consulting others in the exam, using online resources, and obtaining questions from various sources in advance. It is stated in the literature that measures such as lockdown of the browser and operating system to prevent cheating in online exams (Kapoor, 2014), restricting the non-exam features of the computer, being able to view the exam area in 360 degrees (Kitahara, 2011), tracking eye movements (Gordon, 2013), taking screenshots during the exam (Bailie & Jortberg, 2009) should be taken.

Various add-ons with different features have been developed to prevent academic irregularities in online exams and to ensure exam security. In this study, some add-ons that can function as a proctor and work integrated with Moodle teaching management system were examined. The reason why Moodle teaching management system is preferred in the study is Moodle is the most preferred lesson management system in distance education due to its high-quality educational qualities (Önal, Kaya, & Draman, 2006) and its strong, reliable, flexible, and rapid development (Rice, 2006).

Online Proctoring Tools

Online proctoring tools are add-ons for a secure online exam with a webcam, microphone, and a stable internet connection. There are also versions with advanced features of these tools, which can basically take screenshots at a certain interval. It is seen that it has different characteristics from each other (Patil & Bromwich, 2020).

1. Lockdown of open applications on the individuals' computers taking the online exam,
2. Disabling the screenshot function
3. Disabling copy-paste
4. Disabling music and audio output
5. Disabling the virtual machine
6. Freezing additional monitors
7. Personal identification
8. Tracking eye movements
9. Noise detection
10. Face scan and scanning the exam room
11. Image recording
12. Monitoring and recording behaviors.

It is thought that academic irregular behaviors that occur or may occur during exams can be prevented with these features.

Although digital proctoring tools have existed for many years, it seems that they have become frequently used in various universities and colleges after the COVID-19 pandemic, which occurred in early 2020, as education could be continued in online environments. Information about some of such software, which varies based on its

developers and features, is provided below.

Mega Proctoring

Mega proctoring is a Moodle-integrated Google Chrome extension used in online exams designed by ME Education Technologies and Consulting Service. This add-on provides sufficient conditions for a secure exam as a virtual proctor in online exams, with features such as tracking movements and authentication to identify academic irregularities that may occur during online exams. Users who want to take the present online exam must install this extension.

The list of web pages visited by the users collects data such as the date of visiting these pages and network tracking, number of clicks, mouse position, keystroke recording. He saves random screenshots and audio files during the exam. Proctoring rules can be determined based on the needs in the add-on, which has one payment per user.

Proctorio

Proctorio is a web browser extension for Google Chrome used to proctor online exams. Thus, it provides the opportunity to take the exam anywhere. It integrates with the currently used LMS system. It aims to prevent academic irregular behaviors that the student may show during the online exam by recording with a webcam and microphone, monitoring the screen, monitoring internet activity, and locking some computer features. It also has features such as getting instant results to the notebook, tracking for plagiarism, setting flags for suspicious behavior, evaluating the room where the online exam is held, and authentication.

E-Proctoring

E-proctoring is an artificial intelligence software that compares and verifies user identity with advanced machine learning techniques and is integrated with Moodle, so the question pool does not need to be added to any area other than Moodle. This software locks the operating system against other non-exam pages, scripts, and communication tools. It aims to prevent academic fraud that may occur during the online exam with its features such as identity verification and random screenshots, monitoring the system, and recording sessions.

Moodle Proctoring

Moodle Proctoring is a Moodle Quiz plugin that captures a user's photo with the webcam tool to determine who is taking an online test on Moodle. Users can access their exams by installing the Moodle add-on manager or via GitHub.

This plugin automatically takes a photo at a specified time and stores the image in a small *.png* format in

Moodle data. If the user does not allow the use of the webcam, access to the exam is denied, and during the exam, it reports suspicious activity to the online examiner and provides control.

The add-on also helps to take random photos with the webcam while the student is taking the exam and requires camera permission from the user before starting the test. The student giving the permission can start answering the exam questions by seeing the photo. This plugin, which looks like a video service that captures every moment, attempts to prevent the user from exhibiting suspicious behavior during the online exam.

Based on the statistics about Moodle Proctoring, it is seen that the plugin was used in a total of 576 different sites in February 2021. With regards to the increase in the number of sites used, it is seen that the figures are 131 websites in November 2020, 190 websites in December 2020, 269 websites in January 2021, and 576 websites in February 2021. On the other hand, 280 of these sites use Moodle 3.8, 139 have Moodle 3.9, and 146 of them use Moodle 3.10 versions. The number of downloads of this plugin indicates that it was downloaded 867 times in the last 90 days, and the most downloaded months are February 2021 with 339, March 2021 with 302, and December 2020 with 265 (moodle.org).

Conclusions and Recommendations

Distance education has increased rapidly with the developments in the field of education, and it has become mandatory during the COVID-19 pandemic process (Can, 2020). It is also the type of education where the learner and the teacher are in different places regardless of time and place (Akçay, 2014). With distance education, education can be continued in situations such as physical and geographical problems, and assessment in distance education is also conducted online (Donovan, Mader, and Shinsky (2007); Xu, Iran-Nejad, and Thoma (2007); Anderson, Cain, and Bird (2005)). However, academic irregularities can occur in online exams conducted in online environments (Bozkurt & Uçar, 2018). Therefore, various proctoring tools have been developed to prevent these irregularities.

Proctoring plugins are software designed to enable a more reliable exam environment for online exams. Looking at the findings of this study, which aims to provide information about digital supervisor tools developed to reduce academic irregularities that occur in online exams, it is seen that each tool has its own pros and cons. However, when we look at the common features of digital proctoring tools, we see features such as user authentication, saving browser history, and locking other computer features except for the online exam. Although there may be deficiencies in these systems according to preference/preferences, they can be used alone or with different tools to prevent academic irregularities in online exams.

In the context of the findings of this study and the studies in the relevant literature, the following suggestions can be made to the researchers for future studies. Since this study is prepared in a theoretical framework, these tools can be tested with different parameters by putting them into practice, or detailed examinations can be made

by taking opinions from exam providers who use them.

References

- Akçay, S. (2014). *Eş zamanlı sınıf ortamının grafik tasarım dersinde kullanımına yönelik bir uygulama ve öğrenci algıları [An application and student perceptions for the use of concurrent classroom environment in graphic design course]*. Yüksek Lisans Tezi [Master thesis], Gazi Üniversitesi, Eğitim Bilimleri Enstitüsü [Gazi University, Educational Sciences Institute], Ankara.
- Anderson, H.M., Cain, J., and Bird, E., (2005). Online student course evaluations: Review of literature and a pilot study. *American Journal of Pharmaceutical Education*, 22(1), 7-29.
- Bailie, J. L., & Jortberg, M. A. (2009). Online learner authentication: Verifying the identity of online users. *Journal of Online Learning and Teaching*, 5(2), 197-207.
- Bozkurt, A., Uçar, H. (2018). E-learning and e-exams: examination of learners' perspectives concerning the authentication methods in online assessment processes. *Mersin Üniversitesi Eğitim Fakültesi Dergisi [Mersin University Journal of Education Faculty]*, 14(2), 745-755.
- Can, E. (2020). Coronavirüs (Covid-19) pandemisi ve pedagojik yansımaları: Türkiye'de açık ve uzaktan eğitim uygulamaları [Coronavirus (Covid-19) pandemic and its pedagogical reflections: Open and distance education practices in Turkey]. *Açıköğretim Uygulamaları ve Araştırmaları Dergisi [Journal of Open Education Applications and Research]*, 6(2), 11-53.
- Donovan, J., Mader, C., & Shinsky, J., (2007). Traditional course evaluation formats: Student perceptions. *Journal of Interactive Online Learning*, 6(3), 158-180.
- Eproctoring (2021). Why eProctoring is the best solution to secure online exams? Retrieved from <https://eproctoring.com/features/>
- Frank, M., Reich, N. & Humphreys, K. (2003). Respecting the human needs of students in the development of e-learning. *Computers & Education*, 40, 57- 70.
- Gordon, L. (2013). *Technology thwarts cheating in online exams*. Retrieved from <http://search.proquest.com/docview/1348623176?accountid=8403>.
- Kapoor, K. (2014). *Preventing high-tech cheating*. *Claims*, 62(9), 11. Retrieved from <http://search.ebscohost.com/login.aspx?direct=true&db=bth&AN=97628680&lang=tr&site=ehost-live>.
- Kitahara, R., Westfall, F., & Mankelwicz, J. (2011). New, multi-faceted hybrid approaches to ensuring academic integrity. *Journal of Academic and Business Ethics*, 3(1), 1-12.
- Koçdar, S. (2011). *Uzman görüşlerine göre Türkiye'de uzaktan eğitim programlarının akreditasyonu [According to expert opinions, accreditation of distance education programs in Turkey]*. Doktora Tezi [Phd thesis], Anadolu Üniversitesi. Sosyal Bilimler Enstitüsü [Anadolu University. Social Sciences Institute], Eskişehir.
- Levy, Y., & Ramim, M. (2007). A theoretical approach for biometrics authentication of eexams. *Chais Conference on Instructional Technologies Research içinde (ss. 93-101)*, The Open University of Israel, Raanana, Israel.

- Mega Proctoring (2021). Mega proctoring. Retrieved from <https://www.meetcs.com/mega-proctoring-solutions/>
- Moodle Proctoring (2021). Moodle Proctoring Retrieved from https://moodle.org/plugins/stats.php?plugin=quizaccess_proctoring
- Önal, A., Kaya, A., & Draman, S. S. (2006). *Açık kaynak kodlu çevrimiçi eğitim yazılımları [Open source online education software]*, Akademik Bilişim.
- Patil, A. & Bromwich, J. E. (2020). *How it feels when software watches you take tests. New York Times.* Retrieved from <https://www.nytimes.com/2020/09/29/style/testing-schools-proctorio.html>.
- Proctorio (2021). Proctorio. Retrieved from <https://proctorio.com/>
- Rice, W. H. (2006). *Moodle e-learning Course Development. A Complete Guide to Successful Learning Using Moodle.* Packt Publishing.
- Topuz, A. C. (2016). *Bilgi güvenliğinin sağlanmasına yönelik geliştirilebilecek yazılımsal stratejiler: Online sınav uygulamaları örneği [Software strategies that can be developed to ensure information security: Example of online exam applications].* Retrieved from: http://www.sdf.gov.az/development/uploads/grantlar_uzre_neshrler/eif_kitabrlar/eif_konfrans_2016_informasiya_cemiyeti.pdf#page=153
- Xu, Y., Iran-Nejad, A., & Thoma, S.J., (2007). Administering defining issues test online: Do response modes matter? *Journal of Interactive Online Learning*, 6(1), 10-27.

The Effect of Optical Illusion 3D Crosswalk on Vision

Chin-Chun, Lai

Tatung University, Taiwan,  <https://orcid.org/0000-0003-4261-6228>

Ting-Yun, You

Tatung University,  <https://orcid.org/0000-0001-7001-8263>

Yung-An, Lei

Tatung University, Taiwan,  <https://orcid.org/0000-0002-0483-9298>

Abstract: Stepping stones, which is the ancient crosswalk, the main function of it is to warn drivers to slow down. However, the main function is no longer existed in today's crosswalk. Due to the reason mentioned above, the purpose of the study is to combine advantages with two different crosswalk, two-dimensional (2D) crosswalk (safety for pedestrian) and stepping stones (warning function for driver). Therefore, the study redrew six versions of three-dimensional (3D) optical illusion crosswalk samples, referring to the regulation from Ministry of Transportation and Communications, R.O.C. and 3 different types of shadow caused by one-point perspective (front-shadow, back-shadow and non-shadow) and 3 different visual 3D thickness (45cm, 50cm and 60cm). In the questionnaire, the study including 30 respondents and asking respondents' feedback of 3D samples' degree with five-level Likert Scale. The results showed that "3D visual thickness 50cm crosswalk with front-shadow" had the best sensation in six versions 3D samples.

Keywords: innovation, design, optical illusion, perspective.

Introduction

The impact of the crosswalk on traffic safety

Globally around 16,000 people die each day from all types of injuries. Injuries represent 12% of the global burden of disease. Twenty-five percent of these deaths are from injuries that occur in road traffic (Sandra Pahrnel, 2014). The most vulnerable groups in road traffic are pedestrians, cyclists and motorcyclists. Pedestrians have a 90% chance of surviving a collision with a car travelling at 30 km/h or below but only a 50% chance of surviving impacts at 45 km/h. Pedestrian and cyclist traffic have increased, as well as the fatalities of these road users, indicating an urgent need for increased attention from policy-makers (World Health Organization [WHO], 2004). Due to the studies and researches we had discovered, it is important that how to

keep pedestrians and drivers' safety.

Traffic condition happened often owing to some sidewalks in Pompeii were not being separated from roads in ancient Rome. People decided to separate the sidewalks from roads, adjust the sidewalks' height and arrange "stepping stones" nearby the intersection. Thus, they could cross road safely by stepping these stones. This is the earliest origin of zebra crossing (Fig 1).



Figure 1. Schematic Diagram of Stepping Stones

(source: <http://www.loong.cn/bmx/why.htm>)

However, in the end of 19 B.C., "stepping stones" no longer prevented pedestrian from the traffic accident (Feng, guo tao, 2012). In early 1950s, a kind of crosswalk with white-horizontal stripe was designed by British government and this innovation provided citizen a safer way to cross the streets. People call crosswalk which shows up in London "zebra crossing", because the stripe looks like zebra's strip.

Crosswalk does not change its function a lot from ancient Rome to nowadays. People focus on its appearance in order to improve pedestrians' safety and let drivers can notice it clearly, such as calculate the distance of each stripe and the proportion of each road (Ministry of Transportation and Communications [MOTC], 1999). Though the data and its color might different because of the culture of each country, crosswalk exists in most intersections nowadays (MOTC, 2009).

The research found out that road infrastructure, especially at crosswalks near roundabouts, might be immediately improved in order to increase pedestrian safety and drivers' perception of the risk (Valeria Vignali, 2019).

According to "Regulations of Road Traffic Sign and Marking" from MOTC, R.O.C. in 2008, Act. 158, crosswalk should be drawn with white solid line, which is length 2m~8m, width 40cm, interval of 40cm~80cm,

as figure 2 shown. Also, the crosswalk should be located in the shortest distance between sidewalks with the same width, in order to cross the road easily. 2D crosswalk is more common presently.



Figure 2. Production Method of the Crosswalk

Though 2D crosswalk is common now, it has weak function to warn driver to slow down comparing to “stepping stones” at paths or lanes without traffic lights. The reason is that because the stepping stones gave drivers a strong warning at that time, drivers must slow down for safety when passing the stepping stones, knowing it was dangerous if passing with high speed. With the same logic, obviously, the 2D crosswalk is weak at warning function. If the crosswalk was painted as 3D-like, imitating stepping stones’ function for examples, drivers will notice the crosswalk more.

Cooperating with folk, New Delhi City Council done the first 3D crosswalk, as figure 3, “this is the first 3D crosswalk in Delhi. The concept of this allows drivers to slow down when notice the crosswalk, so pedestrian can pass the road,” said Yogesh Saini (Science and Technology Division, Taipei Economic and Cultural Center in India, 2016).



Figure 3. 3D Crosswalk in Delhi, India

(source: <https://www.damanwoo.com/node/88243>)

According to “Regulations of Road Traffic Sign and Marking”, traffic sign which maximum length of a side is 45cm, 50cm, 60cm should be set on road which speed limited in 30km/h ~ 60km/h. Those length are also the experimental basis in our study.

One purpose of this study is to investigate three-dimensional crosswalk's advantage. The other purpose is to design the three-dimensional optical illusion design, based on traffic safety.

During long trips, the drivers' behavior might result into stressful responses due to an excessive cognitive workload (Ringhand & Vollrath, 2019). According to the reason mentioned above, in order to occur the optical illusion cognition from the crosswalks, it is important to control how the 3D vision presents.

Optical Illusion and the Application of Crosswalks

How Vision Cognition and Shape Recognition are Built

Baby is able to know the distance of "far" and "near" when 4-month-old and distinguish between 2D and 3D, even owns the ability of cognition when 6-month-old (Li, P. -S., 2012). The formation of these brown abilities are complicated actually. People even judge how modern AI performed with this. Since 19 B.C., some psychologists try to find the regulation of these complicate process. Gestalt Theory is the best known. Psychologists explained how vision cognition happened and learned how optical illusion occurred through Gestalt Theory.

Based on "Law of Organization", it is found that the human brain tends to organize and analyze messages with Gestalt Theory when vision was stimulated. It is the reason why human can correct and simplified those messy messages into ease-recognized shape.

How vision is formatted? First, a person sees a substance. His or her brain transforms what he or she saw from 3D model (the substance) into 2D image (projects the image on retinal) after that. Last, his or her brain changes the formatted image into 3D again (brain cognition). These regulation and theory occurred at step 3, when brain is recognizing. To understand the connection of step 1 to step 3, psychologists compare and discuss three different possible types. The study organized the comparison table, which is as below (Table 1).

People usually regard the shape of crosswalk as "shape of the stimulus", because the simple, regular shape is easy for people to recognize. However, shape recognition is a very complicate process in general, none of the theories could explain completely thus far. We can only understand shape recognition through different theories (Cheng, Li-yu, 2009).

According to Biederman's theory in 1993, people recognized substance quickly by its contour or its parts. Prototypes are constructed from an "average" of those product designs that are repeatedly encountered (Janneke Blijlevens, 2013). Prototype theory indicated that people remind many classic examples in long-term memory, these examples are called "prototype" (Rosch, 1973). As crosswalk was mentioned, people first associate it with zebra stripe which has the basic shape and features. If another stimulus is familiar with the example, it may be considered as crosswalk.

Owing to shape recognition, people may consider that the three-dimensional crosswalk is still crosswalk, if it retains the traditional crosswalk's features and shape, such as "white", "rectangle", "permuted continuously", "paralleled by sidewalk", "crossed from road and connected with sidewalks".

Table 1. Different Stimulus' Comparison

Shape of the stimulus	Stimulus shaped more regularly, clearly and symmetrically, people felt more relaxed and recognized it more quickly.	Palmer (1977); Angle Roh et al. (2018)
3D/2D	For human brain, it was more difficult to deal with 3D model than 2D model, the numbers of blind points were even more than 2D's blind points.	Hochberg & McAlister (1953)
Environment	Compared with dark place, people estimated the size, distance of substance more 6% correctly in light place. In the situation with enough reference points (level, vertical, symmetry, brightness, etc.), it was not much difference between with one eye or both eyes when watching at the substance. Actually there is difference of 2%.	TaeKyu Kwon, Yunfeng Li, Tadamasawa Sawada, & Zygmunt Pizlo (2015) Ooi & He (2015)

Optical Illusion

Optical Illusion is classified into three types: physical visual illusions caused by figures' structure; physiological visual illusion caused by body sense; and cognitive Illusion caused by psychological reason (Pinel:J, 2005). If we want to make the crosswalk looks three-dimensional and thicker through optical illusion, it should be designed in a suitable one-point perspective.

Optical Illusion is used when a person's brain changes the formatted image into 3D again (brain cognition). It is easy to trick human brain by some optical illusion methods, such as drawing tricking figures with arranging geometry elements and applying vision formation. Increasing size and visibility of an object, making it more illuminated and salient for example, proved to be useful to avoid the problem. This can be applied both to objects and pedestrians by using different marking patterns (Crescenzo et al., 2019; Muttart, Dinakar, Vandenberg, & Yosko, 2016).

As mentioned above, how to draw a suitable one-point perspective 3D crosswalk? Drawing a perspective figure with keeping our sights, Alberti said that just like looking at the substance through chiffo, as if look at the view from the window. This method was called "Alberti's window" (Samuel Y. Edgerton, 2006), refer to figure 4.

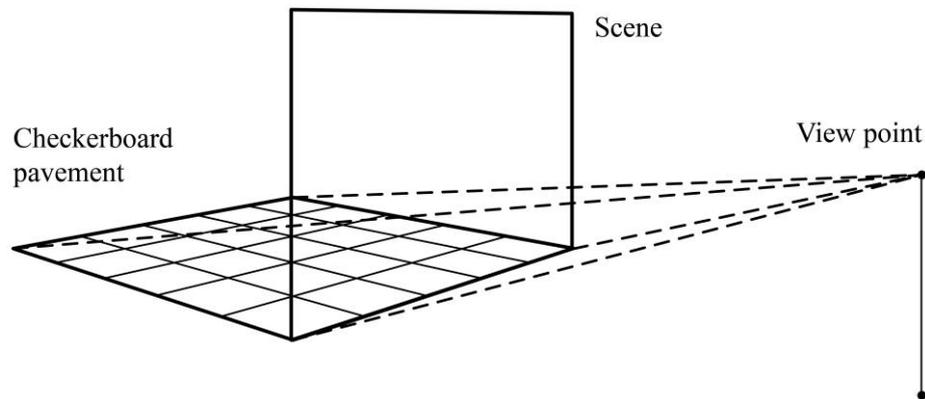


Figure 4. Relative Position Map with Checkerboard Pavement, View Point and Scene

Literature Summary

Stepping stones, which originated from Pompeii, Rome, can warn drivers due to its 3D model. Although stepping stones had great function to prevent drivers driving in high speeds, this traffic device no longer fitted the traffic nowadays. This is the reason why the flat crosswalk appeared and replace stepping stones, while its warning function is weaker than stepping stones. The purpose of this study is to keep advantages in both 2D crosswalk and stepping stones (safety for pedestrian and warning function for driver) through such as vision cognition; shape recognition, and Gestalt theory mentioned previously.

As mentioned previously, we know that when vision is formatted, a person always turns the substance what he or she seen from 3D model into 2D image, then changes the formatted image into 3D again inside his or her mind. To understand how vision cognition was built, psychologists compare and discuss three different possible types. It is found that due to shape of the stimulus, keep the crosswalk's feature can help people identify it.

On the basis of the research, we use one of the rules in the theory of Optical Illusion, "physical visual illusions caused by figures' structure", to make different experiment samples in this study. The experiment samples include 3 different visual 3D thickness (45cm, 50cm and 60cm) and 3 different types of shadow (front-shadow, back-shadow and non-shadow), all in one-point perspective. To know which sample has the best dimensional feeling, we will analyze the data and discuss the feedback from questionnaires through the experiment.

Method

The study designed nine scale crosswalk samples into three-dimensional one-point perspective through the theory of optical illusion for the experiment. These experiment samples were designed, which were based on "Regulations of Road Traffic Sign and Marking" (white solid line, length 2m~8m, width 40cm, interval of

40cm~80cm), visual thickness (45cm, 50cm, and 60cm) and three different kinds of shadow (front-shadow, back-shadow, and non-shadow). Experiment samples' production method was in Table 2.

During the production, we noticed that visual thickness 60cm was extremely distortionary. After the discussion, the study decided to only keep 45cm and 50cm as visual thickness. The study would discuss the feedback from questionnaires. After recycled those questionnaires, we would analyze by SPSS.

Table 2. Experiment Samples' Production Order and Method

Production order	According to	Method
1	Did the crosswalk scale model with white solid line, length 2m~8m, width 40cm, interval of 40cm~80cm, visual thickness (45cm, 50cm and 60cm) and three different shadow (front-shadow, back-shadow and non-shadow).	Drew the crosswalk model on tenth 0.1 scale.
2	Made the scene scale model and decided the observing length which switched by limited speed (30km/h ~45km/h).	Drew the scene model on tenth 0.1 scale and decided the observing length which switched by limited speed.
3	Drew the figure.	The figure was based on real scenery which look out from the car.
4	Did the Visual three-dimensional degree questionnaire.	The questionnaire used five-level Likert Scale.

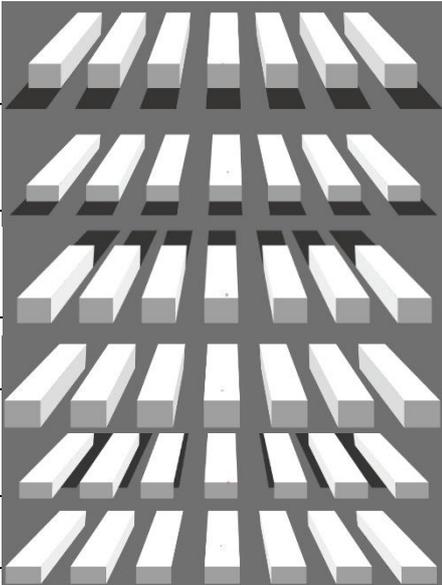
Results

The study used five-level Likert Scale to design questionnaire. Level one means "do not feel any three-dimensional"; level five means "feel obviously three-dimensional". We decided to use Mauchly Spherical Test after recycling thirty questionnaires first, to know if he analyzed data are fitted to the hypothesis or not. If the data were fitted our hypothesis, then analyzed these data by RM-ANOVA.

However, the result showed that it was not fitted to our hypothesis ($p=.000 < .050$). The result meant that the six experiment samples were different. According to the result, we had to correct by F-test with Epsilon Spherical Test, and adopt the final results from Greenhouse-Geisser values (G-G values). The corrected G-G values were not significant ($p=.420 > .050$). F value=14.712 was significant ($p=.000 < .050$). The corrected values explained that different combination of crosswalk influenced respondents significantly.

Due to the experiment results, we could rate these average values (Table 3) and know respondents' feeling to the six types of 3D crosswalk.

Table 3. Experiment Results

Ranking	Crosswalk	Sample figure
1	3D visual thickness 50cm crosswalk with front-shadow (average value 3.433)	
2	3D visual thickness 45cm crosswalk with front-shadow (average value 3.300)	
3	3D visual thickness 50cm crosswalk with back-shadow (average value 2.333)	
4	3D visual thickness 50cm crosswalk (average value 2.333)	
5	3D visual thickness 45cm crosswalk with back-shadow (average value 2.233)	
6	3D visual thickness 45cm crosswalk (average value 2.133)	

Discussion

The research found this marking for the driver looks like three-dimensional objects lying on the road, which makes him/her reflexively reduce the speed (Vyacheslav Burlov, 2018).

Based on the study results, the “3D visual thickness 50cm crosswalk with front-shadow” crosswalk is rated higher than the other experiment samples. Also, the results show that the proper visual thickness can bring respondents real feeling, rather than the thicker crosswalk. In the other side, we also found that crosswalk with front-shadow is rated higher than the other two shadow types. After discussing the phenomenon, we presume that the front-shadow might bring stronger feeling of distance and warning than the other two shadow types (back-shadow and non-shadow).

In contrast to crosswalk without shadow, our respondents feel crosswalk with shadow is more three-dimensional and more sensational of optical illusion. Refer to the results from our study, we speculate that drivers had real feeling when seeing the 3D crosswalk.

Conclusion

The study emphasizes how to bring people to feel three-dimensional by means of new style of the crosswalk, which is designed in optical illusion. The new style of the crosswalk keeps the advantage from ancient stepping stones’ strong warning function through the graphic design.

From the results, the study found that three-dimensional visual thickness 50cm crosswalk with front-shadow

brings the most obvious three-dimensional feeling. The new design of the crosswalk is in compliance with the rules, also can be applied in the traffic nowadays.

Recommendations

The use of 3D “zebra” marking is mathematically justified and its effect on the safety index is estimated (Vyacheslav Burlov, 2018). Three-dimensional crosswalk can design in other aspects, such as changing different perspective or color combinations. Using the one-point perspective additionally, there are also two-point perspective and three-point perspective can be used (Matthew Brehm, 2016). Color design of crosswalk is the other topic can be discussed. Based on Color psychology, not only white line on black shadow, there are more different color combinations can applicate in the optical illusion crosswalk design.

Acknowledgements

Funding for this project was provided in part by Ministry of Science and Technology Project (MOST), Taiwan (MOST 109-2221-E036-010).

References

- Matthew Brehm (2016). *Drawing Perspective: How to See It and How to Apply It*. Taiwan: Flag Technology co.
- Vyacheslav Burlov, & Fedor Gomazov (2018). Method of mathematical justification for using 3D zebra crossing, *Transportation Research Procedia*, Volume 36, Pages 95-102, <https://doi.org/10.1016/j.trpro.2018.12.049>
- Edgerton, S. Y. (2006). Brunelleschi's mirror, Alberti's window, and Galileo's 'perspective tube'. *História, Ciências, Saúde - Manguinhos*. Print version ISSN0104-5970. On-line version ISSN 1678-4758.
- Feng, guo tao (2012). *Incredible things: happened in important inventions*. N.p.: Kedao.
- Li, P. -S. (2012). The viewpoints and practice of Christian counselors in counseling with LGBT. [Master's thesis, Department of Educational Psychology and Counseling, National Taiwan Normal University, Taipei, Taiwan.]
- Rosch, E. (1973). “Prototype Classification and Logical Classification: The Two Systems”, *New Trends in Conceptual Representation: Challenges To Piaget's Theory*. Vol3.
- K. Berbaum, T. Bever, & Chung C. S. (1984). Extending the perception of shape from known to unknown shading. *Perception*. <https://doi.org/10.1068/p130479>
- Crescenzo, G., Villa, C., Brémond, R., Vignali, V., Lantieri, C., & Simone, A. (2019). The shape of road markings for visibility computation. In *Proceedings of the Institution of Civil Engineers – Transport. Neuroergonomics*. <https://doi.org/10.1016/B978-0-12-811926-6.00020-8>
- Highway Item (2019, January 29). *Regulations of Road Traffic Sign and Marking [Announcement]*, Taipei:

- Ministry of Transportation and Communications. Retrieved (n. d.) from the World Wild Web: <https://motclaw.motc.gov.tw/webMotcLaw2018/>
- Muttart, J. W., Dinakar, S., Vandenberg, G., & Yosko, M. (2016). The Influence of Driver Expectation when Recognizing Lighted Targets at Nighttime. *Proceedings of the Human Factors and Ergonomics Society Annual Meeting*, 60(1), 489–493. <https://doi.org/10.1177/1541931213601111>
- Pahrne, S., Chavez, J. Y. A., & Dalal, K. (2014). Economic Cost of Pedestrian Injuries in Stockholm City. *Health*, 06(19), 2736-2742. <https://doi.org/10.4236/health.2014.619312>
- Pinel, J. (2005). *Biopsychology* (6th ed). Boston: Allyn & Bacon. ISBN 0-205-42651-4
- Ringhand, M., & Vollrath, M. (2019). Effect of complex traffic situations on route choice behaviour and driver stress in residential areas. *Transportation Research Part F: Traffic Psychology and Behaviour*, 60, 274–287. <https://doi.org/10.1016/j.trf.2018.10.023>
- Science and Technology Division, Taipei Economic and Cultural Center in India (2016). *3D crosswalk in Delhi, India*. (2016) Retrieved (n. d.) from https://www.most.gov.tw/india/ch/detail?article_uid=9c53dfad-6ecd-11e6-aba2-005056826649&menu_id=f8fd69b8-a1e6-45a0-9df4-6edc4e4e000&content_type=P&view_mode=listView
- Vignali, V., Pazzini, M., Ghasemi, N., Lantieri, C., Simone, A., & Dondi, G. (2020). The safety and conspicuity of pedestrian crossing at roundabouts: The effect of median refuge island and zebra markings. *Transportation Research Part F: Traffic Psychology and Behaviour*, 68, 94-104. <https://doi.org/10.1016/j.trf.2019.12.007>
- WHO (2004). World Health Organization, Geneva, 3, 5-6, 19-20,35-37, 41, 71-72, 77.
- Cheng, Li-yu. (2009). *Renjr Shinlishiau - Luen Yu Yingyung* (3rd ed., pp. 45-49). N.p.: Wu-Nan

Correlation Analysis of Krav Maga Athletes' Sociodemographic Characteristics and Their Leadership Competencies

Zeljka Bagaric

University North, Croatia  <https://orcid.org/0000-0002-4085-8736>

Emilija Strucic

University North, Croatia

Abstract: The Krav Maga system tactics develop character traits, skills and values that such as integrity, ethics, humility, peacefulness, non-violence, self-awareness, discipline, respect, responsibility, active listening and ability to function in stressful situations. The same traits are associated with transformational leadership, and can be a useful tool and model for effective corporate governance and personal growth. This paper explores the relationship between some sociodemographic characteristics of Krav Maga athletes and competencies that are identified as leadership competencies, as assessed by participants in relation to their personal and work environment. Survey was conducted during March 2021 on deliberate sample of active athletes of Krav Maga self-defense system from a total of 22 countries (N = 98, F = 36). The quantitative methodological approach was used. For this paper purposes, data were processed by descriptive statistics procedures and appropriate non-parametric methods (chi-square test - χ^2 and Spearman's Rho). The SPSS Statistics version 27 package was used. Correlation analysis was performed between group variables (self-awareness, self-regulation and environmental awareness) and set of independent variables composed of gender, communication skills, years of working experience and years of Krav Maga training. Obtained results showed that the group variables were highly correlated, positive and statistically significant at the level of 1% ($p < 0.01$). It seems that the participants' competence of Krav Maga and leadership qualities is achieved based on Krav Maga training, while gender, non-formal and cultural learning potentially acquired through years of work experience in this sample are not related to the development of leadership competencies.

Keywords: Communication Skills, Krav Maga, Self-awareness, Self-regulation, Transformational Leadership

Introduction

Leaders have existed as long as human communities. Myths, history, politics, economics, literature, TV series as well as everyday life talk about the development of leadership and leaders. However, the phenomenon of leadership has been studied more seriously only since the middle of the 20th century and is still not easy to

explain. The question is, are leaders born or made? One does not become a leader automatically, just by taking a formal position in an organization. You become a leader through activities, attitudes and relations towards other members of the organization and the challenges that the organization faces. Besides, a leadership approach can be observed among individuals outside the hierarchical organizational structure. Most well-known leaders mentioned in the literature (in a positive sense) are people who have proven themselves in specific times and challenges. What they all have in common is strength of character, self-awareness, goal orientation, innovative approach to problem solving, moral standards and excellent speaking skills (Sikavica et al., 2008). The results of research conducted over the past 20 years have expanded the catalog of topics from research into specific personality traits and management mechanisms, to leadership based primarily on effective communication and persuasion skills. Leadership is (among other things) defined as the art of persuading people to work towards a common goal (Goleman, 1998 p. 12), that is, the art of influencing people so that they are engaged in achieving goals of an organization (Sikavica et al., 2008 p. 459). Leadership is a process of social interaction in which a leader strongly influences the behavior of his followers and their work performance (Northouse, 2010).

The business world has always faced challenges. However, in today's age of globalization, rapid advances in technology, and rapid change at all levels, employees, managers, and leaders must achieve corporate goals and contribute as much as possible to the success and reputation of the organization. It is necessary to lead different, often intercultural teams, cooperate, coordinate, encourage, calm down, sometimes oppose and even win debates and conflicts. The ability to communicate effectively, motivate and inspire employees to achieve more than the estimated personal maximum regarding organizational goals, are the key competencies of today's leaders. In this highly demanding and stressful environment, lessons on principles, skills together with martial arts tactics, combat sports and combat systems can be a useful tool in upgrading models of effective corporate governance and personal empowerment. Critical thinking, the importance of a wise approach, quick reactions, out-of-the-box thinking, and the need to sometimes make difficult decisions to effectively overcome the situation they face, can be developed through training and education that differs from standard approaches and in that way improves leadership skills.

Transformational Leadership - Values, Characteristics and Skills

There are different types of leadership (for example: laissez- faire leadership, transactional and transformational leadership) We are going to focus on transformational leadership for the purposes of this paper. The concept of transformational leadership was first brought by James MacGregor Burns in his book *Leadership* (1978) which describes transformational leaders as charismatic individuals, capable of influencing their followers by inspiring them; in such way they achieved a positive transformational organizational culture and higher success levels. Leaders with such skills model the behavior that surpasses short term goals, they focus on the important and on a bigger picture by provoking strong emotions and identification with their subordinates (Allegre & Levitt 2014; Bass & Riggio, 2006; Bass, 1996; Bass & Avolio, 1994). Transformational leadership is based on common principles, norms and values. Its goal is to promptly respond to change which showed to be crucial for development and survival of organizations in times of turmoil and crisis, in order to solve main threats and seize

opportunities (Wanasika & Krahnke 2017; Northouse, 2010; Caldwell & Spinks 1999, Ramsden 1998; Bass & Avolio 1994).

Alegre and Levitt (2014) have, based on meta-analysis of empirical studies dealing with relation between transformational leadership and emotional intelligence, come to a conclusion that different social and emotional skills, such as empathy, interpersonal skills, internal motivation, self-awareness, ability to adjust to new situations, ability to deal with stress, ability to perceive emotions, ability to use emotions in thinking, emotional clarity, emotional regulation and emotional evaluation have a significant influence on the quality of leadership. It is considered that a set of personal emotional characteristics and skills represents optimal characteristics of a leader. Besides that, leaders must possess some key characteristics such as honesty and integrity, responsibility, creativity, ability of active listening, ability of efficient communication, relationship building skills, ability to motivate associates and ability to delegate. An efficient leader will use his role-model character to gain trust of the members in an organization. His high ethical code will influence the progress of a team and will nurture engagement of his employees (Zunair, 2019; Houghton et al, 2015; Goleman et al, 2013; Cavazotte et al, 2012). Effective communication is a crucial component in leadership training and development. A leader should learn how to listen actively, gather and properly understand all important information about internal and external environment and establish a good rapport with all associates based on mutual trust and respect and mutual understanding of ideas and emotions. A leader must effectively communicate the goals, vision and mission of an organization in order to persuade followers to adopt an engaging and highly efficient behavior (Zunair, 2019; Holt & Boe, 2017; Ramchunder & Martins, 2014).

Leaders are expected to demonstrate ability in five main areas: self-awareness, self-regulation, self-motivation, empathy and social skills (Goleman et al. 2013). Self-awareness represents the experience of one's own feelings in form in which they appear, and when they appear. Self-awareness is based on intuition and instincts, and is key to emotional intelligence. Leaders with self-awareness usually have a clear understanding of their own feelings as well as the effects their feelings and actions have on followers. Self-awareness is an important aspect because it allows defining personal strengths and limitations as well as adopting a sense of humility, which will allow them to accept shortcomings in order to improve their own competencies (Zunair, 2019; Bačić, 2011; Goleman 2000; Bar-On 2000).

Self-regulation is a construct that represents the ability to monitor and control one's own behavior in order to respond to social expectations. People have the ability of self-motivation: to set personal goals, plan strategies, evaluate, and modify current behavior (Cervone & Pervin, 2008). Self-regulation includes not only initiating the achievement of goals, but also avoiding distractions from the environment and emotional impulses that could interfere with a person's progress or making emotional, hasty decisions. Effective leaders demonstrate the ability to make decisions in accordance with their values, and by doing so they exercise optimal control over the situation (Zunair 2019; Goleman et al., 2013; Cervone & Pervin, 2013; Sadri 2012).

Empathy is a cognitive understanding of another person's feelings and position; it is emotional empathy with

other people's feelings. This is another competency that leaders must demonstrate on a daily basis in relation to other members of the organization; it is an important prerequisite for communication within the organization, and enables the leader to successfully motivate, lead and manage. Social skills refer to specific behaviors of a leader, and social competence refers to the way a leader uses those skills in relation to others. World Health Organization defines social skills as the ability to adapt and behave positively which allows us to successfully cope with demands and challenges of everyday life. Social skills are also defined as specific ability to turn knowledge into action, which leads to effective change management in and around the organization and in conflict resolution (Sadri 2012; Bahtijarević-Šiber & Sikavica, 2001).

For the purposes of this paper, we will also mention situational awareness - a term most commonly used in military circles, but an equally important component of personal and corporate security. Situational awareness is the perception of elements in environment within a certain time and space, and it is important for understanding their meaning and predict their status in near future (Vrgoč & Mihaljević, 2019). The term situational awareness is often used when people miss something important at everyday' activities or at work that leads to an injury or operational failure or slowdown (Walia, 2019). Most people in everyday life are not actually aware of the world around them - 80% of all patients who visit trauma clinics are the result of carelessness in relation to their own environment (Givens, 2004). By consciously observing their environment, assessing the situation and reacting appropriately, a person can achieve a high degree of control over their safety but also over their decisions, actions and activities. Our knowledge, experience, and education allow us to understand what is going on around us and help us identify potential danger related to actual physical danger or danger related to our potential business decisions. This means that everyone's situational awareness is individual, potentially different and volatile, depending on circumstances (Družeta, 2019; Vrgoč & Mihaljević, 2019).

Martial Arts in the Context of an Individual's Personal Development

Martial arts are among the oldest forms of sports that people practiced not only for the purpose of self-defense, but also in terms of developing spiritual abilities. The forerunner of all Kalaripaayattu fighting skills came from Dhanurveda, a military skill (archery) of Vedic culture (1500 BC); the first teacher of martial arts was the ancient warrior Paraśurama. It spread from India to Buddhist priests in China, and many famous martial arts such as Karate, Kung Fu, Kendo, Aikido and others emerged from it. Cultivating morals is an integral part of martial arts because martial arts, in addition to general personal development, contribute to the development of morals through adherence to moral principles, codes of conduct and virtuoso exercise. Certain moral values are important for an individual's self-realization, but equally for the well-being of society. For this reason, martial arts are considered a socially desirable practice that helps shape a person's character for the benefit of society (Pivac 2020; Družeta, 2019). Some of martial arts values are common to warriors of all cultures: courage, self-control, loyalty, control of emotions, respect for opponents and similar. However, with the development of civilian martial arts schools, some of these values are balanced with the idea of self-realization and cultivating moral values (Martinkova & Parry, 2016). Today, a modern man faces different battles that do not depend directly on his martial art skill. Still, martial arts can contribute to the development of other skills and abilities.

Today, people do martial arts for some completely different reasons: to improve physical fitness, self-defense, fun, but also to improve the sense of confidence and self-esteem that comes with martial arts training. Practicing combat sports and martial arts also shapes volitional traits, ethics, and personality (Boguszewski et al., 2019).

Some scientific studies have investigated the development and characteristics of non-physical skills in martial arts practice and whether the same skills can be applied in the context of leadership in the work environment. Bell and Chang (2002), by analyzing the effects of taekwondo training on personality, find heightened self-esteem, self-perception, decreased aggression, decreased anxiety, increased personal independence; and the length of taekwondo training is associated with lower anxiety levels and higher independence levels. McGee (2005) conducted a comparative study on students and instructors in seven different karate style schools (Dentokan, Shotokan, and Tae Kwon Do). The study measured personality traits such as control locus, self-perception, goal orientation, motivation, and anxiety; the instructors ranked each of these traits more positively in relation to students. Bouley (2008), in an overview of previous research results on skills and traits (of the practitioners), indicates that martial arts training has a positive impact on character development in general and on desirable traits in a business environment. In this context, the important fact is that primary goal of all martial arts is to stopping danger while it is still far away. Lessons serve to de-escalate any potentially dangerous situation, that is, to avoid potential conflicts at the outset.

Madenlian (according to Šetić, 2015) compares the results of applying aikido training in relation to traditional therapy for patients with mental illness. It showed that the group of patients who were involved in aikido training achieved higher values on self-perception scales. Moore et al. (2020) based on systematic overview and meta-analysis done on 14 studies examining the association and effect of martial arts on mental health conclude that the thesis on the effectiveness of martial arts training in terms of interventions to improve patients' mental health can be supported, given the significant but low to medium values of improving wellbeing and reducing symptoms associated with internalizing mental health, while a minimal non-significant result was recorded in reducing aggression on this sample. The authors emphasize, however, that due to the methodological limitations of such studies (in terms of sampling and descriptive methodology), such findings cannot be generalized and that further research is needed in this area (Moore et al., 2020; Moore et al., 2019).

Krav Maga Self-defense Close Combat System

There are three basic sources that enable acquiring martial arts and learning the rules that prevail in a combat environment: martial arts, combat sports, and combat systems. A person engaged in martial arts and combat sports trains in controlled conditions and according to certain rules. He fights with only one person and develops the so-called tunnel vision because it focuses only on that person. He does not see the surrounding, and is not ready for a simultaneous attack. Therefore, these types of sports are not the best solution in the context of a street attack, as they do not consider a possible armed attacker, multiple attackers or an awkward place of attack. In this paper, Krav Maga, the Israeli system of self-defense and close combat, was used as an example of a combat system. Krav Maga in Hebrew means "close combat", and the creator of this system is Emrich Imre

Lichtenfeld (1910 - 1998) also known as Imi Sde-Or. With founding of the State of Israel in 1948, Krav Maga was permanently introduced into the uniformed services training program. Today, Krav Maga techniques, anywhere in the world, can be successfully applied by any person, regardless of age, gender or physical characteristics (see Figure 1).



Figure 1. Krav Maga Croatia (Source: <https://krav-maga.hr>)

Krav Maga for civilians is based on three main principles that are always applied cumulatively: 1. Avoid (dangerous places, situations, environment); 2. Run (as soon as possible) and 3. Fight (fight aggressively and use all resources available) (Wozniak, 2019). Krav Maga is a tactical system by which we can spot, prevent and resolve almost any type of violence, attack or conflict. It is a modern, practical and experience-tested system of self-defense and close combat based on principles and concepts from real life situations (Družeta 2019: 36). Krav Maga is a fluid system that is evolving with changes in society and culture. Without going deeper into the historical and political facts about the origin and development of the Krav Maga system, we can say that its success is the result of the fact that it is based on values / principles, and not on technique. The values of the Krav Maga system are mentioned in the words of the founder, Grand Master Imi Lichtenfeld - to educate and build people mentally, spiritually and physically, so that when necessary they are able to defend themselves from any attack quickly and efficiently; instill in man an awareness of his own worth; act on the development of awareness to stop any violence around the world, among all people regardless of color, race and religion (Lo Presti, 2013). In that context the Krav Maga system tactics develop character traits, skills and values such as integrity, ethics, humility, peacefulness, non-violence, self-awareness, discipline, respect, responsibility, situational awareness, active listening and ability to function in stressful situations.

The self-regulation tactics that make up one of the key components of the Krav Maga Combat Mindset are important in training the ability to function in stressful situations. Medical facts proved that it is not enough to develop only physical endurance and martial arts, but it is necessary to train in a situation of hormonal stress or response to fear, because it is the main type of stress response not only in combat but also in verbal confrontations (Yanilov and Boe 2020, p. 65 - 79). Why is that important? As explained by Yanilov & Boe (2020), the maximum heart rate in most healthy individuals is 220 beats per minute minus the age. This will

happen if we train hard or run as fast as possible. The strain and stress we are then exposed to is called the activation of the nervous system caused by physical activity. On the other side, there is hormone-induced activation of the nervous system, which develops when we are in a stressful situation, especially if we are faced with some form of violence. The more we perceive the situation as threatening, the more the heart rate increases and the body releases more and more stress hormones. The hormonally activated reaction of the nervous system triggers certain physical and mental processes. If we want to function as effectively as possible in stressful situations, it is not enough to develop only physical endurance and martial arts. It is equally necessary to train in a situation of hormonal stress or response to fear, since that is the main type of reaction to stress not only in fighting but also in verbal confrontations.

The same thing happens during awkward meetings or situations in business environment, or whenever we feel threatened. Understanding the hormonal system is extremely important for all cases of self-defense, regardless of whether it is physical or verbal self-defense, because it allows us to understand our reactions, but also the behavior of the attacker (Yanilov & Boe, 2020 p. 65 - 79). In this sense, the zone of optimal survival and combat performance was found to be at level 115 to 145 heart rate per minute, given that in that zone the complex motor reaction, visual reaction time and cognitive reaction are at the best level. We are able to see and assess the situation well and make a quick and correct decision. The goal of physical and mental training is to raise the zone in which we can react and act well. In order to achieve this, the basic Krav Maga self-defense techniques consist of only two to three activities based on natural reactions. Therefore, the Krav Maga technique is similar to the natural stress response process. As a result of this way of training our brain retains the ability to remember these reactions under stress. Stress levels gradually increase during training, so the scenario becomes more complex and difficult for the trainee in order for the brain to remember that it can and knows how to react in even more stressful situations (Yanilov and Boe 2020, p. 81).

Krav Maga recommends proactive action in matters of security, which is a principle equally important in business and leadership. In the self-defense system this is called situational awareness for combat thinking. The system of situational consciousness within combat thinking was designed by John Dean Cooper (1920 - 2006), and it means readiness and awareness of an individual to properly direct his actions and activities in order to solve challenges in a specific situation. The system shows a state of consciousness and readiness for appropriate reactions and actions. Cooper described his system with four colors that describe the state of consciousness and readiness to respond appropriately (white, yellow, orange, and red). The U.S. Marine Corps added a fifth level, which they marked black, and it represents a state of total confusion (Družeta, 2019 p. 80-84). Briefly, according to Givens (2004), in Cooper's system, white represents a state of extreme relaxation and disinterest in the world around us. The state of security corresponds to the situation in our home, but from the business point of view it is a state where we are trapped in false security. Yellow is a relaxed state of general alertness, with no definite focal point. We are awake and aware of our surrounding. It is difficult to surprise us; therefore, it is difficult to harm us. If something is not a threat to us, we reject that piece of information. However, in the event of a threat, our mental radar accelerates, and we immediately switch to the orange state - focusing attention on a specific target. This can be a person doing something strange, it can be the movement of stocks in capital

market, it can be the behavior of clients, employees, stakeholders or competitors. In the red phase we can and do not have to fight, but we are mentally ready to fight. The whole process of escalation, and then de-escalation according to the mentioned color scale, happens mentally - and if we are well prepared for the process, we are ready to win, i.e. to respond correctly to challenge in a specific situation. Additional analogy can be observed between the phases of crisis management and Krav Maga tactics, as explained by Wozniak (2019), in terms of the pattern of activities aimed at improving personal security. These interrelated phases include prevention, preparation, response and deconstruction. At Krav Maga trainings, participants are taught the appropriate response to manage attacks and stress. They learn how to encourage positive stress. Once the confrontation with the aggressor, escape or control and call for help end, the reconstruction phase takes place. This phase includes activities aimed at reconstructing physical and psychological injuries sustained during the attack, lessons learned from the reaction phase and improving defense techniques. After one such traumatic experience, post-traumatic stress disorder can occur. Therefore, the reconstruction phase includes activities aimed at improving the physical and mental condition of the person who participated in fight (Wozniak, 2019).

Nonverbal Communication in conflict resolution

Communication can be divided into verbal and nonverbal. Nonverbal communication makes up the majority of our communication and greatly complements everything we say. Briefly, nonverbal communication has three functions: regulating the mechanisms of social interaction, expressing attitudes, and expressing emotional states; it is generally irrational and instinctive and difficult to control, especially in situations where we are under stress. We distinguish three dimensions of nonverbal communication - conscious, unconscious and manipulation. (Ćerepinko, 2012; Paese & Paese, 2006; Coleman & Wu, 2006; Mehrabian, 1972).

When meeting another person, can we assess whether someone is confident, dominant, well-intentioned, or threatening to us? We will probably easily notice whether someone is sad, happy, or angry, but it is harder to assess some other very important elements that we need to consider in communication. What level of power does the person we are negotiating with have, what is his/her self-confidence, is he/she well-intentioned or is he/she dangerous? The conducted research was related to the so-called power poses and their effect on hormone levels (Yanilov & Boe, 2020). Their conclusion is that both humans and animals express their power physically through certain poses. However, it has been shown that such poses actually raise the level of power, that is, that the feeling of power produces positive emotions and lower levels of stress hormones. They also raise testosterone levels which leads to dominant behavior. The study showed that it is possible to improve self-confidence and performance in situations such as a job interview or public appearance just by changing body position. Equally so, by changing the body position, we can feel stronger and more confident during a difficult conversation with boss or in a stressful or risky situation.

Despite the objections of the scientists to the robustness and reproducibility of this research, the TEDGlobal 2012 Conference Talk Fake it until you make it in May 2021 currently has 61,415,417 views, which speaks volumes about whether YouTube channel viewers find these recommendations credible. Our posture and body

posture also play a significant role when we are being watched by a potential attacker. Human predators like the so-called easy targets - people who look intimidated, insecure or submissive. That is why it is important to have a confident walk and rule the space that is, to be aware of your surroundings. In doing so it is important not to overdo it so that we are not perceived as challengers.

As we stated earlier in explaining Krav Maga's tactical mechanism of memory creation and mental patterns of proper bodily response to a stress-induced hormonal response, countless reactions take place outside of rational explanation and classification. Therefore, we must learn to understand abstract ways of interpreting signals and communication channels. Once we realize that approaches to situations and problems in everyday life are different and if we dedicate time and energy to integrating our own actions and ways of expression beyond usual standards, we can grow as influential communicators and socially conscious beings capable of responding to different communication challenges (Yanilov and Boe 2020, Družeta, 2019; Cantey 2010; Morgan 2010).

In the above theoretical and problem framework, a quantitative research was designed with aim to establish the relationship between values, skills and tactics of training Krav Maga self-defense system, close combat and the characteristics of leadership competence with regard to their application in everyday business environment. The research was conducted as a part of thesis on the graduate study of Public Relations at public University North in Varaždin, Croatia. In this co-authored candidate and mentor paper, some of the obtained results from the main research are presented.

Method

This paper explores the relationship between some sociodemographic characteristics of Krav Maga athletes and competencies that are identified as leadership competencies, as assessed by participants in relation to their personal and work environment. The quantitative methodological approach was used. The research was done in two phases. Pilot study took place in the period 5-6 March 2021 on a convenience sample (N=20, F=10). The pilot study was used to test the created questionnaire, sample selection and selected research methods, and very good results were obtained from it. In Table 1 we can see that Cronbach's α and Guttman's λ_4 coefficient range between .90 and .95.

The main survey was conducted in the period 8 - 14 March 2021 on a random sample (N=98, F=36) of active Krav Maga system athletes who completed the questionnaire on an anonymous and voluntary basis. The IBM SPSS Statistics version 27 package was used.

The obtained data were processed by descriptive statistics methods (tables of absolute and relative frequencies, Mean (M) and Standard Deviation (SD) and inferential statistics methods (non-parametric methods chi-square test - χ^2 , one-sample Mann-Whitney U test and Spearman's Rho). Since the data in this study are not normally distributed, and it is not allowed to use the Pearson r coefficient, we had to use some of the rank correlation coefficients, in this case the Spearman correlation coefficient (Rho).

Table 1. Reliability analysis of internal consistency in questionnaire measurement scales -
Cronbach's α and Guttman's λ_4 – Pilot study (N = 20)

Measurement scale	Number of particles	Cronbach's α	Guttman's λ_4
I understand and can evaluate (KM)	32	.94	-
I adopted (KM)	32	-	.95
I completely apply (KM)	32	.92	-
I understand and can evaluate (L)	30	.93	-
I apply completely (L)	30	-	.95
I can connect (KM and L)	30	-	.95
I additionally developed communication	30	.90	-

Sample

Variables

Using *Google Forms* tool, an online survey questionnaire was created consisting of a total of 20 variables divided into 4 parts: a). General information; b) Krav Maga values, skills and tactics; c) Leadership qualities and d) Communication skills. The conducted research from literature served as a template for a part of variables; the variables are to some extent adapted to the objectives of this research. Open, closed questions and scale formed questions were used.

Participants

The sample in this research consists of people who actively train the Krav Maga system of self-defense and close combat, students of various international schools of the Krav Maga system. This was a convenient intentional sample of participants, who answered all the questions from the online survey questionnaire in English, which was created using Google Form. The link to the online questionnaire was then distributed to all national and foreign Krav Maga centers, which forwarded the questionnaire to their members.

Responses came from 22 EU and non-EU states: Croatia, Hungary, Italy, Portugal, Sweden, Germany, France, Belgium, Poland, Norway, Slovakia, Netherlands, Estonia, Israel, United Kingdom, South Africa, India, Canada, Brazil, Australia, Bosnia and Herzegovina, and Serbia. The gathered socio-demographic participants' data refer to gender, age, completed education, country in which they live, field of work, job position, years of work experience, type of school Krav Maga system, years of training and achieved levels (or belts) within Krav Magic system.

Table 2. Age (N =9 8)

	F	%
a. 19-25	4	4.1
b. 26-30	6	6.1
c. 31-35	10	10.2
d. 36-40	23	23.5
e. 41-45	30	30.6
f. 46-50	20	20.4
g. 51-55	3	3.1
i. > 60	2	2.0
Total	98	100.0

Considering this is a physically and mentally very demanding training, we find an interesting distribution of participants according to age group (Table 2), which indicates that most participants are more mature in age (there are 30 people in the range of 41-45 years old; there are 20 people in the range of 46-50) to middle age (36-40.), while those younger than 35 and older than 51 are less represented.

Table 3. Education – EQF level (N = 98)

	F	%
a. ≤ EQF level 3 (National Certificate)	8	8.2
b. EQF level 4 (National Diploma)	3	3.1
c. EQF level 5 (Higher National D)	6	6.1
d. EQF level 6 (Bachelor Degree)	25	25.5
e. EQF level 7 (Master Degree)	48	49.0
f. EQF level 8 (Doctorate Degree)	6	6.1
Total	98	100.0

Looking at Table 3, we can see that among the participants higher education level (EQF 7 level N = 48 and EQF 6 N = 25) is dominant, the least participants has the educational level EQF 4 (state graduation exam), while there are (EQF 8) 6 participants holding a doctorate degree.

Table 4. Job (N = 98)

Category	Working place	F	%
1	Self-employed	4	4.1
2	Employee	27	27.6
3	Teacher/instructor	10	10.2
4	Supervisor	8	8.2
5	Top management	22	22.4
6	Middle management	15	15.3
7	Lower management	7	7.1
8	Other	5	5.1
	TOTAL	98	100

Participants mentioned 42 working places in total in their responses. Due to a large number of obtained categories, the variable Working place was recoded into a total of 8 job categories (Table 4) which are shown in the frequency table. It should be noted that the variable Working place for the needs of further analysis procedures is additionally recoded into 2 categories: managerial and non-managerial jobs (positions).

Table 5. Work Experience (N = 98)

	F	%
a. 1-3 years	4	4.1
b. 4-5 years	9	9.2
c. 6-10 years	6	6.1
d. 11-15 years	24	24.5
e. 16-20 years	20	20.4
f. 21-25 years	26	26.5
g. 26-30 years	4	4.1
h. 31-35 years	3	3.1
i. > 35 years	2	2.0
Total	98	100.0

In Table 5 we can see that the most numerous participants are in the categories 21-25 years of work experience (N = 26) and those between 11-15 years of work experience (N = 24), i.e., between 16-20 years of work experience (N = 20), which corresponds to the stated age of the participants. Other range categories are less represented. Namely, the least represented (N = 2) are those with more than 35 years of work experience, as well as those with less than three years of work experience (N = 4).

Table 6. Years of Krav Maga training (N = 98)

	F	%
a. < 1 year	4	4.1
b. 2-3 years	16	16.3
c. 4-5 years	28	28.6
d. 6-10 years	24	24.5
e. 10-15 years	16	16.3
f. 16-20 years	2	2.0
g. > 20 years	8	8.2
Total	98	100.0

In Table 6, we can see that in relation to the length of training of the Krav Maga system, participants who train up to 5 years (N = 28), i.e. up to 10 years, predominate, while there is the smallest number of those between 16-20 years old who train. An equal number of participants have trained for about two years or up to 15 years, and there are more veterans who have trained for more than 20 years (N = 8) than those who have just started training (N = 4).

We can also say that out of the total number of participants ($N = 98$), only 13 (and 13.3%) are those who have not (yet) achieved any of the levels, i.e. belts within the Krav Maga system. These levels differ according to an individual Krav Maga system school, and the participants are divided into the most numerous students of Krav Maga Global ($N = 69$) and the International Krav Maga Federation ($N = 25$), while HSW is represented by 2 participants (Table 7).

Table 7. Types of Krav Maga Schools ($N = 98$)

	F	%
	2	2.0
Krav Maga Global	69	70.4
International Krav Maga Federation	25	25.5
HSW	2	2.0
Total	98	100.0

Limitations

Given the intentional and relatively small sample ($N = 98$) for separate methods used in the study, the results obtained should be observed only at the sample level and without generalizing the conclusions. Furthermore, the obtained high reliability coefficients (Cronbach's α and Guttman's λ_4 coefficient) between .90 and .95 may indicate too specific scales rather than satisfactory internal consistencies (Novak, 2020 p. 440). It should be noted, however, that in the case of a small sample and a large number of particles λ_4 coefficient is extremely biased in the direction of increasing the reliability estimate, which seems to be true for this paper as well. However, a relatively small number of participants within this type of quantitative research does not represent a methodological obstacle because in this research the goal is not to determine the authenticity of the answers; on the contrary, the answers are considered true under the mentioned conditions.

Results

In order to be able to do a chi-square test and determine if there is a correlation between the variable (V18) Improving communication skills due to Krav Maga training and (V4) Job, a contingency table (Table 8) with two cross variables was formed. (V18 and V4) so that a relationship between the two variables could be determined. For the purposes of this calculation, we recoded (V4) - working place in 2 categories, 1. Non-managers and 2. Managers. The obtained results (Table 9) of the chi-square test show that there is a statistically significant correlation between the variable (V18) and the working place variable (V4) ($p = 0.004$; $\chi^2 = 13.532$; $df = 3$). From the total number of responses to this sample of participants ($N = 98$), 23% reported a lower improvement in communication skills based on Krav Maga exercise, while 21% reported a strong improvement in communication skills due to Krav Maga training. In relation to the type of working place, the participants of the non-managerial occupation group show, by self-assessment, a greater improvement of communication skills based on Krav Maga system training, compared to the participants from the managerial occupation group.

Table 8. Crosstabulation V18 and V4

	V18	V4Rekodu2grupa		Total
		1.00	2.00	
	1	1	0	1
	2	6	0	6
	3	11	12	23
	4	21	28	49
	5	15	4	19
	Total	54	44	98

Table 9. Chi-square test V18 and V4

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	13.532 ^a	3	.004
Likelihood Ratio	16.512	3	.001
Linear-by-Linear Association	.000	1	.984
N of Valid Cases	98		

a. 2 cells (25.0%) have expected count less than 5. The minimum expected count is 3.14.

In order to answer the question whether the responses to (V8) differ regarding gender of the participants, one-sample Mann-Whitney U test was done. The obtained results showed that the answers did not differ statistically significantly in relation to gender of the participants ($p = 0.829$; $z = -0.216$), with women showing slightly higher values in the answers ($52.29 > 51.07$). Likewise, no statistically significant answers were obtained on self-assessment of improving communication skills based on Krav Maga training in relation to the age and level of education of the participants.

Table 10. Statistical Descriptors of Group Variables Self-regulation, Self-perception and Environmental Awareness

	Self-regulation	Self-perception	Environmental awareness
N	98	98	98
AS	7.6531	7.5689	7.1769
Median	8.5000	8.2500	8.0000
Mode	10.00	10.00	8.00
SD	2.67178	2.65445	2.44631
Minimum	1.67	1.50	1.67
Maximum	10.00	10.00	10.00

In order to correlate the independent variables of socio-demographic characteristics: age, gender, working place and years of training of the Krav Maga system and group variables of self-regulation, self-perception and environmental awareness, group variables were first constructed, consisting of individual particles used in questionnaire measurement scales: Self-regulation (Ability to adapt to new situations, Ability to cope with stress, Ability to act under pressure), Self-perception (Self-esteem, Self-awareness, Self-confidence) and Environmental awareness (Focus, Intuition, Situational analysis). Afterwards, statistical descriptors were obtained on all three aggregate variables (Table 10) so that we could describe them. It can be seen that the values of the central tendencies in aggregate variables Self-regulation (AS = 7.65; SD = 2.671) and Self-perception (AS = 7.56; SD = 2,654) are higher in relation to the third group variable Environmental awareness (AS = 7, 17; SD = 2,446); while the answers in the third group are less dispersed in relation to the remaining

two variables.

Table 11. Correlation Rank of Aggregate Variables and Independent Variables (V1, V4, V7, V9)

		V7 Work years?	V9 KM training?	V1 Gender	V18 Comm	Self- regul.	Self- concis.	Situational awareness
V7 Work years?	Correlation Coefficient	1.000	.476**	.258*	-.096	.109	.165	.124
	Sig. (2-tailed)	.000	.000	.010	.345	.286	.105	.223
V9 Years KM training?	Correlation Coefficient	.476**	1.000	.281**	-.050	.215*	.239*	.113
	Sig. (2-tailed)	.000	.	.005	.627	.034	.018	.267
V1 Gender	Correlation Coefficient	.258*	.281**	1.000	-.048	-.026	-.094	.023
	Sig. (2-tailed)	.010	.005	.	.641	.799	.360	.826
V18 Comm skills developed by KM	Correlation Coefficient	-.096	-.050	-.048	1.000	.151	.132	.314**
	Sig. (2-tailed)	.345	.627	.641	.	.139	.195	.002
Self-regulation	Correlation Coefficient	.109	.215*	-.026	.151	1.000	.891**	.838**
	Sig. (2-tailed)	.286	.034	.799	.139	.000	.000	.000
Self-conciseness	Correlation Coefficient	.165	.239*	-.094	.132	.891**	1.000	.812**
	Sig. (2-tailed)	.105	.018	.360	.195	.000	.	.000
Situational awareness	Correlation Coefficient	.124	.113	.023	.314**	.838**	.812**	1.000
	Sig. (2-tailed)	.223	.267	.826	.002	.000	.000	.
	N	98	98	98	98	98	98	98

** . Correlation is significant at the 0.01 level (2-tailed).

* . Correlation is significant at the 0.05 level (2-tailed).

In Table 11 we can see the obtained coefficients of correlation rank of aggregate variables and independent variables V18 (improvement of communication skills based on Krav Maga training), and variables (V1) gender, (V7) years of work experience and (V9) years of Krav Maga training. The three newly formed group variables are strongly correlated with each other, positive and statistically significant. In relation to the independent variables, the correlations are weaker, but some are also statistically significant. The correlation between years of work experience and years of training is medium and statistically significant ($Rho = 0.476$). The correlation between V18 and the aggregate variable environmental awareness was the only one found, it is slightly lower ($Rho = 0.314$) and statistically significant at 1% error ($p < 0.01$) level. It should be noted that years of working experience and years of training are not in a significant correlation with the aggregate variable Environmental awareness. The gender particle is in a low and statistically significant correlation with the particles V7 years of work experience ($Rho = 0.258$; $p < 0.05$) and V9 years of training Krav Maga ($Rho = 0.281$; $p < 0.01$). However, the correlation between the variable gender and aggregate variables is not statistically significant.

Discussion

The result indicating that the participants of the non-managerial occupational group in relation to the participants from the managerial occupational group show a greater improvement in communication skills based on Krav Maga system training (Table 8), can be seen given that the participants of the managerial occupational group initially have higher communication competencies, previous formal education, and additional and continuous professional training that is likely to take place in the working place. Additionally, the quality of managers' work responsibilities includes developed communication skills, so Sikavica et al. (2008) say that

communication is directly related to the performance of basic managerial functions. However, the results obtained by participants of non-managerial occupations, for whom we can assume that during schooling, i.e., within their work tasks they may not have been able to develop or further improve communication skills to the extent that managers could, can be explained in the following way: their improvement of communication skills is perceived as a consequence stemming from their active training of the Krav Maga system and these are important conclusions for the purpose of this paper.

Considering the separate aggregate variables - Self-regulation, Self-perception and Environmental awareness, which best describe the leadership competency, it should be noted that the mentioned aggregate variables were chosen according to relevant literature because they equally strongly build both leadership and Krav Maga competencies, (i.e. values, skills and tactics in the focus of this paper). One's own behavior and the behavior of others is modelled with such skills; people are educated and built mentally, emotionally, spiritually and physically; vision, understanding and communication are enhanced, integrity and empathy showed, respect and trust encouraged, it challenges old ways and encourages innovation and creativity, and it influences change by non-violence and assertiveness (Yanilov and Boe 2020; Keren 2017, Houghton et al. 2015; Goleman et al. 2013, Bouley 2008, McGee 2005).

Considering the purpose of this paper it is very interesting to note the low, but statistically significant correlation between the independent variable V9 years of Krav Maga training and aggregate self-regulation variables ($Rho = 0.215$; $p < 0,05$) and self-perception ($Rho = 0.239$; $p < 0,05$), in relation to correlation between the independent variable V7, years of working experience and aggregate variables that is not statistically significant. It seems that joint competencies in the field of Krav Maga and in the field of leadership qualities is achieved based on Krav Maga training, while informal and cultural learning potentially acquired through years of work experience in this sample are not related to the development of leadership competencies.

Conclusion

Correlation analyzes performed on aggregate variables s (self-regulation, self-understanding and environmental awareness) and independent variables (improvement of communication skills due to Krav Maga training, gender, years of work experience and years of Krav Maga training), showed that the group variables were strongly correlated with each other, positive and statistically significant which confirmed a good construct validity of our variables. The Gender particle is not significantly associated with the group variables, and years of work experience and years of training are not significantly correlated with the group variable environmental awareness. It seems that in this sample, joint competence in the field of Krav Maga and in the field of leadership qualities is achieved based on Krav Maga training, while informal and cultural learning potentially acquired through years of work experience in this sample are not related to the development of leadership competencies.

Recommendations

Taking into consideration the fact that scientific research of this kind as well as topics are very rare globally, new findings based on the results of this sample represent the scientific contribution of this paper, especially in the context of raising awareness of potential benefits and mutual relations between Krav Maga values and leadership competencies in different spheres of professional and private environment. The obtained results can be used for research on a representative sample. It would be especially interesting to compare the results on a sample of Krav Maga participants specially designed for managers (Boardroom Warriors).

Acknowledgements

The publication of this paper was funded by the scientific research support Continuing development of intercultural competence and communication skills with vulnerable groups of University North, Ref. No. 2137-0336-09-20-5 from 12 March 2020.

References

- Alegre, A. and Levitt, K. (2014). The relation between emotional intelligence and transformational leadership: What do we really know? *International Leadership Journal*, 6(2).
- Bačić, L. (2011). Značenje samosvijesti kao temeljnog segmenta emocionalne inteligencije. *Školski vjesnik: časopis za pedagogijsku teoriju i praksu*, 60(1). <https://hrcak.srce.hr/81756> (February 27 2021)
- Bahtijarević-Šiber, F. and Sikavica, P (2001). *Leksikon menadžmenta*. Zagreb: Masmedia.
- Bar-On, R. (2000). *Emotional and social intelligence: Insights from the Emotional Quotient Inventory*. The Handbook of Emotional Intelligence 17. 363-388. Jossey-Bass, San Francisco.
- Bar-On, R.M. (2006). The Bar-On Model of Emotional-Social Intelligence (ESI), *Psychothema*, vol. 18 no. 1, pp. 13-25.
- Bass, B. M. (1996). *New paradigm of leadership: An inquiry into transformational leadership*. US Army Research Institute for the Behavioral and Social Sciences.
- Bass, B. M. and Avolio, B. J. (1994). Transformational leadership and organizational culture. *The International Journal of Public Administration*, 17(3-4), 541-554.
- Bass, B. M. and Riggio, R. E. (2006). *Transformational leadership*. Mahwah: Lawrence Erlbaum.
- Bass, B. M., & Avolio, B. J. (1990). *Transformational leadership development: Manual for the multifactor leadership questionnaire*. Consulting Psychologists Press.
- Bass, B. M., Avolio, B. J., Jung, D. I., & Berson, Y. (2003). Predicting unit performance by assessing transformational and transactional leadership. *Journal of applied psychology*, 88(2), 207.
- Bell, R. and Chang, C. M. (2002). The exploration of the effect of taekwondo training on personality traits. *The Sport Journal*, 5(3).
- Boguszewski, D., Adamczyk, J. G. and Białoszewski, D. (2019). Assessment of the health-related behaviors of

- men practicing combat sports and martial arts. *Iranian journal of public health*, 48(10), 1794.
- Bouley, C. L. (2008). *Perceived Leadership Development as a Result of Martial Arts Training*.
<https://idun.augsburg.edu/etd/746>. (March 6 2021).
- Burns, J. G. (1978). *Leadership*. New York: Harper & Row.
- Cantey, K. (2010). *Eastern Martial Arts and the Cultivation of Persuasive Power*.
https://tigerprints.clemson.edu/all_theses/922. (September 17 2020).
- Cavazotte, F., Moreno, V. and Hickmann, M. (2012). Effects of leader intelligence, personality and emotional intelligence on transformational leadership and managerial performance. *The Leadership Quarterly*, 23(3), 443-455. doi: 10.1016/j.leaqua.2011.10.003 (September 16 2020).
- Čerepinko, D. (2012). [*Communication: Short Overview of Crucial Theories, Concepts and Principles*].
Varaždin: Veleučilište u Varaždinu.
- Cervone, D. and Pervin, L. (2013). *Personality: Theory and Research*. New York: Wiley and Sons.
- Coleman, R. and Wu, H. D. (2006). More Than Words Alone: Incorporating Broadcasters' Nonverbal Communication into the Stages of Crisis Coverage Theory - Evidence from September 11th. *Journal of Broadcasting & Electronic Media*, 50(1), 1-17, DOI: 10.1207/s15506878jobem5001_1. (April 28 2020).
- Cuddy, A.TED TALK. *Fake it Till You Make it*. URL: <https://www.youtube.com> (September 22 2020).
- Družeta, K. (2019). *Samoobrana – Razumijevanje sukoba i uzroka nasilja*. Split:Redak.
- Givens, T. (2004). States of Awareness, the Cooper Colour Codes. *Sharpen the Blade*, 5. 24-38.
- Goleman, D. (1998). *Working with emotional intelligence*. New York: Bantam Books.
- Goleman, D. (2000). *Emocionalna inteligencija u poslu*. Zagreb: Mozaik knjiga.
- Goleman, D., Boyatzis, R. and McKee, A. (2013). *Primal Leadership: Unleashing the Power of Emotional Intelligence*: Harvard Business Press.
- Holth, T. and Boe, O. (2017). *Enhancing the Leadership Communication Skills of Norwegian Military Officers*, doi:10.4172/2151-6200.1000250 (October 15 2020).
- Houghton, J. D., Pearce, C. L., Manz, C. C., Courtright, S. and Stewart, G. L. (2015). Sharing is caring: Toward a model of proactive caring through shared leadership. *Human Resource Management Review*, 25(3), 313-327. doi: 10.1016/j.hrmr.2014.12.001 (October 22 2020)
- Keren, G. B. (2014). *Krav Maga: Real World Solutions to Real World Violence-Disrupt-Damage-Destroy-Disengage*. Tuttle Publishing.
- Lo Presti, G. (2013). *Krav Maga*. Borè srl,
- Madenlian, R. B. (1979). *An experimental study of the effect of Aikido training on the self-concept of adolescents with behavioral problems*. Unpublished doctoral dissertation, University of Southern California.
- Martinkova, I. and Parry, J. (2016). Martial Categories: Clarification AND Classification. *Journal of the Philosophy of Sport* 43(1):143-162. DOI: 10.1080/00948705.2015.1038829 (December 11 2020).
- McGee, M. T. (2005). Instructor student commonalities in the martial arts: Leadership traits and similarities. <http://faculty.mckendree.edu/scholars/summer2005/mcgee.htm>. (December 17 2020).
- Mehrabian, A. (1972). *Nonverbal communication*. Aldine-Atherton.
- Moore, B., Dudley, D. and Woodcock, S. (2020) The effect of martial arts training on mental health outcomes:

- A systematic review and meta-analysis. *Journal of Bodywork and Movement Therapies* 24(4). DOI: 10.1016/j.jbmt.2020.06.017 (April 14 2020).
- Moore, B., Dudley, D.A. and Woodcock, S. (2019). The effects of martial arts participation on mental and psychosocial health outcomes: a randomized controlled trial of a secondary school-based mental health promotion program. *BMC Psychology* 7, 60. DOI: 10.1186/s40359-019-0329-5 (September 4 2020).
- Morgan, N. (2010). *How to Read Body Language*. New Word City.
- Northouse, P. G. (2010). *Vodstvo: teorija i praksa*. Zagreb: Mate.
- Pease, A. & Pease, B. (2006). *The Definitive Book of Body Language*. New York: Pease International.
- Pervin, L. A., Cervone, D., & John, O. P. (2008). *Psihologija ličnosti: teorije i istraživanja*. Zagreb: Školska knjiga.
- Piccolo, R. F., & Colquitt, J. A. (2006). Transformational leadership and job behaviors: The mediating role of core job characteristics. *Academy of Management Journal*, 49(2), 327-340.
- Pivac, T. (2020). *Borilačke vještine kao doprinos sigurnosti. [Martial arts as contribution to security]*. Master thesis, University of Split. University Department for Forensic Sciences. <https://urn.nsk.hr/urn:nbn:hr:227:579077>. (January 25 2021).
- Ramchunder, Y. and Martins, N. (2014). The role of self-efficacy, emotional intelligence and leadership style as attributes of leadership effectiveness. *SA Journal of Industrial Psychology*, 40(1) <https://doi.org/10.4102/sajip.v40i1.1100> (January 14 2021).
- Ramsden, P. (1998). Managing the effective university. *Higher education research & development*, 17(3), 347-370.
- Sadri, G. (2012). Emotional intelligence and leadership development. *Public Personnel Management*. 41. 3. 535-548. doi:10.1177/009102601204100308 (January 20 2021).
- Segedi, I., Sertić, H. and Vidranski, T. (2008). Borilački sportovi i vještine kao oblik rekreativnog vježbanja u svakoj životnoj dobi. *Zbornik radova međunarodne znanstveno-stručne konferencije kineziološka rekreacija i kvaliteta života*, 319-326. <https://www.bib.irb.hr/323849?&rad=323849> (February 2 2021).
- Šetić, R. (2015). Značaj borilačkih vještina i vježbanja na samopoimanje, samopoštovanje i samoeфикаsnost./ *Prva Konferencija Jugoistočne Europe u borilačkim vještinama i sportovima: E S P – Odgoj, nauka i praksa*. (Eds) Kapo, Safet; Kajmović, Husnija; Rađo, Izet; Smajlović Nusret; Čović, Nedim; Ćirić, Alen. Sarajevo, 27-28 November 2015, 108–115. <https://www.researchgate.net/profile/Faris-Rasidagic/publication/284899485> (August 12 2020).
- Sikavica, P., Bahtijarević-Šiber, F. and Pološki-Vokić, N. (2008). *Suvremeni menadžment vještine, sustavi i izazovi*. Zagreb: Školska knjiga.
- Vrgoč D. and Mihaljević M. (2019). Are we aware of the situation? Terminological analysis of the term 'situational awareness' in the military context. *Strategos* 3(1) 3-14.
- Walia, R. (2019). Safety Leadership: Situational awareness and human performance. *Safety+Health*, (201)7, 3-12.
- Wanasika, I. and Krahnke, K. (2017). *Leadership and Vision*. In: *Leadership Today*. (Eds.) Joan Marques, Satinder Dhiman. pp. 75-88. New York: Springer International Publishing. DOI 10.1007/978-3-319-31036-7_5. (December 14 .2020).

World Health Organization. (2002). Skills for health, http://www.who.int/school_youth_health/media/en/ (February 27 2021).

Woźniak, M. (2019). The Issue of Self-defence Based on Crisis Management and Combat System Krav Maga. *Przegląd Strategiczny*, 9(12), 233-245.

Yanilov, E. and Boe, O. (2020). *Krav Maga Combat Mindset & Fighting Stress How to Perform under Alarming and Stressful Conditions*. London: Meyer & Meyer Sports.

Zunair, A. S. (2019). *Examining Leadership as a Psychological Process: Can Effective Leadership Be Predicted?* Doctoral dissertation. National College of Business Administration and Economics, 2019, Doi: 10.13140/RG.2.2.15339.39201, (April 22 2020).

University Students' Internet Addiction Status and Relationship to Their Perceptions of Internet

Mustafa Koc

Suleyman Demirel University, Turkey,  <https://orcid.org/0000-0002-3276-7172>

Cagri Tanrikulu

Suleyman Demirel University, Turkey,  <https://orcid.org/0000-0002-3269-5260>

Abstract: Intense Internet use, which disrupts people's daily routine responsibilities and disrupts the quality of life, points to the problem of Internet addiction (IA). This problem is more common among youngsters. Especially university students who move away from family surveillance and have more access to the Internet are in the high risk group. Therefore, this study aimed to investigate their IA status and its relationship to perception of the Internet. It was designed as a correlational survey research. The sample was composed of 143 students studying at Suleyman Demirel University in Isparta, Turkey. The data were collected through a questionnaire form and analyzed using statistical techniques. The findings showed that 2.8% of the participants were Internet addicts and 29.4% were in the risky group with regards to IA. According ANOVA results, the level of IA did not change significantly across class level, but it changed significantly by gender, with a higher rate for male students. Correlation analysis revealed that IA was not related to age, but was significantly associated with Internet perception. IA was negatively associated with perceiving the internet as a “communication tool” and “source of information” and positively with perceiving it as “dangerous”.

Keywords: Internet addiction, Internet perception, Demographics, University students

Introduction

Internet can be defined as a worldwide and ever-growing communication network in which many computer systems are interconnected (Polat, 2002). With the help of this technology, people can access information in many fields easily, cheaply, quickly and safely. Almost all kinds of social structuring takes place on the Internet today. It has added many innovations and made crucial transformations in all aspects of daily life from our lifestyles to working life, from education to training, from commerce to entertainment and so on (Sahin & Baturay, 2013). Although the Internet can be used for various purposes, the main purposes of its usage are known as information, communication, entertainment, and business or trading (Dittmar & Eilks, 2019; Gezgin, & Mihci, 2020; Onat Kocabiyik, 2021a, 2021b; Parlak, 2005; Tukul, 2020). Developments in mobile devices

and network technologies have rapidly increased Internet access and use in the society.

If we look at the short history of the Internet in the world, it is seen that the first studies (packet switched network) started with the establishment of ARPANet in 1969 at the US Department of Defense. Later, TCP/IP (Transmission Control Protocol/Internet Protocol) protocol was developed on the same network and it has been used on ARPANet since 1983. The creation of the first Internet backbone network was carried out by NSFNet (National Science Foundation) in 1986. Following this process, the TCP/IP protocol and the Internet have gained great momentum since the 90s and have become publicly available (Parlak, 2005).

It is easy to describe the Internet in all its technical aspects, but it is not that easy to see and feel its social, psychological and cultural effects. While the areas where the internet benefits are not counted, there are also some negative consequences. According to Ertugrul and Keskin (2012), as a result of unconsciously spent time on the computer and the Internet, psychological and physical diseases may occur on the person. Today, internet use has become commonplace for individuals and its deprivation may causes problems such as mood changes, unhappiness and inability to focus (Akturk, 2020; Gezgin, Cakir, & Yildirim, 2018; Kocadag, Aksoy & Zengin, 2014). While we used to use the internet only from computers, now we can use it from our tablets, mobile phones, televisions and even from our watches. As a result, we can always connect to the internet without making a reservation. When this opportunity is limited, we can turn into people who do not know what to do and feel uncomfortable. Intense Internet use, which disrupts people's daily routine responsibilities and disrupts the quality of life, points to the problem of Internet addiction (IA). This problem is more common among youngsters. Especially university students who move away from family surveillance and have more access to the Internet are in the high risk group.

The problem of IA is also commonly referred as pathological Internet use, problematic Internet usage, Internet abuse, Internet dependence, and obsessive/compulsive Internet use. Some clinicians prefer to use the term "Internet addiction" to define this condition as a form of impulse control disorder (e.g., Young, 1998). Despite various conceptualization of IA, studies acknowledged its existence and reported similar symptoms such as school and work-related impairments, interpersonal problems, preoccupation with using the Internet, using the Internet to improve negative moods, and serious disturbances in users' social capitals (Gencer & Koc, 2012; Morahan-Martin, 2008). Although the symptoms of IA differ according to the users, Beard (2005) proposes five diagnostic criteria in the identification of IA in the general population: preoccupation with the Internet (constantly thinks about past or future use), need to use the Internet with increased amounts of time to gain satisfaction, unsuccessful attempts to control, cut back, or stop use of the Internet, feeling restless, moody, depressed, or irritable when attempting to control Internet use, and staying online longer than originally intended.

Previous research studies existed to investigate the prevalence of IA among the Turkish university students and its associations with several variables. For example, Balci and Gulnar (2009) found that of the 953 university students 23% of the participants were identified as Internet addicts and 28% as risky Internet addicts. They

found IA to be positively related to the amount of monthly expenditure while it was not related to gender, grade level, type of residence and income level. On the other hand, it was striking that the addiction rate of the participating students who connect to the Internet from home and dormitory was higher than the participants who connect from other places. Alacam, Atesci, Sengul and Tumkaya (2015) studied the relationship between IA and cigarette and alcohol use among 2096 university students. IA rate was found to be 8.6% and the IA score of the participants who stated that they smoked was found to be significantly higher than the IA score of those who stated that they did not smoke. In another study by Sahin (2014), out of the sample group of 328 students, 20 (6%) students showed limited symptoms, and 6 (2%) students identified as addicted. Also, no significant relationship was found between aggression and IA. Akdag, Sahan Yilmaz, Ozkan and San (2014) examined the IA status of 1325 university students (pre-service teachers) in terms of different variables. As a result of the study, 16.4% of the students were found to be Internet addicts. In addition, while IA did not change according to the type of education and income, it differed according to the gender variable (higher prevalence of IA among males than females). Ceyhan (2011) investigated whether university students' IA levels and perceived communication skill levels differ according to the basic reasons for using the Internet. According to the findings, it was found that the IA levels of university students who "use the Internet for fun" and "use the Internet to establish social relations with people they do not know" were significantly higher than the students who "use the Internet to obtain information" in terms of the main reason for using the Internet. This result indicated that the use of the internet for entertainment and social interaction may be an important risk factor in the development of IA.

Internet users' perception of the Internet and their definitions of the Internet are important to understand their Internet use and habits because it is well known that beliefs systems shape behaviors. Understanding underlying conceptual beliefs and ideas about what the Internet is may provide significant implications for the assessment and treatment of IA as well. Therefore, the main purpose of this study is to investigate university students' IA status and its relationship to perception of the Internet.

Method

Since this study aimed to explore the prevalence of IA among university students and its relationships with some demographic variables and students' perception levels of the Internet, it was designed as correlational descriptive research within the quantitative research context. Correlational survey is a research model that aims to determine the existence or degree of co-variance between two or more variables (Karasar, 2012).

The accessible population of the research consists of university students studying at the Suleyman Demirel University in Isparta city center. Using the convenience sampling procedure, the sample consisted of 143 students who were available in the campus during the administration of questionnaire form and volunteer to complete this form. The second author visited faculty buildings, made announcements about the purpose and procedures of the study and reached those students who wanted to participate in the study. This sampling

method is known to add speed and practicality to research because the researcher chooses a situation that is close and easy to access (Buyukozturk, Kilic, Cakmak, Akgun, Karadeniz & Demirel, 2011).

The data were collected through a paper-and-pencil questionnaire form and analyzed using statistical techniques. The questionnaire form comprised three main sections. The first section contained several questions asking for participants' demographic characteristics such as gender, age, faculty, grade level. The second section included six Likert type scale items measuring participants' perceptions of the Internet. These items were developed by the authors in accordance with the literature review of those metaphorical and perceptual analyses of Internet users. Six main perceptual themes were identified from the literature: Internet as a "communication tool", "source of information", "vital necessity", "life facilitator", "harmful or dangerous" and "addictive".

Participants were asked to indicate their agreement level on these six items on a five-point Likert scale ranging from "1=strongly disagree" and "5= strongly agree". The final section of the form contained Internet Addiction Test (IAT) developed by Young (1998) and adapted and translated into Turkish language by Bayraktar (2001). The IAT includes 20 items which ask participants to indicate how often they show symptoms of IA such as excessive time spent online, neglect of daily routine tasks, disruption of academic or job performance, concealment of online time and behaviors from others, loss of sleep, social isolation, depressive feelings if usage is restricted, and failure attempts to cut down Internet use. The IAT uses a six-point Likert scale ranging from "0=never" to "5=always". Therefore, the possible total score obtained from the IAT could range from 0 to 100. Young (1998) classified participants with a score of 39 and below as "average user", those with a score of 40 to 69 as "risky user", and those with a score of 70 and above as "Internet addicts".

Results

It was determined that 52% (75 people) of the survey participants were female and 48% (68 people) were male. The ages of the participants varied between 17 and 29 and the mean age was 21.73 years (SD=1.76). Regarding their grade level, a little more than half (52%) were junior and the rest were distributed as follows: 14% freshman, 15% sophomore, and 18% senior. Although there were participants from almost all faculties, most of them were from teacher education (33%) and economics and administrative sciences (37%).

Table 1 demonstrates the perceptions of the participants about the Internet. On average participants agreed with the perceptual statements like "I consider the Internet as a communication tool" (Mean=3.89, SD=1.14), "I consider the Internet as a source of information" (Mean=3.93, SD=1.13), "I consider the Internet as a vital necessity" (Mean=3.49, SD=1.14), "I consider the Internet as a life facilitator" (Mean=4.03, SD=1.09), "I consider the Internet as an addictive thing" (Mean=3.79, SD=1.17) whereas they were rather undecided about the statement "I consider the Internet as a harmful or dangerous thing" (Mean=2.71, SD=1.05).

In order to find out participants' IA status, their total score were calculated by adding all item scores from the

IAT and then participants were divided into three categories according to Young's (1998) grouping criteria based on the normative cut-off scores as described in the method section. The descriptive statistics for participants' IAT scores are given in Table 2. A total of 67.8% of participants were classified as average user (IAT score ≤ 39 , Mean=25.65, SD=8.24) with showing no signs of addiction, 29.4% of participants were identified as risky user ($40 \leq$ IAT score ≤ 69 , Mean=49.36, SD=7.38) and only 2.8% of them were identified as Internet addict (IAT score > 70 , Mean=77.25, SD=4.65).

Table 1. Participants' Internet Perception Levels

Perceptual theme	Minimum	Maximum	Mean	SD
Communication tool	1	5	3.89	1.14
Source of information	1	5	3.93	1.13
Vital necessity	1	5	3.49	1.14
Life facilitator	1	5	4.03	1.09
Harmful or dangerous	1	5	2.71	1.05
Addictive	1	5	3.79	1.17

A one-way between-groups analysis of variance (ANOVA) was conducted to explore gender differences in participants' IAT scores. There was a significant difference [$F(1, 141)=5.72, p<.05$] in IAT scores with males (Mean=37.21, SD=15.24) being more addicted than females (Mean=31.20, SD=14.60). Similarly another ANOVA was conducted to explore grade level differences in participants' IAT scores. There was no significant difference [$F(3, 139)=.18, p>.05$] in IAT scores among freshman (Mean=33.90, SD=13.60), sophomore (Mean=35.82, SD=14.72), junior (Mean=34.11, SD=15.94) and senior (Mean=32.54, SD=15.44).

Table 2. Participants' Internet Addiction Status by IAT Scores

Status	Frequency	Percent	Minimum	Maximum	Mean	SD
Average user	97	67.8	6	39	25.65	8.24
Risky user	42	29.4	40	69	49.36	7.38
Internet addict	4	2.8	73	83	77.25	4.65
Total	143	100	6	83	34.06	15.24

Pearson correlation coefficients between participants' IAT scores and age as well as perception levels were calculated to examine whether IA were related to age and Internet perception. Participants' IAT scores were negatively and lowly correlated with perceiving the internet as a "communication tool" ($r=-.18, p<.05$), "source of information" ($r=-.17, p>.05$), positively and lowly correlated with perceiving the internet as "harmful and dangerous" ($r=.22, p<.05$) whereas they were not significantly correlated with age ($r=.01, p>.05$) and perceiving the internet as a "vital necessity" ($r=.05, p>.05$), "life facilitator" ($r=-.13, p>.05$) and "addictive" ($r=.15, p>.05$).

Conclusion

The results suggest that participating university students have positive perceptions about the Internet. However, they seem to be undecided about the harmful and dangerous sides or effects of the Internet. Although participants think that the Internet has an addictive nature, they also believe that it is not a danger in their lives. This is also supported by very small proportion of Internet addicts (2.8%) diagnosed through the IAT scores. This finding suggests that IA is not a serious problem among the participants. The findings of IA rate was similar to previous study by Sahin (2014) who find IA rate as 2% among university students but quite smaller than those studies like Balci and Gulnar (2009), Alacam et al. (2015) and Akdag et al. (2014) whose rate ranged from 8.6% to 23%.

In addition, small but significant correlations between IAT scores and Internet perceptions including “communication tool”, “source of information” and “harmful and dangerous” suggest that participants seem to be aware of the addictive nature of the Internet and thus control their Internet usage. This suggests that viewing and ultimately using the Internet for informational and communicational purposes may not constitute an important risk factor for the emergence of IA among university students. On the other hand, albeit very small proportion of IA, the finding of more than one quarter of risky users (29.4%) with symptoms of potential IA with moderate problems imply that these users’ IA status may get more severe based on their changing life situations and thus suggesting to closely monitor their Internet usage and habits.

The findings show a gender difference with males having a slightly higher level of IA than females. This is corroborating with prior research by Akdag et al. (2014), Balci and Gulnar (2009) and Sahin (2014). It seems that gender difference in IA among Turkish university students is stable and thus can be inferred in general. However, this research has not adequate evidence to interpret why males have higher IA than females. Future studies may focus on Internet usage patterns, gender issues in Turkish socio-cultural contexts, college life parameters, etc. to further examine the nature of gender differences in IA among Turkish university students.

References

- Akdağ, M., Sahan Yılmaz, B., Ozhan, U., & San, İ. (2014). Üniversite öğrencilerinin internet bağımlılıklarının çeşitli değişkenler açısından incelenmesi [Examining university students' internet addiction in terms of various variables]. *İnönü Üniversitesi Eğitim Fakültesi Dergisi*, 15(1), 73-96.
- Akturk, A. O. (2020). Prediction of Problematic Internet Usage of University Students by Their Attachment Styles. *International Journal of Education in Mathematics, Science and Technology (IJEMST)*, 8(4), 318-329.
- Alacam, H., Atesci, F. Ç., Sengul, A. C., & Tumkaya, S. (2015). Üniversite öğrencilerinde internet bağımlılığının sigara ve alkol kullanımı ile ilişkisi [The relationship between smoking and alcohol use and internet addiction among the university students]. *Anadolu Psikiyatri Dergisi*, 16(6), 383-388.

- Balci, Ş., & Gulnar, B. (2009). Üniversite öğrencileri arasında internet bağımlılığı ve internet bağımlılarının profile [Internet addiction among university students and the profile of Internet addicts]. *Selçuk İletişim*, 6(1), 5-22.
- Beard, K. W. (2005). Internet addiction: a review of current assessment techniques and potential assessment questions. *CyberPsychology & Behavior*, 8(1), 7-14.
- Buyukozturk, S., Kilic Cakmak, E., Akgun, O. E., Karadeniz, S., & Demirel, F. (2008). *Bilimsel araştırma yöntemleri* [Scientific research methods]. Ankara: Pegem Akademi Yayıncılık.
- Ceyhan, A. A. (2011). İnternet kullanma temel nedenlerine göre üniversite öğrencilerinin problemleri internet kullanımı ve algıladıkları iletişim beceri düzeyleri [University students' problematic internet use and communication skills according to the internet use purposes]. *Kuram ve Uygulamada Eğitim Bilimleri*, 11(1), 59-77.
- Dittmar, J. & Eilks, I. (2019). An Interview Study of German Teachers' Views on the Implementation of Digital Media Education by Focusing on Internet Forums in the Science Classroom. *International Journal of Education in Mathematics, Science and Technology (IJEMST)*, 7(4), 367-381.
- Gencer, S. L., & Koc, M. (2012). Internet abuse among teenagers and its relations to internet usage patterns and demographics. *Educational Technology & Society*, 15(2), 25-36.
- Gezgin, D. M. & Mihci, C. (2020). Smartphone Addiction in Undergraduate Athletes: Reasons and Effects of Using Instagram Intensively. *International Journal of Technology in Education and Science (IJTES)*, 4(3), 188-202.
- Gezgin, D.M., Cakir O. & Yildirim, S. (2018). The Relationship between Levels of Nomophobia Prevalence and Internet Addiction among High School Students: The Factors Influencing Nomophobia. *International Journal of Research in Education and Science (IJRES)*, 4(1), 215-225.
- Karasar, N. (2012). *Bilimsel araştırma yöntemi* (24. baskı) [Scientific research method]. Ankara: Nobel Yayıncılık.
- Kocadag, T., Aksoy, M. E., & Zengin, K. (2014). BÖTEB öğrencilerinin internet metaforlarının belirlenmesi: Gaziosmanpaşa Üniversitesi örneği [Determination of CEITD students' internet metaphores: Sample of Gaziosmanpaşa University]. *Uluslararası Türk Eğitim Bilimleri Dergisi*, 2014(3), 18-29.
- Morahan–Martin, J. (2008). Internet abuse: Emerging trends and lingering questions. In A. Barak (Ed.), *Psychological aspects of cyberspace: Theory, research, applications* (pp. 32–69). Cambridge, UK: Cambridge University Press.
- Onat Kocabiyik, O. (2021a). The Role of Social Comparison and Rumination in Predicting Social Media Addiction. *International Journal of Research in Education and Science (IJRES)*, 7(2), 327-338. <https://doi.org/10.46328/ijres.1756>
- Onat Kocabiyik, O. (2021b). Social media usage experiences of young adults during the COVID-19 pandemic. *International Journal of Technology in Education and Science (IJTES)*, 5(3), 447-462. <https://doi.org/10.46328/ijtes.226>
- Parlak, A. (July, 2005). İnternet ve Türkiye’de internetin gelişimi [Internet and its development in Turkey]. Retrieved from <http://www.hasanbalik.com/projeler/bitirme/39.pdf>
- Polat, N. (2014). İnternetin alışkanlıklarımız üzerine etkileri [The effects of Internet on our habits]. *Selçuk*

İletişim, 2(2), 12-22.

Sahin, M. (2014). Üniversite öğrencilerinde internet bağımlılığı ve saldırganlık [The internet addiction and aggression among university students]. *Düşünen Adam*, 27(1), 43-52.

Sahin, S., & Baturay, M. H. (2013). Ortaöğretim öğrencilerinin internet kavramına ilişkin algılarının değerlendirilmesi: Bir metafor analizi çalışması [Evaluation of the secondary school students' perceptions regarding the concept of internet: A metaphor analysis study]. *Kastamonu Eğitim Dergisi*, 21(1), 177-192.

Tukel, Y. (2020). Investigation of the Relationship between Smartphone Addiction and Leisure Satisfaction of University Students. *International Journal of Technology in Education and Science (IJTES)*, 4(3), 218-226.

Young, K.S., (1998). *Caught in the Net*. New York: Wiley Publishing.

Postmodern Artist Mehmet Kavukçu and Füsün Onur

Assist. Prof. Dr. Omer Tayfur Ozturk

Necmettin Erbakan University, Turkey,  <https://orcid.org/0000-0002-5757-1707>

Fatma Al

Ministry of National Education-Konya, Turkey

Abstract: Postmodernism, a concept created after 1970, refers to the artistic production category. Postmodernism has emerged with new forms of art such as deconstruction, computer-based artistic productions, new media, and conceptual art. Conceptual art wanted to break many things and come to terms with the past. With the materialization of art, the form was completely weakened, and thought began to gain importance in art. Conceptual art made a total criticism of western culture, and the artist, who had rebelled against all kinds of artistic authority and monopoly understanding, started to make art with a thought he embraced with his heart. This study constitutes the conceptual art works in the context of Mehmet Kavukçu and Füsün Onur which is one of the first female sculptors discussed in the arts. Kavukçu reflects the waste generation, environmental pollution issues that negatively affect natural life, waste, waste, violence, terror, death and eternity, nature and the city, historical architecture, climate, refugee problem, and urban structuring in his works. We see that he bought the problems he faced in life and the objects around him for the solution of these problems. In general, this study is capable of providing information about the dynamic points and movement abilities of today's art, which is important for the development of Turkish art and its continuation in contemporary line. In the research, the works of Mehmet Kavukçu and Füsün Onur were examined with a critical approach and the idea, essence and form that formed the background of the works were examined.

Keywords: Postmodernism, Conceptual art, Mehmet Kavukçu, Füsün Onur

Introduction

In the 1980s, in the world and in Turkey, the years when great changes began, new interpretations of production and consumption are discussed. In this period when technology, speed and knowledge came to the fore, "Conceptual Art" emerged as an innovative movement that pushed and expanded the boundaries of traditional art and integrated with contemporary thought.

New Conceptualism which started to attract attention in the years when postmodern institutions began to become widespread, has been shaped by the practices of artists who focus on social meaning rather than artistic

object and examine the social codes shaped by certain power relations from gender discrimination to racial discrimination and from media criticism to criticism of art theories. The artist has started to develop new discourses that go beyond the boundaries of traditional art, using technology or rebelling in this new lifestyle in which he finds himself, but with an attitude that does not stop questioning himself and his environment with his critical attitude. In this period, while the canvas painting continued predominantly in Turkey, the multi-faceted different experiments of some artists who went beyond the canvas and discovered new forms draw attention.

The artist, who thinks multi-dimensionally with the interaction of the age he is in, no longer needs to design by hand while realizing the artwork. He/she can realize his/her design by making use of photography, drawings, different documents, and technology. While creating the composition, formal concerns have been replaced by thought, knowledge, and invention. The artist, who knows no bounds in creation and thought and a more complex work of art, realizes stand before the audience. A work of art that reveals itself with a different phenomenon with its creative, thought-provoking, critical dimension and innovative attitude that includes the audience... So much so that with this new approach, the definition of art is being expanded and in a way; works of art, artist, aesthetics, audience, museum, and gallery are questioned.

In this study, Mehmet Kavukçu's Storm 2017, Crystallizing Art Object Double Minarets Ice and Fire 2013, Crystallizing Art Object 2013, Ice and Metal Construction work by Mehmet Kavukçu, who performs his art in a postmodern frame, and Füsün Onur's Frame, Stone, Earth, Flower, 1977 Bread, You Said You Also Came to My Mind, 1978, Kadans 1995, the works of art were examined by reviewing the general literature from written sources and by making use of the statements and social shares of the artists, in order to reveal how they reacted to the general concept of art and to what extent they made the questioning of art.

Postmodernism and Contemporary Turkish Art

“There was a great turbulent period that started in 1945 and continued until the 1970s, but whose effects were felt until the 1990s, in which Turkey was also geographically and politically involved. Dropping of atomic bombs on Hiroshima and Nagasaki, The end of World War II, the outbreak of the Korean War, the beginning of the 1968 student movement in Europe, the start of the Iran-Iraq war, the collapse of the Berlin wall, and most importantly the disintegration of the USSR led to the end of the progressive and expansionist view of modernism. This period, which is the result of social events and has a wide-ranging effect, is called a new period by society, politics, and linguists. Şaylan (2009, p.23) sees this period, which is called postmodernism, as a period that is based on the liberation of the individual as a result of all political changes and that capitalism tames socialism as a social life style.

Postmodernism has profoundly affected art as well as all living spaces and science. Since the cultural development of the countries progressed in parallel with the cultural policies they carried out, the emergence of contemporary and questioning art practices in Turkey found the 1980s when political turmoil was experienced

and coups blocked every innovation. The most important conclusion to be understood with these connections is that one of the reasons for the formation of postmodern art is the common result of a simultaneous stance in which the political attitudes and reactions of the countries are reflected on the form by the artists” (Onan, 2017, 39).

Support for large-scale art events supporting Contemporary Art in Turkey has been provided by other exhibitions held in Istanbul. These are the first New Trends Exhibition in 1977 and its successors, 10 Artists 10 Works: A,B,C,D Exhibitions, A Section of Pioneering Turkish Art Exhibitions, International Istanbul Contemporary Art Exhibitions, 8 Artists 8 Work Exhibitions, Contemporary Artists Istanbul Their exhibitions are ongoing exhibitions (Atakan, 1998).

Art, whose meaning and purpose has changed, required thinking rather than representation, and these activities forced Turkish artists living in Turkey to think about what art is.

Mehmet Kavukçu

Born in Erzincan, the artist held his first solo exhibition abroad (Belgium). She participated in group exhibitions. His works, which are formed around figure and space, are aimed at analyzing the figure-concept relationship. She draws attention especially to the climate in the human-nature relationship. The harsh climatic conditions of the geography in which he lives form one of the main materials of his works.

Mehmet Kavukçu, trying to show his life process in his works, determined a field for himself in the visual world and entered a psychological perception process. Instead of closed art spaces, it intervenes in public spaces where there is no art. With his works, he takes a place among the people and enters into a relationship with the people. He almost defies gravity and astonishes the audience with his installations that seem to be flying.



Picture 1.Fırtınayı Yaşamak [Living the Storm], Turkey (Erzurum), 2017

(<http://www.doguturk.com/kultursanat/profesor-sanatiyla-firtinaya-meydan-okudu-h19940.html>)

It consists of a trilogy of the performance work “Living the Storm”. The first is to stand against the storm, the second is the colored storm, and the third is the storm silence. While the simplest form of the storm is given in the first performance, the aim is to integrate the storm with nature in a simple way, to combine the purity of nature with the purity of man. In the second performance, there is a work done with interventions on the plastic material that is dressed on the tree with paints. It is aimed to search for an appropriate intervention to the mobility of the storm in the lean environment. In the third performance, there is an artist striving for a peace brought by the silence of nature after the storm and the calmness of the snow that covers everything. Snowballs, which represent purity, cleanliness and innocence, are thrown into the tree with the joy of a child. In this storm trilogy, the storms experienced in the inner and outer nature of man are tried to be explained with a visual effect. At the same time, in the interest of the past and present, the expression of what is experienced in the geography we live in as a society on natural events is also sought. The violence and terrorist incidents that our country and the world are exposed to gain meaning with the language of storm. This study also includes reference to the contradictions and inaccuracies in the studies aimed at the protection of nature. Man exhibits an integrated life with inner and outer nature.

The artist “intervenes in public spaces where there is no art, instead of urban spaces or exhibition spaces,” “he frequently uses geometric forms such as cubes and squares in his works, concentrating on conceptual expressions on space, space, light, sky, landscape, historical process and evidence, and this system provides products in the world” (Aydın, 2014: 32). Mehmet Kavukçu creates contemporary works of art in Erzurum, Anatolia, in a clear and pure environment where art has not yet been commoditized. He creates contemporary works that question concepts and scrutinize intellectual fields in an environment where new steps cannot be taken sufficiently with effective exhibitions where there are not enough halls and galleries where the works will be exhibited. Kavukçu's artistic sensations, the dreams he creates while perceiving the world around him, create the first sparks in the formation of his work.

Perceiving the objects around him with a deep sensitivity and transforming these objects into images is the result of a good observation power and ability to analyze objects. This shows us the researcher side of the artist and how selective he is. At the same time, this aspect is a power based not only on objects but also on the atmospheric conditions in which he creates his works, because Kavukçu carries out his works with great care by observing the weather conditions. The art discipline of Kavukçu, who chose architectural structures as his field of intervention, focuses on the outer lines and interior spaces that reveal the characteristic features of these structures. The artist, who is aware that the differences of space melt and mix together in a common consciousness, human and space dimension, aims to transform the space by removing it from its context in order to add a new dimension to the space. Therefore, he prefers to apply his works in public spaces, because public spaces are spaces compatible with human reality, and he does this by taking into account the characteristics of spaces in Erzurum. It contributes to the space from its own aesthetics with its interventions; it blends its visuality with its dreams and strives to create new openings for people's consciousness (Aydın, 2014).

Since the meaning and visuality formed by the relationship of the object with the space gain different dimensions in the artist and the audience, it aims to interpret, transform or resize historical spaces without disturbing the unique perception of the space. The formal relations of the object to be used with the architectural forms consisting of horizontal, vertical and curves along with the space structure of the space are important. For this reason, it has aimed to speak with the historical and current contexts of the spaces. While paying attention to the formal relationship of the sphere form used in the Double Minaret Madrasa and the Basilica Cistern with the architectural structure, it also expresses the search for intellectual depth with the references of the sphere to infinity and universality. Kavukçu's work called "Crystallized Art Object", which he carried out within the framework of the 55th anniversary celebrations of Erzurum Atatürk University, who also tries to realize open space emphases in natural spaces by taking into account the climatic conditions, historical texture and other regional characteristics, is an example of this.

The work, which was carried out in the white city under the snow, at the foot of the Palandöken Mountains, in the wide space between the Faculty of Fine Arts and the Faculty of Law, consists of four steel construction towers modeled after the minarets of the historical Double Minaret Madrasa, and the geometric forms placed inside them in a night air temperature of -25 degrees. Kavukçu has created an effective work of art that is compatible with the natural conditions of the region, taking into account the environment.

Each construction is a work on its own, but a new field of influence has emerged from the combination of these different constructions. Within the constructions, objects in three basic geometric forms that make up the structure of nature and art were produced, some of them as spheres, some of them cylinders, and some of them with the effect of cube icing, where the relationship between natural objects and art objects could be questioned. The visualization of freezing and melting, while affirming this solid-liquid cycle, change and transformation, also removes the boundaries between art and life (Aydın, 2014: 36).



Picture 2. Mehmet Kavukçu, Kristalleşen Sanat Nesnesi, Çifte Minareler Buz ve Ateş [Art Object, Double Minarets Ice and Fire] 2013, Erzurum (<http://mehmetkavukcu.com>)



Picture 3. Mehmet Kavukçu, Kristalleşen Sanat Nesnesi [Crystallizing Art Object], 2013, buz ve metal konstrüksiyon [ice and metal construction], Palandöken, Erzurum, Türkiye
(http://www.turkishpaintings.com/index.php?p=34&l=1&modPainters_artistDetailID=985)

Füsun Onur

“Füsun Onur is among the leading artists who contributed to the expansion of the boundaries of sculpture and installation discipline in contemporary Turkish art and enriching it with new discussions. She produced works such as 'toys/models' in a way that is far from the seriousness of modernist or traditional sculpture and thus made us question the fetish and corrupt relationship between us and objects. The artist, who takes her inspiration mostly from the problems she encounters in daily life and from the objects around him to solve these problems, has become one of the important names of Turkish art by participating in many national and international events for 40 years with her works based on 'temporality' and 'naivety'.” (Yilmaz, 2009:203).

Sensitive to the necessity of pushing the limits and possibilities of plastic expression such as ordinary, temporary, simple materials, objects and plastic expression such as the words of the author, the notes of the musician, inviting the audience to the playgrounds and arrangements (installation) she creates, to be herself and to allow abstract thinking in every situation for creativity, These are the prominent features of Onur's art (Çakır Atıl, 2018:68). It is possible to find traces of her own life and Istanbul in her works. She tried to express the objects emotionally by using materials such as tulle, satin and pearl. The fact that the artist has given such weight to the fabric is attributed to the fact that the fabric can be changed at any time, washed, ironed and folded. She sees the fabric as the second skin of the human and therefore she mainly uses the fabric.

The artist calls her works until 1976 abstract, and the process from this date to the present as expressive. Frame, Stone, Soil, Flower, which he made in 1977, and Bread, Apple, You Called Me in 1978, especially draws attention to the problem of scope and content of art, and thus the limits of the definition of art. However, if we pay attention to the selected objects, we see that a kind of cosmogenic relationship is taken into account between the objects (Erzen, 1982: 12).



Picture 4. Füsün Onur Çerçeve, Taş, Toprak, Çiçek, İstanbul Arkeoloji Müzesi [Frame, Stone, Soil, Flower, Istanbul Archeology Museum], 1977



Picture 5 . Füsün Onur Ekmek, Elma Dedin de Aklıma Geldi [You Said Bread, Apple, and It Came To My Mind], 1978

(Resim 4-5 Arzu ÇAKIR ATIL (2018) Taken from the Congress Text “The Transformation of Ordinary Materials and Objects in Füsün Onur's Art”)

Building audible spaces is a priority for Füsün Onur. The materials used vary depending on the place and the layout to be constructed. For example, in 'Kadans', all materials except tulle belong to the gallery space. Such a choice further strengthens the work's relationship with the space. 'Kadance' is located in Maçka Art Gallery, which is a difficult place in terms of exhibition. All surfaces of the gallery space, including the floor, are tiled. However, it can be thought that the physical feature of the space contributes to the rhythm of the work and its mathematical order. The niche on the opposite wall can also be perceived as being directed towards the end based on the name of the work (Erkin, 2010, p. 91).



Picture 6. Füsün Onur, Kadans, Maçka Sanat Galerisi [Maçka Art Gallery], İstanbul, 1995

(<https://www.rtve.es/television/20151026/legado-fusun/1242080.shtml>)

Although he does not adopt the traditional expression in her works, the sculpture's emptiness–fullness, light shadow, rhythm and so on. She makes readings on the elements, while defining the space, she uses the traditional for a contemporary expression. Füsün Onur had long removed the concept of traditional sculpture from her vocabulary. However, despite many changes, her sculptures also had a sculptural expression, a space-time synthesis, which allowed the opportunity to look across, wander around, and walk in from time to time.

Conclusion

As a result, both artists' understandings are postmodern, but there are distinct differences in their practices. Having made a name for himself with many works of art he has made in different cities of Turkey and on the campus of Atatürk University, Prof. Dr. Mehmet Kavukçu took part in 70 national and international personal events, many group events, and realized painting, field-editing, performance and video art in these events and made a name for himself in national and international platforms. Due to the favorable climatic conditions in Erzurum, he did very good works. He used ice a lot in his art and sometimes added color with paints. Kavukçu, who tries to give a social message in all his works, has added an elegance to even the cut ox heads, although sometimes criticized by some circles. Sometimes he entered a coffin, sometimes walked in the middle of the city with burnt tree branches on his back, his performance in the garbage, and the installation he prepared for the martyrs of Sarıkamış are works that affect people deeply. Drawing attention to the terror and violence surrounding our country and our world, the destruction of human and nature, architecture, and the refugee problem, it continues its works in national and international areas. Füsün Onur, on the other hand, is one of the first female sculptors in the art movements after the foundation of the Republic and has a special importance in this respect. While bringing together different pieces in her compositions, she produced her works by removing the traditional sculpture concepts from her dictionary. As someone who knows the boundaries and intersections between art and life well, she was interested in the forms of sculpture and focused on abstract pursuits, instead of working figuratively, and was interested in concepts such as space, space and emptiness. She contributed to the spread of the understanding of installation in Turkish sculpture. Although she is not a feminist artist, the effects of being a woman are seen when designing her works and choosing her materials. The existence of the

artist and her works, the national and international exhibitions she participated in play a pioneering role in attracting attention and understanding the importance of Turkish plastic arts on a world scale, by making a big opening in the changing art environment after 1980.

Kavukçu and Onur have pioneered the change and development that supports new pursuits in plastic arts in Turkey and have taken important steps for our country to take its deserved place in the changing field of art in the world.

References

- Atakan,N.(2008).Sanatta Alternatif Arayışlar, Karakalem Kitabevi,s.105.İzmir
- Aydın, A.(2014). *Türkiye’de Yeryüzü Sanatı* [Yüksek Lisans tezi].Gazi Üniversitesi.361615
- Coşkun Onan,B.(2017). Postmodern Sanatta Nesne ve Mekân Bağlamı: İki Türk Kadın Sanatçı. *Atatürk Üniversitesi Güzel Sanatlar Enstitüsü Dergisi*,(38),37-50
- Çakır Atıl, A.(2018). Sıradan Malzemeler ve Nesnelerin Füsun Onur’un Sanatında Dönüşümü. Uluslararası Bilim, Eğitim ve Teknoloji Araştırmaları Kongresi Tam Metinleri Yayın No:02 ISBN:978-605-81236-1-8
- Demirkalp,M.(2009). Füsun Onur ve Heykel Sanatı.*Sanat Dergisi*,(15),31-35
- Erkin,B.E.(2010).Füsun Onur ve Sarkis’in Yerleştirmelerindeki Müzikal Evren.İTÜ Müzikte Temsil,Müziksel Temsil Sempozyumu
- Erzen ,J.,(1982).Füsun Onur’un Yeniliği ve Türk Heykel Sanatı İçindeki Yeri. *Yeni Boyut*, 1(5),9
- Şahin, H. (2012). Postmodern Sanat. *İdil Sanat ve Dil Dergisi*,1(5),90-111.
- Uz,A.,Uz,N.(2018) . Türkiye’de 1980’li Yıllarda Değişen Sanat Anlayışı ve İlk Kavramsal Sanat İzleri (Bedri Baykam ve Sarkis). *Avrasya Sosyal ve Ekonomi Araştırmaları Dergisi (ASEAD)*,2(5),1-11
- Yıldırım,H.(2020).Nesnenin Erotikleşmesi.*Manifold Dergisi*,
- Yılmaz, A. N. (2008). Türk Heykelinde Bir Öncü Sanatçı: Füsun Onur. *Sanat ve Tasarım Dergisi*, 1(2), 203–221.



www.istes.org



www.ijemst.net



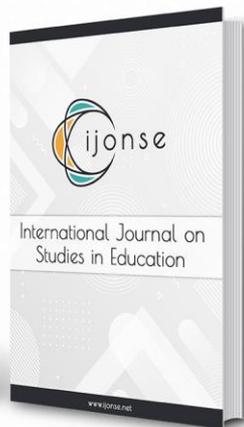
www.ijres.net



www.ijtes.net



www.ijte.net



www.ijonse.net



www.ijonest.net



www.ijones.net

International Conference on Humanities, Social and Education Sciences

April 22 - 25, 2021

New York, USA



www.ihses.net