NO SIGNIFICANT DIFFERENCE IN SERVICE LEARNING ONLINE

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ABSTRACT
Institutions of higher education are realizing the importance of service learning initiatives in developing awareness of students’ civic responsibilities, leadership and management skills, and social responsibility. These skills and responsibilities are the foundation of program outcomes in accredited higher education business programs at undergraduate and graduate levels. In an attempt to meet the needs of the student market, these institutions of higher education are delivering more courses online. This study addresses a comparison of traditional and online delivery of service learning experiences. Results demonstrate no significant difference in outcomes between the online and face-to-face models.

KEYWORDS
online service learning, experiential learning, online learning, learning effectiveness

I. INTRODUCTION
Institutions of higher education are realizing the importance of service learning initiatives in developing awareness of students’ civic responsibilities, leadership and management skills and social responsibility. Institutions of higher education in general, have developed a variety of strategies to better engage students and provide them with a holistic learning experience.

Research has demonstrated that techniques such as active and experiential learning can generate or enhance students’ understanding and interest in a particular subject and may also engage the students in the classroom [1-3]. Not only can these techniques improve student satisfaction, they may also increase their interest in and enthusiasm for lifelong learning [4, 5].

Programs are also experiencing an increase in the development of service learning initiatives as a result of accreditation criteria. Additionally, these institutions are attempting to meet the evolving needs of students by increasing their number of online course offerings. Many organizations, however, have not investigated the possibilities of online service learning opportunities.

As a result of the Kellogg Commission Report, The Engaged Institution [6], higher education has attempted to achieve its goals of teaching, research and service via an engaged scholarship model. The academic institution’s intellectual and human resources are shared with the community in project work that may address social and economic issues [7]. This type of academic and community collaboration creates a variety of opportunities for student learning and community benefit from social and economic perspectives [8, 9].

Can an online service learning experience deliver the same benefits to students and organizations as it does in a traditional classroom setting? This study addresses service learning in online and traditional courses. Previous research relative to both service learning and online learning is reviewed, and assessment of service learning experiences is addressed. Survey research is presented to compare completely online and traditional service learning course outcomes. Findings are presented and topics for future research are also discussed.
II. SERVICE LEARNING

Service learning has gained popularity in higher education as a pedagogical tool because it facilitates social responsibility while reinforcing academic learning. Service learning typically involves a community activity or project that links real world or hands-on experience to course concepts. The projects usually include some form of personal reflection, enabling students to consider the meaning of their civic participation and its effects on both themselves and the community. Service learning may be one of the most effective teaching tools available to educators today [10].

Many years ago, John Dewey called for education to be deeply rooted in experience [11]. Dewey acknowledged, however, that experience in and of itself may not always be educative [12]. Dewey’s concept of experiential inquiry has been the impetus for pedagogical reform in higher education during the last decade. David Kolb’s experiential learning theory [13] builds upon the foundational work of Dewey, providing a conceptual framework for service learning educators. There are four components of Kolb’s experiential learning cycle: (a) concrete experience, (b) reflective observation, (c) abstract conceptualization, and (d) active experimentation. Kolb’s Experiential Learning Model is the foundation for learning through experience outside of the traditional classroom. Providing students with a connected view of learning that integrates their real world experiences with classroom lectures and discussion can create a powerful learning environment.

Although experiential learning and service learning are somewhat similar, service learning specifically seeks to develop some sense of civic responsibility. Typically, both service learning and experiential learning

- involve real world projects;
- require some sort of student reflection;
- correlate with the course material.

Service learning, however, also includes a community based organization as the “real world project” in order to develop and foster civic values and community participation [14]. Some of the identified benefits of service learning would be improved academic learning, sense of community, applying practical skills, and critical analysis [15, 16].

Civic and community engagement are becoming more significant in higher education and enable educators to facilitate learning in higher education. Institutions must examine how this engagement can facilitate Boyer’s vision for higher education which includes connecting university resources to some of the most challenging social, civic and ethical issues in our communities. In College: The Undergraduate Experience in America, Boyer’s vision is described, requiring institutions of higher learning to strategize in order to fulfill the mission of the institution while simultaneously enriching the student learning experience, enabling faculty to grow professionally, and contributing to the vitality of the institution’s community life [11, p. 69; 17-20].

Service learning may be one way educators can begin to fulfill this mission of engagement. Service learning should be an educational experience in which students participate in an organized service activity that meets identified community needs. Students should reflect on the service activity in order to gain further understanding of course content, a broader appreciation of the discipline, and an enhanced sense of civic responsibility. The application of “real-world” projects is crucial in many academic disciplines such as business, where professional experience is most frequently required of new graduates and necessary for successful student outcomes. Relative to learning objectives and outcomes, service learning also provides a means for business schools to meet Association to Advance Collegiate Schools of Business accreditation standards, which require evidence of assurance of learning [21].

Further, recent research indicates that marketing graduates may not have many important managerial skills necessary to begin a successful career in marketing; practitioners and educators are calling for the incorporation of professional and career development skills into the marketing curriculum [22]. Service
learning may create the opportunity to integrate professional and career development skills into existing classes.

The Academy of Management recently recognized that civic education is a business school’s fundamental moral responsibility, particularly given the unique position of influence and authority that managers hold [23]. One of the goals of business education should be to prepare students who are responsible citizens actively involved in understanding and managing social issues. Certainly, business programs in institutions of higher education are beginning to embrace service learning and its importance in the business curriculum.

For example, MBA students at West Virginia University, as part of a service learning course, developed a “Casino Night” to benefit the WVU Children’s Hospital [24]. Students applied public relations, teamwork, and financial planning skills to plan, develop, and manage the event. This is an annual event that each new MBA class has an opportunity to experience. Again, students engage with the community via a non-profit organization, and in the process, learn new skills and how to apply them in a real world setting. The skills business students learn in the delivery of this program are transferrable to professional positions they may attain once they complete their degrees.

Undergraduate business students at a west coast university participated in “The Gift of Mobility” project.

A multidisciplinary team of ten students was recruited to explore the possibility of collaborating with the Wheelchair Foundation, to create a student collegiate chapter of the Wheelchair Foundation. This would be the first and only continuously sustaining collegiate chapter that would operate within university guidelines. The students would identify team member roles, target sponsors and community supporters, generate and vet ideas for various fundraising events, and plan, implement, and execute a fundraising project. A brunch and silent and live auctions were held for the first year event.

The team achieved the fund raising goal, and as a result, traveled to Lima, Peru, to distribute a container of wheelchairs. Two members of the student team traveled to Lima to participate in the distribution of the wheelchairs. The students described the experience as “life-changing” [25].

Finally, the Lumina degree qualifications profile cites civic engagement as one of five critical learning qualifications. Lumina is a private foundation committed to increasing students’ access to and success in postsecondary education. In 2011, Lumina awarded grants to academic institutions to incorporate civic engagement as a learning outcome in their curricula. This is further evidence of the commitment to civic engagement by institutions of higher learning and its importance in the preparation and development of our higher education graduates [26].

As academic organizations explore their educational models to adapt to changing economic and demographic conditions, more students are demanding online programs and degrees in order to accommodate busy work and home-life schedules. Can a “life changing” service learning experience be replicated online? Can faculty generate a sense of civic mindedness, leadership and social responsibility in students in an online venue? This study explores that possibility.

III. SERVICE LEARNING IN AN ONLINE ENVIRONMENT

There has been significant growth in online learning in the last decade, with the average annual rate of growth of online enrollments expected to exceed 20% in institutions of higher learning. In fact, in 2010, 63% of all traditional schools agreed online education was critical to their future class offerings. U.S. universities currently offer over 60,000 courses online with an enrollment of over 4.6 million students. These numbers would suggest that online learning will play a critical role in education in the future [27, 28]. Online courses are particularly attractive to students who choose to later continue their education while struggling to balance the demands of a career, family and academics. Many employers embrace the cost effectiveness and efficiency e-learning affords.

Not only are employers utilizing e-learning for employees’ new and advanced degrees, employers are using e-learning for training purposes as well [29]. Institutions of higher education that offer online and hybrid (a combination of online and traditional web-enhanced classroom time) courses are actually
providing students with two services: the curriculum and the experience of virtual communication and learning.

There are a variety of technological tools available to educators and institutions to facilitate this online engagement process. Students expect to be able to learn anytime, anywhere, which makes some of the following technologies very appealing. More than 550 million people are on Facebook daily, and 65 million post daily tweets on Twitter. Learning through social media technologies is a growing opportunity that may capitalize on students’ general interest in these tools. Two billion videos are viewed daily on YouTube, which has become the second largest search engine in the world. This is another tool by which educators may share their knowledge and facilitate learning. Not new to the educational world, the iPad continues to make new inroads in interactive content. Educational apps as well as its convenience and portability make the iPad another important and readily accessible tool for educators [30].

Many instructors already use “blogging” in their courses, which can be facilitated via a number of different course management systems. Most interesting about blogs is the fact that students’ participation may actually increase their course engagement, as students may feel as if they “have a voice.” The number of blogs found on the Internet today number over 70 million. Instructors may also have students participate in subject specific blogs to improve their course knowledge. RSS technology can then make the blogs readily available via email to any interested subscribers [30, p. 28].

Additionally, digital books can provide instructors and students with access to texts, cases, articles, or any combination thereof that students can access online. Digital books can be accessed and devoured with software that enables students to highlight text, tab pages, and create a unique outline of the text.

Finally, as our conception of “technology” becomes decentralized and “clouded” all of these tools may be available to students in the “palms of their hands” with nifty mobile devices that facilitate access conveniently anytime anywhere. As these devices become more sophisticated teaching and learning via these devices will become ubiquitous [30, p. 8].

To date, very little research exists regarding attempts to deliver service learning experiences completely online [31]. Online learning is defined as learning that occurs in a completely online learning environment. The delivery of lectures, discussions, case analyses is facilitated completely in a virtual environment. Instructors may use Facebook or Twitter to engage students remotely in discussions or polls, or tools such as WIMBA or Elluminate may be used for simultaneous synchronous class meetings. Students utilize tools such as WIMBA or Elluminate or Skype for virtual team and client meetings.

Web-enhanced education is defined in this study as learning that occurs in a traditional face-to-face classroom utilizing internet tools such as course management software to facilitate the posting of lecture notes, discussion boards and grades, while including one-on-one interaction with the instructor and class members each week. As more students begin to explore online education alternatives and institutions increase service learning offerings, there will be greater opportunities to incorporate service learning into the online curriculum. Additionally, as institutions begin to require more service learning experiences in order to fulfill students’ course requirements in a variety of disciplines, multiple delivery channels for these courses will also need to be considered.

Although service learning has been effectively applied in accounting, statistics and marketing courses [32, 33, 34, 35, 36, 37], service-learning practitioners must begin to explore the design of effective and sustainable university/community partnerships and how to optimize the intersection between online learning and service-learning [38]. What defines a successful online service learning experience?

Although some studies have identified “hybrid” service learning experiences (where the instruction may take place online but the service occurs onsite at a client organization), this study attempts to address what Waldner, McGorry, and Murray defined as “extreme service learning” [39]. This concept of extreme e-service learning (XE-SL), where the instruction and service is exclusively online, is relatively unexplored. Because little research exists regarding 100% online service learning, it is necessary to review previous research on service learning efficacy.
IV. SERVICE LEARNING EFFICACY

Due to the intangible nature of service, service learning experiences can vary tremendously. In previous research, service learning models have included four constituencies: the institution, faculty, students, and community [40]. Students typically apply skill sets being taught by faculty in an academic institution to some type of non-profit community project. Service learning outcomes have been identified in numerous studies and traditionally address personal development and interpersonal skills, the ability to apply knowledge to new situations, critical thinking ability, citizenship, leadership ability, and general life skills [11, p. 153; 41]. Since service learning takes the “learning” out of the classroom, and students apply what they are learning to the classroom to a real world issue or problem, traditional measures of learning such as tests with multiple choice and essay questions may not be adequate indicators of student knowledge and skill acquisition [42].

The most common methods of measuring service learning outcomes are self-administered scales [43] where students report what they have learned in a service learning experience. Toncar, Reid, Burns, Anderson, and Nguyen [4, p.223] developed a scale called the SELEB scale (SErvice LEarning Benefits) to identify student reported benefits in the business service learning experience. Past research has indicated that although students may experience a variety of benefits from one service learning experience, benefits to students typically fall into two categories: personal skill development, and professional or practical skills development [4, p.226]. The authors originally developed 27 items that captured the range of benefits reported in prior literature on service learning. Additionally, the researchers interviewed authors on the various benefits of service learning. The items each included a seven point scale and respondents would indicate the importance of each statement (1=not important at all and 7 = extremely important) as a benefit of the service learning experience. These benefits are important for faculty to understand in their development of service learning experiences in terms of successful course outcomes. The ultimate goal is to develop an experience that improves students’ personal and professional skills, yet also achieves course objectives. The focus of this study is student outcomes in comparing traditional and 100% online service learning experiences. In this study, questions were adapted from the SELEB scale in an attempt to compare service learning experience outcomes and to determine whether or not there are significant differences between the traditional, face-to-face model of service learning and the online service learning experience.

V. METHODOLOGY

Case studies are often employed to explore new programs, products or services where little information exists. Yin, in Case Study Research Design and Methods [44], defines case study research as “an empirical inquiry that investigates a contemporary phenomenon within its real-life context, especially when the boundaries between phenomenon and context are not clearly evident.” Yin suggests that the case study definition include characteristics stipulating data collection and analysis requirements. Due to the fact that this study is limited to one campus and e-service learning is a relatively new phenomenon, case study research is employed.

This case study was conducted during two semesters at a private university in the northeastern United States. There are approximately 2,500 traditional and continuing education students enrolled in both undergraduate and graduate programs at the university. Students are predominantly white (87%), with a 45% male and 55% female student population. One hundred and five undergraduate students in two traditional and two online marketing courses, each incorporating similar service learning initiatives, participated in the study. Two sections of Marketing Strategy (one online and one face-to-face) as well as two sections of Marketing Research (one online and one face-to-face) participated in the study. Both courses are required for the marketing major. Students are juniors and seniors in marketing. The same instructor taught all four courses with similar pedagogy for the traditional face-to-face strategy and research courses, and the online strategy and research courses.
Two client organizations provided the service learning project platforms (one for the Strategy course and the other for the Research course). While students in all four courses used the Blackboard course management system to facilitate email communication during the project experience, students in the completely online course utilized online discussions, email and two-way audio-video chatware exclusively to facilitate communication. More specifically, the students in the traditional face-to-face course utilized Blackboard only for email communication, or to access files and any posted articles. Students in the online courses utilized Blackboard for all course communication. This included email, communication with student class members and team members, the instructor and the client organization. Communication included email, and audio/visual chat facilitated via Elluminate. Team and client meetings were facilitated with Elluminate when possible. Additionally, students in the online courses were required to access all course info online and participate in discussion boards regarding course material. The students at this institution are proficient to experienced users of technology such as Blackboard, as all students complete training in the course management software, and all instructors are required to, at a minimum, post course material online. In the traditional face-to-face course, students may spend an average of two to three hours online, whereas in a completely online course, students may be required to work online for ten to fifteen hours per week. It is important to note that students are not required to fulfill service learning requirements in the business curriculum. The marketing research and marketing strategy traditional courses are compared to the marketing research and marketing strategy online courses in terms of perceived service learning benefits.

At the end of each semester, the instructor collected data from students with the online survey instrument. One hundred and five undergraduate students in four business courses participating in service learning projects and activities completed the 12 item survey. Seventy-five students were enrolled in traditional courses and thirty in online courses (according to policy, the institution enrolls a maximum of fifteen students in online courses). Only seniors are eligible to enroll in the marketing strategy course. The sample included 56 males and 49 females with a total of eighty seniors and twenty-five juniors. In order to evaluate students’ perceptions of the learning experience, students completed an online form of the survey; students were asked to rate the importance of 12 service learning benefits on a scale of one to seven (1=not important at all and 7 = extremely important). The survey items are presented in Table 1 by factor. No specific hypotheses are suggested, as the research is essentially exploratory to provide direction for future investigation. SPSS was used for all statistical analysis.

VI. RESULTS AND DISCUSSIONS

One hundred and five undergraduate students in two traditional and two online marketing courses, each incorporating similar service learning initiatives, participated in this case study. Two sections of marketing strategy (one online and one face-to-face) as well as two sections of marketing research (one online and one face-to-face) participated in the study. Both courses are required for the marketing major. Students are juniors and seniors in marketing. The same instructor taught all four courses with similar pedagogy. Students were surveyed to measure and compare their perceptions of the service learning experience online and in the traditional classroom setting.

Chronbach’s alpha was calculated at .82 for this study, demonstrating reliability for this instrument. The survey items and the means for each group by factor are presented in Table 1. The 12 items in the scale represent four underlying factors: practical skills, interpersonal skills, citizenship and personal responsibility, as defined in the original SELEB model. The practical skills factor includes the items “applying knowledge to real world,” “workplace skills,” and “organizational skills.” The interpersonal factor includes the items “ability to work well with others,” “leadership skills,” and “communication skills.” The citizenship factor addresses the items “understanding cultural and racial differences,” “social responsibility and citizenship skills,” and the “ability to make a difference in the community.” Finally, the personal responsibility factor includes the items “social self-confidence,” “ability to assume personal responsibility,” and “be trusted by others.” T-tests were conducted to explore
any significant differences between the online and traditional students on item means. Results demonstrate no significant differences between the traditional and online scores on any of the items (p<.05).

<table>
<thead>
<tr>
<th>Practical Skills</th>
<th>Online Group</th>
<th>Traditional Group</th>
<th>T-statistic</th>
<th>P value</th>
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<tbody>
<tr>
<td>Applying knowledge to “real world”</td>
<td>6.14</td>
<td>6.19</td>
<td>.247</td>
<td>.805</td>
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<tr>
<td>Workplace skills</td>
<td>6.14</td>
<td>5.95</td>
<td>.980</td>
<td>.329</td>
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<tr>
<td>Organizational skills</td>
<td>6.10</td>
<td>6.13</td>
<td>.143</td>
<td>.887</td>
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<th>Interpersonal Skills</th>
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<tbody>
<tr>
<td>Ability to work well with others</td>
<td>6.14</td>
<td>6.13</td>
<td>.031</td>
<td>.976</td>
</tr>
<tr>
<td>Leadership skills</td>
<td>6.21</td>
<td>5.96</td>
<td>1.30</td>
<td>.196</td>
</tr>
<tr>
<td>Communication skills</td>
<td>6.43</td>
<td>6.16</td>
<td>1.33</td>
<td>.188</td>
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<th>Citizenship</th>
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<tbody>
<tr>
<td>Understanding cultural and racial differences</td>
<td>5.34</td>
<td>5.53</td>
<td>.623</td>
<td>.535</td>
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<tr>
<td>Social responsibility and citizenship skills</td>
<td>5.72</td>
<td>5.63</td>
<td>.440</td>
<td>.661</td>
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<tr>
<td>Ability to make a difference in community</td>
<td>5.79</td>
<td>5.74</td>
<td>.232</td>
<td>.817</td>
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<th>Personal Responsibility</th>
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<tr>
<td>Social self-confidence</td>
<td>6.00</td>
<td>6.00</td>
<td>.000</td>
<td>1.000</td>
</tr>
<tr>
<td>Ability to assume personal responsibility</td>
<td>6.17</td>
<td>6.09</td>
<td>.352</td>
<td>.726</td>
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<tr>
<td>Be trusted by others</td>
<td>6.17</td>
<td>6.16</td>
<td>.070</td>
<td>.945</td>
</tr>
</tbody>
</table>

**Table 1. Self Reported Perceptions of Service Learning Outcomes**

The following discussion points highlight issues relative to the anticipated benefits and outcomes of service learning courses. The scale was developed to specifically summarize the benefits of a service learning experience in four factors: practical skills, interpersonal skills, citizenship and personal responsibility. There were no significant differences between the online and traditional students in their perceptions of service learning benefits, however, certain items on each factor were indicated to be more important than others. For example, “applying knowledge to real world issues” was deemed more important than workplace skills and organizational skills for the traditional group on the “practical skills” factor. The average score for this item was 6.19 on a scale of 1-7. The online group felt the same, although they deemed “workplace skills” as important as “applying knowledge to real world issues” (both scores averaged 6.14).

The online and traditional students believed that “communication skills” (mean score 6.43 for the online group and 6.16 for the traditional group) were most important in terms of the “Interpersonal Skills” factor. As these students are business students, this may indicate the heavy emphasis on oral and written communication skills in business courses. The “ability to make a difference in the community” (mean score 5.79 for those online and 5.74 for those in the traditional setting) was most important to students for the “Citizenship” factor. This is reassuring because this item includes “the community,” indicating that perhaps these students have indeed moved beyond a sense of self.

Finally, in terms of “Personal Responsibility,” students believed it was most important to be trusted by
others (mean score of 6.17 for the online learner and 6.16 for the traditional group) than to assume personal responsibility and to have social self-confidence. On this question, the online learners indicated that both the “ability to assume personal responsibility” and “be trusted by others” were equally important to this service learning experience.

VII. SUMMARY

This study is one of the first attempts to compare completely online and traditional or face-to-face service learning experiences. The fact that there are no significant differences between the traditional and online students’ benefits warrants further investigation of 100% online service learning experiences. In order to more comprehensively examine the possibilities of online service learning, the following issues should be considered for future research.

This study applied questions from the SELEB scale to investigate possible differences between a completely online and traditional face-to-face service learning experience. Future research should explore application of this and other scales in additional service learning experiences for further validation. Further, in this study, traditional service learning measures were applied to a completely online experience. Future research may be needed to explore the possibility of developing instruments that specifically address issues relative to a completely online learning experience, such as technology requirements, communication and technical support.

Results from this study indicate that future studies should also include an examination of the technological tools applied to facilitate the service learning experience and which type of tool (or combination thereof) might be most beneficial to a particular service learning experience. As student populations become more mobile and demand flexibility [27, p.1], these tools may be essential to creating a productive service learning experience. For example, in an online service learning experience, chatware may be most critical to a successful learning experience, whereas in a traditional face-to-face course where students are working with a local client, content management system features such as file exchange and discussion boards that can be accessed on a handheld device may be more productive than chatware. Future research should include comparisons of tools and their success in facilitating the online service learning experience.

Future research must also include an expanded application of dimensions to be considered in measuring the online service learning experience and possibly include the self-administered survey, grades, interviews, and observations as well. The information learned in this study may be useful in developing other tools to facilitate the measurement of online service learning experiences.

VIII. CONCLUSION

This study indicates that there was no difference in students’ service learning experiences whether they were delivered completely online or in a traditional classroom setting. Limitations in this study include undergraduate students from one academic institution and one quantitative assessment tool. In the future, additional studies with more institutions and other samples may provide a more comprehensive perspective of online versus traditional service learning experiences. As postsecondary institutions prepare students to play integral and meaningful roles in their community, service learning will be critical to achieving that goal.

IX. ABOUT THE AUTHOR

Sue McGorry is Professor of Business at DeSales University and the Chair of Business Administration, International Business and Marketing. Prior to her appointment at DeSales, McGorry held positions with Chase Manhattan Bank, AT&T and UNESCO in France. McGorry has been teaching online courses since 1996. She has managed several traditional and online service learning initiatives in both undergraduate and graduate programs. McGorry's research interests include technology in marketing and education, service learning and measurement. She has authored a variety of articles and publications. McGorry earned the MBA and Ph.D. in Marketing and Applied Social Research from Lehigh University and has
completed post-doctoral work at the Massachusetts Institute of Technology.

X. REFERENCES


