

**FARMINGDALE STATE COLLEGE**  
**TEACHING OF PSYCHOLOGY CONFERENCE: IDEAS & INNOVATIONS**  
**PROCEEDINGS FROM THE 24<sup>th</sup> ANNUAL CONFERENCE**

March 19 -20, 2010

Tarrytown, NY

Drs. Marya Howell-Carter and Jennifer Gonder, Editors

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## INTRODUCTION

The 24th Annual Conference on the Teaching of Psychology: Ideas and Innovations was held on March 19 – 20, 2010 at the Doubletree Hotel in Tarrytown, New York. The conference was supported by the Psychology Department of the State University of New York at Farmingdale. The conference featured two keynote addresses focused on the theme for 2010, *Fostering, Assessing, and Sustaining Student Engagement*. The first address entitled, “The Blueprint Book: Assessment and Future Directions for the Psychology Major” was presented by Dana Dunn, Ph.D., President of the Society for the Teaching of Psychology. The second address, “Assessing Variation in Student Engagement to Maximize Student Learning” was presented by Jillian Kinzie, Ph.D., Associate Director of the National Survey of Student Engagement. In addition, participants had 29 presentations from which to choose many colleagues, new and old, with whom to network. A new addition to this year’s conference was an undergraduate student poster session. Of the eight research projects presented, the top rated two were awarded with prizes sponsored by the Westchester Psychological Association and a grant from the National Science Foundation. Eleven of this year’s presentations are included in these proceedings.

The success of the conference was due to the continuing efforts of many people, especially the enthusiastic participation of our presenters and attendees. The conference committee was co-chaired by Drs. Marya Howell-Carter and Jennifer Gonder with the support of Drs. Eugene Indenbaum, Judith Levine, Marilyn Blumenthal, Rommel Robertson, Michael Goodstone, and Ms. Barbara Sarringer. We would like to extend our thanks to the National Science Foundation for its support of the conference through a CCLI grant. Enthusiastic thanks also to conference sponsors and publisher participants Wiley, Educational Testing Service, Pearson, Cengage Learning, and True Center Publishing. Finally, special thanks to Farmingdale State College’s Student Government for supporting student attendance at the conference.

Dr. Marya Howell-Carter

Dr. Jennifer Gonder

March, 2010

## CONFERENCE PROGRAM

Friday, March 19, 2010

8:00 - 9:00 AM REGISTRATION AND CONTINENTAL BREAKFAST

SESSION 1: 9:00-10:00

### Room 1: ORAL PRESENTATIONS

Michael Goodstone\*, Rommel Robertson, Jennifer Gonder and Marya Howell-Carter, Farmingdale State College

“Experimental Investigation Regarding the Accuracy of Instructor Perceptions of Student Interest and Learning”

Following an earlier field study where faculty tested the accuracy of their perceptions of students’ ratings of interest and learning across an actual semester (Goodstone, M., Nieman-Gonder, J., & Strangio, J., 2009), the current study was designed to experimentally investigate the accuracy of instructor perceptions of individual students’ self-reported interest, self-reported learning, and actual learning.

Katherine Zaromatidis & Patricia Oswald, Iona College

*“Infusing Psychology Courses with Professional-Level Experiences”*

Learning goals and performance objectives have been adopted by all departments at Iona College. Due to accreditation demands, the college is developing an assessment plan to monitor mastery of goals, and data collected will be used for program improvement. Preliminary stages of this college-wide assessment plan will include identifying strategies for assessing mastery across the disciplines, developing assessment instruments, training faculty and other personnel, and collecting and analyzing data. Dr. Zaromatidis and Dr. Oswald will discuss how this initiative can be used in a variety of courses, such as Educational Psychology, Introductory and Advanced Statistics, to offer students real-life, professional-level experiences.

### Room 2: WORKSHOP

Esther Lori Crispi & Stacey Pilch, Marist College

*“Brief Demonstration to Help Foster Student Engagement in a History of Psychology Course”*

Students in history of psychology courses are faced with textbooks full of facts about many of the historical figures in the field of psychology. It is a challenge for the instructor to bring those figures to life so that the readings stimulate the interests of students and provide more meaning for them. Demonstrations of lengthy landmark experiments can accomplish this, but often there is not time to fully examine such pieces of work. Short, ten minute experiments and demonstrations developed from original experiments can prove to be

worthwhile additions to the course. Fourteen such demonstrations representing each school of thought in psychology will be presented in a workshop format.

Room 4: PUBLISHER'S SUITE

SESSION 2: 10:00-11:00

Room 1: ORAL PRESENTATIONS

Jeffrey Nevid\* & Nate McClelland, St. John's University

*"Engaging Students to Reflect on Key Concepts: Integrating a Writing-to-Learn Journaling Assignment in Introductory Psychology"*

This presentation focuses on the integration of a journaling assignment in an introductory psychology course. Journaling can be represented as a form of low-stakes writing, or writing-to-learn, in contrast to the traditional term paper or writing-to-earn assignment. Journaling encourages students to engage in deeper processing of key concepts drawn from textbook and lecture material. Two types of journaling assignments are compared, one involving personal reflection of how key concepts relate to students' personal experiences and another in which students reflect on what they learned about the identified concepts that they hadn't known before.

John Malacos, The University of Findlay

*"Student Engagement: Two Class Projects that Encouraged Engaged Learning"*

Faculty members are being challenged today to create learning experiences that promote higher level thinking and encourage more individual and group learning. The role of the faculty member is expanded beyond the traditional one of providing facts and data to one of being a facilitator, coach and guide. Two classroom experiences were developed, one in Health Psychology and one in a Senior Capstone class, which provided two examples of ways to engage students in the learning process. These experiences will be described and will show how they met the indicators of engaged learning.

Room 2: WORKSHOP

Craig Platt, Franklin Pierce University

*"Two Career-Development Exercises for the Psychology Senior Seminar"*

This session will present two career-development activities that were created for use in a capstone senior seminar course: a professional values auction and a mock employment interview exercise. Participants will take part in a demonstration of the values auction, with a chance to take home valuable prizes ranging from "autonomy" to "job security."

Room 4: PUBLISHER'S SUITE

COFFEE BREAK 11:00 – 11:15 AM

SESSION 3: 11:15-12:15 PMRoom 1: ORAL PRESENTATIONS

Mary McVey\*, San Jose State University

*“Two Approaches for Assessing Student Writing with Technology”*

This presentation explores the use of two different approaches to the assessment of student writing. The central focus of both methods is to provide high quality and helpful feedback. They are technology-based and require the electronic submission of the writing assignments (and are thus “green” in nature). However, they can be used equally well in either online or face-to-face courses. One method combines the use of the inking feature of a Tablet PC with a semi-structured feedback template and the other employs a commercial, internet-based rubric system (Waypoint Outcomes). Both systems will be demonstrated in detail and findings from research on student’s views of the Tablet with the template process will be reviewed. Additionally, the usefulness of the rubric system for department and college-wide assessment activities will also be discussed.

Terri Shapiro & Comela Shahani-Denning, Hofstra University

*“Outcomes Assessment for an Applied M.A. Program in Industrial and Organizational Psychology”*

It is important for institutions of higher learning to evaluate the quality of their academic programs at both the graduate and undergraduate levels. Graduating a student with adequate knowledge and skills may not necessarily guarantee his or her success in a particular work environment. Often, a source of dissatisfaction with a program originates in a lack of coordination between a program’s curriculum and the work environment (Anderson, 1992; Maier & Gambill, 1996), and this can, as well, influence student engagement in programs. In this presentation, we will talk about two key aspects of program evaluation of our Master’s Program in Industrial and Organizational Psychology: recent graduate satisfaction with the program, and current student and supervisor satisfaction with the year-long internship experience within the program.

Room 2: WORKSHOP

Joan Kuchner, Stony Brook University

*“Using the Physical Environment to Facilitate Students’ Active Engagement”*

The traditional model of the classroom features the professor at the front of the room framed by the blackboard (or white board) and the students arrayed facing front ready to write down catch phrases, definitions, examples, facts, and “pearls of wisdom.” Today there are a growing number of educators who have come to realize that this model of the student as vessel for absorbing information has been more successful in placing an emphasis on passivity than on the need for personal engagement and active critical thinking. The workshop will focus on ways in which the physical environment of the classroom can be used to enhance student participation in their own education. Discussions and demonstrations will include strategies that can be used even with the

most limiting classroom arrangements. Examples will be drawn from over 25 years of experience teaching students at Stony Brook University in both introductory and advanced courses.

Room 4: PUBLISHER'S SUITE

LUNCH/KEYNOTE ADDRESS: 12:30 - 2:00

DANA DUNN, Ph.D.

President, Society for Teaching of Psychology

Director, Learning in Common Curriculum, Moravian College

*"The Blueprint Book, Assessment, and Future Directions for the Psychology Major"*

SESSION 4: 2:30-3:30

Room 1: ORAL PRESENTATIONS

Geoffrey Turner\*, Simmons College and David Bennett, Northpark University

*"Making Homework Contingent on Exam Performance: Effects on Subsequent Exam Performance and Attributions"*

Research has shown homework to be almost unequivocally beneficial (Brophy & Good, 1986; Keith, 1982; Schuetze, 2004; Shields & Gredler, 2003), especially for low ability students (Guida, Ludlow, & Wilson, 1985). As part of a work in progress, we present data evaluating the effectiveness of making the number of homework problems students complete contingent on their exam scores. Specifically, we assess whether and how the number of homework problems completed relates to subsequent exam scores and to students' mastery orientation (e.g., Elliott & Dweck, 1988). We discuss our experiences using contingent homework (including effectiveness) and feedback from students.

William Herman, SUNY College at Potsdam

*"How Much Do Students Remember from an Introductory Psychology Course?"*

Nearly 100 students were given a Pre-Test in psychology on the first day of class without warning in order to assess their knowledge of basic content based upon the prerequisites of the course (PSYC-100 Introduction to Psychology or PSYC-220 Child Development) and other life experiences. This was intended as a low-stakes testing situation, since students were assured that the results were to be used only for curricular/instructional decision making and the results would have no impact upon the student's grade in the course. The Pre-Test was found to explain 12% of the variance in final course grade average. This research report contains an item analysis of the Pre-Test depicting the extent of psychological knowledge students brought with them to the class. The detailed results were mostly disappointing. For example, only 2 students knew the names and proper order of Piaget's 4 stages of cognitive development. The author hypothesized that even some fundamental psychological knowledge that was retained from previous learning allowed students to more effectively and efficiently re-learn such content for the new course. This pedagogical research supported the use of the existing pre-requisite for the course, but extreme caution is urged when instructors assume that a substantial and

accurate knowledge base in psychology is brought to the learning context based upon satisfying the pre-requisite course requirement.

### Room 2: SYMPOSIUM

Jacqueline Braun & Lysandra Perez-Strumolo, Ramapo College of New Jersey

*“Using an Online Environment to Promote Deep Learning and Engagement”*

All institutions of higher education aspire to promote deep learning; however, achieving this goal can be very challenging. In this presentation, two faculty members and two students will discuss how the online environment can be used as a means of promoting deep learning, engaging particularly underserved students. Faculty presenters will discuss their experiences using online environments to develop and assess deep learning in both online and traditional courses. We will discuss the development of effective assignments, the challenges faced in engaging students, the role of the instructor in the learning process, and the importance of continuous feedback for optimal development. Student presenters will describe their experiences and will reflect on the development of their reflective, integrative and higher-order learning abilities in the online environment. Participants will have an opportunity to develop at least one online activity designed to facilitate deep learning for their own courses.

### Room 4: PUBLISHER’S SUITE

#### COFFEE BREAK & DESSERT 3:30-3:45

### SESSION 5: 3:45-4:30 ROUNDTABLE DISCUSSIONS

#### Room 1: ROUNDTABLE DISCUSSION

Fred Tesch, Stanley Bazan and Eugene Buccini, Western Connecticut State University

*“Coping with Inappropriate and Disruptive Student Behaviors: Some Scenarios, Some Discussion”*

How can we cope effectively with a range of student behaviors that should not be normative in our classrooms? For example, students who text and tweet during class, or students with psychological challenges, previously controlled by medication, “act out?” In this session, we present a few scenarios portraying inappropriate student behaviors that are appearing more frequently in our classrooms. We invite your participation in discussing how to cope with these behaviors. Share your individual tactics, institutionally based protocols, and other strategies to deal with these increasingly common challenges to the educational process.

#### Room 2: ROUNDTABLE DISCUSSION

Deborah Tindell & Robert Bohlander, Wilkes University

*“Cell Phones in the Classroom: Problems and Solutions”*

The possession of cell phones and similar electronic communication devices in college classrooms is now the rule among students. Research shows that these devices are being used by students during the class period for texting, searching the internet and sometimes in the commission of acts of academic dishonesty. How common is this problem at your institution and in your classroom? What are some appropriate classroom management policies regarding these devices? How will these policies be enforced? How can instructors alter their own classroom behaviors in order to lessen the problem? This roundtable discussion will encourage attendees to share their concerns, experiences and ideas about potentially successful classroom policies regarding cell phones and similar devices.

### Room 3: ROUNDTABLE DISCUSSION

Matthew Lee, Kristin Davidoff, James Bailey & Kaelin Emery, James Madison University  
*“Using Cognitive Moral Education to Teach Psychology and Multiculturalism”*

In this roundtable presentation, the instructor of a course on psychology and multiculturalism will facilitate a discussion of the use of cognitive moral education activities in the classroom. This perspective should provide participants in the roundtable some novel ways to integrate multicultural issues into the classroom even in the absence of diverse demographics of the students enrolled in the course. Two undergraduates from the course will also provide their unique experience in how the activities facilitated their educational and moral development. The facilitation team will discuss two major types of cognitive moral education (cognitive moral dilemmas and experiential learning) and invite an open-ended dialogue on creative ways to implement these activities.

### ROOM 4: PUBLISHER’S SUITE

Saturday, March 20, 2010

### SESSION 6: 9:00-10:00 A.M.

#### Room 1: ORAL PRESENTATIONS

Peter M. del Rosario\*, Victoria Ketteridge & Amanda Martinez, Marist College

*“Then and Now: Tracking Changes in Diversity Psychology Courses at the U.S. News and World Report’s “Best 50” National Liberal Arts Colleges and their Relationship to the Diversity of the Faculty and Student Populations Between 2002 and 2009”*

Multicultural, diversity, and cross-cultural issues have gained increasing recognition from the field of psychology over the past two decades. Indeed, a “call to the discipline” has been issued to promote diversity and cultural competence in the education of psychology students. The APA Education Directorate (2007) has also issued recommendations that undergraduate psychology must reflect the importance of diversity and cross-cultural issues, and the growing internationalization of psychology. One method towards this goal is the separate course model that involves the creation of diversity psychology courses, and possibly even the requirement of such courses for the psychology major. In 2002, data were

collected tracking these areas within the nation's "best 50 liberal arts colleges" (*U.S. News & World Report*, 2002). The purpose of this study is to assess the degree to which the psychology programs at these institutions have integrated diversity-related courses into their course offerings and psychology major requirements. Relationships are also sought between the numbers and types of such courses offered and the diversity of the faculty and student populations. Implications and recommendations for psychology curricula are discussed.

John Theodore, Iona College

*"Group Counseling Role-Play in the Classroom"*

As the field of mental health continues to evolve, group treatment is used more frequently in many clinical settings. Training graduate psychology and other professional students to conduct group therapy within training courses is traditionally done in a lecture format. However, learning the skill of conducting group therapy may be enhanced with experiential learning via role-play exercises in a classroom setting. The benefits of group therapy role-play with students in a classroom setting are multiple. Students can practice group treatment techniques prior to site placement, experience the impacts of group dynamics in real time, be exposed to varied diagnostic presentations, increase skills of clinical decision-making based on immediate, real-time information, increase both therapeutic autonomy as well as therapeutic interdependence on co-facilitators, and experience increases in clinical competence and esteem in a safe, controlled educational setting. Teaching and learning processes for this activity may include calling attention to the processes of group dynamics, examining transference and counter-transference issues, and examining group facilitation styles of the students. Students who engage in group treatment role-plays report higher levels of therapeutic esteem following the activity.

### Room 2: WORKSHOP

Anita Meehan, Kutztown University &

C. Bruce Warner, Pittsburg State University

*"Using Microsoft Excel 2007 in Teaching Introductory Statistics and Research Methods"*

The simplicity of Excel's output compared to that of SPSS, as well as its ubiquity, makes Excel attractive for a first course in statistics. This workshop will show participants how to install Excel's Analysis ToolPak, a little known "wizard" that performs most descriptive and inferential statistics procedures taught in an introductory psychology statistics course. We will then demonstrate a few Analysis ToolPak procedures such as descriptive statistics and t-tests. The simplicity of Excel's output compared to that of a professional statistics package makes Excel attractive for a first course in statistics. Another handy feature is Excel's Pivot

Table tool, which uses a simple drag and drop method to generate frequency tables, cross-tabulate two or more variables, and produce pie and bar charts. Finally, we will demonstrate how simple it is to import and export data files between Excel 2007 and SPSS.

### Room 3: ORAL PRESENTATIONS

Margaret Maghan\* & Lori Moog, Raritan Valley Community College

*"Service Learning: A Pathway to Academic Achievement"*

This study measured the role of service learning as a means of increasing students' cognitive and psychosocial awareness. It was hypothesized that students' cognitive mastery and self-efficacy in course material would increase through their participation in a service learning course. This hypothesis is supported by current literature which shows that class learning objectives are more readily retained and student motivation increased through service learning experiences. For this study, three hundred students were recruited from an associate degree granting program. Participants were randomly assigned to either a control condition, with no service learning component or to an experimental condition having a service learning component. Two dependent variables were investigated. The first measure will be students' academic achievement in the course material. The second dependent variable was a measure of students' self-reported self-efficacy in the subject matter.

Nicholas Salter & Marissa Dragone, Ramapo College of New Jersey

*"Increasing College Student Engagement Through the Use of Online Discussion Forums"*

With the growing use of technology in college classrooms, it is important to study how this trend can be used to increase student engagement. The current paper suggests one method that can be used is an online discussion forum. We argue that this can increase student engagement by providing more opportunities for feedback and for students to model each other, by encouraging relationships among the students and the instructor, and by allowing students to be empowered in their education. A case study of two Industrial-Organizational Psychology classes will be discussed, showing the results of student engagement with this learning tool.

#### ROOM 4: PUBLISHER'S SUITE

COFFEE BREAK/FRUIT/YOGURT 10:00-10:15

#### SESSION 7: 10:15-11:15 A.M.

##### Room 1: ORAL PRESENTATIONS

Carol Olko\*, Nassau Community College

*"A Beginner's Guide to Using Technology as a Vehicle to Teach an Online Course"*

The explosive growth of the Internet has contributed to the increasing popularity of Distance Education. According to the National Center for Educational Statistics (2008), 65% of institutions offered credit-granting distance education courses at the undergraduate and graduate level. Community Colleges had the largest number of enrollments in distance education. This presentation will describe how to teach a fully online Introductory Psychology Class. It will focus on using technology as a *vehicle* in the creation of an environment that is conducive to productive, transformative learning. I will share with you some of the techniques and pedagogical approaches that have worked well for me. Welcome to my "Online Virtual Classroom Bandwagon"- prepare for some bumps!

Christine Floether, Centenary College

*“Mentoring, Assessing and the Importance of Psychology Fieldwork Placements in the Undergraduate Program”*

At Centenary College, we have provided the opportunity to participate in an internship for the past twenty years. However, in the past two years we have revamped the course to create a more developed, structured experience for the students. In the fall of 2009, a proposal was put forth and adopted by the faculty to make the experience two semesters. The rationale behind the decision was to make the experience even richer, fuller and allow for individual mentoring of the students while in placement. The two semester sequence also allows a better opportunity to assess the learning outcomes and objectives of the individual students.

### Room 2: WORKSHOP

Mary-Ellen O’Sullivan-Volleman, Southern Connecticut State University

*“Introduction to My Psych Lab”*

The presentation will be in a workshop format in order to familiarize instructors, as well as students, with Pearson Education’s MyPsychLab (MPL). MPL is a fully interactive supplement, which is available with the Pearson line of Introductory/General Psychology textbooks. The focus of the workshop will be to have a hands-on demonstration of this technology. At the conclusion of the demonstration, there will be a discussion of the advantages and/or disadvantages, if any, for both teachers and students when using MPL. Personally I have found MPL to be a great benefit in preparing course work, maintaining contact with students, and scheduling online quizzes or tests. Upon conclusion of the workshop, there will also be an opportunity for questions.

### Room 3: ORAL PRESENTATIONS

Carrie Picardi Newman\*, Iona College

*“Capturing the Best of Both Worlds: Enhancing Student Engagement in Industrial/Organizational Hybrid Courses”*

Distance learning, an instructional model in which technology tools enable electronic delivery of course content either partially or fully, continues to permeate across myriad higher educational institutions. The hybrid course structure, which incorporates face-to-face instruction with a variety of online technology components, is increasingly becoming an alternative to the traditional on-campus classroom lecture format. In theory, hybrid courses are designed to combine the best elements of both classroom and distance learning. However, research (Ortiz-Rodriguez et al., 2005; Jackson & Helms, 2008) suggests hybrid courses share many of the same weaknesses that classroom and distance learning courses suffer from, most critically, issues with knowledge retention and student engagement. Archival student evaluation data from undergraduate introductory courses in Developmental Psychology and Industrial/Organizational

Psychology will be collected and analyzed in an effort to demonstrate the value of the hybrid course model in a discipline of psychology that is more applied in nature.

Donna Gardner, Iona College

*“Teaching Psychology from a Multi-Culturalist Framework”*

The purpose of this proposed 30 minute presentation is to provide a rationale for the necessity of infusing a multicultural perspective within the teaching of psychology. The presenter will use a case study approach and self-examination to demonstrate activities, media, and discussions that merge multiculturalism with psychology. Of particular importance will be a review of research based practices to equip psychology trainers, practitioners, and researchers with the awareness, knowledge, and skills necessary for practicing from a multiculturalist framework.

#### ROOM 4: PUBLISHER’S SUITE

#### SESSION 8: 11:15-12:15

#### Room 1: ORAL PRESENTATIONS

Roberta Paley\* and Daniel Benkendorf, Fashion Institute of Technology

Joseph Moskowitz, New Jersey City University

*“Using Writing to Facilitate Student Engagement”*

In college classrooms across the country, instructors have lists of objectives to be attained by their students. As we teach the subject matter, we would like to challenge our students to think critically, discuss what is learned, debate issues, and express themselves through writing and speaking in class. And, perhaps, most of all, we would like students to be engaged and involved in the topics that we teach. The three assignments that will be discussed accomplish these goals. Assignment #1 involves students in a “You are there” type of writing exercise. In class, the professor guides students’ thinking with an historical story of a psychological experiment. Assignment #2 engages students with current news topics related to psychology and requires in-class discussion, group work and a writing assignment. Assignment #3 challenges students to prepare questions for their own multiple choice examinations in accordance with a series of guidelines. In-class discussions and a ranking system are designed to encourage critical thinking and to assess student perspectives on the material.

Janina Scarlett & Louise Hainline, Brooklyn College and The Graduate Center, CUNY

*“If the Students Don’t Learn the Way I Teach, Then I Will Teach the Way They Learn”*

A few alternative teaching methods were implicated into advanced undergraduate psychology courses, Psychology of Learning and Physiology. Students often struggle in these courses and many eventually lose interest. The authors examined the effect of making the class environment more entertaining by using games, competitions and oral

exams as an alternative format. The students in the control classroom did not receive an alternative teaching method and were simply given the traditional lectures, reviews and written multiple-choice and essay final exam. The students' scores in both conditions were compared. In addition, the students were asked to fill out an anonymous survey regarding their attitude toward the course as well as their own self-esteem regarding their performance in that course. The results revealed that the students performed better in the alternative teaching condition and their survey responses indicated that they had ownership of the material and felt confident in their knowledge. These results suggest that making the course more interactive and challenging is more beneficial for the students and is a good alternative (or at least a supplement) to lecturing. In addition, some examples from the authors' work with unmotivated high school students and the methods that were successful in engaging them, such as small groups work, research, ownership of the project and others, will be presented.

## Room 2: WORKSHOP

Lysandra Perez-Strumolo and Jacqueline Braun

*“How to Reduce Academic Dishonesty at the System-Wide Level”*

Both anecdotal reports and empirical evidence suggest that academic dishonesty is a serious problem on our campuses. How to reduce violations is not obvious—neither top-down policing strategies nor student-level honor codes seem to work well. Recent research suggests that the campus-wide culture regarding academic integrity is the most important factor in determining prevalence of academic dishonesty. In this session, we will draw upon the arguments of authors such as Gallant (2008), McCabe and colleagues (2005, 2001), as well as Whitley and Keith-Spiegel (2002) who all argue for a system-wide approach. The goal of the discussion is to include students and faculty in a common dialogue focused on how to reduce academic dishonesty—how do we address cheating and plagiarism at a system-wide level? Participants will be encouraged to share how their institutions facilitate academic integrity—discussing both what seems to work and what does not.

## Room 4: STUDENT POSTER SESSION

Kristin Davidoff, Kaelin Emery, Michael Ariale, Matthew Lee (faculty advisor) -

*“Multiculturalism and Moral Development: Not Just for Psychology Majors”*

Although cognitive moral development activities have been used in some courses in psychology to positive effect (Schlaefli, Rest, & Thoma, 1985), it is unclear whether these activities can help students learn more about multiculturalism and diversity. Promotion of moral development may be beneficial to society in order to encourage tolerance and understanding of people from diverse backgrounds, a current aim of many universities' vision statements (Hurtado, 2007). This study aims to describe students' current levels of moral development and ascertain the extent to which they believe that cognitive moral education would assist them in becoming more multiculturally capable individuals in a diverse society.

Asma Mahmood & Rebecca White, Marist College  
*“The Effect of Situational Cues on Inducing Stress”*

The effect of situational cues on inducing and increasing state anxiety was investigated in this research experiment. 132 college students were asked to participate in the experiment. After completing a baseline stress questionnaire, a story was read out loud in three parts to the students about a party that involved underage drinking and other escalating stressors. After each part a short questionnaire was given to measure the impact on stress levels based on self-report. Previous research on the subject was conclusive in finding that presenting situational cues could influence state anxiety. An experiment involving positive and negative written scenarios evidenced a significant difference from prestress to poststress scores, reflecting that change had occurred due to the scenarios presented (Moberley, Moulds & Watkins, 2008). Our research hypothesis predicted that the stress questionnaires presented after each part of the story would show an increase in state anxiety as compared with the baseline stress questionnaire taken by each participant. An additional dimension of the experiment included gender differences in induction of stress to see if perhaps one was more influenced by stressors than the other. The statistical results did support our hypothesis suggesting that the situational cues of the story had induced an increase in participants' state anxiety.

Tara Belits & Brielle Hassa, Ramapo College of New Jersey  
*“Yoga Participation and Perceived Stress Levels in College Students”*

This study was aimed at examining the effect of yoga practice on perceived stress and anxiety in a sample of 79 college students, 60 female and 10 male. Students were recruited from three courses at a liberal arts college in New Jersey: Yoga, Leadership, and Fitness. Participants were invited to take part in a study aimed at better understanding the stress experiences of undergraduates. Perceived stress was measured by the Perceived Stress Scale (Cohen, 1994) and test anxiety was assessed using the Westside Test Anxiety Scale (Driscoll, 2004). Participants were also asked various demographic questions and about their participation in extra-curricular activities. A Multivariate Analysis of Variance revealed no significant difference between groups. However, a Chi Square Analysis revealed significantly fewer "high anxiety" students in the yoga class when compared to the other two classes (Chi Square=10.34, p=0.035).

Stav Atir, Julie A. Higgins & Marcia K. Johnson  
*“Memory for Factual Information is Enhanced When Accompanied by Humorous, Relevant Statements”*

Many instructors insert humorous comments into their lectures, which may influence students' memory for the material being taught. The present study examined the effects of humor and relevance on memory for factual statements. Participants (N=40) read pairs of statements. Each pair included a fact that was always nonhumorous, and a joke that was either humorous or nonhumorous and relevant or irrelevant to its paired fact. In a later memory test, recall for pairs (i.e. both fact and joke) was better when the joke was

humorous vs. nonhumorous and was relevant vs. irrelevant. Further, the effect of humor on recall was greatest when the joke was relevant than when it was not. Results suggest that when instructors present facts with jokes, jokes may cue memory for facts on later tests, and that relevant jokes may provide better cues than irrelevant jokes.

Molly Caperna & Dana D'Antonio.

“Non-Physical Factors that Influence Attraction in Heterosexual Males”

Physical attraction is influenced by many different factors. The purpose of our study was to see if a woman standing with a man is viewed as being more attractive than a woman standing alone. Twenty men (ages 19-41) completed a survey pertaining to their individual physical attraction toward a woman in the photo. Ten men were given a photo of the woman standing alone, and 10 men were given a photo of the same woman but this time she was standing next to a man. Each of the participants was asked to rate the attractiveness of the woman on a scale from 1 to 7. Results showed no statistical significance between the two conditions. These Results demonstrated that the physical attraction toward the woman in the photo was not influenced by whether she was alone or with a man.

Wilfredo Rosario

“Motivation and Achieving Learning Goals in Physical Education”

This study was designed to investigate the frequencies of achieving learning skills in a physical education unit with motivation and without specific motivation. Many useful motivational constructs, achievement goals and interest have been identified as important motivators contained in the teaching and learning of physical education (Chen & Ennis, 2004). Two groups of students were instructed in the proper execution of a basketball lay-up shot. Both groups were observed and their behavior was marked as correct or incorrect. One group performed with music and the other without. A Chi-square test showed a significant difference in achieving goals between the motivational music group and the no music group. These results support the hypothesis that introducing a motivational variable can enhance achievement in a learning goal.

Shara White

“The Effects of Social Networking on Parent-Child Relationships:  
Are Parents Too Involved?”

This study explored the relationship of young adults and their parents who have on-line social networking profiles. Social- networking websites have soared in popularity over the past few years. Because of the potential risks involved with having an on-line profile, many parents have become cautious and have begun to join the new on-line evolution. But whether the parents are joining for security reasons or to spy on their children has become an increasing frequent question. This study looked at the frequency of parents having profiles as well as the type of involvement they engage in. Results indicated that those parents who join these websites do so for their own enjoyment and satisfaction,

rather than to check up on their children. However, adolescents and young adults are not happy with their parent's new fascination with on-line social-networking websites.

Karolina Nicewicz

“The Relationship between Sleep Quality and Academic Performance”

The relationship between sleep quality and GPA was examined. Hours of sleep also became an aspect of the study because of their variability. It was hypothesized that a college student's sleep quality was related to his/her academic performance. Randomly assigned college students took a survey to measure their sleep quality and the number of hours they sleep. The overall score of sleep quality measurement was significantly negatively correlated with GPA. The number of hours of sleep was significantly positively correlated with GPA. Both had small effect sizes. Good sleep quality and hours of sleep a student gets are trivial aspects of maintaining a healthy lifestyle that relate to academic success. These results have implications for educating college students about the importance of good sleep quality and its significant relationship with GPA.

LUNCH/KEYNOTE ADDRESS 12:30 -2:00

JILLIAN KINZIE, Ph.D.

Associate Director, National Survey of Student Engagement

Associate Director, IU Center for Postsecondary Research

“Assessing Variation in Student Engagement to Maximize Student Learning and Success”

Closing Remarks

Our deepest thanks for helping create a wonderful 2010 conference. We hope to see you again in 2011 for another great meeting!

Farmingdale State College Department of Psychology

Dr. Eugene Indenbaum, Department Chairperson

Dr. Marilyn Blumenthal

Dr. Judith Levine

Dr. Michael Goodstone

Dr. Rommel Robertson

Dr. Jennifer Gonder, Conference Co-Chair

Dr. Marya Howell-Carter, Conference Co-Chair

## **PRESENTATIONS**

### **Experimental investigation regarding the accuracy of instructor perceptions of student interest and learning**

**Michael S. Goodstone, Rommel Roberston, Jennifer Nieman-Gonder, Marya Howell-Carter**  
**Farmingdale State College**

#### Introduction

Following an earlier field study where faculty tested the accuracy of their perceptions of students' ratings of interest and learning across an actual semester (Goodstone, M., Nieman-Gonder, J., & Strangio, J., 2009), the current study was designed to experimentally investigate the accuracy of instructor perceptions of individual students' self-reported interest, self-reported learning, and actual learning.

This study continues to explore the abilities of faculty to accurately perceive interest and learning in their students within a class period. While course evaluations give instructors information about student interest and learning through the semester, all faculty must make immediate decisions in each class regarding students' understanding of material and the degree to which we are capturing their interest. If we believe that student interest is waning or that learning has declined, we often attempt an immediate change in tone, techniques, activity-level and student participation. The effectiveness of these changes is dependent on accurate perception and interpretation of our students' experiences.

In previous research we explored whether two instructors' perceptions of student interest and learning was shared by their students during a semester-long course. In the current research, we explored the same question in the lab and added the variable of actual student learning. In this study, instructors were brought into the laboratory setting to teach a small group of students with whom they had no previous or continuing relationship. As in the first study, the relationship

between instructor and student perceptions were examined with both traditional lecture and technology-enhanced lecture formats.

### Method

Research participants were students enrolled in psychology classes who had registered for a research pool to receive extra credit. Students were randomly assigned to small groups of 5 to 10 individuals to participate in a 45 minute study skills class. The session began with a pre-test of study skills knowledge. Immediately following the class, students were asked to respond to two questions using a 7-point likert scale:

How much did you learn in today's class? ("very little" to "a great deal")

How interested were you in today's class? ("not at all" to "very interested").

While the students completed these measures, the instructors attempted to predict what each individual student would rate in terms of their interest, the amount they thought they learned and their individual improvement from pre-test to post-test (actual learning) by answering the following questions:

I predict this student will rate the amount he/she learned in today's class as: ("very little" to "a great deal")

I predict that this student will rate his/her interest in today's class as: ("not at all" to "very interested")

I predict the improvement for this student will be \_\_\_\_\_ additional items correct on the post-test as compared to the pre-test.

Finally, in order to assess the impact of presentation format on faculty/student perceptions, two conditions were tested for each instructor: traditional lecture and technology-enhanced lecture (utilizing PowerPoint software).

### Results

Instructor accuracy was examined in terms of the magnitude of difference as well as correlation between faculty/student results. Instructor prediction for student ratings of how much was learned, interest and actual learning were examined for each instructor both with and without the

use of PowerPoint presentation. No systematic effects were found for the use of presentation software so subjects in these conditions were combined for all analyses.

**Table 1**

Means

Instructor	n	Learning		Interest		Actual learning	
		Faculty	Student	Faculty	Student <sub>1</sub>	Faculty <sub>2</sub>	Student <sub>3</sub>
1	14	4.2	5.3	3.7	5.6	12.9	6.8
2	18	4.6	5.7	4.1	5.6	7.9	8.9
3	16	4.6	5.8	4.4	6.4	7.9	8.2
4	19	4.9	5.5	5.1	4.5	11.0	4.8
Total	67	4.6	5.6	4.4	5.5	9.8	7.1
Mean							
Elevation	67	.97		1.48		1.48	

<sub>1</sub> Significant main effect of instructor ( $F = 7.1, p < .05$ )

<sub>2</sub> Significant main effect of instructor ( $F = 7.5, p < .05$ )

<sub>3</sub> Significant main effect of instructor ( $F = 11.6, p < .05$ )

**Table 2**

Correlations

	N	Learning	Interest	Actual learning
Ins 1	14	-0.20	-0.10	-0.09
Ins 2	18	-0.05	0.37	-0.13
Ins 3	16	-0.12	0.48	0.19
Ins 4	19	.46*	.52*	0.06
Overall	67	0.07	0.16	-0.23

\* $P < .05$

As is evident from the Table 1, the magnitude of overall faculty/student rating differences was smallest for perceptions of learning (mean elevation = .97) and equal for interest and actual learning (mean elevation = 1.48). There were however, significant main effects for instructor for student ratings of interest, faculty estimates of actual learning and student actual learning. As evident from Table 2, three of the four instructors were able to moderately predict differences in student interest although with small samples, only one reached the level of statistical significance. No other faculty predictions were consistently associated with the student variables studied. It is also interesting to note that students were not able to predict their own learning as the overall correlation of student perception of learning and actual learning was very small ( $r = .17$ ).

### Conclusions

Consistent with the findings of a previous field study, faculty seem most able to predict student ratings of interest. Although the magnitude of our overall rating differences and prediction of learning are not large, our ability to distinguish differences in students' perceived learning is poor, as is our ability to predict differences in their actual learning. Perhaps we should be comforted that students are not any better able to predict their own learning than we are. It appears that there are differences in student interest, actual learning and rating accuracy by instructor but not by the use of presentation technology.

### Discussion

As we attempt to understand instructor decision making in the classroom and our ability to accurately read students, the research reported here gives us a moment of pause. In previous field study research, instructors were better able to predict their students' perceptions of interest and especially perceived learning. In the current research however, when we bring students into the lab, present a standard lecture that is not the creation of the instructor and teach students that are not our own, our ability to predict their perceptions of learning appear non-existent and interest predictions appear moderate at best. Under the conditions of the current study, we have no ability to predict actual learning. The research did support that instructor makes a difference in terms of student interest, learning and perceptions of learning, but leaves us with additional

questions about our ability to accurately perceive students' experiences. Perhaps it is the long-term relationship with a class (perceptions over time, feedback from actual assessment, classroom question/answer) that enables us to predict their interest and perceived learning. The question of our ability to predict their actual learning during classroom experiences remains open.

Goodstone, M., Nieman-Gonder, J., & Strangio, J. (2009). Can faculty predict student perceptions? *Academic Exchange Quarterly*, 13(3).

Goodstone, M., Nieman-Gonder, J., & Strangio, J. (2009). How is this class going? Do I have any idea? Poster presented at the National Institute on the Teaching of Psychology, St. Pete Beach Florida.

**Infusing Psychology Courses with Professional Level Experiences**  
**Katherine Zaromatidis, Ph.D. and Patricia A. Oswald, Ph.D.**  
**Iona College**

*"Learning is the process whereby knowledge is created through the transformation of experience" (Kolb, 1984).*

It is widely believed that immersing students in an experiential educational activity increases their learning (Clements, 1995; Kolb, 1984; Oswald, 1995). According to Kolb's model (1984), such activities require students to analyze, design, create, and evaluate; all higher level cognitive skills that lead to the enhancement of learning. Therefore, whenever feasible professional level experiences are incorporated into the classroom. This paper focuses on how a specific professional level experience at Iona College was incorporated into a variety of courses.

A few years ago the psychology department of Iona College created and adopted learning goals and performance outcomes for all psychology courses modeled after the American Psychological Association Standards for Undergraduate Instruction (APA, 2002). This has become the norm at the college as other departments have adopted learning goals specific to their disciplines. In response to standards posed by a variety of accrediting bodies (e.g., Middle States, NCATE, NASP), the college is now developing an assessment plan to evaluate student mastery of these learning goals and performance outcomes for all departments and in all courses. The preliminary stages of this college-wide assessment plan will include identifying strategies for assessing mastery across disciplines, developing assessment instruments, training faculty and other personnel, and collecting and analyzing data.

This initiative could be used as a professional level experience; one that students can relate to and find meaningful as it pertains to the institution they are currently attending. Students can be asked to solve some of the very same issues their professors are struggling with. For instance, as part of the accreditation process departments developed their own student learning outcomes/goals that adhered to standards within their discipline. One challenge is to align these departmental goals with the college goals making sure that across all departments each of the college goals is being adequately addressed. Next, one must decide where and how student learning outcomes will be measured. When this has been decided, data is collected and

analyzed. Areas of weakness are identified, and a remediation plan is constructed. The remediation plan is implemented and further data are collected and analyzed.

Each part of this process can be introduced as a professional level learning experience in relevant courses. For example, in Educational Psychology students might be given a course syllabus and asked to develop student learning outcomes for that particular course. This exercise can highlight material covered in class regarding the development of appropriate learning goals. In addition, students might be asked to develop an assessment of the learning goals developed. The advantages and disadvantages of different assessment methods can then be discussed.

In an Industrial-Organizational Psychology course, students may be asked to develop training protocols. Such protocols might focus on helping departments create departmental learning goals that correspond with college mission statement and goals, design a departmental assessment plan, create data collection models (forms, etc.), complete required analysis and reporting of results, and/or evaluate data for program development.

In Statistics and Tests and Measures courses, students may be asked to analyze data collected. For example, students may be asked to generate reliability coefficients across various departments or across courses within the same department. Criterion validity coefficients generated by the comparison of assessment data to course grades can also be examined. Students can then be asked to consider what the data tell us regarding the assessment of student learning objectives. With these exercises, students gain exposure to the use of data and decision-making in the “real world”.

Similarly, in research methods courses, students can be asked to analyze the data collected by the college on student learning outcomes. They may be asked to design a pre-post study examining the improvement in student learning outcomes after remediation has been implemented.

The use of professional level experiences in the classroom has some advantages and disadvantages. It increases student interest in the material, and allows students to see how textbook concepts can be generalized to real life. However, these exercises can be labor intensive for the instructor to plan and implement in the classroom. In addition, data collected may be sensitive in nature and confidential. In sum, it is believed that these types of exercises significantly enhance student learning and are flexible enough to be applied to a variety of courses.

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Running Head: ENGAGEMENT IN HISTORY OF PSYCHOLOGY

Brief Demonstrations to Help Foster Student Engagement in a History of Psychology Course

Workshop Presentation for the 24th Annual conference on the teaching of Psychology: Ideas &  
Innovations

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March 19, 2010

### Abstract

Students in history of psychology courses are faced with textbooks full of facts about many historical figures in the field of psychology. It is a challenge for the instructor to bring those figures to life so that the readings stimulate the interest of students and provide more meaning for them. Demonstrations of lengthy landmark experiments can accomplish this, but often there is not time to fully examine such pieces of work. Short, ten minute experiments and demonstrations developed from original experiments can prove to be worthwhile additions to the course. Fourteen such demonstrations representing each school of thought in psychology were presented in a workshop format.

Many psychology courses are full of references to historical figures. Illustrations or photographs often appear as black and white pictures of staid, serious older men with beards. A course in the history of psychology is especially likely to present these figures, one after another in succession, organized by school of thought. The challenge for those who teach this type of course is to make these figures come to life and thereby to stimulate and maintain student interest.

One way to liven up a history of psychology course and to inspire the students is to incorporate relevant demonstrations and experiments into the classes. These can be more effective if they originated with the historical figures of each chapter. If the students are able to experience actual experiments or demonstrations that were conducted by the historical figures, those figures come to life and a glimpse into the zeitgeist of the historical time is revealed.

There are a number of ways to present this type of material. In some cases, if time constraints are not a factor, the more complex research projects of historical figures can be either be replicated in class, in a lab period, or as an outside project. Boynton and Smith (2006) provided a number of excellent demonstrations of this type. If class time is constrained by the amount of material that needs to be covered, the types of demonstrations and experiments that can enhance the class must be shorter, perhaps something that can be completed in 10 minutes or less. This paper describes a number of these shorter demonstrations, many of which have successfully been utilized in history of psychology classes.

These shorter experiments must be true to life and faithfully represent the original whether it is from a recent psychologist or all the way back to Aristotle. It may not be possible to present an exact representation of the original, but the closer to the original the better. That way the students gain a hands-on understanding of the development of research and scientific method through hundreds of years of the development of the forerunner to the psychology movements as well as to present-day schools of psychology. The experiments should be accompanied by original source material regarding the experiment, with appropriate diagrams and narratives. After the experiment is demonstrated, the students can be given time to discuss it, and to critique the level of scientific rigor as well as the understanding of science and psychology that were reflected in that historical time.

In order to make experiments easily accessible to faculty, they must not require any extraordinary types of space or materials, they must not require too much time, animals, or a wet lab, and they must not involve any materials that are patented or non-accessible to the general public.

In some cases, demonstrations of concepts raised in a chapter may be preferable to experiments. Some demonstrations may use existing materials, others may require the professor or assistant to build or develop the demonstration. In either case, the materials should be easy to obtain and build. One should also refrain from using web sites in standardized demonstrations due to the fact that they may change over time or be deleted. Also, the materials should not contain purchased specialty items that may also not be available at a later time.

### **The List of Experiments/Demonstrations**

- 1. Aristotle (384 B.C.-322 B.C.) - “Aristotle’s Experiment”**
- 2. The Automaton (1700s)**
- 3. Ernst H Weber (1795-1878) - “Just Noticeable Differences”**
- 4. Gustav Fechner (1801-1877) - “Fechner Color Perceptual Illusion”**
- 5. Franz Carl Muller-Lyer (1857–1916) and Franz Brentano (1838-1917) - “The Muller-Lyer Illusion”**
- 6. E. B. Titchener (1867-1927) - Titchener Illusion - “The Same-Size Phenomenon”**
- 7. Mary Calkins (1868-1893) - “Paired-association technique”**
- 8. Carl Jung (1875-1961) - “Introverts and Extroverts”**
- 9. Robert Yerkes (1876-1956) - “Alpha and Beta Tests”**
- 10. Max Wertheimer (1880-1943) - “Stroboscopic movement”**
- 11. Jean Piaget (1896-1980) - “Theory of Conservation”**
- 12. John Ridley Stroop (1897-1973) - “The Stroop Effect”**
- 13. Behavioral Demonstration (1900s) - “Eyeblink”**
- 14. George Miller (1920-) - “Seven Plus or Minus Two”**

### **Four Examples**

We have included four possible short demonstrations in more detail as examples of what instructors can do in the classroom:

- 1) **Psychoanalysis – Jung.** Freyd (as cited in Heidbreder, 1927) provided a definition of introversion and extroversion as developed by Jung. He also listed 54 specific traits that could be considered characteristic of either the introverted person or the extroverted. A simple check list could be developed of these traits and given to students as a means to stimulate a discussion of traits and types as defined in the early 1900s. Students could also be referred to the original work by Jung (1916) on the topic.
  
- 2) **Cognitive Psychology – Piaget.** De Avila, Randall and Struthers (1969) described a group test of Piagetian tasks demonstrated through the use of cartoon figures. They took the Piagetian concept of conservation of mass and devised a series of cartoons. In the first frame, two children are looking at two identical balls of clay and both children agree that the balls are the same size. In the second frame, one of the children is seen rolling the ball, saying that he was rolling the ball into a hot dog shape. In the third slide the second child asks if the two objects are the same or different. Then the interview subject has the option of picking one of three cartoon answers, which say either they are the same, the hot dog has more, or the ball has more. Pictures like these can easily be made up for any of Piaget's tasks. The class can be given the De Avila et al. (1969) article or directed to the Piaget and Inhelder (1958) book.
  
- 3) **Contemporary Psychology – Miller.** Miller (1956) presented a paper to the Eastern Psychological Association on memory and the magical number 7, plus or minus two that referred to the limits of our capacity to process information. One experiment that he described asked students to remember different tones. The tones were each given a number when introduced to the students. Then a certain number of the same tones were repeated. The students were asked to identify each by number. If two or three tones were given, the students did well in indentifying them. If five or more were given, the students started getting confused. Students can graphically plot the number of tones identified correctly as a function of the number of tones presented. Students can be directed to Miller (1956) or to Pollack (1952) who originally developed the experiment.

A fourth demonstration is included here as an example for those whose text covers very early contributors to the field of psychology:

4) **Early Historical Influences – Aristotle.** In his treatise "De Somniis" (On Dreams) Aristotle wrote: "When the fingers are crossed the one object [placed between them] is felt [by the touch] as two; but yet we deny that it is two; for sight is more authoritative than touch. Yet, if touch stood alone, we should actually have pronounced the object to be two". (Warren, 1919, p. 253, as cited in Caudle, 1979). This is an easy, yet effective way to illustrate one of the earliest pieces of work in experimental psychology.

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## **Student Engagement: Two Class Projects that Encouraged Engaged Learning**

**Presenter: John A. Malacos, Ph.D.**

**The University of Findlay**

The landscape for student learning has changed dramatically in the past 15-20 years. The delivery of information has been modified to meet the needs of students being raised in an increasingly advanced technological world. Technology has accelerated the way students think, respond, and relate to the world. Teachers are being challenged to create experiences in the classroom that go beyond the traditional lecture format. It is important to engage students in activities that encourage not just the gaining of knowledge but promote skills in the higher levels of Bloom's Taxonomy such as applying, analyzing, evaluating, and creating. It is also critical to recognize that there are various student learning styles (Felder & Soloman, 2009) that must be considered when developing learning experiences for students. Engaged learning offers possibilities for faculty to tailor the various activities to meet as many of the various styles found in the classroom.

An additional backdrop to the two engaged learning experiences that were developed was the National Guidelines and Suggested Learning Outcomes for the Undergraduate Psychology Major (APA, 2007). Those guidelines established standards for what psychology majors should be able to achieve before the completion of their undergraduate studies. The challenge for psychology faculty is to find interesting ways to help students gain the various competencies which can then serve as building blocks for additional learning.

Jones, Valdez, Nowakowski, & Rasmussen (1994) have created various indicators of engaged learning. The highlights of their indicators are:

- Engaged learners are responsible for their own learning and evaluate their achievement
- Tasks need to be challenging, authentic, and multidisciplinary
- Assessment is performance-based

- Instruction actively engages the student in activities such as brainstorming, Socratic dialogue, and problem-solving processes
- Learning builds on the strengths of individual students
- Students do individual and group work
- Teachers take on several roles such as facilitator, coach, and guide. While they teach they also become learners
- Products or outcomes of student work contribute to world knowledge

Two classroom experiences were created for students at The University of Findlay. The first one was a Health Psychology class comprised mostly of junior and senior Psychology majors. The second one was a project created by the Senior Capstone class as part of a group project. The projects included the following:

1. **Health Psychology** – Before the semester began, I was approached by the Hancock County Anti-smoking Coalition. Their main goal was to create local legislation that would lead to the abolishment of smoking in the community. What they needed was data to show not the negative effects of smoking but the attitudes of our community members toward smoking. Teams were established that involved developing a questionnaire, gathering data in the community and on campus, analyzing the information, and creating a report for the coalition to use for their presentation to the local legislators. The project took a full semester and eventually led to the creation of a smoke-free community after legislation was passed by the city council.
2. **Senior Capstone** – The class was involved in a brainstorming activity to determine a project that would involve engaged learning and would lead to something helpful for themselves, students on campus, and members of the community. The class decided on what became the “Meaning of Life” project. Students were interested in how people would answer the question what is the meaning of life? They built six foot tall wooden block letters spelling out the word L-I-F-E and placed it in two locations on campus. Instructions were

created asking people from the campus and those from the community to write their answer to the question. After ten days, students collected hundreds of answers and then as a group decided on the various themes from the answers. They looked at gender and cultural (domestic vs. international students) variables to assess any differences in themes. They also looked at students vs. community responses. They used SPSS to analyze the data and then in the spring, two of the students presented their findings at the annual UF Creativity and Scholarship Symposium.

This workshop explored the components of engaged learning and discussed the two classroom projects outlined above.

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## **Outcomes Assessment for an Applied M.A. Program in Industrial and Organizational Psychology**

**Terri Shapiro, Ph.D. & Comila Shahani-Denning, Ph.D., Hofstra University**

It is important for institutions of higher learning to evaluate the quality of their academic programs at both the graduate and undergraduate levels. Graduating a student with adequate knowledge and skills may not necessarily guarantee his or her success in a particular work environment. Often, a source of dissatisfaction with a program originates in a lack of coordination between a program's curriculum and the work environment (Anderson, 1992; Maier & Gambill, 1996), and this can, as well, influence student engagement in programs. Making program related changes in response to this pressure places a responsibility on institutions of higher learning, and many schools are accepting the challenge (Hahs, 1999). Given the applied nature of our program, it is important for us to be fully aware of any discrepancies between program curriculum and the needs of the outside working market. In program evaluation, different assessments are necessary to fully evaluate success.

In evaluating programs, institutions should address issues that include a greater emphasis on teamwork, closer links with the business community, integration across functional areas of the curriculum, and organizational reality (Smith & DeMichiell, 1996). The number of assessments of programs by institutions has increased steadily to meet the needs and demands of the public (Cress, 1996). In addition, Halpern (1988) suggests that evaluation data be used appropriately to make curricular decisions. Also, it is emphasized that faculty should understand the consequences of outcomes assessment and be prepared to document the educational gains of students. Forging and nurturing mutually beneficial relationships within the local community and with students, faculty, alumni, government, employees, business partners, and many others will be essential to the achievement of an institution's mission in the Twenty-first Century (Katz & West, 1992, as cited by Hahs, 1999). In this presentation, we will talk about two key aspects of our program evaluation: recent graduate satisfaction with the program, and current student and supervisor satisfaction with the year long internship experience within the program.

## Alumni Survey

The most commonly used evaluation method is the survey, administered to current students, alumni, faculty, work-related communities (Cress, 1996). Institutions have extensively surveyed alumni in order to guide appropriate program evaluations and alterations (Tom and Leung, 1996; Ogletree, 1998; Tom & Leung, 1996). In the first part of this study, a survey was distributed to the graduating class of 2008 from our Industrial & Organizational Psychology Master's Program via regular mail and electronic mail. The alumni were to fill out only one version of the survey; either a hard copy or online. The survey was designed to obtain information regarding: (1) the extent to which the program curriculum meets the professional needs of our alumni (suggestions for changes to the curriculum were also obtained) and (2) career prospects including job search strategies, salary, and job type information. Most questions were responded to on a five point Likert-type scale; 1 = Not at all/Never, 5 = Very often. Students who graduated in May of 2008 received the survey via regular and electronic mail in October of 2008. A total of 12 responses were received out of the 26 surveys sent (response rate = 46.15%). Of the 12 respondents seven were female, three were male, and two were anonymous. The first question asked about satisfaction with the program. Overall, the alumni were moderately satisfied with the program. Students indicated that they were well-prepared for most of the job aspects. The students further reported that they were most prepared for Oral Presentations ( $M=4.58$ ), and least prepared for Organizational Development ( $M=2.67$ ). From the data, it appears that most students (10) only took 0-4 months to obtain their first job after graduation. It seems that most alumni are working in an area related to I/O Psychology. The data reveal that most of the alumni (4) obtained their jobs through Networking. Most graduates started at somewhere between \$60,000 and \$69,000. Open ended comments were also solicited from the students. These comments are often used to make curricular changes.

We will be sending out another survey in the fall of 2009 to students who graduated May 2009. These results, as well as changes from 2008 to 2009, will be discussed during the presentation.

## Internship Evaluations

The internship is a vital component of the I/O program, which is an applied terminal degree. Graduates enter directly into the work force. Students take the internship during the second year of the two-year program. The organizations currently participating in the internship

program include CA, NYS Unified Court System, Hofstra University, Everything Channel, and North Shore University Hospital. Students regularly present their internship experiences to faculty and classmates, and these experiences are discussed in relation to I/O theory and practice during a weekly class that meets from September to May. The Director of Internships and the Director of the Master's Program also regularly meet with internship supervisors to discuss the internship program from the organization's perspective.

Internship evaluations are conducted, via survey, at midyear and end-of-year. Internship supervisors evaluate student performance on a 5 point scale from very poor to excellent on the following: discharges ongoing responsibilities, works with others, works independently, follows instructions and suggestions, shows creativity, plans and coordinates activities, meets deadlines, establishes priorities and overall performance. They also complete qualitative items regarding typical responsibilities, and knowledge and skills used. Interns evaluate their internship experiences on a 5-point frequency scale (from less than 10% of the time to more than 90% of the time) on items such as: responsibilities were made clear, responsibilities were relevant to I/O, I was challenged by my responsibilities, supervisor/coworkers treat me as a professional, I am able to use my initiative. They also evaluate the work environment, availability of supervision, opportunity to learn and relevance to their career goals on a 5-point scale ranging from very poor to excellent. Finally, interns also list the knowledge and skills used on the internship and indicate the courses relevant to their internship.

The latest aggregated data, from mid-year 2008, indicated that interns performed extremely well on their internships. Supervisors rated 85% or more interns (n=16) as good or excellent on all items except for shows creativity (75%). Further, 93.7% were rated good or excellent on overall performance. Interns themselves overwhelmingly indicated that their responsibilities were made clear, were relevant to I/O, they were treated by both coworkers and supervisors as professional and they were able to use their own initiative 75% of the time to more than 90% of the time. In terms of quality, 76.5% rated the work environment, 88.2% rated the availability of supervision, 82.4% the opportunity to learn, and 76.4% rated the relevance to career goals as either good or excellent.

Faculty in the program uses this data, as well as the information gathered weekly in the internship class, to assess individual student skills (and to intervene where necessary) as well as to assess student outcomes such as course knowledge and applied skills and abilities.

Interestingly, as a result of the above data, the internship evaluations, themselves, have been revised to better assess how each of the specific courses in the program relate to what students are doing on internships. Again, as with the Alumni Survey, new results from the Fall of 2009 will also be reported.

## **Using the Physical Environment to Facilitate Students' Active Engagement**

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Ecological Psychology as described by Urie Bronfenbrenner (1986) may be used to provide a framework for analyzing the classroom, the impact of the physical environment, our roles as educators, and the expectations of our students. These layers of influence help inform how the physical environment can be used to facilitate students' active engagement in the learning process.

Looking first at the Macrosystem, one can examine the broad cultural beliefs that contributed to the availability of institutions of higher education, in my instance a State University. One pivotal belief involves the value placed on the acquisition of a bachelor's degree as a gateway to a career. Other beliefs are associated with the relationship of education to social class or integration into United States' culture. Today it is rare to hear higher education lauded as a framework for personal development and lifelong learning. The values placed on co-education and diversity are part of the overarching belief system. The conflicting views of whether access to a university education is a privilege or entitlement colors the way students approach course work and particularly how they respond to the information communicated by grades. Availability of classes is influenced by the prevailing attitudes towards the relative value of majors, hierarchical perspective on the worthiness of specific professions/ careers, and even at what point one should have a liberal arts education or career focused education and training.

Decisions outside of a faculty member's control in the Exosystem influence the composition and background of the students (related to course pre-requisites and class scheduling, for example). The Exosystem also determines the presence or absence of teaching and technology resources. Are their graduate or undergraduate teaching assistance available? Does the campus support web based access to class communications with programs such as Blackboard? What are the rules for providing copies of readings to students and are they enforced? Can extra textbooks be ordered by the library? These decisions and many more like them are handled at administrative levels, with or without general faculty input. One critical piece of decision making, the physical arrangement of the classroom itself, also occurs within the Exosystem. Most of the classrooms at my University are arranged to support traditional models of University

level education. These feature the professor at the front of the room framed by the blackboard (or white board). Even in media equipped classrooms, the built-in screens and projectors determine the directionality of the sitting; Students are arrayed facing front pinned behind desks. The alternative much rarer classroom is seminar style with a large round or rectangle table occupying most of the room with seats squeezed around the edges. The fixed or heavy nature of the furnishings and wall mountings provide strong messages of preferred teaching style. Their cumulative mass can easily become an impediment to experimenting with collaborative and interactive teaching models. While the fixed structures create stumbling blocks, they do not have to control the educational process.

Understanding the influence of the Mesosystem, the connection between settings of face-to-face interaction, Microsystems, can help us appreciate some student attitudes, one might even want to use the slang “baggage,” that students bring from one class to the next. These attitudes include pre-formed ideas about what constitutes teaching, thoughts on the appropriateness of course assignments, and the parameters of relationships among fellow students. Expectations that students bring from other university level classes or high school experiences may need to be challenged or modified before students will respect small group discussions and collaborative work settings. The redundant messages of the physical environment can make this change more difficult. Often repeated rules that remind students that they must work individually, speak to the instructor rather than to each other, and shield their work from other students, go beyond the physical structure of the class room. They may even contribute to students caution when faced with the simple request to move or rearrange classroom furniture.

The many Mesosystems in the life of a contemporary student builds a ladder of double edged swords. While these can create pathways that strengthen understanding and enrich class discussion, they may also add layers of responsibilities to the over committed, over scheduled student with multiple family or work commitments. The tightrope for the educator is to structure assignments to further assist students in understanding their families (connecting the classroom Microsystem to the home Microsystem), get jobs and develop career paths (connecting the Microsystems of classroom and workplace), or succeed in other academic environments (connecting different educational based Microsystems) without adding to the burdens that they already carry. From either perspective, acknowledging the links between

Microsystems, particularly students' homes and personal history can become an active source of positive recognition and engagement.

The TOP 2010 workshop explored examples of class work and group work that can be used to change the classroom Microsystem, and challenge students to Critically Analyze the Proprioceptive Experiences and Personal Emotional responses to participating in this newly imagined Physical Environment (CAPE cubed). These CAPE cubed activities that are outlined are ones that I have used during the course of 25 years of teaching at the State University of New York at Stony Brook in my courses on lifespan development, environmental psychology from a child's perspective (Early Childhood Environments), the psychology of the infant and young child, and children's play.

### **Creating Variations in the Physical Environment of the Classroom**

The first place to start is the Microsystem of the classroom. The Microsystem is composed of physical features (fixed, semi fixed and moveable/flexible), people with relationships to each other over time, roles, and role expectations. Any one of these elements can be changed to change the Microsystem. One way to change the class dynamic is to move around the room. Talking, presenting information or answering questions from different sides of the classroom brings the teacher into closer proximity to a changing array of students, rather than only those students who have gravitated to the front of the room as defined by the built in furniture and fixtures. This approach can help "wake-up" a lethargic class and bring students, who might otherwise remain quiet, into more direct contact with the teacher. Moving away from the stage or podium expresses accessibility. The teacher is neither barricaded nor elevated. Moving within the room demonstrates that the information is not housed in the equipment but in the individual. The simple exercise of presenting information from a seat in the center of a large class can be effective. It is one way to illustrate the components of the Microsystem, itself. A more dramatic approach is to teach (all or part of a class) sitting on the floor. This is an evocative position from which to analyze the classroom messages, to discuss the meaning of "looking up to" to someone and how this impacts relationship through a range of settings in homes, offices and other neighborhood locations. It can be used in presentations on responses to children as well as on the role of culture in shaping responses and expectations. Variations of this strategy can have students or participants seated on the floor or standing in different configurations around the room.

Students gain a better appreciation of the concept, “taking a stand” on something when they are asked to literally stand up and make public their position on an issue. This can be orchestrated by asking students to stand up in place or walk to a point in the classroom where signs mark alternative views on a complex issue. From this public position, individual students can then be given the option to present more nuanced perspectives on the problem under examination. I have used this strategy in conjunction with a values clarification exercise to demonstrate components of Lawrence Kohlberg and Carol Gilligan’s ideas (Berk, 2007) about moral reasoning and development.

Depending on the course and the topics, this room rearrangement and the interplay of height, position and public demonstration can be used as an end in itself or as a starting point for other ways of dissecting and reorganizing course material. For example, consider the possibilities of dividing the class so that there are seats facing each other. This could be an arrangement for a debate or exchanges like one might have across a dinner table. Cultural differences may determine the initial response to this configuration. Arranging clusters for small group discussion may require chairs to be grouped in sets of 4-6 facing into each other. This leaves the teacher to circulate while small groups of students discuss questions among themselves or analyze material and pictures or examples of objects/ things (material culture). Even in a large lecture classroom with bolted desks, students can be organized for small group discussion. Instead of having all of the students facing toward the blackboard, they can be asked to turn to face each other in groups of 4 to a maximum of 6. Each of these options changes the nature of available roles.

Role options are an important variable within the Microsystem. With the teacher at the front or side of the room, there are two roles, teacher and student. Creating an environment for two teams provides an opportunity for 3-5 roles: teacher, and two sets of team members, or possibly teacher, two sets of team members and two captains or team leaders. One can increase the roles in the classroom by adding a recorder/ note taker, timer or judge as the activity requires. Small discussion groups lend themselves to the creation of even more classroom roles. Each group can have a leader to organize discussion within the group, a spokesperson to communicate the group ideas to the class as a whole. A system of roles from team leader to technology specialist and recorder to spokesperson and reflector has been presented in detail by Karl Krumsieg and Marie Baehr (1996). Each student who is given a defined and delineated role within the classroom

experience is likely to feel more committed to the enterprise, especially when this involves social interaction with classmates. It is analogous to the communal experience of bringing food to a pot luck supper. Everyone is contributing to the success of the gathering. Changing the room and the roles on different days can be used to infuse a sense of surprise, discovery and even play into the educational endeavor. Other alternatives can include panel discussions with student panelists presenting in the front of the room or individual or small group poster sessions arrayed around the edges.

Room arrangement or rearrangement can be effective in illustrating a range of psychological concepts. One example is crowding. In a variation on the classic student prank of trying to squeeze as many people as possible into a telephone booth or a Volkswagen Beetle, I have asked students to squeeze into a small area in the classroom outlined by available tables or chairs. It can be beneficial to set aside some students as observers and recorders. This provides a role for students who may be uncomfortable in the crowding exercise. Adding an additional task to this crowding exercise, such as creating block patterns or blowing up balloons, can be effective in eliciting from some students the behavioral characteristics associated with crowding such as increased noise and aggression or decreased eye contact and passivity. Variations on this exercised can be used to illustrate the concept of affordance and alternative unconventional uses of space and materials.

### **Introducing a Range of Physical Objects**

Many 21<sup>st</sup> century students spend large portions of their day in a virtual world. Although technology can keep a student constantly connecting to people and events at a distance, it makes it easy to overlook what the physical world offers “right in front of the nose.” Physical objects can be introduced to a college class to illustrate a point, start a conversation, or assist students in understanding a theoretical perspective or a research question. It is a way to bring students in to the present. Physical objects help to make tactile and even visceral connections to developmental milestones or social conundrums. Although the classes that I teach lend themselves to demonstrating how children hold and handle toys or how educators, parents or teachers should use child safety devices. I have also used real objects as a starting point for discussions of aging, the theory of mind or attachment. One strategy that I have used to help students understand Piaget’s concepts of assimilation and accommodation is by allowing them to experience their own body adjusting to the dimensions and functions of real objects. These concepts can be

demonstrated with a set of balls that include at least one tennis ball, one football and one basket ball. All of these are loosely labeled “Ball” yet they have different characteristics including the way they are thrown. A demonstration and discussion of these differences is a starting point for an explanation of Piaget’s theory. Distributing balloons, plastic spoons and straws to students throughout the room and asking them to put them in their mouths has also been a strategy that I have used to provide concrete examples of Piaget’s concept of accommodation. While each item goes into the mouth, the way it is used or varies with each object. In a class of over 100 students, there is always one, often more than one student, who starts blowing the paper wrapping off of the straws or “bopping” something with the balloon. This perfectly illustrates assimilation, particularly the notion of assimilation of reality to the self, Piaget’s (1962) definition of play.

Students can be excellent resources for appropriate and interesting objects. Requesting that students bring objects from home or their out of classroom lives is another way to help them build a bridge between their classroom and real life experiences. An educational strategy that I developed for an upper division course on Early Childhood Environments (environmental psychology from the perspective of children) requires each student in the class to bring in an object that they know how to use but they think other class members will not recognize. This class exercise called “Stump the Class” has successfully engaged students for over two decades. Students have brought in objects associated with their culture, their hobbies and those of their families, as well as specialized equipment from their own volunteer work, and the businesses and professions of family members and neighbors. During the process of investigating the objects, students realize that they are using some of the same strategies that young children employ. As the students begin to appreciate what children experience as they investigate their world, the undergraduates can be guided into shedding the notion that children who poke and pry objects are purposely “being bad.” Not only does this class exercise provide a setting for discussing topics of affordance, play and learning, but it also can be used to reflect on issues of gender and age roles and relationships, expertise, family communication, identity and more. Objects provide proprioceptive feed back. They have texture, color, and weight and sometimes smell. Objects elicit emotional responses and memories. In a comfortable environment, students can learn that their experiences and reactions are valued.

Today there are a growing number of educators who have come to realize that the model of the student as a vessel for absorbing information has been more successful in placing an

emphasis on passivity than on the need for personal engagement and active critical thinking. This workshop focused on ways in which physical objects and the physical environment of the classroom can be used to enhance student participation in their own education. While the range of options are influenced by the physical layout of the seats and the number of students, the belief system driving this approach can energize a creative teacher working with any number of students.

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## **Group Counseling Role-Play in the Classroom**

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In professional counseling training courses, standard instruction of how to conduct group treatment often begins in the classroom with education in group counseling theory and group counseling techniques. However, a realistic sense of what might be encountered in an actual treatment setting is often lacking in the formal classroom. Practice experience is most often gained when group counseling theories and techniques are applied during practicum experiences. So prior to placement at a practicum training site, students may not be truly prepared for the actual field experience. Students' competence to conduct group treatment can suffer, and they may lack confidence of how to conduct group treatment during the initial exposure to real treatment settings.

An alternative educational experience that can be employed in the formal classroom is role-play. Role-play is an experiential learning technique where learners take the role of specific characters in a contrived setting. It builds personal experience in a supportive environment, and can be used as a group counseling teaching-tool in the classroom. The benefits of using role-play for group counseling in the classroom are multiple. The activity can build students' practice confidence. It helps students experience how group dynamics can manifest in treatment settings, and students can experience varied simulations of diagnostic presentations. Students can also get a sense of how time passes in a group counseling session, since the activity is carried-out in real time. Whereas therapeutic autonomy is developed from this activity, sharing therapeutic responsibility via co-facilitation may also be experienced during a role-play simulation. Finally, feedback about students' performance happens in real time in a safe, controlled setting.

There are a number of courses in which group counseling role-play could be utilized, such as counseling and therapy training courses, student field placement courses, courses focused on group dynamics, conflict management courses, and others. The instructor may want to take several things into consideration before he/she employs a group counseling role-play in the

formal classroom, and then modify the activity accordingly. It is helpful to know the type of course for which the activity is designed. It is also important to know some background information about the types of students (graduate, professional, and so on), type of program (master's, doctoral, certificate, and so on), and type of discipline (clinical, counseling, social work, marriage and family therapy, art therapy, and so on) for which the group counseling role-play is used. Other considerations would be students' previous coursework, year within training program, and number of students permitted in each discrete class. The instructor may also want to consider her/his own professional background. An ideal instructor is aware of her/his qualifications as defined by ethics, scope of practice, and competency to conduct training for group counseling via role-play.

A helpful way for students to prepare for the group counseling role-play is for them to acquire a current diagnostic manual (such as the DSM or ICD), as well as readings and literature on group counseling. Some particular literature of interest could be current treatment manuals that give examples of how to do group counseling. These types of materials often give multiple operational suggestions on how to conduct an actual group treatment session. A helpful way for the instructor to prepare for the activity is for that person to have access to a classroom in which chairs can be moved. Also, a video camera may be used to display the role-play activity in real time (from multiple visual aspects) via a projector or television.

During each role-play, students play the roles of facilitators and patients. Each student should be given time to prepare the role-play exercise, whether he/she is a facilitator or a patient during the simulation. When students role-play the facilitator, there are some expectations about how they should characterize their roles and operations during the activity. First, facilitators are to conduct a role-play of group treatment, from commencement to conclusion, during a time period specified by the instructor. This time period would ideally match the length of a real group treatment (for example, the length of a therapeutic hour). The number of facilitators assigned to each role-play is important. Each group may be facilitated by a single student, or co-facilitated by two students. The directions given to facilitators are to construct a group treatment around an assigned topic. General ideas are provided to the facilitators by the instructor regarding the types of diagnoses that will be encountered in the specific group counseling simulation. Techniques of

how to prepare for the group facilitation may be provided by the classroom instructor and/or written materials/literature.

During the role-play, the students who are not playing facilitators in the group counseling will be simulating patients in that group. Students playing patients are assigned a mental illness to role-play prior to the role-play activity. These students are then expected to role-play behaviors and symptoms typically manifested by the assigned mental illness. These students are instructed to role-play a contrived character with the assigned illness, and not to play themselves. It is important that each student is randomly assigned her/his role-play diagnostic status/mental disorder by the instructor. Each student role-playing a patient is then asked to research the symptoms of her/his assigned disorder in DSM or ICD, but not share with fellow classmates the particular assigned diagnosis. Keeping one's diagnosis concealed is important for the role-play because it bolsters group process when the actual role-play occurs, and it allows for better diagnosing following the role-play exercise. When the instructor assigns the diagnosis for students playing the roles of patients, each student randomly selects an envelope prepared by the instructor that contains (1) the diagnosis to be role-played (as per DSM or ICD), (2) the type of patient to be portrayed (ex., inpatient, outpatient), (3) type of treatment setting (ex. inpatient mental hospital, outpatient setting, day treatment program, and so on), and (4) the Global Assessment of Functioning (GAF) for each role-play. The instructor may create each discrete group role-play to have consistency in terms of patients' diagnostic categories, severity of symptoms, and treatment setting. Additionally, since it is important to have groups in these training activities manifest in a controlled manner, consideration must be given to the assignment of the GAF. This means that the GAF must not be a number that is low enough to create a potentially unsafe classroom setting.

When the role-play actually occurs, the seats in the classroom should be placed in a circle. If the group is led by two co-facilitators, those individuals may sit directly across from one another in the circle during the activity. Group sizes may vary, but numbers from 8 – 12 students are desirable. During the role-play, the group should engage in the activity for a designated time (set by the instructor), and the instructor should observe the group activities and processes in real time. In terms of teaching, the instructor may make corrections or comments either during the

role-play activity or after the role-play activity. Reflection and instruction may include calling attention to diagnostic manifestations, examining the processes of group dynamics, observing and describing issues of transference and counter-transference, and pointing-out aspects of the facilitator(s) therapeutic style(s).

Instructors' grading systems for the role-play exercise may vary. However, some important factors for evaluating students role-playing facilitators may include (1) ability to work with a co-facilitator, (2) ethical approach to the clients in the group, (3) execution of treatment models, (4) ability to establish rapport, and (5) ability to foster a therapeutic environment. Important factors when evaluating students role-playing patients may include ability to (1) manifest symptoms and (2) produce a somewhat realistic depiction of the diagnosis as described in the DSM or ICD.

Students' feedback of the group counseling role-play assignment is quite positive. Students report that they feel the experience helps them to develop counseling skills, learn from other students, and increase therapeutic self-esteem. Students who participate in this activity find it to be active, enjoyable, and challenging.

## Using Microsoft Excel 2007 in Teaching Introductory Statistics & Research Methods

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### Abstract

The simplicity of Excel's output compared to that of SPSS, as well as its ubiquity, makes Excel attractive for a first course in statistics. This workshop shows participants how to Install Excel's Analysis ToolPak, a little known "wizard" that performs most descriptive and inferential statistics procedures taught in an introductory psychology statistics course. We then demonstrate a few Analysis ToolPak procedures such as descriptive statistics and *t*-tests. In addition, we demonstrate how simple it is to import and export data files between Excel 2007 and SPSS.

Most demonstration excerpts and screen captures are taken from

Meehan, A. M. & Warner, C. B. (2010). *Elementary data analysis using Microsoft Excel (2<sup>nd</sup> ed.)*. Boston: McGraw-Hill Learning Solutions. [http://www.primisonline.com/cgi-bin/POL\\_program.cgi?programCode=MWEA2](http://www.primisonline.com/cgi-bin/POL_program.cgi?programCode=MWEA2) (Note: Screen captures could not be reproduced in this ERIC document so visit the Primis Online web link if interested. The authors may also be contacted for information: [meehan@kutztown.edu](mailto:meehan@kutztown.edu) or [cwarner@pittstate.edu](mailto:cwarner@pittstate.edu) ).

### Workshop Rationale and Description

This workshop shows participants how to Install Excel's Analysis ToolPak, a little known "wizard" that performs most descriptive and inferential statistics procedures taught in an introductory psychology statistics course. We then demonstrate a few Analysis ToolPak procedures such as basic descriptive statistics and *t*-tests. Finally, we demonstrate how simple it is to import and export files between Excel 2007 and SPSS.

Why Excel instead of SPSS? Excel is usually already on students' laptops or home computers, meaning that students will not be faced with yet another expense for the semester. Plus, their learning is likely to be more transferrable to future work settings where access to SPSS is less likely. Besides these advantages, Excel can also reduce the time and energy that

instructors spend on software training. Using a well-known application means that students have multiple sources of technical support if they encounter difficulty completing an assignment. Moreover, our experience has been that the sophisticated output of dedicated statistical packages like SPSS causes added confusion and headaches for basic-level statistics students and their instructors. In contrast, the output generated by Excel is similar to problem solutions shown in introductory statistics textbook exercises or during classroom instruction. With Excel, students use software with which they already have some familiarity. For that reason they can invest more time learning statistics rather than learning new software.

Although Excel helps provide students with skills that are transferable and marketable, Excel simply cannot substitute for dedicated statistical packages when it comes to more advanced statistics or research methods courses. SPSS is necessary and is what we use, though we also teach students how to exchange files between Excel and SPSS. If students have no off-campus access to SPSS they often find it convenient to be able to enter data in Excel for later analysis in SPSS.

Using Excel in statistics and research methods courses has grown in popularity over the past 10 years. When we wrote the first edition of *Elementary Data Analysis Using Microsoft Excel* for Excel 97 and Windows 95 (Meehan & Warner, 2000), ours was the only Excel statistics book available for the behavioral and social sciences. Today, there are a handful of Excel-related statistics texts (Meehan & Warner, 2010; Pace, 2007; Rosenberg, 2007; Salkind, 2010).

### **Demo 1: Installing the Excel 2007 Data Analysis Toolpak**

- Click on the **Office Button** in the upper left-hand corner.
- When the window opens, select **Excel Options**.
- Select **Add-ins** then select the **Go** button at the bottom of the screen.
- Place a check mark next to **Analysis ToolPak**. Click **OK**. Wait while the files install. (If an additional message appears asking about installing the **Analysis ToolPak**, select **OK**).
- From the main Excel window, switch to the **Data** tab. **Data Analysis** should now appear as a choice on the ribbon.

### Demo 2: Descriptive Statistics

Assume we have 11 subjects who provided an estimate of how many hours per week they spent watching television. Open a blank Excel worksheet. Enter the sample TV watching data shown in the figure and then:

- From the **Data** ribbon select **Data Analysis**.
- Scroll down and highlight **Descriptive Statistics** in the **Data Analysis** dialog box. Click **OK**.
- Complete the dialog box as shown on the left below.
- Click the **OK** button to run the analysis and generate the output shown on the right.

### Demo 3: Paired-Samples *t*-Test

Imagine that a psychology student uses a repeated measures design to determine whether we react faster to a light stimulus or to a sound stimulus. Eight subjects are tested under each of two conditions: onset of a light stimulus and onset of a sound stimulus. The subject's task is to press a key as soon as the stimulus is presented. Reaction time is measured in milliseconds.

- Enter the data.
- From the **Data** ribbon, choose **Data Analysis**.
- Scroll down and highlight **t-test: Paired Two Sample for Means** in the **Data Analysis** dialog box. Click on the **OK** button.
- Complete the dialog box as shown below.
- Click the **OK** button to run the analysis and generate the output.

### Demo 4: Exchanging Files between Excel 2007 and SPSS

SPSS 16.0 and 17.0 can import and export Excel 2007 files (.xlsx) or Excel 97-2003 (.xls) files whereas older versions like SPSS 12.0 and 14.0 can exchange Excel 97-2003 format only. This demonstration assumes familiarity with SPSS and shows how to exchange files between SPSS 16.0 and Excel 2007. A very similar process works for various versions of SPSS and Excel 97-2003 files; simply substitute .xls for .xlsx in the instructions.

#### Importing an Excel 2007 File into SPSS 16.0.

- Select **File|Open|Data**.
- Navigate to the folder where your Excel file is saved. (Make sure that you change the pull down option for **file type** to Excel \*.xlsx).
- Select the \*.xlsx data file you wish to import.

- When the dialog box opens, insure **Read variable names** is turned on if you used column headings. (Basically, you will accept the SPSS defaults, but if you want to import only a subset of the spreadsheet, specify the cell range). Click **OK**.

### **Exporting SPSS Files into Excel 2007.**

- Choose **File|Save As** from the **SPSS Data Editor Window**.
- Navigate to the folder where you wish to store the file.
- Move the cursor to the **Save as Type** box.
- Scroll down to find and select the **Excel 2007 (\*.xlsx)** option.
- Provide a filename and **Save**.

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## **Increasing College Student Engagement Through the Use of Online Discussion Forums**

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### **Abstract**

With the growing use of technology in college classrooms, it is important to study how this trend can be used to increase student engagement. The current paper suggests one method that can be used is an online discussion forum. We argue that this can increase student engagement by providing more opportunities for feedback and for students to model each other, by encouraging relationships among the students and the instructor, and by allowing students to be empowered in their education. A case study of two Industrial-Organizational Psychology classes is discussed, showing the results of student engagement with this learning tool.

## Increasing College Student Engagement Through the Use of Online Discussion Forums

In today's college classrooms, the use of technology as a teaching tool has grown in popularity. Students today are digital natives; they grew up with access to the Internet, virtual messaging, and simultaneous connection to the virtual world (Prensky, 2001). They have different learning needs than digital immigrants, who made up the college student population of the past. Therefore, because today's college students are so connected to the virtual world, new innovations in technology can lead to greater engagement and learning on the part of digital natives. The current paper will address one of the many different ways technology can be used in face-to-face college level classes to enhance engagement: the use of an online discussion forum.

Although more commonly used in Internet-based classes, online discussion forums can also be used as an additive supplement to face-to-face classes (Coates, 2007; Simonson, 2007). An online discussion forum is a public posting of thoughts and ideas submitted by students and the instructor. A discussion forum is a technological tool that can be implemented into any college classroom setting using a course management system such as WebCT, Blackboard, or Moodle. Dialogue about classroom content can be increased in multiple ways through the use of online discussion forums. For instance, forums can be created where students ask each other (or the instructor) questions about the material, give examples of how they encounter class phenomena in their everyday lives, or discuss particularly difficult concepts to ensure greater understanding. This is especially important in psychology classes where understanding (rather than simply memorizing) is critical. We argue that this type of discussion can foster higher levels of engagement on the part of the students.

There is no single definition of student engagement, which makes it difficult to measure (Fink, 2003; Coates, 2006; Fredricks, Blumenfeld, & Paris, 2008). To date, the most well-defined framework of student engagement has been developed by the USA National Survey of Student Engagement (NSSE; Coates, 2006). The NSSE describes engagement as physical, cognitive, and emotional involvement with course content, as well as active communication with peers and faculty (NSSE, 2003). Their framework consists of measuring five benchmarks, which inevitably overlap one another: level of academic challenge, student-faculty interaction, active and collaborative learning, enriching educational experiences and supportive environment (Coates, 2006). The NSSE uses various surveys (most commonly a form of the Student

Engagement Questionnaire or SEQ) to measure these five benchmarks with the purpose of ultimately improving undergraduate education (NSSE, 2009). They believe the measure of whether or not each benchmark was reached indicates engagement has taken place.

One area NSSE has specifically focused on is online engagement. According to NSSE, online systems are most widely used for posting grades, notes, and announcements or assignments and used least for blogs, videoconferencing and simulations (NSSE, 2009). The results of the surveys suggest that one of the strengths of online learning systems in terms of increasing engagement lies in the ability for online learning systems to provide a “new medium for collaborative learning,” (Coates, 2006, p. 82). Findings suggest online interactions in hybrid courses may have a positive correlation with student involvement in the face-to-face portion of the class (Coates, 2006).

For the purpose of this paper, we define engagement similar to the definition offered by NSSE. Furthermore we argue that online forums promote four academic outcomes, each of which leads to higher engagement. The four different outcomes are 1.) students giving and benefiting from feedback, 2.) students modeling high performers, 3.) students forming relationships with each other, and 4.) students taking learning into their own hands. When looked at together, these four dimensions can help explain how online discussion forums increase student engagement.

Feedback is an extremely important part of the student’s learning experience because it encompasses constructive communication from professor to student. Feedback is also an important aspect of student motivation and engagement (Fink, 2003; Wiggins, 1998). For a student to get the most out of feedback from the instructor, feedback should be more than a simple numerical grade on an exam or a grade on a paper; this does not help students understand their strengths or weaknesses. Rather, effective feedback should be frequent, immediate, and specific comments directed toward individual students (Fink, 2003). The more effective feedback a student receives, the more likely they are to get the most out of their learning experience. If used correctly, feedback can guide students to find the right answers, stay on track, and be motivated to continue their studies (Fink, 2003, Morgan, 2003). Clearly, feedback can enhance the college learning experience.

Online discussion forums provide more opportunities for the professor to give frequent, immediate, and specific feedback necessary to ensure students understand and learn the class

material. When a college class meets only once or twice a week, it may be difficult for a professor to give an adequate amount of feedback to each student. In one study, 60% of faculty rated providing more prompt feedback as a main reason for using an online management system (Morgan, 2003). When using a course management system, professors can ask students to write about or respond to class content on the online discussion forum. This gives the professor the opportunity to track student progress, identify any problems, and guide students to construct their own understanding of material (Morgan, 2003). The professor has access to the online discussion forum at all times, therefore, this form of feedback can be as frequent, timely, and specific as a professor wishes. Online discussion forums also allow students to give each other feedback, which can be less common in face-to-face classes. Students may feel more comfortable agreeing or disagreeing with a peer's opinion online, rather than speaking up in class.

Providing feedback on “how” to think about a question can lead to modeling. For the purpose of this study, modeling refers to the extent to which students learn from and imitate one another. Much research has discussed the role of modeling in the learning process (Bandura, 1986). When modeling, students can learn not only from the professor, but from each other as well. This can occur in college level classes because every student is at a different level of learning; it would be beneficial for the lower level learners to model their essays, exam answers, or study habits after the higher level learners. However, the design of traditional classes does not easily allow this.

Online discussion forums can provide students with many opportunities to model after one another. The discussion forums allow students to practice critical thinking while discussing the class content and this is posted online for the class to see. This creates an occurrence of “public learning,” which allows students to see the thinking and understanding of their peers (Morgan, 2003). If a student is struggling with a particular topic or question, they can read their classmate's response and model an answer after it. For example, if a struggling student is unsure about how to arrange their response to a practice exam question, they can structure their response to be similar to their classmates' posts. The instructor can also post public feedback to a particularly well-written answer, letting the struggling students know which student to model. This may be necessary in order to indicate to students who they should model their answers after.

Providing feedback to and modeling each other can encourage relationship building among students. One of the most important dimensions of engagement is the extent to which students are comfortable interacting with other students (Coates, 2006), and this can be enhanced through the building of learning communities within the virtual world (Morgan 2003). Social relationships, peer learning, and peer tutoring have been shown to be important factors in learning outcomes (Topping, 2005). Because positive relations with peers have been shown to be important for learning outcomes, it is important for professors to encourage those relationships to ensure positive learning experiences take place.

Online discussion forums can encourage relationship building within the learning community. When students respond to one another's questions and engage in dialogue about the topic, they inherently build relationships with one another. By increasing the quantity of discussion and allowing time for quality communication between students and professors, students may grow more comfortable with one another. Virtual relationships can form between students who find a particular student's posts helpful or between students who enjoy responding to one another's questions. These virtual relationships have the potential of turning into face-to-face relationships, which can lead to increased learning. When students are comfortable with one another, quality and quantity of class discussions may be enhanced and students may look forward to coming to class which can factor into a better and more memorable learning experience.

Finally, all of these factors together can lead to empowerment. Students feel empowered when they are given the opportunity to express what they know, create their own discussion topics, or determine what they want to read – in essence, taking their education into their own hands. This is also an important way to promote engagement because students are more likely to partake in learning if they feel responsible for it (Tough, 1979; Zyngier, 2007). Related to empowerment, constructivism is defined as a theory in which learners construct their own learning based on their relationship with concepts and class experience. Each learner is challenged to construct their own solution and interpretation to the problem (Weller, 2002). Similarly, active learning is the idea that learning is a “process of individual knowledge construction,” (Coates, 2006, p. 150). At the college level, it is extremely important for students to take on the responsibility of their own learning because much of their learning is expected to be done on their own time.

Online discussion forums give students the opportunity to feel empowered and to construct their own conclusions about class content. They do this by creating the opportunity for active learning. Not only do online discussion forums create a public learning space in which students can show others what they know and understand, but it forces students to be held accountable for their own learning (Morgan, 2003). Professors can design online discussion forums to promote this; for instance, students might have to log on to the system on their own time, come up with their own examples, and form their own opinions on class material. This encourages them to think about class material for more than just the average three hours of class a week. Holding them accountable for their own learning may motivate students to engage in their learning experience more so than in an average class.

By providing students with feedback, giving them the opportunity to model each other, encouraging relationship building, and empowering them through the use of online discussion forums, we believe students will be more engaged than they would be in a class without the use of an online discussion forum. To explore this link, a case study of two Industrial-Organizational Psychology classes is discussed.

## METHOD

### *Participants*

50 Industrial-Organizational Psychology students participated in this case study. This was a junior-level class (56% were juniors) and the average age was 23.53 years. 78% of the sample was female and 74% was Caucasian. Two sections were included in the case study; one class met once a week for three hours and the other class met twice a week for an hour and a half.

### *Procedure*

The online discussion forum was part of the Learning Management Software “Moodle.” Students were required to post three times per chapter (which typically lasted one week). The assignment was purposively vague: the instructor did not start the discussion. Instead, students needed to take the initiative to start and continue the conversation themselves. The instructions were “Please post your thoughts, applications, questions, ideas, etc. about this section here.”

At the end of the semester, students completed a short survey regarding their experiences and reactions to using the online discussion forum. The survey was completed online.

### *Measures*

The survey included measures of feedback, modeling, relationship building, and empowerment, all of which were developed for the purposes of this study. In addition, two open-ended qualitative questions were asked: “What was your most favorite part of the discussion board” and “What was your least favorite part of the discussion board.”

## RESULTS

### *Quantitative Results*

In general, students responded above-average to all measures (i.e., they felt positive towards the online discussion forums). Feedback received the highest rating ( $M = 3.68$ ,  $SD = .74$ ), while relationship building received the lowest rating (though it was still above-average;  $M = 3.13$ ,  $SD = .94$ ). Modeling ( $M = 3.44$ ,  $SD = .64$ ) and empowerment ( $M = 3.52$ ,  $SD = .75$ ) also received high ratings.

### *Qualitative Results*

Qualitative results were also generally positive. The following section provides qualitative results. Note that the qualitative results presented do not represent the frequency of the theme discussed; rather, they were selected to represent the quality of responses.

On a general level, many students reported learning and understanding the class material better due to the online discussion forum. In addition, students reported feeling more comfortable engaging in discussion using this venue than they did in the traditional face-to-face classroom setting. Example comments include:

- My favorite part would be that it helped me to have a better understanding of the topics.
- At first I wasn't sure how to answer exam questions and would just focus on the definitions but I wasn't sure what they meant. After posting on Moodle I learned how to assess my knowledge and expand my critical thinking because I actually started to understand what the book was trying to tell me.
- It kept me engaged every week in the chapter and the material.
- I didn't feel hesitant to say what I felt because no one was around me. I wasn't speaking in front of the crowd.

- My favorite aspect was the free flowing discussions. I felt behind a screen . . . people are more forthcoming with their opinions and responses than they would be in a classroom setting.

Qualitative results also demonstrated many examples of the four hypothesized outcomes. First, students reported receiving and benefiting from the feedback in posts on the online discussion forum. Instructor as well as peer feedback was cited as being useful. Example comments include:

- My favorite aspect of the Moodle discussion boards was getting feedback from the professor on thoughts posted about certain topics. I was able to keep on track with certain topics that I may not have understood as well.
- I was able to get feedback and other points of view from my classmates on certain topics.

In addition to feedback, students also reported modeling their discussions after others. Students reported being able to think about the material in a different way due to the online discussion forum, as well as being able to connect material better to their own lives. Example comments include:

- Reading other's posts and Nick's posts helped me to understand how to answer exam questions better.
- My favorite aspect of Moodle was seeing how the material related to other people's jobs and my own.

Consistent with quantitative findings, fewer students discussed relationship building as one of their favorite aspects of the online discussion forum (although some students did discuss this). Example comments include:

- I liked that everyone was able to respond to previous responses and help each other out.
- My favorite aspect of Moodle was being able to share my thoughts, ideas, and opinions with my classmates outside of class. It definitely helped keep me up with my schoolwork and understand material more!

However, one of the most common themes students discussed in the qualitative feedback section was empowerment. This was surprising; empowerment is often a difficult concept for students to articulate, but many students reported feeling responsible for their own learning and how it led to a better learning experience. Example comments include:

- It was helpful creating our own discussion topics and getting feedback on them if parts were missing.
- When using Moodle I enjoyed picking and choosing which discussion topics I thought were relevant and interesting for discussion.
- [My favorite aspect was] the freedom to write about the topics from any angle.
- My favorite aspect of Moodle was that I controlled what and when I chose to post.
- I liked the ability to add different perspectives. I also like the autonomy of it and felt that the variety the instructor allowed us to use made the process unstressful.
- My favorite aspect was that it was related to online learning which allows you to have your own schedule of when to go on and not.

The qualitative results clearly showed that many students benefited from the open-ended nature of the online discussion forum. It allowed students to be empowered in their learning and take responsibility for their education. However, this positive aspect of the forum was also negative for other students. Besides logistical complaints (technical issues, forgetting the due dates, dislike of online tools in general, etc.), the lack of structure that led to empowerment for many students led to frustration and difficulty in many other students. Many students were unable to take advantage of the loose structure of the assignment and were not able to become empowered in their learning. Example comments include:

- A lot of the times people, including myself, rewrote what was already posted but in their own words because there was no more topics to write about.
- That it became repetitive and people would post because we had to post a certain amount of times regardless of actually having a point or question.

- My least favorite aspect of the Moodle discussion boards was having no choice but to basically repeat what others said in some posts. It didn't help learn anything, rather just had to complete an annoying task.

## DISCUSSION

In general, the use of online discussion forums greatly enhanced the depth of learning and engagement in these classes. As hypothesized, students reported benefiting from feedback, modeling, relationship building, and empowerment due to these forums. Many students especially liked the lack of structure in the assignment so they could create their own learning opportunities.

However, this lack of structure also posed difficulties for students as well. Some students did not know what to post and were unable to create learning experiences for themselves. In the future, a form of "semi-structure" may be useful. Instead of simply saying, "Write whatever you wish," semi-structure may give students multiple options. For instance, the students could be given a list of "starter questions" that they could answer if they liked, or they could start their own topics or ask their own questions. This would keep the loose structure some students were able to use to their advantage, but would provide the foundation other students needed.

Another area of weakness in the current system was the low amount of relationship building that resulted from the discussion forums. As discussed, relationship building leads to higher learning outcomes and can increase student engagement in general, so not encouraging this is a missed opportunity. In the future, students could be encouraged to strengthen relationships with each other by having face-to-face classroom discussions about online discussion forum material after it is posted. Students can also virtually "introduce" themselves on the forum and include a picture.

In conclusion, online discussion forums can be used to increase student engagement. The current method of using them proved to be helpful, and future modifications can make them even more effective.

## **A Beginner's Guide to Using Technology as a Vehicle to Teach an Online Course**

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The explosive growth of the Internet has contributed to the increasing popularity of Distance Education. In fact, 87% of youths between the ages of 12-17 are on-line; just think of the social networking sites. According to the National Center for Educational Statistics (2008), 65 % of educational institutions offered credit-granting distance courses at the undergraduate and graduate level. Community Colleges had the largest number of enrollments in distance education. Today, with a troubled financial economy, more and more students are enrolling in these programs saving themselves the time and money of traveling to these institutions. More and more schools are moving toward developing fully “virtual universities.” Online course offerings now span all the disciplines. It is important to note that online learning occurs in more than one form, including: the use of technology to enhance a face-to-face class, a hybrid class that combines both face-to-face meetings and online work, and a fully online class. This presentation will focus on a fully online class.

Online distance learning is a dynamic, ever-changing environment. It continues to pose enormous challenges for professors, their students and institutions. Some faculty postulate that the online classroom is no different from a traditional one. They erroneously believe that the approaches that work effectively in a traditional classroom can easily be transferred to an online one. Others are of the opinion that online classrooms are not as rigorous as face-to-face classes. This has led some professors to overcompensate and to develop courses packed with so many activities and so much content that students frequently feel terribly overwhelmed and, likewise, faculty are frustrated. In order to make the transition to online as easy as possible, I will share with you how I “jumped,” and sometimes stumbled, on the “Online Virtual Classroom Bandwagon.” It is an exciting, innovative, active, creative and, even challenging journey. It is my personal voyage “in progress;” one in which I have made many mistakes. But, these errors have been useful as they became *my* teachers in helping me refine my virtual classroom.

This presentation will not be on technology per se. It is not about knowing fancy new software or hardware; I am certainly no expert on this. It is about using technology *only* as a vehicle in the creation of an environment that is conducive to productive, transformative learning. Using my online General Psychology Class, I will share with you some of the techniques and pedagogical approaches that worked well for me. Welcome to my journey; prepare for some bumps!

### Leaving the Classroom and Becoming a Flexible Facilitator:

Leaving the classroom and creating an online course requires a great time commitment, especially for the professor who has never done this before. Leaving the classroom necessitates learning new skills. When teaching and learning leave the classroom, it is essential for the professor to create an effective, safe space within which the course can proceed. This is accomplished by posting clear goals, objectives, expected outcomes, guidelines for participation (the crux of online learning), ideas and questions to initiate discussions, and assignments to be completed collaboratively. Next, the professor must “step aside” and gently guide the students in their learning process by monitoring the discussions. Perhaps, it is necessary to prod silent students to “speak” via entry into a discussion, or to steer students back on the course track should they stray, or to comment on their wonderful new insights. This requires daily contact and continual presence with the learner. Often, at the start of the course, the time obligation is at its highest for the professor. Students want to know their professor is present, provides timely feedback and cares. Later, the professor can gradually pull back as the learners take the lead. This is a big difference between online teaching versus face-to-face teaching. In face-to-face teaching there is a lecture or discussion, and students are assessed/evaluated by the expert professor. In contrast, online learning is more free-flowing and interactive. The teacher and student are on more equal grounds. What this means is that there is equality in teacher-student and student-student interactions. Participants are allowed an opportunity to explore how learning in this new environment is different for them than what they have experienced in a face-to-face classroom. Students need to discuss their concerns, fears, insights and successes with this medium. This is what is known as true “transformative learning”

where a student moves from an individual who passively takes in information to an active, self-reflective participant.

### What Leads to a Successful Online Class:

The keys to a successful learning process are: the interactions that take place among the students themselves, the interactions of faculty with students and, finally, the collaboration in learning that results from *all* these interactions.

Community building, a sense of belonging and membership, is the first step in the online journey. This is the formation at the onset of the class which is known as a “social presence” proving teacher and students actually “exist” in cyberspace. How this is done is easy. As a professor using the Web Based Application (whatever course management system your institution utilizes), you post a “Welcome” sign and introduce yourself to your students, sharing whatever you would like them to know about you. It is important to portray yourself as a “real person,” actually existing in “cyberspace.” Next, you require they post something about themselves as their first assignment. You might want to encourage students to look for areas of common interest and acknowledge each other’s existence. Students now feel they are actually communicating with people *not* their computer. This concept of establishing a “social presence” has been correlated with increased learner satisfaction and a greater depth of learning.

Congratulations, a community is now developing! They post their introductions on a Discussion Board through the use of what is known as a “threaded discussion.” This is a series of posts that are displayed in an outline form. Next, the students are directed to view the syllabus and sign a contract by e-mailing its receipt back to you. This is extremely crucial in that it is your contract with the student. In this way, they know what is expected of them, how to reach you, and agree to follow your instructions. As part of your syllabus, your course over-view, objectives and classroom guidelines should be clearly, concisely laid out. These might include: weekly assignments in the form of answers to a discussion question after their textbook readings, how many postings they should place in the “discussion forum,” how they will be graded and evaluated. The last part of your syllabus should include an agreement to use what is known as

Netiquette (internet etiquette that establishes the instructions for sending civil messages through the internet).

### Successful Professors, Successful Learners:

Professors who are effective in navigating through the “online sea” promote a sense of initiative, independence, and creativity while encouraging questioning, critical thinking, an open dialogue, and collaboration. The desired outcome is the formation of community, whereby knowledge about the course content is conveyed and the ability to collaboratively make meaning of that content is achieved. This requires that the instructor be willing to give up control of the direction and sometimes even the course content of the discussion and act as a participating member. The creation of an effective online course necessitates a paradigm shift regarding the mode of delivery of course material. Face-to-face classes are frequently content driven and many online classes perpetuate this old model of teaching and learning. The framework of online classes should be more free-flowing and interactive. One example might be for students to generate a bibliography of readings beyond the assigned text through their own research of websites and their interactions with their peers. This work is shared, and peer feedback is encouraged. The keys to learning online are the interactions among students, the interactions between students and the professor, and the collaboration in learning that results from these interactions.

Students who are effective in online courses possess the following characteristics: they are learning, not only about the course content, but also about the learning process and about themselves. This learning process involves self-reflection on the acquired knowledge, and on how learning online differs from traditional learning. Students are also gaining information on the technology itself, and about how they have been transformed by this new relationship with the computer and other cyberspace participants. This is an important part of evaluation of the course; it proves if you have achieved your learning objectives.

The question begs: what leads to a successful outcome in online courses? Is it the mode of teaching? The facilitation? The guidelines for participation? The level of education of the

group? Is it the ability of the professor to act as a good facilitator? *All* of the above! When learning leaves the classroom, it is up to the professor to create a safe atmosphere where discussions and assignments are completed collaboratively. Then, it is up to the professor to take a “back seat” and gently guide the students in their journey by monitoring the discussions and entering these discussions to prod participants to examine the material in a different way, and to complement them every now and then. This responsibility on the part of the professor requires daily contact and presence with the online students.

Advances in technology will continue to bring new challenges to this evolving field.

Remember: technology does not “teach students;” effective teachers do. Online learning is here to stay. Join in, and most of all, have *fun* and learn from everyone!

## **The Effect of Situational Cues on Inducing Stress**

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The effect of situational cues on inducing and increasing state anxiety was investigated in this research experiment. 132 college students were asked to participate in the experiment. After completing a baseline stress questionnaire, a story was read out loud in three parts to the students about a party that involved underage drinking and other escalating stressors. After each part a short questionnaire was given to measure the impact on stress levels based on self-report.

Previous research on the subject was conclusive in finding that presenting situational cues could influence state anxiety. An experiment involving positive and negative written scenarios evidenced a significant difference from prestress to poststress scores, reflecting that change had occurred due to the scenarios presented (Moberley, Moulds & Watkins, 2008). Our research hypothesis predicted that the stress questionnaires presented after each part of the story would show an increase in state anxiety as compared with the baseline stress questionnaire taken by each participant. An additional dimension of the experiment included gender differences in induction of stress to see if perhaps one was more influenced by stressors than the other.

Research has been done to support the hypothesis that emotional interpretations can cause changes in stress levels. To be able to cause such changes, it has been found in past experiments that state anxiety can change depending on the effective generation of emotional meanings. Finding a causal link between situational cues and stress may help us get a better understanding of why some people might be particularly prone to anxiety (Mackintosh & Matthews, 2000). By asking people to imagine that they are the central character in a situation that is presented, an emotional response is likely, if the situation presented is something relatable to each individual. In such an instance, a person will be inclined to imagine that anything occurring around the character in the situation is something that could happen to them as well. It is necessary to get a situation to present that can be generalized to and understood by the type of sample that is represented, so as to get the most honest, unbiased reaction. Experiments have been done similarly to an extent as this, with smaller and more numerous scenarios employed, but to our knowledge they differed from this one in execution. Those used self-report to gauge increased stress levels, as did the experiment that follows, and did find increases between the baseline stress results and the poststress scores after induction of scenarios, both positive and negative.

Researchers concluded that a case could be made to show a causal relationship between situational cues and state anxiety (Kindt, Salemink & van den Hout, 2007; Epstien & Katz, 1991; Moberly, Moulds & Watkins, 2008; Mackintosh & Matthews, 2000).

This experiment sought to find out if certain ordinary situations that occur could induce stress in people when things start to go awry. Not only did we want to try and find a link between inducing stress and the situation presented, but we also wanted to see if the levels of stress can be manipulated to increase based on the types of stressors presented within a situation. Another factor explored in this experiment had to do with seeing if there was a gender component in linking the likeliness of stress induction and increase with the negative situation. The participants involved in this experiment gave self-reports on their stress levels four times, with the first stress questionnaire being the baseline to test against the other three questionnaires taken. The baseline stress questionnaire was the control for the experiment, with the other three stress tests being the experimental pieces, as we tried to induce stress before each of those three were taken, and progressively tried to induce more stress from the first to the third stress test. Our research hypothesis was testing to find out the effect of stress scores when (1) we manipulate the stress that is induced on participants, (2) the levels of the gender factor, and (3) the interaction of induced stress and gender.

## Method

### Participants

One hundred and thirty-two students from 6 different undergraduate classes at Marist College, in Poughkeepsie, NY, participated in the voluntary experiment. One classroom's results could not be used in the experiment due to an inability of controlling individual students' response sheets. Thus the final number of students from 5 classes that participated in the experiment ended up being 107, with 51 males and 56 females. Classrooms were picked based on what professors we were taking classes with and were willing to allow us time in their classes. We tried to get as many non-psychology related classes as we could to try and reduce the amount of guessing that students would do about what the experiment entailed. Participants were treated according to all APA ethical guidelines and had the option in whether to participate or not.

### Materials

The story that was used for the experiment was made up in different parts by each of the primary investigators. It had to do with a college student having a party at his or her parents'

house while they were away on vacation for the weekend. The same primary investigator read the story aloud in each classroom, so that there would be no difference in the way it was read out. The point was to relate to college students, have them imagine that each of them was the main character in the story. We devised the baseline stress questionnaire ourselves with 24 questions, getting ideas from online stress tests. For example, one question was as follows: I frequently have a slight guilty feeling if I relax and do nothing, even for short periods of time.

After questions like this one there was a Likert scale of responses, from strongly disagree, disagree, neutral, agree, and strongly agree, each having a score from 0 to 4. The higher the points of each student, the more baseline stress an individual was perceived to experience.

Next, the three-part story was read out loud to the participants. An excerpt from the third part of the story, which is the part with the most intense stressors involved, is as follows:

You decide that it is a good idea to check in with your friends to be sure they all got home okay. Once you locate your phone you see multiple missed calls from mom and dad. Uh-oh. Before you have a nervous breakdown from hearing the reason behind why they were calling so much, you call your three friends and find out that two of them got home safely. The third one no one can get a hold of. His cell phone just keeps going right to voicemail.

Our short stress questionnaires that followed each part of the story were created based on the things that happened within the story. An example of a question used relating to the excerpt above is:

If no one could find my friend after they left my house intoxicated, I would feel...

After each question there was a number that the participants had to choose, from 1 to 7, in terms of how stressed they might feel in that situation. There were words under each number to help the participant gauge a number to express their stress, from indifferent to panicked. In the first short questionnaire, the stressors involved had to do with missing a class, getting ready for the party (alcohol, etc.), getting everything set up beforehand, worrying about valuables, and looking good to others. The second short questionnaire employed medium stressors, such as influx of people showing up that you did not intend, a fight breaking out, stains and a rock through your window, and the police showing up. The third short questionnaire used the most extreme stressors, like the police handing out citations, realizing that the house is destroyed, not being able to locate a severely intoxicated friend, and an alluding to your parents coming home early. At the end of each questionnaire we asked each participant to circle whether they were

male or female, to test for a difference between genders in inducing stress. The higher the points after each calculation, the more stress an individual was seen to possess.

### Design & Procedure

We went into 6 classrooms and first explained that we were conducting a research experiment. We had everyone who agreed to participate sign forms of informed consent, as we reiterated what was written on the sheet for the benefit of each participant and to assure that we left nothing out. We then handed out the baseline stress questionnaire that consisted of 24 questions. We told the participants that no one would ever know who filled out the sheets and how they were filled out and that it was very important for them to give us answers that were as truthful as possible. We wanted to give each person enough time to answer the questions, but not too much time to be able to over think. We wanted them to answer based on the first thing that came to mind. The trickiest part of the experiment was in handing out and collecting papers back. We wanted to make sure that we had them in the same order every time so that in each pile of papers, we accounted for each individual person's scores on each questionnaire, not mixing it up at all because we were collecting 4 sheets from each person. This was a little tricky because we did not have participants put their names on anything, because it might make their answers biased. To protect from this, we put a number in the top corner of each questionnaire, and made sure each person had the same number on each of the questionnaires that they received. After about three minutes we collected the baseline stress questionnaire back.

We then read out part one of the story. This part had small stressors included within it. Before reading it we told the participants that we wanted them to focus on what was happening, and imagine in their minds as clearly as possible a "movie" of how this was occurring, with them being the main character. After it was read, we handed out the short questionnaire that went along with that part of the story, which had five questions pertaining to what the participants just heard in the story and how they would feel if certain things from it happened to them. After about one to two minutes we collected that questionnaire back and then read out the second part of the story. This part of the story had medium stressors involved, continuing on the same story. At the conclusion of this part we handed out the second stress questionnaire, which had six questions pertaining to what each participant just heard in the story and how they would react to the scenario had it been them. After another minute or two we collected it back and started on the third part of the story. This part contained intense stressors. After this we handed out the third

stress questionnaire that had 5 questions. A minute or two later we collected it back and debriefed the participants. We explained that the experiment was to test if we could induce, and then increase the amount of state anxiety that the participants were experiencing based on the story that we read to them. We tried to control extraneous variables by asking subjects to not talk about anything that had to do with the experiment until everyone was completely finished. We did not want subjects to try and guess what we were doing or try to figure out what the experiment was about. At the end we thanked both the participants as well as the professors that allowed us to come into their classes and conduct the experiment.

### Results

We scored all the response sheets of the four different questionnaires of all the 107 participants that we could use. After getting the raw score, we averaged all of the numbers to account for the differences in the amount of questions per questionnaire. This way they could all be compared to one another easily. Once we scored each sheet we rechecked it to assure that it was done correctly. We then typed all the numbers into PASW Statistics version 17.0. There were 5 columns of data, displaying questionnaire 1 (baseline), and then part 1, 2, and 3 of the response sheets coinciding with the story, and the final column was for gender. The test that we used to analyze the data was a mixed ANOVA. There were a total of 51 males and 56 females in the sample group. The mean stress score of males and females on the baseline stress questionnaire was respectively 1.739 and 1.696, with the highest possible mean score being a 4. The mean stress score on the first induced stress questionnaire of males and females was, respectively, 3.875 and 4.425, with the highest possible mean score being a 7. The mean stress score on the second induced stress questionnaire of males and females was, respectively, 4.643 and 5.152, with the highest possible mean score being a 7. The mean stress score on the last induced stress questionnaire of males and females was, respectively, 5.706 and 6.250, with the highest possible mean score again, being a 7.

A 4 (stress) x 2 (gender), two-way mixed (between-within) ANOVA compared the 4 questionnaires of each individual student to each other along with gender differences. The within-subjects effects produced ( $F(3,105)=596.29, p < .01$ ). The mean differences within all four questionnaires were significant at  $p < .01$ . The between subjects effects showed ( $F(1,105) = 9.270, p < .01$ ). The mean difference between genders was significant ( $M_D = .390, \text{std. error} = .128$ ). The interaction effect was found to be ( $F(3,105) = 3.82, p < .01$ ).

## Discussion

We predicted that there would be a significant difference between the stress scores of the baseline questionnaire compared with the third short questionnaire, along with increasing differences between the three short questionnaires that had to do with small, medium and large stressors presented. The results of the present experiment indicate that state anxiety can be induced as well as increased, for significant differences not only between the impact of stressors but also within the gender of the subject who is participating. This conclusion is consistent with the proposal that state anxiety can be manipulated and increased if the correctly given situational cue is such that it will be relatable to the sample represented on a personal level. This means that not only were we able to induce stress from a participant's baseline stress level which they come into the study with, but we were able to increase the induction of stress at each part of the story in comparison with each of the scores obtained prior to it. It is recognized that people are influenced more so in situations that they are more familiar with and have a tie to. When this tie can be created, the influence of stressors should be triggered within participants and thus influence state anxiety, as evidenced by this experiment.

By performing the Tukey Post-Hoc HSD, we found that all four of the stress scores were significantly different from one another. The most significant differences in the experiment were found between the baseline questionnaire and the third stress inducing short questionnaire. This is what we had expected since the baseline stress score is each individual's life stress that they bring to the experiment, which is not something we can control and thus is a variable in itself. The third short questionnaire was the one that included the largest stressors within the story so we were hoping for a large difference between the two scores. The smallest difference that was noted in the pairwise comparisons was between the second stress inducing short questionnaire (that employed medium stressors) and the first stress-inducing questionnaire (that employed small stressors). This was also something that we thought would occur because the stressors were not significantly different in size from one another as to warrant a shocking occurrence, although there still was a significant difference noted. The difference between the baseline questionnaire and the second short questionnaire (medium stressors) was the second most significant mean difference that we found. This means that the second largest difference in average scores was between the baseline stress score and the medium stressor induced questionnaire. The third largest difference between mean scores was found between the baseline

stress questionnaire and the first short stress induction questionnaire (that employed small stressors). This was the scores between the stress that each participant brought into the experiment on his or her own, compared with the first induction of stress based on the first part of the story that was read aloud. In comparison with the rest of the significant results, the smallest significance was seen by the mean differences in the first short questionnaire compared with the third short questionnaire as well as the second short questionnaire alongside the third questionnaire. Although these differences exist between the different stress scores, it is noteworthy that they all were very significant at the  $\alpha = .01$  level.

A lot of previous research on inducing stress found significant results when comparing prestress levels and poststress levels on stress tests (Mackintosh & Mathews, 2000). Those experiments were not done in the way that this one was, but the results were similar in significance. This experiment takes those concepts a little further by exploring the different levels of inducing stress and finding that it is possible not only to induce stress but also to induce it in increments and find significant differences between all the levels of stress. The gender dimension that is employed is also evidence of differences in what cues affect females more so than males and vice versa. Mean scores for the male participants showed that they were more likely to have higher baseline stress scores than females. Once the induction began though, the differences in mean scores on the stress tests showed that females were more susceptible to have higher self-reported stress scores on all of the three parts of the short questionnaires as compared with the males.

The reason that we chose a negative situational cue and specifically one about a party was because of the sample that we were working with. Similar research would be valuable in exploring different cues presented, both positive and negative. It would also be interesting to find out about situational cues pertaining just to one gender or another. For example, testing stress having to do with a wedding would be interesting, as obviously an occasion like that has a lot of stress, but it can be considered positive stress. Things like that were unable to be tested in the limited setting that we had, so future research on different types of cues would be necessary. Also, any future research could look into finding different ways to control individual questionnaires and scores, as this sample size would have had 25 more participants if our method of numbering all the sheets had been more airtight. Research of this type is important for the fact of trying to get a handle on anxiety and stress and different triggers that may predispose certain

people to anxiety more so than others. It is also important in application to Assertive Community Treatment and how people are trained for certain situations. It is imperative to be empathic to the idea that people participating have likely had experiences that may affect their ability to reintegrate into certain societal situations. The situations presented in case studies may impose upon them certain maladaptive residual effects of previously experiencing something similar. This could result in more than a minimal risk to well being.

#### References

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TABLE 1

Means and Standard Deviations for Stress Scores on All Stress Questionnaires between Males and Females

Gender		Mean	Std. Deviation	N
Quest1	Male	1.7390	.37123	51
	Female	1.6959	.31639	56
	Total	1.7164	.34266	107
Part1	Male	3.8745	.99194	51
	Female	4.4250	1.07944	56
	Total	4.1626	1.07005	107
Part2	Male	4.6426	1.13959	51
	Female	5.1515	1.02967	56
	Total	4.9089	1.10811	107
Part3	Male	5.7059	1.14358	51
	Female	6.2500	.99252	56
	Total	5.9907	1.09661	107

TABLE 2

Mean Differences and Standard Errors for Stress Scores on Four Stress Questionnaires

(I) Stress	(J) Stress	Mean Difference (I- J)	Std. Error	Sig. <sup>a</sup>
1	2	-2.432 <sup>*</sup>	.102	.000
	3	-3.180 <sup>*</sup>	.106	.000
	4	-4.260 <sup>*</sup>	.106	.000
2	1	2.432 <sup>*</sup>	.102	.000
	3	-.747 <sup>*</sup>	.111	.000
	4	-1.828 <sup>*</sup>	.115	.000
3	1	3.180 <sup>*</sup>	.106	.000
	2	.747 <sup>*</sup>	.111	.000
	4	-1.081 <sup>*</sup>	.085	.000
4	1	4.260 <sup>*</sup>	.106	.000
	2	1.828 <sup>*</sup>	.115	.000
	3	1.081 <sup>*</sup>	.085	.000

TABLE 3

Mean Differences and Standard Deviations between Males and Females

(I) Gender	(J) Gender	Mean Difference (I- J)	Std. Error	Sig. <sup>a</sup>
Male	Female	-.390 <sup>*</sup>	.128	.003
Female	Male	.390 <sup>*</sup>	.128	.003

TABLE 4

Means and Standard Deviations for Genders on all Four Stress Questionnaires

Gender	Stress	Mean	Std. Error
Male	1	1.739	.048
	2	3.875	.145
	3	4.643	.152
	4	5.706	.149
Female	1	1.696	.046
	2	4.425	.139
	3	5.151	.145
	4	6.250	.143