EXPERIENTIAL LEARNING, LEARNING STYLES, AND ACADEMIC SERVICE LEARNING FOSTERS GREATER UNDERSTANDING OF A GLOBAL ENVIRONMENT

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Abstract

The author conducted an experimental study to determine the relative effects of employing experiential learning, academic service learning, and the utilization of a student's learning style while studying abroad and at home. The findings suggested that a combination of the student's learning style along with experiential learning and academic service learning within a global context produced a deeper understanding of the historical aspects within the great metropolis of New York as well as the global areas of Rome, Florence, and Assisi in Italy as it relates to the understanding of the architecture, immigrants and their cultural differences blending into a cohesive environment, as well as the less fortunate population that exists within each city.

INTRODUCTION

Theorists and educational scholars maintain that the purpose of education remains constant with its goal for the good of society developing young males and females into productive citizens who will be able to care for themselves and those that follow after them (Bernard, 2001). It is the schools' responsibility to promote the goals and needs of society (Ornstein, 2003). Lawrence Cremin in *Teaching and Schooling in America* believes "the aim of education is not merely to make citizens, or workers, or fathers, or mothers, but ultimately to make human beings who will live life to the fullest "(Cremlin, 1961).

The overall goal of colleges and their faculties is to educate students (Goals 2000). Two reasons for students' inability to succeed academically may be their lack of awareness of how each actually concentrates, absorbs, internalizes, and retains new and complex information. Another might be their professors' incapacity to teach with instructional strategies that complement how each student can best master required curriculum. Throughout history the way students have been educated has gone from the traditional lecture style (essentially incorporating lectures, discussions, and visual resources - Drew, Dunn, Quinn, Sinatra & Spiridakis, 1994-5) to experiential learning (the process where knowledge is created through the transformation of experience - Kolb,1984) offering students alternative ways of mastering the subject matter, encouraging them to foster a pro-active approach to problem solving as educators investigate further into how the students of today learn.

Since the overall goal of college is to educate its students, knowingly understanding that education in a global world presents special, dynamic challenges it is evident that educators must look at teaching and learning in a different context. Experiential learning, academic service learning (a pedagogical strategy through which students identify, research, addressing real community challenges using knowledge and skills learned in the classroom), and learning styles (the way students absorb, retain, and process new and difficult information – Dunn & Dunn, 1999) are tools by which educators can and should utilize in bringing their students to a higher level fostering a greater understanding of the world around them.

This paper will discuss how freshmen in a core college class, through physical experience, studied various areas of New York City as well as Rome, Florence, and Assisi in relation to the architecture and differences among neighborhoods, immigrants and their varying cultures, as well as the less fortunate within the main city's of New York and Rome.

Methodology

Immigrants who have traveled to this country since the 1600s with the arrival of the Dutch and the continuous influx of people from many areas has shown us that we live in a forever changing world with different faces surrounding us on the streets of New York making it a necessity to embrace the cultures and lives of those who we walk with, play with, socialize with, and go to school with. The need for global education is no longer a

luxury but a necessity to move forward in this ever changing world. We sit next to someone who is possibly from another part of the world, we study the history of different countries from books, we hear our classmates, and various people speaking different languages or view the differences in the way they dress or briefly hear about their family traditions but what better way to understand their culture than to experience it. Experiential learning doesn't come from a textbook. We can't see, feel, or taste the culture of others from a textbook but will do so while moving about their country or meeting with them on our own land. It is long lasting. It will not be forgotten when the test is completed but will be forever embedded in our brains.

Traveling to a foreign country is both exciting and a wonderful learning experience. It is a time to explore, experience and bring to life what has been observed through books and discussions. At the onset of the Spring, 2011 semester prior to taking a required Core Curriculum course titled "Discover New York" (a required course in one private, metropolitan university's undergraduate program developed to introduce the metropolis of New York City through the lens of a particular academic discipline focusing on the themes of ethnicity, the environment, immigration, poverty and/or wealth through both on-campus class sessions and required participation in field assignments) a group of first-year undergraduate college students and their professor traveled abroad. In order to appreciate New York City, one must go to the root of its architecture and observe the similarities within the structures. As the group traveled from city to city both abroad and then in New York City they were able to compare all that each city had to offer. With all the beauty that is beholding within these great cities one must not overlook the common problem of homelessness where the students were afforded the opportunity to work in soup kitchens on the home front as well as abroad observing this as a global problem.

In order to set the stage and lead the students on their foreign adventure, they were instructed to read several chapters from the book, *A Traveler in Rome,* by H.V. Morton. Over the next twelve days the students traveled to places such as Rome, Florence, and Assisi via foot, bus, and metro taking in all that could be absorbed in this ancient land. The students were assigned a two hour in-class session each day with the first day completing the Building Excellence (BE) (Rundle & Dunn, 2008) assessment to identify the learning style of each participant in order for the professor to determine the extent of diversity that actually existed among these young adults' learning styles; and whether the use of experiential learning would have a positive outcome on the students. Upon completion of the assessment, time was spent preparing for their daily journeys and devising a research plan for all the places that were or would be visited during the trip. Upon returning to New York City, the students were instructed to read *Downtown, My Manhattan* by Pete Hamill in order to set the stage for what they had to look forward to in the great metropolis of New York City. During the Spring semester, 2011 the students were broken into groups and traveled through neighborhoods of New York City looking for similarities in the buildings and various areas in order to compare the aspects of their hometown to that of the foreign land. The students were also instructed to read *From Ellis Island to JFK,* by Nancy Foner to gain an understanding of immigrant life before, during, and after their arrival to America via Ellis Island before they themselves were led on a trip to Ellis Island via boats to get a feel for what they were to encounter. In order to come full circle, the students were to perform academic service learning in both Rome and New York City observing the differences and similarities in each city. In Rome the students worked in a soup kitchen feeding and caring for the homeless, and in New York City they worked with under-privileged children at a local church.

RELATED LITERATURE
A. Research on Experiential Learning

Experiential educational principles are based on the educational philosophy of John Dewey who "interprets education as the scientific method by means which man studies the world, acquires cumulative knowledge of meanings and values these outcomes, however, being data for critical study and intelligent living". (Dewey, 1938) The stages of learning as presented by Dewey are:

1. The underlying theoretical engines are the idea that people can learn effectively through direct, hands-on experience as long as these experiences are well-defined and facilitated.

2. Experiential learning works better to meet learning goals when the experience is packaged together with exercises including thinking, discussing, or creatively processing cognitions and emotions related to the raw experience.
3. Each experience influences future experiences.

It is believed that "if an experience arouses curiosity, strengthens initiative, and sets up desires and purposes that are sufficiently intense to carry a person over dead places in the future, continuity works in a very different way. Every experience is a moving force". Dewey describes education as essentially being a social process noting "when education is based upon experience and educative experience is seen to be a social process, the situation changes radically. The teacher loses the position of external box or dictator but takes on that of leader of group activities". (Dewey, 1938)

Jiusto and DiBiasio in the article *Experiential Learning Environments: Do They Prepare Our Students to be Self-Directed, Life-Long Learners?* investigated whether an experiential program in Global Studies would increase readiness for self-directed learning. Through various assessments it was reported that the students reported much greater progress in life-long learning-related skills than did the local or national groups with whom they were compared. The research demonstrated success with experiential learning in relation to self-directed learning and life-long learning. (Jiusto & DiBiasio, 2006)

Domask's primary purpose of his paper entitled, *Achieving Goals in Higher Education: An Experiential Approach to Sustainability Studies* was to provide examples of how experiential learning approaches can be implemented to effectively meet specific educational goals in international sustainability studies. Domask presented a multi-dimensional international experiential program showing how a non-traditional educational approach can be used to supplement traditional education. His findings illustrated how experiential learning offered an educational experience that connects the academics with the practice fostering an effective interdisciplinary curriculum linking students to work experience and job opportunities while engaging and empowering the student. (Domask, 2007)

The article, *Contemporary Understandings of Liberal Education: The Academy in Transition* by Schneider and Shoenberg discuss how outdated structures, practices, and reward systems frustrate faculty and administrators in higher education because they are not reaping the new direction in student learning which is a trend leaning toward collaborative, experiential, service, and integrative learning. The authors examined major themes in educational change in higher education with an emerging conceptualization of liberal learning with learning goals such as acquisition of intellectual skills, understanding of multiple modes of inquiry, and development of societal, civic, and global knowledge. With this the developing pedagogy and curriculum includes collaborative inquiry, experiential learning, service learning, research or inquiry-based learning, and integrative learning. (Schneider & Shoenberg, 1998)

Alice and David Kolb examined developments in the theory and research on experiential learning by introducing the concept of learning spaces as a framework for understanding the interface of learning styles and the learning environment. Drawing from Dewey's philosophy of education, "a theory of experience", Kolb & Kolb explored its enhancement in higher education. Through their research they suggest how experiential learning can be applied through such programs as outcome assessment, curriculum development, student development, and faculty development. Based on several theorists' experiential learning is a process with a focus on student engagement; it is relearning drawing on students' beliefs and ideas of a topic; learning requires the resolution of conflicts which drives the learning process through discussion and critical thinking; and learning involves the integration of the whole person in relation to their thinking, believing and actions. Learning is the process of creating knowledge as in the constructivist theory. According to theorists such as Dewey, Piaget, Lewin, and James as presented by Kolb and Kolb "the learning cycle touches upon experiencing, reflecting, thinking and acting which is the process of transforming learning". (Kolb & Kolb, 2005)

In the article, *Experiential Learning and Learning Environments: The Case of Active Listening,* Huerta-Wong and Schoech discuss the experimental study they conducted comparing virtual and face-to-face learning

environments which included active listening concepts testing whether the effectiveness of learning environments depended on teaching techniques of experiential and lecture plus discussion. Their findings suggested that both virtual and face-to-face experiential learning are teaching techniques that can develop listening skills but face-to-face learning environments provided better results than virtual learning environments only when experiential learning techniques were used. (Huerta-Wong & Schoech, 2010)

B. Research on Academic Service Learning

Several studies have been conducted demonstrating the benefits of academic service-learning as it relates to student achievement, global awareness, reduction of cultural and racial stereotypes, increased social responsibility and citizenship skills, positive effect on service commitments, and development of problem analysis and critical thinking.

In the article Reflections On Service-Learning, Critical Thinking, and Cultural Competence Goldberg and Coufal conducted research on service-learning quoting various researchers. "Service-learning is an accepted tool that provides culturally-relevant teaching and deep, experiential learning" (Clayton & Ash, 2004; Gelmon, 2007; Litke, 2002; Settle & Smith, 2008; Zinger & Sinclair, 2008) which has been "effective in exposing students to diversity and positively changing prejudices" (Boyte, 2006; Cornell-Swanson, 2006; Excalera, 2006; Huston, 2006). "The service-learning approach integrates academic content, community partnership, and civic engagement" (Goldberg, McCormick Richburg, & Wood, 2006; Goldberg, 2007) which is "designed to increase students' understanding of the environmental, sociological, and political contexts of issues and theories addressed in the classroom" (Goldberg & Coufal, 2009).

Astin, A.W. & Sax, L.J. (1998) found that the more time devoted to service the more of a positive effect on students. It was noted that students who volunteered in high school was a predisposing factor for students to participate in college level service-learning.

Batchelder, T.H, and Root, S. (1994) looked at the effects of an undergraduate program integrating academic service learning and found significant gains for the service-learning students on complex cognitive variables. There was also a significant increase in their decision making, reasoning, and occupational identity processing skills.

In their paper, *Doing Well by Doing Good: A Study of the Effects of a Service-Learning Experience on Student Success,* Berson and Younkin (1998) conducted a study consisting of 286 students from six community colleges taking courses in various disciplines. Their results signified that those students who participated in service-learning achieved significantly higher mean final grades than those students from the same classes that did not participate in service-learning. They also found that those students involved in service-learning reported a significantly higher level of satisfaction with the course, the instructor, the class assignments, and their grading system as well as the faculty reporting that class discussions were more stimulating with greater student involvement.

In a paper entitled, *Evaluating Outcomes of Service-Learning Courses at a Parochial College,* Fenzel and Leary (1997) conducted two studies addressing the benefits to students who performed service-learning as part of their program. The first study consisted of 28 students in an introductory philosophy course and the second study consisted of 134 students in six different courses at varying levels within their programs. Questionnaires were completed by each group rating their service experiences, the extent and quality of training they received, whether the service contributed to learning their course material, and the likelihood of continuation of service. Results of the first study indicated that students in the service-learning section of introductory philosophy did not show greater gains in attitudes toward personal and social responsibility or moral judgment but did reveal that students felt more compassion toward the disadvantaged, were more committed to community work, and held a greater belief that they could make a difference. In their final course evaluations, these students reported

that they were more satisfied with their courses.   The second study revealed that students in upper level courses were more able to integrate experiences and philosophy through the application of theory to real-life situations more than students in the lower level courses. Seventy-six percent of students rated the community service component as "very good", and sixty-nine percent reported interest in continuing participation in service.

Hesser, G. (1995) in the article, *Faculty Assessment of Student Learning: Outcomes Attributed to Service-Learning and Evidence of Changes in Faculty Attitudes About Experiential Education,* surveyed faculty from five geographic regions within focus groups through interviews and questionnaires and found that through service-learning and field experiences professors perceived that, student learning increased, students gained an awareness of cultural differences, student problem solving increased, and students' commitment to service was strengthened. Of those faculty surveyed, eighty-three percent reported that service-learning improved the quality of learning over traditional learning. It was also noted that the faculty agreed that service-learning supported liberal arts objectives and disciplinary learning as well as promoted problem solving skills and critical reflection.

Cohen and Kinsey (1994) conducted a study with two hundred twenty students enrolled in a journalism course. The students were divided into two groups, experiential and non-experiential. The students in the experiential group had direct interaction with students from elementary and high schools and the non-experiential group did not work directly with the community but rather analyzed media or prepared public relations material. The authors found that both groups found their projects more meaningful than traditional learning assignments. It was further reported that the experiential group claimed that their projects also helped them develop a sense of communication principles for the real world. They also found that their projects had greater meaning than traditional assignments and the experiential group reported they were positively motivated to work on community projects with them being an effective use of time.

C. Research on Learning Styles

One hundred and sixty-eight studies conducted by researchers at 47 institutions of higher education describe the effects of using the Dunn and Dunn (2000) learning-style model (see Figure 1). Of those, 63 investigations specifically addressed college students' learning styles with no researcher failing to identify the diversity that existed among each sample's unique traits (www.learningstyles.net). Learning style was construed as the way each student began to concentrate on, process, internalize, and remember new and difficult academic information as described by Dunn and Dunn (1999)
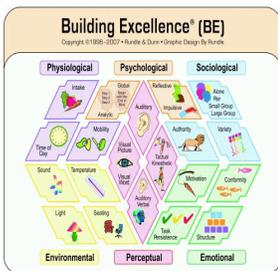

Figure 1: Overview of Learning-Style Characteristics

In previous investigations, most students retained more knowledge (Lovelace, 2003a; Lovelace & Griggs, 2003; Mangino, 2004) for a longer period of time (Raupers, 2000-2001), enjoyed learning more (Lovelace, 2003b), and evidenced significantly increased retention rates when they were taught with instructional strategies responsive to their learning styles than when they were taught traditionally. Those results occurred with: law-school students in a large, private, metropolitan university (Boyle, 2000; Boyle & Dolle, 2002; Boyle, Russo, & Lefkowitz, 2003); learning-disabled students in a Virginia private college (Given, Tyler, Hall, Johnson, & Wood, 2000); students in a state medical college (Morton-Rias, 1999; Miller & Lefkowitz, 2000; Miller, Ostrow, et al., 2000-2001); professors in two Florida community colleges (Hart, 2005; Hart & Dunn, 2008);

undergraduates in a Texas community college (Nelson, Dunn, et al., 1993); academically struggling students in a New York City community college (Mangino & Rocheford, 2006; Rocheford, 2005); nursing students in a small, private suburban Catholic college (Lenehan, et al., 1994); and nursing students in a small non-denominational private college in New York City (O'Hare, 2002). Each of these experimental studies revealed significantly different learning styles among college students in the same classes and programs and statistically higher test scores as a result of style-responsive instructional treatments.

Lam-Phoon (1986) examined the national and gender differences between American and Chinese college students. She found that, within those populations, males generally reported a higher tolerance of sound and a preference for tactual learning, intake, and variety as opposed to learning in patterns and with routines. Males also generally were more nonconforming than their female counterparts and were less persistent and more peer oriented than the females in their own culture.

Jenkins (1991) also reported that freshmen female's preferences were significantly different from those of males concerning academic motivation, the need for structure as opposed to options, and learning with an authority figure rather than a collegial professor. They also were decidedly more kinesthetic and tactual. Too, males had a higher preference for learning in the evening in contrast with females who tended to prefer morning classes, although approximately 30 percent of both groups found it difficult to concentrate on challenging new academic material in early day hours.

In a prior investigation, Dunn and Honigsfeld (1996), revealed higher levels of motivation, persistence, responsibility, a need for warmer temperatures, sociological variety, and both parent and teacher motivation among international females than among males. As stated in Dunn and Honigsfeld, those findings relating to motivation and persistence were consistent with previous data reported by Hong and Suh (1995), Jenkins (1991), Lo (1994), Mariash (1983), and Pengiran-Jadid (1998) who found that girls were more responsible and conforming than their male counterparts. Girls' stronger parent and teacher motivation also were reported by Hong and Suh (1995).

Kolb's Model of Learning: (Kolb, 1984)

- *Concrete Experience* (CE) (or "DO") – is where the learner actively experiencing an activity such as a lab session or field work
- *Reflective Observation* (RO) (or "OBSERVE") – is when the learner consciously reflects back on that experience
- *Abstract Conceptualization* (AC) (or "THINK") – is where the learner attempts to conceptualize a theory or model of what is observed
- *Active Experimentation* (AE) (or "PLAN") – is where the learner is trying to plan how to test a model or theory or plan for a forthcoming experience
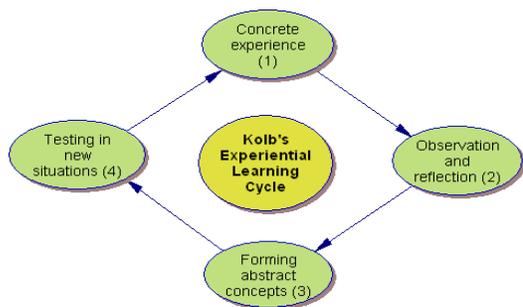

Figure 2. *Kolb's Experiential Learning Cycle*

FINDINGS

Based on the results of the Building Excellence Learning Styles Assessment of the college students: 36% were auditory/verbal, those students who needed to talk about the content they were required to master; 42% had a visual/word strength, those who concentrated better when reading rather than when listening; and 18% were tactual/kinesthetic, those who needed to move around or use their hands to master the topic. The majority of the students preferred to work in pairs or within small groups.

Using Kolb's experiential learning theory which is built upon the work of Dewey and Levin who "believe learning is the process whereby knowledge is created through the transformation of experience" (Kolb, 1984), the students followed Kolb's cyclical model of learning which consists of four stages - Concrete Experience, Observation and Reflection, Testing in New Situations, and Forming Abstract Concepts, the students actively participated in the experience through walking tours of various areas in Italy observing the culture, architecture, and problems that surrounded them. While in class the students reflected back on their experiences and conducted further research into each area. They became more critical thinkers as they compared the major cities while creating video photo journals of their experiences both in Italy and New York.   Through their research, students were responsible for setting the stage of where they would be traveling incorporating the learning objectives of why they chose the destination. They were responsible for setting the timeline of each day's travels. Although this was a shift in how the majority of their courses were designed, the students now had input into how each lesson would develop. As each day unfolded, the group of students transformed from needy college freshmen to responsible adults leading to over 85% of the class registering for a three-country study abroad program the following semester. Based on their presentations, their current class and future class travels, and their class discussions it was evident that this group of students was more empowered.

Observation of the projects presented during the college students' Discover New York Research Day demonstrated a varied range of presentations which included the following: production of a video of the assigned neighborhood incorporating the research conducted by the college freshman together with the church's after school children created a collage and video; several groups of students created scrapbooks with the children; other groups created digital photo journals; while other groups had their young students help create poster presentations or PowerPoint slide shows. At semester's end the implementation of an overall assessment of three components of the class including selected history (taught in a traditional manner), cultural diversity (consistent of an in-class discussion after the academic service-learning project, and service reflection (included the final project and written reflection about the experience). On a scale of 1 to 5 the combined average of the students in the Discover New York class was 3.0 for selected history, 3.8 for cultural diversity, and 4.2 for service reflection. In their service reflection, the college freshmen contended that they learned so much about their assigned neighborhood including the architecture, ethnic background, and history stating this was a preferred method of learning. Feedback from the director of the church's after school program through a written report was that of a positive learning experience of all participants.   Included in the feedback from the director of the church program that the discussion about the project did not end when the college freshmen completed their project but continued for several weeks.

RECOMMENDATIONS

The construct of learning style suggests that students of the same age, gender, or class are likely to master challenging academic information or skills differently. As indicated in these findings, some learn with an auditory/verbal style, others with a visual/word strength, and still others are tactual or kinesthetic. Many prefer to work in pairs while others enjoy the small group setting. Further findings demonstrated a positive outcome utilizing academic service-learning. Without actually identifying each student's learning style, only general guidelines can be offered. Nevertheless, professors are encouraged to experiment with several ways of instruction to include the entire class whether it is illustrations, class discussions, PowerPoint presentations, and experiential learning activities. The objective is to offer several opportunities in which all students can be included in the lesson and benefit from their success with the subject matter at hand.

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