Fall 2015

The Journal of Learning in Higher Education

Volume 11 Issue 2

JOURNAL OF LEARNING IN HIGHER EDUCATION

Contents

VOLUME ELEVEN ISSUE TWO
FALL 2015

JOURNAL OF LEARNING IN HIGHER EDUCATION

JW PRESS

MARTIN, TENNESSEE

ISSN: 1936-346X

Published by

JW Press

P.O. Box 49

Martin, Tennessee 38237

Printed in the United States of America

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Exploring Cultural Effects on Teaching Styles of Chinese and American Professors

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ABSTRACT

The current study examines cultural effects on college professors' teaching styles. Ninety-four Chinese university instructors participated in the study. A 40-item teaching style inventory was used in the study. The responses were compared with American professors' teaching styles reported by Grasha (2006). Results show that the Chinese participants are no more likely than their American counterparts to use the authority-based, top-down teaching style cluster. However, they are more likely to report using student-centered teaching styles. These findings suggest that with globalization and westernization, Chinese teaching styles in higher education continue to evolve, and Chinese professors may be employing both the traditional Confucian style and the Western democratic teaching styles.

Keywords: teaching styles, Confucius and Socrates, China and USA, college professors, globalization

[*] *We wish to thank Merrin Oliver for her valuable help with data analyses.*

A considerable amount of research has been dedicated to understanding the educators' teaching styles. Past research has shown that teaching styles are associated with students' academic performance (Huang, 2009; Sternberg & Grigorenko, 1995) and may influence students' learning preferences (Lockette, 2006). To best serve today's diverse students with different learning styles, it is important to study professors' teaching styles and examine the types that may deliver the content in the most effective way and accommodate students' needs the best.

Many researchers have examined teaching styles from different conceptual frameworks and perspectives. In their excellent historical review of learning and teaching styles, Henson and Borthwick (1984) introduced six examples of different teaching styles: Task oriented, Cooperative planner, Student-centered, Subject-centered, Learning-centered, and Emotionally-centered. They also reiterated the importance of the significant impact a teacher's style may have on his/her students.

Sternbergh and Grigorenko (1995; 1997) discussed seven types of thinking styles for teachers: Legislative, Executive, Judicial, Global, Local, Liberal, and Conservative. They posited that studying teaching styles may help us understand better the variation in students' performance beyond differences in individual abilities. In other words, teaching styles may be directly related to the performance of students.

Others (Pratt & Collings, 2000) presented The Teaching Perspective Inventory that specifies five perspectives: Transmission, Apprenticeship, Developmental, Nurturing and Social Reform. They believed these perspectives on teaching facilitate reflection by college instructors on their teaching beliefs, their role as a teacher and student learning.

Recognizing that instructors may use more than one particular teaching styles, Grasha (2006) developed an integrated model of teaching styles intended to avoid placing teachers in one specific teaching category. Instead, this

model takes into account possible combinations of teaching styles that a single teacher might employ. Five teaching styles were developed in this model: Expert, Formal Authority, Personal Model, Facilitator, and Delegator (See Appendix for a detailed description and advantages and disadvantages of each style). Our general understanding of these five styles is that there are two large aspects within these five styles. The first three, namely Expert, Formal Authority, and Personal Model can be characterized as more of a teacher-centered, top-down style in which the teacher is the authority on the knowledge and information, and a teacher's job is to transfer the expertise knowledge to the students. The other two, namely Facilitator and Delegator, can be viewed as more of a student-centered, democratic style of teaching in which a teacher positions him/herself as the facilitator or consultant on the subject matter and lets students learn and master the information through discussions and hands-on activities.

Taking into consideration that most instructors are likely to employ more than one teaching styles, Grasha (2006) developed clusters of teaching styles through analysis of the data collected from studies of college instructors. The resulting cluster model grouped the participating teachers according to their reported primary and secondary styles. Four groups of teaching styles, or teaching clusters were reported in Grasha's (2006) study:

It seems clear to us that the first two clusters generally correspond to the first three individual teaching styles (authority, top-down), and the last two clusters correspond to the last two individual styles (student-centered, democratic).

How do professors form their teaching styles? Grasha (2006) asserts that instructors' teaching styles are usually formed based upon some philosophical underpinnings, the beliefs we have about how one teaches and how one learns in the society. In other words, there are underlying assumptions and values that tend to guide our teaching thoughts and behaviors (Pratt & Collins, 2000), and over time, we develop particular patterns of teaching which we call teaching style.

A professor's teaching style is reported to be influenced by a plethora of factors, some are general and common to most education settings, such as the student's learning style, the relationship between a professor and the students, and the demands of a specific situation (Grasha, 2002). Others point to more culturally specific factors, such as the instructors' own experiences as students, role models they were exposed to growing up, the general societal expectations, and their philosophical orientations (Grasha, 2006). All these factors are associated with a broad cultural context that has made important impact on an educator's teaching behavior and style.

The American educational system is heavily influenced by early European customs and philosophical thoughts. For example, Socrates, the famous philosopher from Ancient Greece, advocated critical thinking and skepticism (Shiraev & Levy, 2013). He reportedly encouraged students to question their teachers and common knowledge, and asked them to think independently. Socrates' scholarly thinking has contributed greatly to the American educational system. Teachers traditionally have used a more democratic approach to teaching and students are encouraged to engage in independent and critical thinking from an early age, and teachers tend to use a more creative and interactive approach in the classrooms (Dineen & Niu, 2008).

Likewise, the Chinese educational system is also heavily influenced by its early philosophy and ideology. Specifically, Confucius, the renowned philosopher and scholar from over 2000 years ago, is a major contributor to the features of Chinese education (Aguinis & Roth, 2003). The Confucian ideas of humility, hierarchy, effort, power distance, and respect have permeated the traditional Chinese teacher-student relationship and, historically, Chinese instructors have utilized a top-down, teacher-centered approach (Aguinis & Roth, 2003; Rao, 2001). Students are encouraged to learn from their teachers but not to challenge their teachers by asking questions (Shiraev & Levy, 2013).

With an education system long based on Confucian ideology, Chinese classrooms have placed emphasis on teacher and book-centered styles. Students in this culture do not consider knowledge to be a product of their own thought, but rather consider it to come directly from the expertise of their teacher (Rao, 2001). However, with the rapid speed of globalization in the past decades in which many cultural and educational exchanges have taken place between China and the Western world, these traditional teaching styles may not be as prevalent as before. There's indeed some sporadic evidence in the literature. For example, in a study by Zhang (2010), Chinese students reported their teachers using more collaborative teaching methods, as opposed to teacher-centered methods. Similarly, another study (He, 2005) concluded that Chinese teachers employed teaching styles that were both complex and creative, different from the traditional teacher-centered and book-centered approach.

The current study aimed to investigate cultural effects on teaching styles of Chinese professors and then compare them to their American counterparts, in order to seek the answer to the broad question: In this day and age of globalization, what types of teaching styles do Chinese college professors commonly employ in their teaching?

We decided to use Grasha's (2006) conceptual model in this study because this model considers combinations of a professor's teaching styles instead of focusing just on one. This seems to be a more realistic approach to investigating teaching styles because professors rarely fit perfectly into one category. Our study was exploratory in nature. We were interested to explore whether:

1. The traditional Confucian style of teaching was still prevalent among Chinese college instructors. If so, we would expect them to have higher means on three of the five teaching styles: Expert, Formal Authority and Personal Model than American professors, and are more likely to fall into clusters that are based on instructor-based teaching styles, namely Clusters 1 and 2.

2. Due to the rapid globalization and westernization taking place in China in all areas including higher education, professors commonly used a more democratic and westernized teaching style. If that's the case, we would expect them to have similar or higher means on two of the five teaching styles than American professors: Facilitator and Delegator, and are more likely to fall into clusters that are based on student-centered teaching styles, namely Clusters 3 and 4.

METHODS

Participants

Ninety-four Chinese professors (57 women, 37 men) from a comprehensive university in Northeast China participated in this study. Demographic information of the participants is presented in Table 1.

Materials

We utilized a teaching styles survey composed of 40 Likert scale statements (Grasha, 2006). These 40 items measure a professor's teaching style in five categories: Expert, Formal Authority, Personal Model, Facilitator and Delegator, with each category having eight items. The examples are provided in the following: "Sharing my knowledge and expertise with students is very important to me" (Expert). "I give students negative feedback when their performance is unsatisfactory" (Formal authority). "Students are encouraged to emulate the example I provide" (Personal Model). "I spend time consulting with students on how to improve their work on individual and/or group projects" (Facilitator). "Activities in this class encourage students to develop their own ideas about content issues" (Delegator). The Likert-typed responses range from 1 to 7 with 1 representing "totally disagree" to 7 representing "totally agree."

Information regarding gender, age, years of teaching, types of degree, academic ranks, graduate or undergraduate teaching status, and experience abroad was also collected.

Procedure

The Grasha teaching styles questionnaire (2006) was translated into Chinese language using back translation method. With permission and cooperation from the Chinese university, we sent out the survey to instructors in three colleges in the university through e-mail: College of Humanities and Social Sciences, College of Management, and College of Law. The decision to select these three colleges was due to convenience reasons. A cover letter attached to the survey explained in Chinese the purpose of the study and provided other details. The Chinese professors were informed that participation was voluntary and their responses would remain anonymous as first, the survey did not ask for any personally identifiable information, and second, our research assistant would print out the completed survey upon receipt via email and then immediately delete the email. The participants were also encouraged to email the primary researchers, who were not

Table 1
Participant Characteristics

Gender	Women 61%	Men 39%	Remaining Men and Women
Age	≤ 25 17%	26-45 62%	≥ 46 21%
Years teaching	≤ 5 30%	5-15 35%	≥ 16 35%
Degree	Bachelor 10%	Master 45%	Doctorate 45%
Academic rank	Lecturer 37%	Asso. Prof 37%	Full Prof 26%
Student/ class	Undergrad 37%	Grad 18%	Both 45%
Abroad	Yes 30%	No 50%	Unknown 20%
Discipline	H/SS 37%	Management 43%	Law 20%

affiliated with the university, if they had any questions regarding this research. Response rate was 35%.

RESULTS

First we compared the means and standard deviations on the five individual teaching styles from the current study with those of American professors reported in Grasha's (2006) study. The results are presented in Table 2.

In general, compared with American professors, the Chinese professors scored significantly higher on Expert, Facilitator and Delegator, and slightly lower on Formal Authority and Personal Model. Due to the conceptual similarities among the first three individual styles and between the last two respectively, we then reconfigured to examine two mean scores: the combined first three styles and the combined last two styles. The results showed that Chinese participants scored slightly higher than American instructors (M = 5.06 vs. M = 4.88) when the three teacher-centered teaching styles were combined. The combined result of the last two styles showed that the Chinese participants scored significantly higher than the American professors (M = 5.34 vs. M = 4.33) on the combined student-centered teaching style.

We then performed a cluster analysis using Minitab. A one-proportion test on each cluster was used to compare cluster percentages against Grasha's (2006) results. Table 3 presents the results.

As shown in Table 3, on the first two teaching clusters (top-down, authority-based), significantly fewer Chinese professors fell into Cluster 1 than American instructors as reported by Grasha in 2006 (p = .004). However, the proportion of Chinese participants who fell into Cluster 2 is significantly greater than that of the American professors (p = .003). On the last two teaching clusters (student-centered), the Chinese participants had similar proportion with their American counterparts on Cluster 3, but had significantly greater percentage on Cluster 4 than American professors (p = .014).

Due to conceptual similarities between Clusters 1 and 2, and Cluster 3 and 4 respectively, we then combined the percentages of the first two and last two clusters for both groups of participants. The results are presented in Table 3.1.

The combined results showed that the Chinese and American professors had similar proportions (29.5% vs. 30%) on the teacher-centered teaching style cluster but the Chinese participants had a significantly higher percentage than the American counterparts (20% vs. 16%) on the student-centered teaching style cluster (p < .01).

Table 2
Means and Standard Deviations on Five Teaching Styles

Type of Teaching Style	Chinese M (sd)	American M*
Expert	5.25 (.74)	4.35
Formal Authority	4.85 (.84)	5
Personal	5.09 (.84)	5.28
Facilitator	5.68 (.82)	4.9
Delegator	4.79 (.7)	3.77

*Standard deviations of the American participants in Grash's (2006) study were not reported.

Table 3
Percentages of Four Teaching Clusters

Teaching Clusters	Chinese %	American %
Cluster 1*	24%	38%
Cluster 2*	35%	22%
Cluster 3	15%	17%
Cluster 4**	25%	15%

*p<.01, **p<.05

Table 3.1
Percentages of Combined Teaching Clusters

Teaching Clusters	Chinese %	American %
Cluster 1 and Cluster 2	29.5%	30%
Cluster 3 and Cluster 4*	20%	16%

*p<.01

To examine possible gender differences, a one-way ANOVA test was performed. Results suggested that male Chinese instructors scored significantly higher on Formal Authority style than their female counterparts (M = 5.19, SD =.81 vs. M = 4.71, SD = .73, f (93) = 4.451, p = .014). No other significant gender differences were found on the other four teaching styles or teaching clusters. We also examined possible effects of demographic factors collected in this study. ANOVA tests showed no significant results among the descriptive factors of participants.

DISCUSSION

Our first inquiry was if the traditional teaching values of Confucian ideology still dominated in Chinese higher education, and if so the Chinese participants would be more likely than American professors to have higher means on Expert, Formal Authority and Personal Model

and fall into clusters that are based on instructor-centered teaching styles, namely Clusters 1 and 2. The results provide partial affirmative answers. Compared with American professors as reported in Grasha's (2006) study, the Chinese participants do have significantly higher mean score on Expert category, but not on Formal Authority or Personal Model. Likewise, they are more likely to fall into Cluster 2, but not Cluster 1. Taken together these results, we believe that though the answer is far from conclusive, the evidence shows that many Chinese college instructors still use teacher-centered, top-down teaching styles that are consistent with the Confucian hierarchical ideology. The traditional cultural values may still provide guidance in professors' teaching patterns, as reported by previous study (Rao, 2001). However, the results also suggest that the magnitude of using this teaching style by Chinese professors is not huge compared with their American counterparts who also commonly use this teaching style. The prevalence rate (around 30%) is fairly low considering the long history of Confucian dominance in Chinese education.

Our second inquiry was that due to globalization and westernization, today's Chinese college professors have adopted a more democratic and student-centered approach in teaching, and if so the Chinese participants would have similar or higher means than American professors on Facilitator and Delegator and fall into clusters that are based on student-centered teaching styles, namely Clusters 3 and 4. Our results provide affirmative answers to this inquiry. Indeed, the Chinese participants are more likely to report using Facilitator or Delegator teaching styles which are based on student learning and democratic principles. They are also more likely to fall into Clusters 3 and 4 that are consistent with student-centered teaching styles. In fact, the current findings suggest the Chinese participants are more likely than American instructors to engage in student-centered teaching styles. These results may indicate that globalization and westernization has impacted on Chinese educators' teaching styles. They are starting to depart from the traditional top-down patterns in teacher-student relationships in the classrooms and in their teaching styles. These results are consistent with previous findings (He, 2005; Zhang, 2010).

Overall, the current results suggest that teaching styles of Chinese professors might not be as conservative as previously thought. At least, the results indicate that overall, the Chinese participants are no more likely to use the authority-based teaching styles than American instructors. On the other hand, they are more likely to use the student-centered teaching styles.

In retrospect, our inquiries were focused on an "either or" premise that might have been too simplistic. In light of the current findings, we can venture to assert that the Chinese college instructors are employing both traditional top-down and modern democratic student-centered teaching styles. This is clearly an indication that Chinese teaching styles in higher education are still evolving but can no longer be stereotyped as employing strictly Confucian hierarchical top-down teaching styles; rather, the contemporary situation may be a reflection of a transitional period where these two teaching styles co-exist.

Previous study (Grasha, 2006) found that women scored lower on Expert and Formal Authority but higher on Facilitator and Delegator than men. Partially consistent with their results, we also found that the Chinese male instructors scored significantly higher on Formal Authority style than their female counterparts. This finding is consistent with the general leadership literature that men tend to engage in a more authoritarian style than women (Patel, 2013). China is traditionally a patriarchal society where men tended to dominate all areas of governance and it's not surprising such ideas and values may reflect in instructors' teaching styles.

Sternberg and Grigorenko (1997) posited that academic disciplines may influence instructors' teaching styles. For example, humanities teachers may use a somewhat different teaching style from science faculty. In our study, we did not find any associations between subject matters and teaching styles. It may have been due to the limited academic disciplines represented in the current study and the small sample size.

There are several limitations that we would like to discuss. First, sample size of the Chinese participants is not large, and is limited to humanities and social sciences. This creates challenges in comparing the data from Grasha's (2006) study in which the sample size is much larger and more diverse that consisted of instructors from a wider range of academic disciplines. Second, the data from American instructors were from the studies conducted in the 1990s whereas the Chinese data were collected more recently. This discrepancy poses challenges for compatibility.

These weaknesses need to be rectified in future investigations of Chinese teaching styles. Additionally, we suggest that several other factors to be considered. First, to make the findings more meaningful in a practical sense, the researchers should include the idea of matching. In other words, it would be more helpful to try to examine the benefits of matching professors' teaching styles with students' learning styles. This would shed useful lights on the learning process and may contribute to students' academic success. Second, in order to understand better what determine or guide instructors' teaching styles, researchers should include an examination of their attitudes/

views about learning and teaching in general, and about their particular subject matter specifically. This would enhance our understanding of the relationship between instructors' philosophical views and their teaching styles. Third, it would be beneficial to examine possible relationships between a teacher's stress level and his/her teaching styles (Zhang, 2007) to understand what types of teaching styles would be conducive to the instructors' mental health. Other factors that are related to the instructors' effectiveness also need to be included, such as the instructor's confidence level, self-esteem and overall wellbeing.

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Appendix
Advantages and Disadvantages of Five Teaching Styles (Grasha, 2002)

EXPERT

Possesses knowledge and expertise that students need. Strives to maintain status as an expert among students by displaying detailed knowledge and by challenging students to enhance their competence. Concerned with transmitting information and insuring that students are well prepared.

Advantages

The information, knowledge, and skills possessed

Disadvantage

If overused, the amount of information, knowledge, and skill can be intimidating to less experienced students. May not always explain the underlying thought processes that produced the answers.

FORMAL AUTHORITY

Possesses status among students because of knowledge and role as a faculty member. Concerned with providing positive and negative feedback, establishing learning goals, expectations, and rules of conduct for students. Concerned with the correct, acceptable, and standard ways to do things and with providing students with the structure they need to learn.

Advantages

The focus on clear expectations and acceptable ways of doing things

Disadvantages

A strong investment in this style can lead to rigid, standardized, and less flexible ways of learning. May overlook individual differences in student needs and goals as learners.

PERSONAL MODEL

Believes in "teaching by personal example" and establishes a prototype for how to think and behave. Oversees, guides, and directs by showing how to do things, and encouraging students to observe and then to emulate the instructor's approach.

Advantages

The hands-on nature of the approach; an emphasis on direct observation and showing people how to follow a role model

Disadvantages

Some teachers may believe their way is the best or only way to do things. Attempts are made to "clone" students into their own image or to avoid showing students the range of options available to them. Some students may feel inadequate if they cannot live up to the expectations and standards of the model.

FACILITATOR

Emphasizes the personal nature of teacher-student interations. Guides and directs students by asking questions, exploring options, suggesting alternatives, and encouraging them to develop criteria to make informed choices. Overall goal is to develop in students the capacity for independent action, initiative, and responsibility. Works with students on projects in a consultative fashion and tries to provide as much support and encouragement as possible.

Advantages:

The personal flexibility, focus on student needs and goals, and the willingness to explore options and alternative courses of action

Disadvantages

This style is time consuming and is sometimes employed when a more direct approach is needed. It can make learners uncomfortable if it is not employed in a positive and affirming manner.

DELEGATOR

Concerned with developing students' capacity to function in an autonomous fashion. Students work independently on projects or as part of autonomous teams. The teacher is available at the request of students as a resource person.

Advantages

Contributes to students' learning that they have skills and knowledge that they can independently employ. The knowledge that students gain about their skills, and that someone in authority trusts them to think and act competently with a minimum level of supervision contributes to their vision of themselves as becoming professionals in the field.

Disadvantages

The level and ability of learners may be misjudged and students may not possess the ability to think and behave in a more autonomous manner. Some learners may become anxious about not having closer supervision or may not know how to interact with a faculty member who functions as a consultant and resource person.

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Moral Responsibility and Legal Liability, or, Ethics Drives the Law

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ABSTRACT

As William Shaw's (2008) textbook states, by way of observation, "To a significant extent, law codifies a society's customs, ideals, norms, and moral values" (pp. 10-11). Shaw adds that "changes in the law tend to reflect changes in what a society takes to be right and wrong..." (p. 11).

We think Shaw is correct, and we work to have our students understand that ethics drives the law. Focusing on moral responsibility and legal liability, we offer a model that can help students see the relationship between law and ethics. First we highlight the broader concepts establishing moral responsibility and legal liability. Then we show that narrower, more specific principles in ethics have a parallel in law. For the former, we rely on long established considered judgments from ethics and established legal concepts. For the latter, we rely on the four specific elements associated with moral wrong-doing in organizational settings and on the famous 1983 Soldano v. O'Daniels case.

INTRODUCTION

As McGowan (2005) pointed out, strong pedagogical arguments exist for students in business ethics classes to understand the relationship between law and ethics. Students should understand that an act may be legal and unethical, but an act could also be ethical and illegal. The example of slavery, legal and unethical, and the underground railroad, ethical and illegal, come to mind. Students who grasp the distinction between ethics and law are more likely to think critically.

Cultural reasons also exist for having students understand the relationship between law and ethics. Shaw's (2008) textbook states, by way of observation, "To a significant extent, law codifies a society's customs, ideals, norms, and moral values" (pp. 10-11). Shaw's (2008) textbook adds that "changes in the law tend to reflect changes in what a society takes to be right and wrong..." (p. 11). Other business ethics textbooks make the same observation.

We think the observation is well-grounded. Therefore, we work to have our students understand that ethics drives the law. This paper provides a pedagogical example of how that understanding can be more effectively achieved. Focusing on moral responsibility and legal liability, we offer a model that can help students see the relationship between law and ethics. First we highlight the broader concepts establishing moral responsibility and legal liability. Then we show that narrower, more specific principles in ethics have a parallel in law. For the former, we rely on long-established, considered judgments from ethics and settled legal concepts. For the latter, we rely on the four specific elements associated with moral wrong-doing in organizational settings and on the famous Soldano v. O'Daniels (1983) case.

MORAL RESPONSIBILITY AND LEGAL LIABILITY

Years ago, in perhaps the first business ethics textbook, Thomas Garrett (1966) observed that "Man is responsible at least for what he freely wills whether as a means or an end" (p. 8). He observed that "To a large extent, this theory is found in civil law as well as in ethics" (p. 8). Finally, he asked if "I have no responsibility for the evils which I foresee will flow from my actions" (p. 8). In short, Garrett

(1966) followed traditional notions of moral responsibility, where an individual is thought morally responsible if the individual knowingly and freely pursues an action that causes harm.

Over the years, business ethics textbooks have refined accounts of moral responsibility. For instance, Velasquez's (2012) business ethics textbook, the first edition of which revolutionized how textbooks were structured, states:

A person is morally responsible for an injury or wrong if:

1. The person caused or helped cause it, or failed to prevent it when he or she could have and should have; and
2. The person did so knowing what he or she was doing; and
3. The person did so of his or her own free will (p. 57).

De George's (2006) textbook offers a similar analysis, as do others. The previous analyses, however useful, presume a context of a single individual's making a decision about right and wrong. That is, morality in the contexts above is primarily personal and largely private. Neither corporate contexts nor the law exists in private, though, so an individual's decisions are not concerned exclusively about individual moral perfection. Instead, they must be accounted for in a social context. Legal codes aid in that decision-making, generally and specifically.

The law requires the presence of two broad elements for the imposition of criminal liability, namely mens rea and actus reus (Blum, et al., 2008, sec. 117). The first item involves intention, i.e., a requisite state of mind or intent, analogous to knowingly and freely doing an act. Criminal statutes define the type of mental state necessary for the crime. For example, some criminal laws impose liability only if the act is done with "purpose," while other criminal laws require mere "negligence" with regard to the actor's mental state. Common categories of "intent" are:

- Purpose: An individual acts with purpose when it is his conscious object to cause such a result (American Law Institute, 1985, sec. 2.02).
- Knowledge: An individual acts with knowledge when he is aware that it is practically certain that his conduct will cause such a result (American Law Institute, 1985, sec. 2.02).
- Recklessness: An individual acts with recklessness when he consciously disregards a substantial and unjustifiable risk that his conduct will cause such a result (American Law Institute, 1985, sec. 2.02).
- Negligence: An individual acts with negligence when he should be aware of a substantial and unjustifiable risk that his conduct will cause such a result (American Law Institute, 1985, sec. 2.02).

The second element for any crime involves the commission of an "act" (Blum, et al., 2008, sec. 117). Merely *thinking* of a crime is insufficient; the actor must *do* something to contribute to the proscribed harm (Farrell & Marceau, 2013, p.1545). Similarly, Velasquez's (2012) concept of moral responsibility depends on the actor *doing* something—either causing the harm or failing to prevent the harm when he or she had an obligation to do so. This condition, actus reus, simply demands causal connection, again, analogous to the broad moral reasoning above.

The elements of moral responsibility are also present with regard to civil liability for the tort of negligence. A plaintiff must prove that (1) the defendant owed the plaintiff a duty of care; (2) the defendant breached that duty; (3) the defendant's conduct in fact caused harm to the plaintiff; (4) the defendant's conduct was also the proximate cause of the harm; and (5) the plaintiff suffered damages to his person or property (Dietz, et al., 2004, sec. 71). The first element—duty—recognizes that we have an obligation to act with reasonable care to avoid or minimize harm to everyone around us; to that end, we must undertake all of our actions in a reasonable manner. In other words, we must conform our actions to those of the objective, "reasonable" person under the same or similar circumstances (Dietz, et al., 2004, sec. 132). When we deviate from this standard, we have breached our duty of care and violated the second element. These two elements focus on the "wrongness" of our behavior and the harm that results when we fail to conform our actions to the reasonable expectations of our community. The third and fourth elements focus on the causal connection between the act and the harm, much like Velasquez's (2012) first requirement for moral responsibility. The fifth element of negligence requires a showing of harm to the person or property. Without some type of harm, or "damages," there can be no liability (Dietz, et al., 2004, sec. 71). Similarly, the concept of moral responsibility is rooted in redressing the harms suffered by others as a result of our conduct.

Thus, there is considerable overlap between the elements of moral responsibility, criminal liability, and civil liability. We teach our students that while ethics and the law are not coextensive, they have broad similarities. We can go further and show that even at a more specific level, ethics drives the law. Our discussion starts with collective responsibility.

Assigning Responsibility and Liability Distributively

In the 1960s, philosophers turned their attention to an individual's responsibility in an organizational setting. Some impetus originated in the civil rights movement: to what extent should an individual white male be held accountable for the harm done by other whites to blacks? Feinberg (1968) recognized that "The larger and more diverse the group of alleged fault-sharers, the less likely it is that they all share--or share to anything like the same degree--the fault in question" (p. 682). He observed that accountability, "falling on the group as a whole, will distribute burdens quite unavoidably on faultless members" (Feinberg, 1968, p. 687). Feinberg (1968) set about attempting to analyze the problem and to determine possible mechanisms for distributing responsibility more exactly.

Ethicists continued the examination of moral responsibility in an organizational context and by 1982, Velasquez's first edition of Business Ethics identified four elements as significant for assigning individual moral responsibility in an organization (1982; see Velasquez, 2012, pp. 60-61). Magnitude of harm refers to the quantity of harm that will be produced. The greater the quantity of harm, the greater the individual's responsibility is to prevent the harm or certainly not take part in producing the harm. The certitude of harm must also be taken into account, an idea found in Garrett's (1966) textbook (p. 9). The idea is that the greater the likelihood of harm, the greater the agent's responsibility to avoid activities that would produce the harm. The first two factors, we note, involve the act itself. The next two factors focus on the agent.

Inasmuch as a moral agent can be held accountable only for what is freely and knowingly done, coercion must be examined. The demand that coercion be taken into account is especially important in an organizational setting, where superiors can apply pressure to subordinates to perform certain actions. Coercion obviously interferes with free choice.

Finally, the amount of cooperation in or in connection to the nefarious action must be appraised. In general, the less a person contributes to or is connected to an act, the less responsibility the individual has. An interesting and as yet unresolved issue in this area is the amount of blame that should be assigned to a superior or a subordinate. The subordinate is often very closely identified with the action and thus has a strong connection. On the other hand, the subordinate often would not have done the act without the superior's directives. The subordinate is not as well positioned to foresee ramifications of an act, so it may be said that the superior made the greater contribution to the act.

As philosophers examined the sort of concerns relevant to moral responsibility in corporate and organizational settings, the law did not stand idly by. In fact, the Soldano v. O'Daniels (1983) case, decided by the California Court of Appeals, appropriated the distinctions and conclusions philosophical investigation had produced.

Soldano provides students with an excellent example of the influence of ethics on the law. In that case, the court wrestled with a question of first impression in California: whether a business could be civilly liable for wrongful death where the business refused to allow a good Samaritan to use the telephone to call the police to report a life-or-death emergency (*Soldano v. O'Daniels*, 1983, p. 312). The plaintiff's father, Darrell Soldano, was shot and killed at Happy Jack's Saloon. Shortly before the shooting, a patron of Happy Jack's Saloon ran across the street to The Circle Inn and informed the bartender that a man at Happy Jack's Saloon had been threatened, and he asked if he could use the phone to call the police. The bartender did not allow the patron to use the phone, nor did he call the police himself. Mr. Soldano was murdered, and his son brought a wrongful death action against The Circle Inn alleging that The Circle Inn's failure to allow the good Samaritan to use the telephone caused his father's death (*Soldano v. O'Daniels*, 1983, p. 312).

The Circle Inn argued that it had no legal obligation to allow the Happy Jack's patron to use the phone. In essence, The Circle Inn failed to act to prevent a harm. While the law imposes liability for negligent acts, to what extent should the law impose liability for *inaction*? The black-letter law is that liability cannot be based on a mere failure to act unless there is some special, close relationship between the parties that imposes a duty to act (Dietz, et al., 2004, sec. 90).[1] The rule of non-liability for "nonfeasance" arose in part because at common law, the courts found it challenging enough to manage humanity's various forms of active misbehavior—there was little time left to impose liability on individuals who simply failed to act. (*Soldano v. O'Daniels*, 1983, p. 312). In addition, a rule imposing a duty to act to prevent harm would be difficult to adminis-

1 Courts have found the following relationships sufficient to give rise to a duty to act: employer and employee, innkeeper and guest, carrier and passenger, parent and child, and school and student (Dietz, et al., 2004, sec. 83). For an excellent discussion of the no-duty-to-rescue rule and its exceptions, see Romohr (2006). It is worth noting that the no-duty-to-rescue rule remains intact in most jurisdictions and Soldano is viewed as something of an outlier in the area of negligence law; nonetheless, the no-duty-to-rescue rule has been criticized by legal experts and ethicists as morally indefensible. (Heyman, 1994; W. Keeton, Dobbs, R. Keeton & Owen, 1984, pp. 375-376).

ter—should the observer of a heart attack be liable for failure to render C.P.R.? Should the driver on the highway be liable if harm comes to a stranded motorist he passes en route to his destination? The reluctance to impose liability for failure to act thus arises from practical concerns as well. It is difficult to make uniform standards and apply them evenly, especially given that "Many citizens simply 'don't want to get involved'" (*Soldano v. O'Daniels*,1983, p. 316).

Nonetheless, the *Soldano* court noted the shaky moral footing of a rule that, in essence, allows citizens to look the other way when another person is in grave danger. The court quoted the Restatement (Second) of Torts when it wrote:

> "The result of the rule has been a series of older decisions to the effect that one human being, seeing a fellow man in dire peril, is under no legal obligation to aid him, but may sit on the dock, smoke his cigar, and watch the other drown. Such decisions have been condemned by legal writers as revolting to any moral sense." (Rest.2d Torts, *supra, §314, com. c) (Soldano v. O'Daniels, 1983, p. 312).*

The morally offensive nature of the rule drove the court to reexamine it in the context of Mr. Soldano's death. The court quoted Francis H. Bohlen when it noted that morality provides the underpinning for law, and broad societal conceptions of morality are inevitably reflected in the concept of legal obligation:

> "While it is true that the common law does not attempt to enforce all moral, ethical, or humanitarian duties, it is submitted, equally true that all ethical and moral conceptions, which are not the mere temporary manifestations of a passing wave of sentimentalism or puritanism, but on the contrary, find a real and permanent place in the settled convictions of a race and become part of the normal habit of thought thereof, of necessity do in time color the judicial conception of legal obligation . . ." (Bohlen, *op. cit. supra*, pt. II, 56 U.Pa.L.Rev. 316, 334-337) (*Soldano v. O'Daniels*, 1983, p. 313).

After exploring the role morality plays in setting the law, the court turned to the facts of the case to evaluate whether The Circle Inn owed a duty to Mr. Soldano. The court noted that there was no special relationship between The Circle Inn and Mr. Soldano (like that of common carrier/passenger, parent/child, innkeeper/guest, etc.), so The Circle Inn's conduct did not fit within any of the recognized exceptions to the rule of non-liability for nonfeasance (*Soldano v. O'Daniels*, 1983, p. 314). However, the court noted that a duty may nonetheless be imposed for negligence based on the following factors:

> "(1) the foreseeability of harm to the plaintiff, (2) the degree of certainty that the plaintiff suffered injury, (3) the closeness of the connection between the defendant's conduct and the injury suffered, (4) the moral blame attached to the defendant's conduct, (5) the policy of preventing future harm, (6) the extent of the burden to the defendant and consequences to the community of imposing a duty to exercise care with resulting liability for breach, (7) and the availability, cost and prevalence of insurance for the risk involved." (*Rowland v. Christian* (1968) 69 Cal.2d 108, 113 . . .)" (*Soldano v. O'Daniels*, 1983, p.315).

Applying these factors to the facts of the case, the court found that the harm to Mr. Soldano was clearly foreseeable, and a jury could find that the bartender's refusal to allow the good Samaritan to call the police contributed to Mr. Soldano's death (Soldano v. O'Daniels, 1983, pp.315-316). With regard to the fourth factor, the court found that the "employee's conduct displayed a disregard for human life that can be characterized as morally wrong: he was callously indifferent to the possibility that Darrell Soldano would die as a result of his refusal to allow a person to use the telephone" (Soldano v. O'Daniels, 1983, p. 316). The minimal burden of allowing someone to use the telephone was far outweighed by the potential benefit—saving a person's life (Soldano v. O'Daniels, 1983, p.316). The court concluded that the bartender owed a duty to Mr. Soldano to allow the good Samaritan to use the Circle Inn's phone to call the police, or to place the call himself (Soldano v. O'Daniels, 1983, p.317).2

Soldano v. O'Daniels provides students with a straightforward demonstration of the way ethics drives the law. The court expressly acknowledged that legal rules can—and should—change to reflect society's moral standards. Moreover, much of the court's discussion of whether to impose a legal duty on The Circle Inn focused on the elements of moral wrongdoing identified above: the certitude and magnitude of the harm, as well as the contribution of the agent and whether he acted free of coercion. The court came down hard on The Circle Inn because the threat of harm was great and the certitude of harm was high. A murder was imminent. Moreover, the court found the behavior of the agent—the bartender—to be morally repugnant because he chose of his own free will to ignore the patron's plea, despite the fact that allowing the patron to use the phone presented no meaningful burden to The Circle Inn. The court found that such callous indifference to another human life could only be "characterized as morally wrong" (Soldano v. O'Daniels, 1983, p.316).

2 The court also noted that the facts of the case were similar to conduct prohibited by section 327 of the Second Restatement of Torts, which suggests that liability should be imposed on one who negligently prevents a third person from giving aid to another (*Soldano v. O'Daniels*, 1983, p.317).

The ideas in law and ethics regarding moral responsibility and legal liability are analogous. If our students see that connection, they are more likely to understand that ethics is as important as or more important than law. By presenting the relationship of ethics to law in our classroom, we hope to inculcate in students the habit of thinking of right and wrong. They would be less likely to follow the rules of an organization when those rules appear to be morally problematic.

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Examining the Effectiveness of Social Responsibility Courses in Higher Education

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ABSTRACT

Individual and corporate social responsibility has been gaining more and more attention over the last several years. We examine the effectiveness of incorporating social responsibility courses into the curriculum in higher education, with a specific look at Butler University. In general, the results indicate that implementing this type of curricular program is beneficial to the students but affects students differently based on their gender and age. Specifically, the results show that female students generally have a higher level of individual social responsibility than their male counterparts. The results also indicate that the students' level of social responsibility influence their perceptions of how responsible companies should behave for both societal and consumer welfare. We conclude that these courses encourage students to get involved with the community and teach them to become good citizens. This also has a carryover effect and remains with students as they graduate and become part of other communities.

INTRODUCTION

> "Businesses cannot be successful when the society around them fails." – Responsible Business Summit, London, May 2013

Corporate social responsibility represents the relationship between corporations and society. The importance of individual and corporate social responsibility to businesses and communities alike has long been established. There is now a deep-rooted belief in the business world that corporate social responsibility (CSR) is imperative for survival both nationally and globally. In fact, investors, customers, politicians, the government, and the community in general perceive companies that have a strategic approach to corporate social responsibility, and take it seriously, more favorably. On the other hand, companies that disregard CSR tend to be viewed negatively by consumers and the general public.

Individual social responsibility (ISR) is motivated by the desire to do good and help others. Most people believe that ISR says a lot about the type of person, how he/she is perceived by others, and maybe more importantly, how we perceive ourselves. Over the years, both ISR and CSR have become integral to the success of organizations (both public and private), and the trend has not gone unnoticed by administrators in the academic sphere.

The Center for Citizenship and Community at Butler University in Indianapolis, Indiana has implemented an Indianapolis Community Requirement (ICR) into the core curriculum. According to the requirement, "all Butler University students entering in Fall 2010 or later must complete at least one ICR course before graduation. The ICR can be satisfied through designated courses in the core curriculum, in the student's major, or taken as electives." More specifically, the ICR dictates that students participate in a number of reciprocal community partnerships in which they can use their classroom knowledge with real experiences in the Indianapolis community.

The Center for Citizenship and Community (CCC) highlights the following benefits for students:[1]

1 For a more detailed look at the work of the Center for Citizenship and Community and the ICR at Butler University, please visit http://www.butler.edu/citizenship-community/indianapolis-community-requirement/

- Reinforces skills learned in the classroom and demonstrates the relevance of academic work for their personal and professional development
- Broadens cultural competency and increases awareness of current societal issues as they relate to academic areas of interest
- Improves interpersonal skills
- Promotes student development and civic responsibility
- Widens networks and affiliations within the Indianapolis Community for references, internships, and job placement
- Furthers independent learning and problem-solving skills

The ICR courses play a key role in student development by endeavoring to augment students' understanding of personal and social responsibility, foster ethical behavior, encourage civic mindedness, develop intercultural skills, and enhance overall learning. Moreover, in light of recent corporate scandals, it is incumbent on academicians and university administrators to graduate more socially responsible individuals, as many have argued that these scandals may be directly attributed to a lack of individual and corporate social responsibility.

The CCC states the following about the ICR's impact on the community:

- Augments reciprocal partnerships within the Indianapolis community that build on the assets of university students and community members alike.
- Furnishes access to relevant university resources to meet community needs.
- Offers opportunity for families, children, and community-based organizations to foster today's generation to become tomorrow's volunteers and civic leaders.

Our study investigates how effective social responsibility courses are at translating into good individual and corporate social responsibility. In other words, can social responsibility be taught? Using the Butler University core curriculum, which requires students to take at least one social responsibility course (the ICR), we examine students' perceptions of individual and corporate social responsibility. This is important because of the steady movement in the corporate world towards individual and corporate social responsibility as a means of encouraging overall socially responsible behavior, the positive effects of which have already been documented in corporations and the wider society.

LITERATURE REVIEW

Our study adds to the burgeoning literature on individual and corporate social responsibility. There has been much research on consumers' reactions to CSR, as well as the benefits, costs and limitations of socially responsible behavior. However, to the best of our knowledge, no one has looked at the effectiveness of including socially responsible courses into the university curriculum, in terms of the impact on students' perception of individual and corporate social responsibility. Given the current importance that is attached to ISR and CSR, both nationally and internationally, we believe this research is important to gauge the impact on our students.

Davis and Blomstrom (1975) defined CSR as "the managerial obligation to take action to protect and improve both the welfare of society as a whole and the interest of organizations". Since then, other perspectives of CSR have come to the fore including a more encompassing view of CSR as proactive socially responsible behavior by organizations, as well as individuals (McGee, 1998). This includes, but is not limited to, ethical behavior by individuals or groups within an organization. We choose to use McGee's definition in this study; however, it must be noted that different people in different parts of the world can define corporate social responsibility differently, and we must be careful in using a broad brush to define corporate social responsibility (Campbell, 2007).

Financial Performance and CSR

Prior research on the impact of CSR on financial performance has been mixed. McGuire et. al. (1988) found a positive relationship between CSR and financial performance, while Freedman and Jaggi (1982) found no relationship between CSR and financial performance. Still, others found mixed results (Coffey and Fryxell, 1991). Notwithstanding these results, Waddock and Graves (1997), in a widely respected study, presented a thorough multidimensional measure of CSR and found a positive relationship between an increase in CSR and an increase in company financial performance.

Consumers' Perception and CSR

Research on CSR and consumers' perception of a company finds that there is a positive association between CSR and the consumers' perceptions of a company's products (Brown and Dacin, 1997). In other words, consumers view the products of companies with positive CSR more favorably than other companies viewed as having negative CSR, or no strategic CSR plan. Sen and Bhattacharya (2001) investigate when, how and for whom specific CSR initiatives work. The authors find that both company-specific factors such as CSR issues and product quality, as well as individual-specific factors such as consumers' beliefs about CSR issues, impact consumers' responses to CSR. In addition, the authors conclude that CSR initiatives can sometimes negatively impact consumers' purchasing decisions.

Individual Social Responsibility (ISR)

CSR has been talked about for many years now, but the impact of ISR on the communities and the global corporate environment is also becoming increasingly important. ISR has to do with persons becoming responsible in their actions that have a direct impact on the communities outside of their immediate group. ISR includes the engagement of each individual in the community where he/she currently lives, actively participates in its development and works together to solve community problems. One of the main objectives of ISR is to make the community a better place. Benabou and Tirole (2009) examine individuals' motivation for socially responsible behavior. They find that ISR is driven by intrinsic altruism, material incentives, and social or self-esteem concerns. In addition, the authors find these motives are mutually interdependent, and both policy makers and social activists must have a good understanding of these interactions to effectively influence individuals' desire to engage in socially responsible behaviors.

ISR and CSR

Galaskiewicz (1991) examined the relationship between individual social responsibility and the impact on corporate social responsibility. The author established that managers who were members of clubs and/or organizations that are active in charitable giving activities were more likely to engage in positive ISR and CSR activities. This is because, much like the average Butler University student, they learn of the importance of socially responsible behavior through classes and various seminars. Moreover, the author surmises that there is a sense of peer pressure to conform to the acceptable social behaviors.

ISR and CSR Education

Arlow (1991) investigated the personal characteristics in college students' evaluations of business ethics and corporate social responsibility. The author found that a student's undergraduate major impacts corporate social responsibility rather than business ethics alone. He also found that business students are no less ethical than nonbusiness students, and that female students are more ethical and socially responsible than male students. The author concludes that there is a greater need to tailor the business ethics curriculum based on student characteristics.

Matten and Moon (2004) present the results of a survey on CSR education (teaching and research) in Europe. The basis for their survey was to try to identify whether business schools were making a concerted effort to incorporate social responsibility courses into the curriculum. The authors found that, in general, business schools are trying to find new ways to include ISR and CSR courses in the curriculum, but that this was a new and yet unproven process. The survey also showed that the most influential persons driving the CSR agenda are specific faculty members.

Our study is warranted as it will shed much needed light on the effectiveness of socially responsible courses. We will also endeavor to answer the following question: Can individual social responsibility be taught?

DATA AND METHODOLOGY

To best address our research questions and understand the impact of a course about social responsibility on the student population, we designed a survey that was distributed to undergraduate students. The 124 student participants attend Butler University, a mid-sized University in the Midwestern United States, and ranged from freshmen to seniors in the College of Business (6 Freshmen, 25 Sophomores, 65 Juniors, and 28 Seniors participated). The survey featured a series of questions about the students' beliefs about their levels of individual and corporate social responsibility. In addition, questions were asked about their coursework and extracurricular activities that might have covered topics concerning social responsibility and ethics. Lastly, the participants were asked a series of questions about their demographic and psychographic characteristics. Specific information about the measures can be found in the following section.

Measures

Individual Social Responsibility (ISR)

To measure the individual participant's feelings about socially responsible behavior and to assess their beliefs about their own moral behaviors, we measured the participant's moral identity using the Aquino and Reed (2002) scale, which includes 10 statements that participants respond to by indicating how strongly they agree or disagree with the statement. The scale represents two dimensions of moral identity – internalization and symbolization – which differ based on how the participants either internalize or outwardly express their moral identity. In our study, we

call these two dimensions Internalized Moral Identity (IMI) and Symbolic Moral Identity (SMI). In terms of the data analysis, the scores for the items on each dimension were averaged to create an index for the participant's internalization and symbolization of their moral identity.

Corporate Social Responsibility (CSR)

To measure corporate social responsibility, we employ the two dimensions of the Turker (2009) CSR scale that deal with how a company is perceived by the general public. Specifically, the original scale consists of measures of four dimensions, two of which face the general public and examine (i) how individuals feel companies should benefit society and (ii) how they feel companies should benefit the consumer. The other two dimensions examine how a company presents itself to other audiences, including their employees and the federal government. We chose the two dimensions that represented the view the general public would have of a company since one of the goals of this project is to determine students' perceptions of CSR, and they would not be aware of how a company presents itself to their internal and governmental stakeholders. Specifically, these scale questions ask participants to respond with how strongly they agree or disagree with statements about how companies should act. For the data analysis of this measure, average scores were computed for each of the two dimensions of CSR.

Data Analysis

Several types of analyses were performed on the survey data collected in order to test a model that connects participants' coursework to their perceptions of their own ISR and then connects this construct to their perceptions of CSR. Specifically, ANOVA tests were conducted to examine the effects of the ICR, Gender, and Age on each of the dimensions of ISR since the three factors are categorical variables. To examine the relationships between the ISR and CSR dimensions, we used regression analysis including Gender and Age of the respondents as independent variables. We expect that students who have already fulfilled their ICR at Butler University would have a higher perception of their ISR. In addition, this perception of ISR should be positively related to their perceptions of CSR. Moreover, we expect that the gender and age of the respondents would significantly affect the relationships between the class and the individual as well as corporate levels of social responsibility.

Descriptive Statistics

Of the 124 student participants in the study, 42% of them had completed a class that required that they participate in some sort of service to the Indianapolis community, and thus fulfilled the ICR. The classes they took to fulfill this requirement ranged in topics and were offered by a variety of departments across the University. For example, some students took a class offered in the Accounting Department where they assisted members of the community with their tax paperwork, while others took a class in the Spanish Department where they helped Spanish-speaking members of the community learn English. Additionally, the students who participated in this study were almost evenly distributed between genders (44% male, 56% female).

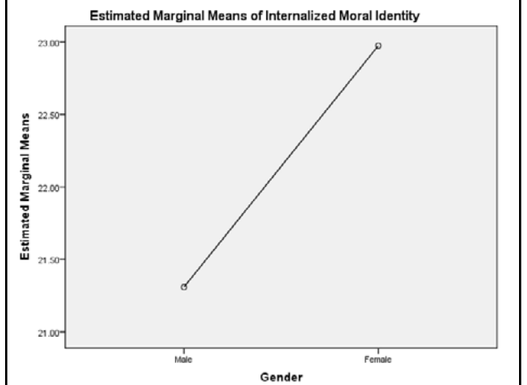
Examining the scale measures, we find that the students had a relatively high level of individual social responsibility. Analyzing the two dimensions of ISR separately, we find that both dimensions were measured with an adequate level of reliability (αIMI = 0.881; αSMI = 0.790). Students were shown to have a higher level of internalized moral identity (Mean = 22.45; SD = 3.74; Max = 25.00). On the other hand, they seem to have a medium level of symbolic moral identity (Mean = 18.15; SD = 3.06; Max = 25.00). This indicates that the students, in general, have a high level of morals in what they think and feel; however, the level of morals that they express outwardly in what they wear and the activities they engage in is slightly lower.

Regarding their perceptions of corporate social responsibility, we find that students have a relatively high level of corporate social responsibility as well. Again, both dimensions of CSR seemed to be measured with adequate levels of reliability (αSocial = 0.915; αConsumer = 0.840). Specifically, students had a relatively high perception of how much benefit to society the company should provide (Mean = 25.60; SD = 4.01; Max = 30.00). Additionally, they have a relatively high perception of how much benefit to the customer a company should provide (Mean = 13.47; SD = 1.84; Max = 15.00).

RESULTS

In order to test the model proposed in this research, we conducted a series of analyses examining the relationships between the ICR, ISR and CSR. First, we examined the effect of the ICR on the two components of ISR, Internalized Moral Identity (IMI) and Symbolic Moral Identity (SMI), by conducting a MANOVA with the ICR Requirement, Age, and Gender as independent variables. The results indicate that there is a significant effect of Gender ($F(1,96) = 4.007$, $p < 0.05$) and the interaction between the ICR, Gender, and Age ($F(1,96) = 4.577$, $p < 0.05$) on the individual's IMI. Upon further examination, we find that female students have a significantly higher level of IMI than their male counterparts (See Figure 1).

Figure 1
Gender Effect on Internalized Moral Identity

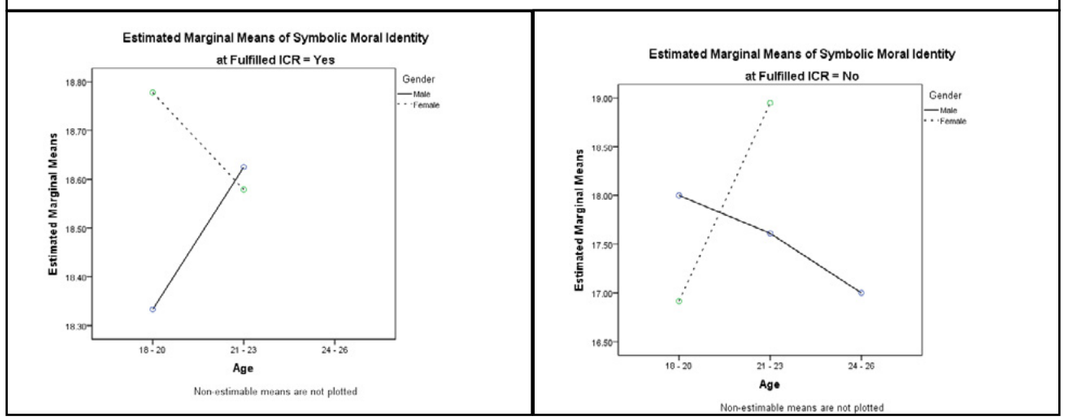


In addition, we found a significant three-way interaction between Age, Gender, and the ICR on the IMI of the respondent. Specifically, when students have taken the ICR, there is no difference in the female students' IMI at different ages. However, for the male students who have taken the ICR, their IMI level is significantly higher when they are between the ages of 21 and 23 than when they are between the ages of 18 and 20 ($t(13) = 4.10$, $p < 0.002$; see Figure 2A). This suggests that it takes male students longer to internalize the benefits of the ICR.

On the other hand, when the ICR has not been fulfilled, our study exhibits a different pattern of results. The results show that again women have a relatively constant level of ISR at the ages of 18-20 and at 21-23 without having taken a class to fulfill their ICR. However, for the male students who have not taken the ICR Class, their level of ISR steadily declines over the age groups and shows a marginally significant difference between the ages of 18-20 and 24-26 ($t(7) = 2.00$, $p = 0.08$; see Figure 2B). This suggests that male students should probably be encouraged to take the ICR early in their college career to achieve maximum benefits. When analyzing the second dimension of ISR, we find that there are no significant main or interactive effects of any of the three independent variables.

In the second phase of the analysis, we examined the relationships between the students' level of ISR and the impact on their perceptions of CSR. In order to examine these relationships, two sets of regressions were conducted with the ISR Dimensions (IMI and SMI), Age, and Gender as independent variables and each of the dimensions of CSR (the social and consumer benefits of the organization), as the dependent variables. In the first regression, looking at the factors that affect the social benefit of the organization, we find that the two dimensions of ISR (IMI and SMI) and Gender have significant effects. However, age does not significantly affect the perceived social benefit of an organization. All three of these significant factors have positive beta coefficients indicating that as each of the independent variables increases, so does the social dimension of CSR. Therefore, as students' internalized moral identity increases this causes an increase in their perceived social benefit of a company or organization ($\beta = 0.235$, $p = 0.01$). In addition, as students' symbolic moral identity increases so does their perception of the social benefit of a company ($\beta = 0.371$, $p < 0.01$). Lastly, female students

FIGURE 2
Age, Gender, and ICR Interaction on Internalized Moral Id
(A) (B)



have a higher perception of the social benefit of a company or organization than male students ($\beta = 0.228$, $p < 0.01$).

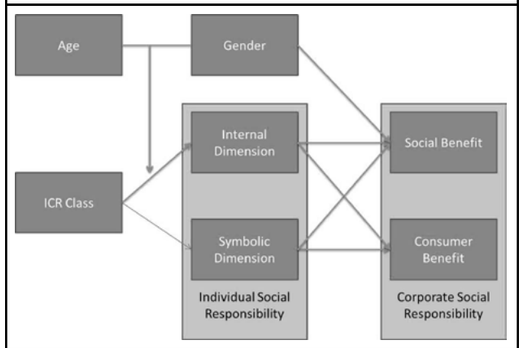
Next, we analyzed the effects of these factors on the second dimension of CSR, the consumer benefit of the organization. According to the results, only the two dimensions of ISR both have significant positive effects on the perceived consumer benefit of a company. As such as each of the ISR dimensions increases, so does the perceived benefit of a company to consumers ($\beta IMI = 0.375$, $p < 0.01$; $\beta SMI = 0.217$, $p < 0.05$). However, in this analysis, gender and age do not have significant effects on the consumer benefit dimensions of CSR. A graphical summary of the model test results is presented in Figure 3.

CONCLUSION

The social responsibility of individuals and companies has been gaining attention over the last several years both at a national and international level. When individuals make decisions to buy one product over another, they often look at what the companies are doing to benefit societal welfare. Moreover, the level of corporate social responsibility as well as individual social responsibility has been shown to have a positive impact on the overall reputation of companies.

Given this trend, more universities are beginning to incorporate course work into their curriculum that either emphasizes social responsibility and ethics, or requires students to get out into the community for service as an essential component of the curriculum. Butler University in Indianapolis, Indiana is a university that has implemented an Indianapolis Community Requirement (ICR) into the curriculum so that students are required at some point during their studies to engage with the community as part of a course for which they receive credit. This can be fulfilled in a variety of ways and has been implemented across campus by all departments.

Figure 3
Model Results Summary



Please note: The bolded lines represent significant relationships, while the other line represents an insignificant relationship.

In this study, we examine the effects of incorporating this type of program and requirement into the Butler University curriculum. In order to look at the effects of the ICR, we surveyed a set of undergraduate students enrolled for various amounts of time at the university, ensuring that some of the students had completed their ICR and some had not. We then measured their level of individual and corporate social responsibility. In general, the results seem to indicate that implementing this type of curricular program is beneficial to the students, but seems to affect students differently based on their gender and age.

Our results provide an inside look at how students who have completed the ICR perceive their own level of individual social responsibility as well as how they perceive the social and consumer benefits of an organization. Specifically, we find that female students generally have a higher level of individual social responsibility than their male counterparts. In addition, when examining the effect of the ICR on how the student's internalize their level of social responsibility, we find a significant interaction between gender, age, and the ICR. As such, we surmise that male and female students who have taken an ICR class internalize the effects of the class at different ages. However, they do not always take those internalized values and characteristics and express them outwardly via the clothes they wear, the things they read, and the activities in which they participate. This is important because it implies that we cannot simply look at the outward appearance of our students and judge their level of social responsibility.

Our study also indicates that students' level of social responsibility remain with them and impact their perceptions of how responsible companies should be for both societal and consumer welfare. Moreover, we find that both dimensions of ISR (IMI and SMI) have a positive effect on the perceptions of how companies should benefit consumers and society. We also find that female students have a higher level of perception of how much a company should provide a social benefit than male students.

We conclude that including this type of program/coursework into the curriculum is beneficial to all students. Not only do they get involved with the community and learn to become good citizens, but also the benefits of the coursework remain with them as they graduate and become a part of other communities. Therefore, we surmise that there is a positive impact on students' ISR and CSR levels, and prior research has demonstrated that these perceptions and beliefs are usually enduring. Maybe we can teach social responsibility after all.

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Developing Students' Twenty-First Century Skills Through a Service Learning Project

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ABSTRACT

It is increasingly important for students to develop practiced and applied knowledge, teamwork skills, and civic engagement in addition to core curriculum knowledge in order to be prepared for the demands of the 21st century workforce. We propose that service-learning, or learning through an applied community service project, can uniquely address these essential 21st century skills. Thus, in this paper, we outline a specific service-learning project geared towards improving these skill-sets. Then, we design an experiment to test the efficacy of this project in increasing these skills by comparing students who completed this project to those in a control condition. Results support study hypotheses that service-learning increases teamwork and civic engagement, and partially support the hypothesis that it increases practiced and applied knowledge. Additionally, students in the service-learning condition outperformed students in the control condition on a test of core-curriculum knowledge. Thus, this study supports the overall assertion that service-learning can be used to successfully teach students 21st century skills.

INTRODUCTION

Twenty-first century skill development has been at the forefront of today's educational debates (Silva, 2009). In contrast to the 20th century, the 21st century requires a new set of work, citizenship, and self-actualization skills in order to succeed (Dede, 2010). For this reason educators must find new and innovative ways to develop skills within their students. We assert that service-learning, defined as "a form of experiential learning that combines academic coursework with voluntary service in the community" (Deeley, 2010, p. 2), is an ideal way to target these newly relevant skills. The primary purpose of this paper is to share information and instruction materials on how to integrate a service-learning project into an undergraduate course curriculum to develop 21st century skills. The secondary purpose is to provide evidence of students' learning related to core content knowledge. Our goal is not only to increase educators' awareness of the importance of developing students' 21st century skills, but also to provide a clear means – a service-learning project – to achieve this outcome.

Overview of Service-Learning

Service-learning is a method of instruction that combines an educational community service project with traditional means of teaching (Furco, 1996). The service-based project is not merely an added, unrelated component to the course, but rather the means by which students learn important class-relevant concepts in a highly impactful way.

Teachers must also supplement traditional course lectures with structured discussions focused on helping students make connections between the material being taught and their real-world service experiences (McCarthy and Tucker, 2002). This definition of service-learning directed the overall structure for the project utilized within this study.

Whereas traditional forms of teaching primarily emphasize the learning and understanding of concepts, service-learning enhances learning by providing students with practice in a real-world arena; that is, a more hands-on, real-world understanding of course concepts. Instructors report positive outcomes associated with service-learning projects, such as opportunities for students to apply theory and exercise new skills (see Andrews, 2007; Flannery and Pragram, 2010; Gujarathi and McQuade 2002; Poon, Chan, and Zhou, 2011; Robinson, Sherwood, and DePaolo, 2010). In addition, service-learning encourages students to participate in civic involvement (Salimbene et al., 2005), give back to their communities in meaningful ways (Papamarcos, 2005), and create stronger ties between their schools and communities.

While there is a great deal of interest and several proposed benefits of service-learning, relatively few studies have empirically measured these specific outcomes (McCarthy and Tucker, 2002). Additionally, few studies address whether the proposed outcomes of service-learning directly benefit students in areas that relate to the evolving demands of the modern workforce. Thus, our service-learning project was designed to not only facilitate learning in undergraduate students, but also to empirically examine whether such an experience could develop students' 21st century workplace skills.

Skills Required for the Twenty-First Century Workplace

Route memory of core curriculum knowledge is no longer sufficient to cope with the evolving demands of the 21st century workplace (Salpeter, 2003). Indeed, in addition to traditional learning, students must also be able to apply concepts learned in class to solve real-world problems, to cooperate well in groups and workplace teams, and to understand of the importance of civic engagement and social responsibility. We assert that service-learning uniquely and directly addresses the specific skills required in a 21st century skill-set framework: increasing students' abilities with regards to applying and refining concepts learned in the classroom, cooperating with others within groups and teams, and increasing one's civic literacy and engagement within the local community.

Practiced and Applied Knowledge

The ability to successfully apply knowledge to the formulation of ideas or solutions is a critically important 21st century skill (International Society for Technology in Education, 2007). Employees must now be able to solve new, abstract problems that have no pre-determined solution. Thus, it is difficult to transfer learned knowledge to find solutions to these real-world problems, as these problems are often far removed from their application to knowledge. For this reason, instructing students to remember routinized solutions to specific problem sets is not sufficient preparation. Instead, instructors who focus on teaching students more general problem solving techniques, including critical thinking about concepts as they are taught, may produce more well-prepared employees. This allows students to apply information to solve the problems they will encounter in the constantly evolving workplace (Dede, 2010). Service-learning can help students develop critical thinking skills and can teach students to apply the knowledge that they have acquired (Eyler and Giles, 1999). Students will need to not only employ the knowledge of they learned within their classes, but also adapt and refine these theories to cope with real, practical limitations of the business world. Thus, we hypothesize:

Hypothesis 1. Students who participate in the service-learning project report increased practiced and applied skills compared to those who do not.

Teamwork

The ability to work well with others on a team is considered an increasingly important 21st-century skill for two reasons. First, companies are increasingly relying on groups, teams, and multi-team systems in order to accomplish the more complex tasks faced by the modern workplace (Snow, Miles, and Coleman, 1992). Indeed, it is becoming less common for individuals in today's businesses to work in isolation from one another (Karoly and Panis, 2004). Second, recent technological advancements have changed the nature and frequency of collaborations. Workers in the past primarily interacted face-to-face; today's employees work together via cell phones, email, and webcams. These technological advancements have also increased the amount of collaborations that occur with people from different backgrounds, ethnicities, cultures, and countries. Because technology has facilitated the opportunity to collaborate across long distances, and because the nature of work now requires teams of people with complementary expertise engaged in higher-level thinking, working with diverse others has become an essential 21st century skill.

Service-learning develops the ability to work well with others to achieve project goals. Students must learn how to work in teams to come up with solutions to difficult and complex tasks. They must learn what their own strengths are and be able to recognize the strengths of others to optimize the total output of their group. Unlike other group projects, however, service-learning also requires that students learn how to work with the employees and teams of the organizations they are helping. Students must learn how to actively listen to the goals and problems explicitly stated by the members of these organizations, while also paying attention to their implicitly communicated dynamics, hierarchies, cultures, and climates. They must then work within this complex framework to develop the best possible solutions for relevant organizational issues. Finally, they must be able to clearly and effectively communicate their proposed ideas to the organizations' members. This requires that students be able to work together to decipher the root of problems, explain complex concepts in terms that are easy to understand, maintain a professional, respectful, and confident tone, and persuade business members and business leaders to make use of the students' recommendations.

Hypothesis 2. Students who participate in the service-learning project report greater teamwork skills compared to those who do not.

Civic Engagement

Instilling the importance of civic engagement within students is increasingly important given these uncertain economic times. The U.S. and European economies are currently battling recessions, and unemployment rates remain relatively high (Elsby, Hobijn, and Sahin, 2010). These hardships create greater reliance on volunteers and nonprofits for basic human needs. Indeed, recessions often cause an increase in unmet needs, including food, shelter, health-care, and other necessities (Starr, 2010). Similarly, the recession has caused more and more businesses and people to teeter over the edge of bankruptcy and foreclosure. For this reason, it is urgently important that instructors focus energy on instilling civic literacy and service orientation within their students. Service-learning provides students with hands-on experience helping others within their communities, which greatly improves the chances that these students will continue to help in the future (Eppler et al., 2011).

Hypothesis 3. Students who participate in the service-learning project report a greater sense of civic engagement compared to those who do not.

SERVICE-LEARNING PROJECT DESIGN

The proposed service-learning project was a student-led consulting project that focused on family-owned and operated businesses across multiple sections of a Principles of Management course. Courses in business schools often draw upon cases or examples from large organizations in order to teach students and, conversely, courses often fail to emphasize the importance of small or family-owned business in the U.S. economy. Service-learning projects like this one provide students the opportunity to become involved with aspects of organizations in which they wouldn't normally have access, and practice 21st century skill-building. Students were able to work closely with organizations that may struggle to compete with larger organizations and may lack the resources to hire external consultants. Thus, small or family-owned business may be especially open to receiving and utilizing feedback from the students to make changes within their organization.

Project Set-up

Family-business owners that were part of the university community's Management District received a letter soliciting their participation in, and outlining expectations for, the proposed student-led consulting project (see Appendix 1). We required that the businesses participating in the project have at least five employees. Interested business owners signed a consent form agreeing to participate in the project. Students completed group formation forms noting their strengths as a student (e.g., people person, idea person, and organizer), geographic region, and interests in order to position teams for success. Based on these forms, students were grouped in teams of 4 and assigned to work with one of the participating organizations.

There were four key phases to this student-led consulting project: 1) interview with owner, 2) employee survey and data entry, 3) data interpretation, and 4) technical report writing. Critical to the project's success was maintaining progress. Therefore, like any consulting project, students were provided with dates for their deliverables and points were deducted from their grade for any late deliverables. Students also submitted progress check forms to their instructor and included comments on challenges experienced. Students gathered information in every phase of the project to complete their major deliverable, a technical report, which required students to address critical questions related to the four core management functions: planning, leading, organizing, and controlling (Daft and Marcic, 2013). However, unique to the proposed project was a method by which students could build critical 21st century skills. Therefore, as we explain the four phases of

the project below, we highlight the opportunities for 21st century skill building that we, as instructors, emphasized.

Owner Interview and Survey

Phase I required student groups to gather both qualitative (i.e., interview) and quantitative (i.e., survey) data. Students contacted the business owner to gather information to complete a situation analysis. Students also gathered information on the owner's leadership style (i.e., transactional or transformational) to make comparisons with how employees perceived the owner's style. Prior to contacting the owners, instructors discussed the importance of professional communication (i.e., written and oral). The instructors reviewed templates for professional business communications as well as discussed the importance of framing of requests for sensitive information like salary. In addition, instructors addressed the importance of customer service when interfacing with a client. Students learned about balancing academic deadlines with the constraints of the client's (i.e., owner) schedule. This phase was also designed so that students had an immediate connection and interaction with a person in the local business community to increase their awareness of civic engagement. The opportunity to have a conversation with an organizational leader encouraged students to take the project seriously, as they recognized that it had the potential to positively affect real people in a real organization. Thus, this first phase was designed to pique their interest in civic engagement.

Employee Survey and Data Entry

Phase II required a minimum of five employees per organization to complete the employee survey which took approximately 20 minutes to complete. Measures on the employee survey included the job characteristics inventory, work-family conflict, stress, engagement, trust in management, pay satisfaction, and intentions to quit. All constructs measured were taught in the course so the students had foundational knowledge. However, students likely lacked complete understanding as to how such constructs could inform workplace practices. Students were required to enter the survey results in an Excel database and conduct checks for valid data entry. During this phase of the project, two 21st skills were of critical importance: teamwork and civic engagement. Students determined roles and responsibilities within their teams for completing the surveys. Then, they had to communicate and work with the employees in order to accommodate their schedules to complete the surveys. Students then had to go to the employee's place of work in the community, raising awareness of the business community, and small, family-owned businesses in particular. It is important to note that the region of the country where this project was conducted has a sizeable Hispanic population (40%). Therefore, all survey materials were also offered in Spanish in order to accommodate participants that were non-native English speakers. Two bilingual student research assistants who spoke both Spanish and English translated the survey, and another bilingual student research assistant back-translated the survey to English. We then worked with a fourth research assistant to check the back-translated English survey and edit the translated Spanish survey, by comparing both to the original survey.

Data Interpretation

At the start of Phase III, the instructors provided students with reports of the survey findings, which included means and standard deviations for each of the constructs measured. One class meeting was dedicated to teaching students how to interpret the findings so that the students could work in their groups to critically analyze, and ultimately draw the appropriate conclusions to present in their technical report. This phase of the project was designed so that students had opportunity to enhance their applied knowledge. Students were required to think deeply about the course concepts and apply the information to solve problems that arise in the workplace. For example, what kind of inferences can we make if the mean for work-interfering-with family is high? What are the implications for employee satisfaction and morale? Could high work-interfering-with family conflict be the driver of high means on intention to quit? Students were challenged to study results and ask themselves questions like the above to develop an appropriate "picture" of the business. This exercise also fostered communication in teams because the students need to ask critical questions of each other and come to consensus on the appropriate conclusions.

Technical Report

The final phase of the student-led consulting project was the technical report. Students were required to write a report structured around the four core management functions (see Appendix 2). Professional, business-oriented writing is critical to success in today's world. Students were challenged to produce high-quality products that were worthy of submitting to the business owner for review. This was not unlike other course projects. However, unique to this project was that students also needed to be prepared to defend their conclusions and recommendations in the report to the business owner. This phase of the project enhanced students' 21st century skills by further heightening their sense of civic engagement. Students were acutely aware of how their work and recommendations affect real people and businesses in the community.

Given students had the opportunity to interact closely with business owners and employees, this phase also enhanced their sense of responsibility to produce a work product that would improve the working environment for the employees.

EVIDENCE OF EFFECTIVENESS

A test of the four core management functions as well as a survey of self-reported learning of relevant skills were used to evaluate the effectiveness of the proposed service-learning project.

Participants

Participants consisted of 232 college of business students enrolled in six sections of a core course: Principles of Management. Approximately 53% (N = 122) of the participants were female and 45% (N = 104) were male (3% (N = 6) of participants did not indicate their gender). Participants had a mean age of 27.0 with ages ranging from 19 to 52 years of age. They represented the following racial/ethnic groups: 19% (N = 43) Caucasian, 28% (N = 65) Hispanic, 19% (N = 44) African-American, 22% (N = 50) Asian-American, 9% (N = 20) Mixed or Other, and 4% (N = 10) of participants did not indicate their ethnicity. Participants represented the following majors: 36% (N = 83) Accounting, 16% (N = 37) Finance, 6% (N = 13) Computer Information Systems, 13% (N = 30) General Business, 2% (N = 4) Insurance and Risk Management, 7% (N = 17) International Business Management, 6% (N = 15) Business Management, 3% (N = 8) Marketing, 6% (N = 14) Supply Chain Management, and 5% (N = 1) of participants did not indicate their major (see Table 1 for information on participant demographics by condition).

_____

Insert Table 1 about here

_____

Procedure

Students enrolled in one of three sections of the Principles of Management course were assigned to the service-learning project manipulation whereas students enrolled in one of three other sections of this course were assigned to the control project condition. Each of three instructors taught one section that implemented the service-learning project and another section that implemented the control project. Thus, these sections were identical in content and instructor except for the differences in the projects that were conducted.

For the project that was designed to serve as the control, students were required to work independently to assess an organization that was of interest to them. They utilized online resources and the course textbook to evaluate the strengths and weaknesses of that organization, and they wrote a four-page paper regarding their overall assessments related to the four core management functions: planning, organizing, leading, and controlling (Daft and Marcic, 2013). The control project, however, was not a service-learning project in that students never contacted, worked with, or gave their recommendations to the actual organizations. Thus, the control project should not have any impact on the 21st century outcomes of practiced and applied knowledge, teamwork, or civic engagement. The control project, however, may have had an impact on the student's core management knowledge.

After completing either the service-learning or the control project, students completed a test of knowledge of the four core management functions: planning, organizing, leading, and controlling. Both groups also completed measures assessing 21st century skill development, including practiced and applied knowledge, teamwork, and civic engagement.

Measures

Core Management Knowledge

Nine multiple-choice items were used to evaluate knowledge of the four core management functions. Items were taken from the course's textbook test bank (Robbins, DeCenzo, and Coulter, 2011). One item required students to name the four core management functions. The other eight items tested knowledge related to planning (e.g., SWOT analysis), organizing (e.g., organizational chart), leading (e.g., transformational leadership), and controlling (e.g., corrective action).

Practiced and Applied Knowledge

Participants provided their perceptions of practiced and applied knowledge gained from the project they completed. The measure consisted of four items adapted from two related scales (Fairfield, 2010; Flannery and Pragram, 2010). Participants responded on a seven-point Likert-type scale ranging from (1) *very strongly disagree* to (7) *very strongly agree*. Items were preceded by the stem "I..." and included the following: "applied information learned in class," "improved my skills by completing this project," "refined my knowledge of management concepts through this project," and "will be more confident in my future work because I completed this project" (α = .81).

Table 1
Descriptive statistics for demographics of samples

Demographic Variable	Service-learning (n=133)	Control (n=100)	Combined (n=233)
Gender			
Female	64 (48%)	58 (59%)	104 (53%)
Male	68 (51%)	36 (36%)	122 (45%)
Missing	1 (1%)	5 (5%)	6 (3%)
Ethnicity			
Caucasian	28 (21%)	15 (15%)	43 (19%)
Hispanic	33 (25%)	32 (32%)	65 (28%)
African-American	29 (22%)	15 (15%)	44 (19%)
Asian-American	29 (22%)	21 (21%)	50 (22%)
Mixed/Other	14 (11%)	6 (6%)	20 (9%)
Missing	0 (0%)	10 (10%)	10 (4%)
Major			
Accounting	46 (35%)	37 (37%)	83 (36%)
Finance	21 (16%)	16 (16%)	37 (16%)
Computer Information Systems	8 (6%)	5 (5%)	13 (6%)
General business	19 (14%)	11 (11%)	30 (13%)
Insurance and risk management	1 (1%)	3 (3%)	4 (2%)
International Business management	12 (9%)	5 (5%)	17 (7%)
Business management	8 (8%)	15 (6%)	7 (5%)
Marketing	6 (5%)	2 (2%)	8 (3%)
Supply chain management	6 (5%)	8 (8%)	14 (6%)
Missing	7 (5%)	4 (4%)	11 (5%)

Teamwork

Participants provided their perceptions of how much the project improved their teamwork skills. The measure consisted of five items adapted from two related scales (Fairfield, 2010; Flannery and Pragram, 2010). Participants responded on a 7-point Likert-type scale ranging from (1) *very strongly disagree* to (7) *very strongly agree*. Items included the following: "more capable of working well on teams", "practiced teamwork skills" "learned important things about myself", "became more aware of my abilities and tendencies", and "did not help in improving my interpersonal skills" ($\alpha = .75$).

Civic Engagement

Participants provided their perceptions of whether the project improved their ability to help their local communities. The measure consisted of four items adapted from Flannery and Pragram (2010) and supplemented by items generated by the authors. Participants responded on a 7-point Likert-type scale ranging from (1) *very strongly disagree* to (7) *very strongly agree*. Items included following: "improved the work-life of a business owner," "enhanced sense of giving back to the undeserved business community," "stronger commitment to working with others for public good," and "increased sense of responsibility to working with others for public good" ($\alpha = .87$).

RESULTS

Core Management Knowledge

Knowledge of core management concepts was tested by examining differences in scores on the nine-item multiple choice test adapted from Robbins et al. (2011). An independent samples *t*-test reveals that participants who completed the service-learning project scored higher on the core management knowledge test ($M = .81$, $SD = .16$) compared to those who completed the control project ($M = .72$, $SD = .17$), $t(178) = -3.75$, $p < .05$.

Practiced and Applied Knowledge

Participants reported that the service-learning project marginally increased their practiced and applied knowledge. Participants who completed the service-learning project indicated somewhat higher levels of practiced and applied knowledge ($M = 5.87$, $SD = .83$) compared to participants who completed the control project ($M = 5.64$, $SD = .91$), as demonstrated by an independent samples *t*-test, $t(177) = -1.72$, $p < .10$. Thus, Hypothesis 1 was partially supported.

Teamwork

Participants indicated an increased understanding of how to work with others on a team through the completion of the service-learning project. Participants who completed the service-learning projected indicated higher levels of acquired teamwork skills ($M = 5.60$, $SD = .92$) compared to those who completed the control project ($M = 5.31$, $SD = .95$) as demonstrated by an independent samples *t*-test, $t(177) = -2.06$, $p < .05$. Thus, Hypothesis 2 was supported.

Civic Engagement

Finally, participants indicated that the service-learning project increased their civic engagement and desire to be a part of, and contribute to, the community. Participants who took part in the service-learning project indicated higher levels of civic engagement ($M = 5.26$, $SD = 1.15$) compared to those who completed the control project ($M = 4.82$, $SD = 1.07$) as determined by an independent samples *t*-test, $t(177) = -2.63$, $p < .05$. Thus, Hypothesis 3 was supported.

Discussion of Project Effectiveness

Findings suggest that the proposed service-learning project effectively improved students' 21st century skills. Overall, students who completed the service-learning project reported higher levels of practiced and applied knowledge, teamwork skills, and civic engagement skills compared to those who did not. These three skill-sets have been shown to be vitally important for the 21st century workforce (Dede, 2010).

Additionally, this service-learning project was shown to be effective in improving students' knowledge of core management concepts. Students who completed this project scored significantly higher on the core management knowledge test compared to those in the control condition. Thus, this project effectively improved core-content knowledge while also developing the skills that are essential to the contemporary workforce.

LIMITATIONS

Despite the success of this project, there are some limitations to consider. First, the results demonstrated non-significant differences between the manipulation and control conditions in terms of practiced and applied knowledge. There are many potential reasons for these non-significant findings. One possibility is that the proposed service-learning project did not adequately address this facet of 21st century skills, and future researchers may want to spend more time re-designing this project to more precisely target this area. It may also be the case, however, that the study suffered from a lack of power in that there weren't enough participants with fully completed surveys to capture the effects in question. Indeed, the marginal levels of significance indicate partial support for the effectiveness of this service-learning project in increasing practiced and applied knowledge. Thus, future researchers may benefit from utilizing larger sample sizes to test the effectiveness of these and other service-learning projects. Second, given the specific subject matter in question, researchers must consider the generalizeability of the findings. The current service-learning project was geared towards students taking a management course, and the "service" involved providing consultation advice for small, local businesses. Thus, the project was closely tied to the content matter involved. This project may not improve content knowledge in other domains, however, and must be tailored to fit the specific needs of the course. Third and finally, this study used single-source methodology in assessing benefits of service-learning. Future studies should utilize other sources of data to test student attainment of 21st century skills, such as instructor observation or even peer observations of team members.

IMPLICATIONS FOR CLASSROOM INTEGRATION

Educational researchers have continued to call upon researchers and practitioners to focus on the development of 21st century skills in addition to core curriculum knowledge (Silva, 2009). These skills, which include practiced and applied knowledge, team-work skills, and civic engagement, are all becoming increasingly important to the success of employees in 21st century organizations. Thus, educational researchers and practitioners must develop new and innovative ways of addressing the gap between what is currently being taught and what needs to be taught in 21st century classrooms. The current study proposes and finds support for the use of service-learning projects to uniquely address each of these facets of 21st century skill development. Thus, we encourage the integration of similar projects into pedagogical practice in order to most effectively develop the necessary skills in the

future generation of workers. Service-learning activities such as the one outlined in this paper provide meaningful, applicable experiences that help students beyond simple memorization of facts and theories. Thus, this project could clearly fit into the curriculum of educators seeking to emphasize 21st century skill development into their courses. The nature of the course should be considered in adapting the project to suit the classes' particular core knowledge needs, but the results of the study demonstrate promising outcomes of utilizing these activities.

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APPENDIX 1
INVITATION LETTER

Dear Family Business Owner,

We, three faculty members in the XXXXX, request your help with a project. When we discuss businesses in our courses at XXX we typically talk about large companies and fail to emphasize the significance of family-owned business. In fact, family-owned businesses comprise 50% of the United States' gross domestic product. We have created a student-led project to explore family-owned businesses and we hope you will consider participating in our students' project this semester.

If you are willing to help students complete their project on a local family-owned business you would be agreeing to the following:

1. One-hour (maximum) in person meeting with one or two students and the CEO/President/Founder of your company. You will also be asked to complete a short (less than 10-minutes) survey.
    - Students will travel to your place of business for the meeting.
2. Encourage your employees (as many as possible) to complete a 30-minute paper survey.
    - We will provide the paper surveys and students will drop-off and pick-up the surveys from your place of business.
    - We will not ask for your employees' names when completing the surveys and all information will be kept confidential.
3. Encourage any interested employees to participate in 30-minute follow-up interview with students to gather more in-depth responses after analyzing the survey responses.

In return for your help the students will provide to you a report that highlights the following:

1. Strengths and weaknesses of current business practices.
2. Opportunities for continued growth and improvement.
3. Summary data of employee satisfaction, leadership styles, challenges (e.g., work-family), and other attitudes towards their work environment, including pay and promotion opportunities.
4. Creative solutions to make the business successful in the face of ever-present change (e.g., light rail extension, economic uncertainty, etc.).

You will be provided with a copy of the final technical report in return for your efforts.

We thank you in advance for your consideration.

APPENDIX 2
TECHNICAL REPORT TEMPLATE

I. Organizational Background

Provide overview of the organization. It is your task to appropriately summarize these findings in two paragraphs that include your numerical findings. You should learn everything you can prior to the interview so you appear prepared and knowledgeable when interacting with the CEO/Founder. This is also required so you can have a more meaningful conversation with the CEO/Founder about things that are not easily available through internet research.

II. SWOT Analysis (Planning)

Identify strengths, weakness, opportunities, and threats by conducting your own research, interviewing the business owner, analyzing survey data, and conducting follow-up interviews with employees.

	Strengths (Internal)	**Weaknesses (Internal)**
Opportunities (External)		
Threats (External)		

III. Organizational Structure (Organizing)

How would you classify the organizational structure of the business? Use the interview and survey data determine the organizational structure of the business. Is there consensus among employees? What are examples that lead

you to believe this is the appropriate organizational structure? Is there consensus among employees? If no, why do you believe there are differences?

IV. Leadership Style (Leading)

How does the Owner classify his/her leadership style? How do the employees classify the Owner's leadership style? Do these views align? If yes, what is the benefit of alignment? If no, what are the consequences of misalignment?

V. Feedback and Continuous Improvement (Controlling)

Based upon your interview(s) and survey data what are your recommendations for change? What are your proposed creative solutions to make this business competitive and successful in the face of ever-present change (e.g., light rail extension)?

Software-Based Student Response Systems: An Interdisciplinary Initiative

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ABSTRACT

Colleagues from information technology and three academic departments collaborated on an instructional technology initiative to employ student response systems in classes in mathematics, accounting and education. The instructors assessed the viability of using software-based systems to enable students to use their own devices (cell phones, tablets, laptop computers) rather than relying on dedicated devices needed with a hardware-based student response system. The instructors also evaluated student reaction to the technology and share their perceptions about the pedagogy, noting that all three felt there was a positive effect on student engagement. Finally, the instructors reflect on the long-term impact of the initiative on their teaching.

INTRODUCTION

Student response systems (also known more informally as "clickers") have been used in higher education for over a decade, with promising results in many disciplines. Research has demonstrated that such systems increase both student engagement and learning, while leveling the playing field by inviting participation by all members of a class. The findings have been consistent across levels (introductory, advanced, undergraduate, and graduate courses), class sizes, and academic disciplines (Sevian & Robinson, 2011; Kay & LeSage, 2009).

However, student response systems impose costs on institutions where they are adopted. Faculty training is needed to ensure that the systems are used effectively, and course revisions must be implemented to integrate the devices. Dedicated devices have a cost, which is borne either directly by the students or the institution. In addition, Information Technology (IT) departments incur costs in responding to faculty and student issues. While the initial introduction of student response systems involved dedicated devices, online alternatives have been available for several years, enabling faculty to adopt a student response system that uses devices such as cell phones, tablets and laptops.

This paper presents an instructional technology initiative at a small private university, where three faculty members in different disciplines piloted "bring your own device"

solutions as an alternative to a dedicated hardware-based student response system. The paper contributes to the literature by describing a successful collaboration among IT staff members and faculty members from different schools at the university. It also provides anecdotal evidence that software-based student response systems can be used effectively in place of hardware-based systems, potentially providing cost savings. The finding that three instructors with different teaching styles were able to use the same technology to engage students—and have continued to employ the technology after the formal initiative—provides evidence that collaborations across academic disciplines and with support from IT can benefit faculty by helping them to develop effective pedagogies. In addition to sharing our experiences in collaborating to improve teaching through technology, we also offer insights into the adoption of software-based student response systems to replace a hardware-based system.

In this paper, we first describe the emergence of student response systems as a mainstream technology tool in the university classroom and provide a brief literature review. In the second section, we describe the initiative, discuss the rationale, and identify the participants, the methodology and the results. The final section discusses conclusions and implications for practice.

LITERATURE REVIEW

Student Engagement and Student Response Systems

Student engagement is widely viewed as a critical element in fostering successful outcomes in higher education. Educational research has demonstrated the importance of student engagement, and the publication of Student Success in College: Creating Conditions that Matter (Kuh et al., 2005) brought the language and elements of student engagement to the forefront of discussions throughout higher education. Research supports the assertion that students report higher levels of engagement when faculty members use active and collaborative learning (Umbach & Wawrzynski 2005). The adoption of cooperative learning practices, the movement from "sage on the stage" to "guide on the side," and the trend toward flipped classrooms have all grown from a desire to increase student engagement and improve learning outcomes.

The use of student response systems represents one technique that has gained traction as faculty members seek to implement active learning practices to engage students and support learning. The first commercial audience response systems were hardware-based systems that required the purchase of hand-held units that were used to input responses to questions posed by the instructor. As such systems grew in popularity, developers created alternative software-based systems, which make use of the students' own devices. Such systems are web-based and typically require either a cell phone with texting capabilities or a device that can access the Internet.

Regardless of the type of system adopted, the purpose of using a student response system is to enhance student engagement and improve learning. Thus, a key question is the extent to which these systems are effective. Several literature reviews have summarized studies from different disciplines and concluded that student response systems are well received by students, increase engagement and improve learning outcomes (Kay & LeSage, 2009). However, the literature on efficacy of student response systems does not distinguish among different types of systems (hardware-based vs. software-based). Since both types of systems provide essentially the same functionality, the choice appears to be a matter of preference and budgetary constraints.

The Bring Your Own Device (BYOD) movement, began as a strategy to encourage employees to utilize personal electronic devices in the workplace (Burns-Sardone, 2014). Employee laptops, tablet computers and smartphones are examples of the types of technologies typically seen in a BYOD program (Burns-Sardone, 2014). Encouraging employees to bring and use their own devices provides organizations with several potential advantages including a reduction in technology acquisition expenses as well as increased employee comfort with technology (Afreen, 2014).

BYOD is becoming increasingly popular in support of students at educational institutions (Burns-Sardone, 2014; DiFilipo & Kondrach, 2012). The BYOD trend has even been seen in K-12 school districts (Burns-Sardone, 2014), suggesting that the expectation among students for support for BYOD from higher education institutions may continue to grow.

In a recent study of U.S. undergraduate students, Dahlstrom et. al. (2013) found that 89% of students own a laptop computer and 39% own a tablet computer. The prevalence of easy access to the Internet on college campuses has resulted in many students using their laptops for a variety of daily tasks, including as an instrument in support of classroom instruction (Kay, 2012). While not as widespread as laptops, tablet computers are quickly gaining in ownership among U.S. undergraduate students (Dahlstrom et al., 2013). Indeed, Dahlstrom et al. (2013) found that "... tablets grew the most in terms of academic use compared with all other devices..." (p. 27).

The rate of smartphone ownership among U.S. undergraduate students continues to increase (Dahlstrom et al., 2013). In a survey of U.S. undergraduate students, Dahlstrom et al. (2013) found that 76% reported owning a smartphone in 2013 compared with 62% in 2012. Similarly, in a survey study of 403 undergraduate students, Emanuel (2013) found 85% reported owning a smartphone.

At the institution where this initiative took place students were surveyed regarding device ownership during the 2014 spring semester. Among the survey respondents 99% reported owning a computer, with 96% of computer owners reporting their primary computing device as a laptop computer. More than 90% reported that they owned a smartphone and 35% of the respondents owned a tablet.

As college students are increasingly likely to own one or more mobile technology devices, college instructors may consider asking students to use their own devices as classroom response systems (Haintz et al., 2014). Leveraging students' personal devices as response system devices offers several advantages including improved student engagement, cost savings, and increased support for the spontaneous use of response system technology (Afreen, 2014; Good, 2013; Haintz et al, 2014). Fortunately students have been found to be both ready and willing to use their smartphones in this capacity (Dahlstrom et al., 2013).

Traditional classroom response systems are hardware devices that must be configured for each individual classroom and distributed to students prior to use (Lee et al., 2013). This requires considerable planning in order to utilize the devices in the classroom. Additionally, the hardware-based response systems are limited by the number of available "clickers" (Lee et al., 2013). Software-based response systems, by contrast, do not require a student to bring a separate response system device to class (Smith-Stoner, 2012). Rather, students are able to use their own devices to interact with a software-based response system. In addition to enabling a greater level of spontaneity in use of the response system, this approach does not rely on either students remembering to bring a hardware-based "clicker" to class or an instructor handing them out prior to class.

Finally, hardware-based student response systems require investment in the hand-held "clicker" devices (Good, 2013, Lee et al., 2013). Using a software-based response system eliminates the cost of the specialized devices. Institutions may elect to move to a software-based system as part of a cost savings initiative (Afreen, 2014).

METHODOLOGY

This study was conducted during the fall 2012 semester at a small, private northeastern liberal arts university. Hardware-based student response systems had been used at this institution for a number of years. The university's IT staff partnered with three instructors to determine the instructors' perceptions of the efficacy of software-based student response systems.

Several software-based clicker systems were considered.. The participants met prior to the start of the semester to discuss how such systems could be used to support instruction and to preview a variety of different software-based clicker systems. The systems selected for this study were Socrative and Top Hat Monocle (now known as Top Hat). Socrative was chosen for its as ease of use and because there was no cost. Top Hat was chosen for its robust feature set as well as ability to support cell phone text responses.

The participating instructors all had over twenty years of teaching experience and hailed from three different disciplines: mathematics, business and education. Each instructor utilized software-based clicker systems in face-to-face undergraduate courses during the semester; all three used Socrative, two also used Top Hat. Student access to appropriate devices was not an issue in any of their classes.

The participants met several times during the semester to share their experiences. Since the instructors utilized the technology in different ways, these meetings allowed them to generate new pedagogical ideas for how to use the clicker systems in class. IT provided advice and support on any technical issues the instructors were experiencing. At the end of the semester the participants co-hosted a university forum to share their experience with their peers.

In the following sections the instructors each share their qualitative impressions of the software solutions. Each instructor paid particular attention to the extent to which the systems were supported by hardware being brought into the classroom by their students; were easy to use; and impacted student engagement. In addition, the instructors assessed the general sentiment of their students towards these systems.

Student Response Systems, Mathematics

The mathematics professor in the initiative used Socrative in two sections of Mathematics for Elementary Education I. Most students were freshmen, but there were a significant number of upperclassmen, mainly sophomores. During class time, the professor used an assortment of methods including lecture (incorporating questions and class discussion), group activities, graded activities, and exams. The professor had no previous experience with student response systems.

Through Socrative, the professor created and saved multiple choice or short answer quizzes. The quizzes were used to spot check knowledge of definitions and concepts previously covered. Eight quizzes were given over the course of the semester. The instructor allowed collaboration on the quizzes in case students needed to share devices, although some students passed devices on so that they could work independently. Usually this did not cause a problem with the activity lasting too long, but whether to insist that each student work alone, and therefore likely needing devices to be passed on, or allowing collaboration is something to consider when planning. The quizzes were counted toward the class participation segment of the course grade and the scores, which were emailed to the instructor as an Excel spreadsheet, were used as a formative assessment.

A strength of Socrative is that it can be learned easily and quickly through exploring the various options in the program, with no guidance other than the help that the program provides. The professor had considered using Top Hat in addition to Socrative to compare the two systems, but it quickly became apparent that Top Hat was not as intuitive to learn and would require significantly more time to master. Therefore, she chose to use only Socrative.

The professor was skeptical as to what utility Socrative would provide in her courses and, not being a technology enthusiast, she had anxieties over using technology that was new to her. However, she found that the Socrative quizzes were an effective means to provide in-class review of basic ideas. Socrative lent itself well to relatively simple questions aimed at assessing factual knowledge and basic reasoning or computation. The professor's preference was to open class with a quiz, but she also used a quiz midway through class as a way to break things up (the class period was seventy-five minutes). As the semester progressed, her comfort level with the software grew.

An issue that instructors face when using any student response system is balancing its use with other important class activities. Even a short five-question Socrative quiz required at least ten to fifteen minutes, once review of the answers and discussion is factored in. Assessing a student's mathematical reasoning or ability to communicate a complex mathematical idea is not easily accomplished through Socrative, and is probably best left to other means.

Based on the comments from the course evaluations, students seemed to enjoy the Socrative quizzes as a mode of class participation. The level of engagement and enjoyment the student response systems appear to provide is a benefit, especially in mathematics classes where many students are anxious. Although the professor has continued to use Socrative quizzes in her classes, she is using them less often than in the initial semester. The reason is to balance basic activities, such as the Socrative quizzes, with activities that require higher level reasoning. In future semesters, the professor intends to explore other modalities of Socrative, such as posing a statement or question as a springboard for discussion.

Student Response Systems in Intermediate Accounting

The accounting professor who participated in the initiative was comfortable with technology, as she had been using a hardware-based student response system for several years, and integrated presentation and spreadsheet software and online tools (e.g., quizzes and discussion forum) in her face-to-face classes. She adopted the BYOD alternatives for two sections of Intermediate Accounting I, with a total of 65 students, most of whom were juniors or seniors.

The instructor's typical teaching style was to combine lecture with in-class exercises, including both group and individual activities. The instructor had been using Turning Point, a hardware-based system for several semesters. The university owned the devices and so they were available. During the semester, the instructor continued to use Turning Point, and added Socrative and Top Hat. All three were used for review and reinforcement during lectures, and Socrative was also used for group quizzes in class. To avoid confusion on the part of the instructor and students, only one student response system was used during any single class period.

During most lectures, the instructor included periodic "clicker" questions to assess student understanding of key concepts and afford students practice in applying these concepts to solve brief problems. When Turning Point was used, devices were distributed by the instructor and students worked independently; when the software-based systems were used, students worked in pairs or small groups (to ensure that all students could participate) and used their own devices.

The adoption of Socrative was very easy. The software was intuitive, flexible, and easy for both the instructor and the students to access. Since it allowed for open-ended questions, Socrative was ideal for group-based quizzes, in which students discussed a question and framed a brief response. The adoption of Top Hat required a greater investment of time. The customer support was excellent, which enabled the instructor to work through the development of multiple sets of questions to be inserted into lectures at appropriate points. However, Top Hat is a very comprehensive program, which can also function as a stand-alone course management system. Thus, it is more complex and (from the instructor's perspective) more complicated to use. Thus, the instructor tended to rely more heavily on Turning Point (the hardware-based system) and Socrative (the software-based system) for clicker-based activities.

Student response to the different student response systems was generally very positive. The students experienced very few technical issues, and those that arose were easily resolved. Many students provided unsolicited positive feedback during the semester. While the novelty of using the devices – and being allowed to use cell phones during class – may have held an initial appeal to the students, the real benefit of the technology was the requirement to regularly reflect on key points, discuss concepts with other students, and apply the material to solve problems. Although there was not a specific question about the student response systems on the course evaluation, several students made favorable comments regarding the technology in the student evaluations.

The instructor greatly appreciated the flexibility afforded by the software-based systems. Not only was she freed from the task of carrying devices to class, there was a time savings from no longer distributing and collecting the devices at the beginning and end of class, and she was able to spontaneously ask clicker questions to check student understanding. The instructor has continued to use both Turning Point and Socrative in the following years, and has used these systems in all of the courses that she teaches. As the percentage of students who own smart phones and/or tablets has increased, this instructor has moved toward greater reliance on Socrative rather than Turning Point. In addition to increasing the use of student response systems in class, this initiative also helped the instructor to think more deeply about student learning and the importance of using technology to foster engagement with the content. The "wow factor" is short-lived, but the deep thinking required when students are actively engaged during class contributes toward improved learning.

Teaching Students Who Will Be Teachers

"Good Morning, let's get started. Take out your phones, please." Looks of confusion greet that class opening. The instructor can "hear" them thinking "she hates it when we have our phones out. What's going on?" But they dutifully take out their phones and we get started.

The education professor involved in this initiative has an academic background in curriculum and instruction with an emphasis in educational computing. She is a regular user of technology to support teaching and learning, frequently using SmartBoard apps, presentation software and iPads. Although this instructor has been an early adopter of most technologies, she maintained a "no personal use of cell phones" policy in her classes. College students often use their cell phones in the classroom for texting, surfing the web, and other non-instructional purposes. Rather than ignore reality, this instructor has turned the use of cell phones toward learning, having students use them for "Google moments" during instruction and discussions.

This professor used student response systems in three junior-level classes in Education, taught as a three-course block, so the same dozen students were in all three classes. The class content is a combination of educational theory and pedagogy and therefore, it is incumbent upon the instructor to model the use of a variety of teaching strategies, and it is especially important that she demonstrate flexibility when a tool does not work or there is a network outage. Some form of technology is used in almost every class and assignments require considerable use of technology tools.

Prior to this project, this instructor had used a variety of student response systems, including Socrative and Poll EveryWhere (another software-only system) and Turning Point. For this initiative, Top Hat and Socrative were used. Both systems were used in similar ways. Both allow preparation of multiple choice and true/false quizzes. Socrative offers the ability to ask for open-ended responses. Top Hat and Socrative were equally easy for students to access and use. It was fairly easy to develop quizzes in both programs, but this instructor found Socrative to be much faster for this purpose.

Quizzes were frequently given at the beginning of class as a check-in on assigned reading. These were ready for the students to take as they arrived at class, using those first few organizational minutes. Graded content quizzes were given and often those involved students working in pairs. When using Socrative, the open-ended option was used frequently, providing an opportunity for students working in pairs or trios to encourage them to discuss and come to consensus on a response. This proved to be an activity well-received by the students.

Socrative allows anonymous, spontaneous questions to be posed during class, and this was was used frequently. The instructor generally monitored responses on a laptop or tablet and projected the graph of responses in real time so the students could see how the class was responding.

The positive responses that accompanied a "take out your phone" request never waned. Students liked working in pairs, and the instructor found that paired activities resulted in some questioning and discussion that was richer than class discussions without the presence of technology. Perhaps this is as a result of the private discussion between two students followed by a full-class discussion.

The student response technology was not used in every class – and not even every week. This instructor found it

to be a positive regular addition to her toolkit of instructional strategies. Although both systems were reasonably accessible, this instructor found that Socrative was easier and faster both for developing activities and for students to access. Socrative is the system that has continued to be used.

Varying instructional strategies is important for student learning. Engaging students during class can only enhance that learning. And turning the ever-present cell phone into a tool for classroom engagement can't hurt.

Discussion and Conclusions

Although the three instructors who participated in this initiative come from different disciplines and have different teaching styles, each found ways to use software-based student response systems in their courses. This initiative was not designed to measure the impact of response systems on student learning, but it was clear that the students responded positively to these interactive activities; all three instructors saw an increase in student engagement. All three instrucors preferred Socrative for its ease of use, flexibility, and powerful reporting tools. Socrative makes sharing devices easy by allowing students to enter more than one name as they begin an activity, allowing collaboration. Another Socrative feature is that quizzes can be restarted for another student without having to exit and re-enter the program. Therefore a device can be passed from one student to another, allowing all students to complete the activity independently. Finally, the adoption of this system frees the university (or students) from the need to purchase dedicated clicker devices, and enables instructors to insert polling questions spontaneously, if desired. Importantly, all three instructors have continued to use Socrative, an indication that this technology is worthwhile addition to an instructor's teaching strategies. Based on our discussions with one another, we offer the following suggestions to those who plan to adopt this technology.

Having students pair or team up for these activities may seem counterintuitive. They are called "student" response systems after all. While individual response is often preferred, grouping students has advantages. First, it solves the "my phone isn't working" problem. More importantly, it allows for variety in the types of questions and activities that can be conducted using the student response system. Because you can ask a question where students can enter their names, you can still know whose work is being recorded. As reported here, both approaches can work.

Each of the cases reported in this paper used both graded and ungraded activities and both have a place. Quick "check-ins" during class can help the flow for a professor who is willing to take alternative paths through a class. Beginning-of-class Q & A can encourage student preparation. Using response systems for graded quizzes or tests – especially short ones – can be especially useful. Because they are scored by the software, there is no additional grading burden; further, students get more feedback (about their own performance and how it compares to others in the class) and faculty get more information about how well students are mastering the course material. This is a distinct advantage of this instructional approach.

Using prepared activities and quizzes is probably the most common way student response systems are used, and that may be the most time-efficient use both in terms of actual class time and grading. However, the anonymous polling feature of Socrative adds the ability to make class time more interactive while providing instructors with feedback at critical points during a lecture or other class activity. Once both instructors and students are comfortable with the technology, spontaneous use becomes quite quick.

On this campus, the rapid increase in the number of students with smartphones and tablets has made the use of software-based response systems the way to go. Careful consideration must be taken before using this approach for required or graded activities. If an instructor uses the system for individually graded activities, it is advisable to have extra devices available for students without their own. Battery power and malfunctions must also be considered in any high-stakes use (which even a graded quiz can be).

Of course the most important consideration is student learning. Active engagement during class is one way to keep students on task. The students involved in this pilot responded positively to the introduction of student response systems. Rather than thinking of student response systems as introducing a new technology into the classroom, think of it as gaining more time on task.

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Student Outcomes in Economics Principles: Online vs. Face-to-face Delivery

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ABSTRACT

This study looks at the performance of students in an online and face-to-face section of economic principles with the same instructor. After controlling for the bias of students selecting the online section and observable characteristics, we did not find any statistical difference in the exam performance of students across delivery modes of the course. This work contributes to the literature on student outcomes across delivery modes with the implementation of an experimental design in that the instructor purposefully made the sections as similar as possible including the same homework and exams.

1 Author Note: Thank you to Mike Allgrunn and James Murray for econometric consulting.

INTRODUCTION

Instructors often make changes to course design to improve student learning. However, the move to online courses has not always been motivated by the belief that students learn better online. In fact, online courses are often viewed as requiring additional work to produce inferior outcomes.

We set out to investigate student performance in online course with a unique experiment design. During the 2011-2012 and 2012-2013 academic years, our principles courses were taught online and face-to-face by the same instructor. Students in both sections were given the same exams and homework assignments as well as the same lecture content. With this similarity, we hypothesized that students would do equally well in the online and face-to-face sections of the course. At the end of the first semester in our sample, the exam performance in the two microeconomics sections was statistically different, and the online section scored lower. However, after controlling for the biases in selecting an online section and observable characteristics of the students, we find no statistical difference in the exam performance in the online and face-to-face sections of the principles of microeconomics or principles of macroeconomics courses.

The literature on student performance across delivery modes is split with researchers finding online students performed worse in some fields and as well or better than face-to-face students in other fields. In the next section, we present a review of the literature focused on student performance differences across delivery modes. Then, we discuss the initial student performance data and the characteristics of our sample. We finish with the regression results, possible explanations, and plans to extend the project.

BACKGROUND LITERATURE

Studies comparing course delivery modes have looked at differences in student satisfaction, student perceptions of quality, and student performance. Other studies have sought to ascertain whether the learning style of the student leads to different outcomes when students choose online or traditional courses. Our study focuses on student performance, differentiated by course delivery mode. Within this specific literature, there is not a consensus as to the impact of course delivery mode and student performance. We begin with papers finding generally inferior outcomes for online courses.

Brown and Liedholm (2002) find that online principles of microeconomics courses are inferior to traditional courses, and find that students who chose an online course would have scored significantly higher had they chosen the traditional mode instead. Crouse (2002) found that students in principles of agricultural economics scored generally lower on exams in the online section. Coates, Humphreys, Kane, and Vachris (2004) found, using two-stage least squares, that students who took principles of economics online scored lower on the Test of Understanding College Economics (TUCE) than students who took the same course face-to-face. They also noted that failing to account for sample selection bias in online and face-to-face sections biases this difference towards zero giving the appearance of no significant difference. Anstine and Skidmore (2005) find the online learning environment for M.B.A. courses to be less effective than the traditional classroom. They use a two-stage least squares analysis and a switching model to account for the fact that a student's choice of course delivery mode may be related to learning. The difference in student performance shows up only after accounting for the selection bias. Stephenson, McGuirk, Zeh, and Watts Reaves (2005) examined students in an introductory agricultural microeconomics course and found that students with average or below average aptitude test scores had worse outcomes in online sections. Ury, McDonald, McDonald, and Dorn (2006) looked at outcomes for students in computer science and information systems courses. After accounting for student characteristics, students in large courses serving several majors fared worse in online sections than those in traditional sections. Students in upper-level courses focused on a particular major show no difference. Farinella (2007) found that students in introductory finance online courses under-performed their counterparts in the traditional sections.

More recently, Gratton-Lavoie and Stanley (2009) found, after correcting for differences in student demographics, the online teaching mode had narrowly insignificant or negative effect. Howsen and Lile (2008) used a two-stage least squares model and found students in online sections of principles of macroeconomics scored almost two letter grades lower than those in traditional sections. Trawick, Lile, and Howsen (2010) studied macroeconomics students and found that not only did online students performed worse overall, but also found no selection bias for students choosing the online sections. Scherrer (2011) examines undergraduate statistics courses in traditional, hybrid and online delivery modes, and finds better performance from the traditional sections than in the others. Verhoeven and Wakeling (2011) look at students in an upper-level, quantitative methods, business core course and find students performed significantly lower in the online sections, regardless of their course grade in a lower-level statistics course.

While numerous studies have concluded online courses produce inferior outcomes, many others have found no difference, or even slightly superior outcomes for online courses. Navarro and Shoemaker (2000) looked at introductory economics courses and found cyberlearners performed as well or better than traditional students, regardless of student characteristics. Neuhauser (2002) found students in a principles of management course had no significant difference in test scores, assignments, participation and course grades. McLaren (2004) found, for business statistics students who persist, there is no significant difference in final course grade for online and traditional learners. McFarland and Hamilton (2005) found that students in a senior-level undergraduate MIS course had no performance difference in online and traditional sections. Unal (2005) found no statistically significant difference in student performance in an educational technology course. Bennett, Padgham, McCarty, and Carter (2007) examined online and traditional students in micro and macroeconomics courses. They found no difference in performance overall, but found student in microeconomics did better in the traditional setting, while students in macroeconomics had higher scores in online sections.

Daymont and Blau (2008) looked at outcomes for students in undergraduate management courses, and found that online students performed as well as traditional students, after controlling for student characteristics. Harmon and Lambrinos (2008) used exam questions rather than students as the unit of observation. In MBA introductory economics courses delivered in a hybrid format, they found students had a significantly greater chance of answering a question correctly if the chapter was taught online. For principles of microeconomics, they also found positive and significant results for the online sections. Bennett, McCarty, and Carter (2011) studied MBA managerial economics courses and did not find overall differences in final grades for online and traditional sections, but they did find that the difference between stronger and weaker students was larger in online sections. Student strength was measured by aptitude and effort. Ary and Brune (2011) found students in personal finance courses performed the same regardless of delivery mode, but that incoming GPA and ACT scores better predicted student success. Euzent, Martin, Moskal, and Moskal (2011) compared introductory economics courses with traditional and lecture capture delivery. Results demonstrated no significant differences in student performance across the delivery modes. Driscoll, Jicha, Hunt, Tichavsky, and Thompson (2012) studied students in online and traditional introductory sociology courses. They found the difference in student performance between delivery modes is accounted for by the presence of a selection effect, and the delivery mode does not have an impact on student performance.

STUDY DESIGN

The University of South Dakota is a mid-sized university located in Vermillion, SD. USD has enrollment of approximately 7,500 undergraduate students and 2,500 graduate students. Fifty-eight percent of students are full time students. We have 453 full time faculty members on campus. The Economics department is housed in the Beacom School of Business which is the only AACSB International accredited business school in the state. Beacom School of Business has approximately 1,250 undergraduate students and is now offering all business core courses online.

The school is one of six schools in a regental network with common course numbers that facilitates seamless transfer back to a student's home university. USD is not the only university in the system offering these courses online during the semesters studied. In addition, the face-to-face sections analyzed here were not the only sections of the course offered on campus during the semester. We only use student performance in courses with the same instructor to eliminate any instructor bias in the results.

The study includes data from four semesters (fall 2011, spring 2012, fall 2012, and spring 2013). ECON 201: Principles of Microeconomics was first offered online by USD in the fall 2011 semester during which one instructor taught both an online and a face-to-face section. During the spring 2012 semester, the same instructor taught both an online and face-to-face section of ECON 202: Principles of Macroeconomics. This was the first semester ECON 202 was offered online by USD. The combination of online and face-to-face by the same instructor was offered again in the 2012-2013 school year. Data from the spring of 2013 for the face-to-face course was excluded because the instructor took leave midway through the semester. The instructor continued to teach the online section during the spring 2013 semester.

Regardless of semester, the online and face-to-face sections had the same textbook, chapter coverage, exams, and web-based homework assignments. Exams were given using the Desire2Learn (D2L) learning management software and Respondus Lock-Down browser for all sections. In the face-to-face sections, students brought in their own laptops or used one furnished by the school. They were not allowed to use notes or books. Online exams were proctored to ensure students did not use any notes or books. Proctoring restrictions are managed through the Office of Continuing and Distance Education at USD. Students can use a pre-approved proctor site of which there are four in the state. Students can also have another individual approved as a proctor, or use a testing center on campus at another regental school. Individually approved proctors include librarians, members of the clergy, faculty at another institution, superintendents or principals of local school districts, or professional testing centers.

The instructor worked to insure delivery of the material in the two course sections was as similar as possible. The instructor in the sample has extensive prior experience teaching completely online and has participated in multiple extensive online training seminars/courses. The online sections had either weekly virtual meeting times during which the instructor would give the same lecture as in class using the Collaborate web conferencing software or prerecorded lectures which students could watch at their leisure. When prerecorded lectures were used, the online conferencing software was used to conduct office hours. Collaborate allows students to ask question using a microphone, webcam, and chat messenger. The online course was completely online – designed to be online – not simply a repository of the face-to-face information. Online students also participated in threaded discussions to simulate the type of student-student and student-teacher interaction that happens in a face-to-face class.

For this project, we have matched student exam and homework performance with information from their institutional records such as age, gender, ACT scores, GPA, number of credits cumulative, number of concurrent credits, number of online courses, number of math/stat courses, home university, address, major, military status, and international status. We have two separate samples (see Table 1) to differentiate between ECON 201 (Principles of Microeconomics) and ECON 202 (Principles of Macroeconomics) sections. We could not combine the two samples with use of a dummy variable because our Principles courses are sequenced. Therefore, we have students who are in both samples. The hypotheses for this

Table 1
Study Samples

Principles of Microeconomics	Principles of Macroeconomics
Fall 2011, Online	Spring 2012, Online
Fall 2011, Face-to-face	Spring 2012, Face-to-face
Fall 2012, Online	Spring 2013, Online
Fall 2012, Face-to-face	

study are that students will perform equally well in online and face-to-face delivery modes.

DATA

Reviewing the scores for exam performance and homework performance in each section of the course, there appears to be a difference. Our null hypothesis is that students in the two sections perform equally well on exams and homework (as measured by % score).

Hypothesis 1: Exam performance in online sections of Principles of Microeconomics is the same as face-to-face sections.

Hypothesis 2: Exam performance in online sections of Principles of Macroeconomics is the same as face-to-face sections.

Hypothesis 3: Homework performance in online sections of Principles of Microeconomics is the same as face-to-face sections.

Hypothesis 4: Homework performance in online sections of Principles of Macroeconomics is the same as face-to-face sections.

Consider the data presented in Table 2. We can reject the null for Hypotheses 1 and 3. We cannot reject the null for Hypothesis 2 and 4.

The characteristics of the students in the sample are presented in Table 3. The students in online sections are different in four areas that we would have expected. These students are older, have a longer commute to their home university, are taking fewer credit hours concurrently, and have taken more online courses in the past. The differences in all of these characteristics are statistically different for online students, using a two-tailed T-test at the 0.05 level. We did not find any statistical difference in online students with regards to GPA, ACT Math scores, gender, or number of cumulative credits.

REGRESSION ANALYSIS

We use regression analysis to determine the marginal effect on homework or exam score of being in the online

Table 2
Descriptive Statistics on Course Performance

Scores by Course		Face-to-face	Online
Principles of Microeconomics	Exam score (% of total semester exam points)	0.7256 (0.1249)	0.6315[1] (0.2320)
	Homework (% of total semester homework points)	0.8094 (0.1321)	0.6854[1] (0.2427)
	Number of observations	109	60
Principles of Macroeconomics	Exam score (% of total semester exam points)	0.7053 (0.1423)	0.6594 (0.1791)
	Homework (% of total semester homework points)	0.8058 (0.1483)	0.7718 (0.1792)
	Number of observations	39	42

Notes: Standard deviations are in parenthesis.

[1] Null hypothesis that the mean score for the online class is the same as the mean score for the face-to-face class is rejected at the 5% level.

course compared to the face-to-face course after controlling for student characteristics. Two of the most significant factors in student performance in economics courses is math ability indicated by ACT Math score and exposure to math courses prior to taking economics (see Elzinga and Melaugh (2009), Ballard and Johnson (2004), Durden and Ellis (1995), Williams, Waldauer, and Duggal (1992), Anderson, Benjamin, and Fuss (1994), and Brasfield, Harrison, and McCoy (1993)). On these ACT Math and previous math courses, students in online and F2F courses are similar which allows for the counterfactual consideration inherent in regression analysis.

Hypothesis 5: The coefficient on the online dummy variable is zero.

The results from the Ordinary Least Squares (OLS) regression are presented in Table 4. For both samples, the coefficient on the online dummy is not statistically significant. We cannot reject the null for Hypothesis 5. This would indicate that after controlling for observable student characteristics, students perform equally well in an online or face-to-face environment. As the goal of the

Table 3
Descriptive Statistics

	Principles of Microeconomics		Principles of Macroeconomics	
	Face to Face Students	Online Students	Face to Face Students	Online Students
Female	33.9%	43.3%	43.5%	45.2%
Average Age	21.48 (3.4437)	27.95** (8.3573)	23.35 (5.4507)	28.76** (9.9089)
Business Majors	62.4%	50%	59%	61.9%
Commute in hours to home university	0.1261 (0.2978)	0.9166** (0.8667)	0.1923 (0.3267)	2.833** (5.218)
USD Students	100%	36.66%	100%	47.6%
Cumulative GPA	2.866 (0.9351)	2.844 (0.7025)	3.014 (0.5067)	2.777 (0.8489)
Number of previous online courses	0.2293 (0.5550)	4.150** (4.950)	0.3333 (0.5773)	5.166 ** (6.183)
Number of concurrent credits	13.88 (2.563)	10.48 ** (4.774)	13.51 (2.955)	10.81 ** (5.162)
Number of previous credits	40.00 (27.076)	70.78** (46.853)	59.66 (29.369)	63.52 (39.953)
Number of previous math and stats courses	1.358 (1.0410)	1.883 (1.4967)	2.231 (1.3171)	1.762 (1.6050)
ACT Math1	24.37 (4.066)	23.27 (4.806)	24.41 (3.295)	23.27 (4.415)
Number of observations	109	60	39	42

Notes: Standard deviations are in parenthesis. Null hypothesis is that the means of the variables are the same for the two groups.

** Null hypothesis is rejected at the two-tail 0.05 Type 1 error level

1ACT Math scores were not available for all students. For Sample A, N=101 f2f and N=41 online. For Sample B, N=34 f2f and N=29 online.

instructor was to make the courses as similar as possible, this indicates the goal was met.

For Principles of Microeconomics, the statistically significant predictors of exam performance are the student's ACT-Math score, their Aplia homework score, their major (business majors performing worse), and their previous experience with online courses. This coefficient is small, but the reduced magnitude may come from the exams being delivered online even for the face-to-face course. Principles of Microeconomics includes data from fall 2011 and fall 2012 semesters. The exams covered the same material in the same way but did not have the exact same wording which could account for the difference. The fall 2012 course was also scheduled earlier in the morning which could make a difference in the face-to-face exam results.

Table 4
Regression Results Using Ordinary Least Squares

	Principles of Microeconomics		Principles of Macroeconomics	
Independent Variable, Dependent Variable	**Exam Score**	**Homework Score**	**Exam Score**	**Homework Score**
Online Dummy (online = 1)	-0.1540	-0.3231**	-0.0502	-0.1665
	(-1.52)	(-2.37)	(-0.14)	(-0.78)
Gender (Female=1)	-0.0076	0.0282	-0.0472 *	-0.0425
	(-0.37)	(1.02)	(-1.94)	(-1.17)
ACT Math	0.0061**	0.0061 *	0.0070*	-0.0138***
	(2.54)	(1.88)	(1.94)	(-2.66)
Cumulative GPA prior to semester	0.0061	0.0268	0.0677*	0.1442***
	(-0.48)	(1.53)	(1.98)	(3.02)
Business Major (business = 1)	-0.0373*	0.0627**	0.0464*	0.0744*
	(-1.81)	(2.26)	(1.76)	(1.92)
Number of previous internet courses (courses, not credits)	-0.0129	-0.0288*	-0.0076	0.0201
	(-1.15)	(-1.91)	(-0.57)	(1.00)
Number of previous internet courses squared	-.0001	.0015	.0007	-.0010
	(-.91)	(1.20)	(0.78)	(-0.76)
Number of concurrent credits during semester	0.0012	0.0100**	-0.0047	0.0080
	(0.51)	(2.45)	(-1.37)	(1.63)
Cumulative number of college credits	0.0003	-0.0005	-0.0001	-0.0083
	(1.03)	(-1.10)	(-0.15)	(1.63)
Homework % score	0.6274***	-	0.5398***	-
	(9.79)		(5.85)	
Fall2012 Dummy	-0.0296*	0.0602**	Na	Na
	(-1.55)	(2.35)		
Spring2013 Dummy	Na	Na	-0.0247	0.0654
			(-0.59)	(1.04)
Constant	0.0714	0.3881***	-0.0369	0.5604***
	(0.91)	(3.80)	(-0.27)	(2.95)
F statistic	F(12,129)=21.51	F(11,130)=7.96	F(12,50)=10.84	F(11,51)=4.08
Adjusted R^2	0.6668	0.3517	0.6558	0.3537
Number of Observations	142	142	63	63

Notes: t-statistics are in parenthesis. * Significant at the two-tail 0.10 Type 1 error level; ** Significant at the two-tail 0.05 Type 1 error level; *** Significant at the two-tail 0.01 Type 1 error level.

Principles of Macroeconomics had a few different and interesting results. One is the large and significant coefficient on GPA. Students who have a GPA one point higher (3.5 instead of 2.5) performed 14 percentage points better on the homework and 7 percentage points better on the exams in the Principles of Macroeconomics course. Additionally, the coefficient on the female indicator predicting exam scores was negative and statistically significant while the coefficient on the business indicator for both exams and homework were positive and statistically significant. Homework score also seemed to have a large and significant effect on exam score in Principles of Macroeconomics where it did not have a significant impact in Principles of Microeconomics; a 10 percentage point increase in homework score predicts a 5.4 percentage point increase in exam score.

The results in Table 4 highlight some interesting possible causes in the difference in student performance on exams. However, we know the OLS estimate of the coefficients are biased as students had the choice to select into either the online or face-to-face class with the same instructor. To account for this selection bias, we employ a two-stage technique using an instrumental variable. We acknowledge that these two-stage techniques impose distributional restrictions that may lead to more bias than our OLS estimates.

We use a two-stage procedure in which the first stage is a Probit estimation of the students' probability of choosing the online course. This follows with the method used in Anstine and Skidmore (2005), Gratton-Lavoie and Stanley (2009), Trawick et al. (2010), and others. In our descriptive statistics for each of the samples, online students are different from face-to-face students in terms of age, commute to home university, number of concurrent credit hours, and the number of previous online courses. As not all of the variables used in the Probit can be used in the second stage regression, we need to consider which of those four variables influenced a student's choice to take a course online instead of face-to-face but were not likely to influence their exam or homework score. A student's choice to take an online course is likely influenced by unobservable characteristics such as whether they work full-time or not and if they have small children at home and the observable variable commute to home university. In addition, if a student has had an online course before, they would likely feel comfortable taking another. All of those concerns likely also influence the student's choice about how many credits to take concurrently. It is not clear which variables would be the best instruments for unobservable characteristics. We suggest that age and commute to home university influence a student's choice about taking an online course, but do not influence their performance in the course. The number of previous online courses likely influences both their decision to take online and their performance in the course assuming they selected the online option.

We use three of these variables in the Probit estimation for the choice of the online course.

We decompose into exogenous and endogenous parts and construct a Probit estimation of the probability of taking an online class. This assumes to be normally distributed.

The second stage is an OLS regression using the predictions from the Probit estimation as a replacement for the dummy variable for online.

Hypothesis 6: The coefficient on predicted online variable is zero.

The results from the OLS are presented in Table 5. After correcting for the selection bias in the choice of delivery mode, the marginal effect of the online delivery method is not statistically different from zero in either sample. We cannot reject the null for Hypothesis 6. This is contradictory to the findings of Anstine and Skidmore (2005) but similar to the findings of Driscoll et al. (2012).

In the Principles of Microeconomics sample, the main predictors of a student's exam score are the students ACT Math score, major, previous experience with online courses, and homework score. Since the exams were given electronically, even in the face-to-face section, the statistically significant results on previous online experience was not unexpected, but the sign was unexpected. We had hypothesized that having had previous online experience would make students more comfortable with the online homework assignments and exams. It is reassuring to know that a student who performed better on their homework assignments would see an increase in their exam scores. The last surprising result was the positive and statistically significant coefficient on number of concurrent credits for the homework score. This coefficient indicates that a student with 13 credits (face-to-face average) instead of 10 credits (online average) would achieve a higher score homework assignments of 3.3 percentage points. This may be capturing an unobserved characteristic about the relationship between full-time employment and part-time enrollment while attending school.

In the Principles of Macroeconomics sample, the negative and statistically significant coefficient on gender persisted from the OLS results as did the positive and statically significant coefficient on the business indicator. The number of concurrent credits does not seem to have the same impact on student performance in the Principles of Macroeconomics course as it did in the Principles of Microeconomics course. This difference may be to do the familiarity with the instructor and format of the course.

Table 5
Regression Results
Using Two-Stages with
Maximum Likelihood Estimation
(Probit) in the first stage)

	Principles of Microeconomics		Principles of Macroeconomics	
Independent Variable	**Exam Score**	**Homework Score**	**Exam Score**	**Homework Score**
Online hat (predicted value of online variable using the probit model with online = 1)	0.1080 (1.51)	0.663 (-0.66)	-0.0041 (-0.06)	-0.0665 (-0.62)
Gender (Female=1)	-0.0061 (-0.30)	0.0345 (1.22)	-0.0456* (-1.91)	-0.0424 (-1.16)
ACT Math (score on the math portion of the ACT test)	0.0069*** (2.88)	0.0075** (2.30)	0.0073* (1.98)	-0.0138** (-2.64)
Cumulative GPA prior to semester	0.0145 (1.15)	0.0415** (2.42)	0.0739** (2.51)	0.1624*** (4.23)
Business Major (1 if business)	-0.0440** (-2.13)	0.0565** (1.98)	0.0460* (1.74)	0.0741* (1.91)
Number of previous internet courses (courses, not credits)	-0.0327* (-1.95)	-0.0437* (-1.90)	-.0080 (-0.45)	0.0280 (1.06)
Number of previous internet courses squared	.0009 (0.77)	.0021 (1.34)	.0007 (0.66)	-.0014 (-0.85)
Number of concurrent credits during semester	0.0018 (0.58)	0.0115*** (2.78)	-0.0046 (-1.32)	0.0092* (1.80)
Cumulative number of college credits	0.0000 (0.02)	-0.0021 (-1.72)	-0.0001 (-0.26)	-0.0001 (-0.21)
Homework % score	0.6417*** (10.21)	-	0.5428*** (5.89)	-
Fall2012 Dummy	-0.0294 (-1.53)	0.0585** (2.23)	Na	Na
Spring2013 Dummy	Na	Na	-0.0272 (-0.58)	0.0752 (1.07)
Constant	0.0113 (0.15)	0.2972*** (2.99)	-0.0622 (-0.53)	0.5024*** (3.09)
F statistic	$F_{(12,129)}$=21.51	$F_{(11,130)}$=7.20	$F_{(12,50)}$=10.81	$F_{(11,51)}$=4.05
Adjusted R2	0.6667	0.3259	0.6549	0.3510
Number of Observations	142	142	63	63

Notes: t-statistics are in parenthesis. * Significant at the two-tail 0.10 Type 1 error level; ** Significant at the two-tail 0.05 Type 1 error level; *** Significant at the two-tail 0.01 Type 1 error level.

These results continue to support our hypothesis that students perform equally well on exams in face-to-face and online courses with the same instructor. We cannot reject our original hypotheses that students perform equally well on exams in an online course and a face-to-face course. The observed statistical difference in exam performance across sections cannot be explained by the delivery method.

CONCLUSION

Past studies that show students perform equally well online while other studies that show students perform worse online. Research studies on the effectiveness of online courses continue to inform the discussion and movement toward more online course offerings. Looking at principles of economics courses, we show that students in the online environment perform equally well on exams after controlling for the students' individual characteristics and the choices to select into the online section. The result could stem from the strong effort by the instructor to make the courses as similar as possible in terms of content, assessments, and interaction. Further work is planned and to address issues of persistence and to expand the study to more sections and more instructors.

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Service-Learning: Creating Opportunities to Expand Students' Worldviews

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ABSTRACT

More literature is needed that focuses on the effectiveness of service learning projects in higher education, specifically how individual students are impacted. This study investigates the possible influence of an international service-learning experience on a student's worldview. The International Service-Learning Inventory was used to ask students a variety of questions on social justice, intercultural competencies, diversity, global awareness, democracy, civic engagement, and transformative learning. The study was conducted with University of Central Florida student participants (N=9) enrolled in an international service-learning field experience in Botswana examining educational access and gender issues. The results demonstrated strong relationship among four factors: Community, Civic Engagement, Diversity, and Education & Leadership – of which were defined as a student's worldview. In addition, there were interaction effects with the four factors and gender and ethnicity and main effect sizes with the four factors and first generational students, Pell Grant recipients, and those who have traveled abroad. Because of the large effect size in the small population, this "pilot" or "exploratory" research suggests to the reader significant results may be found when examining larger populations.

INTRODUCTION

Service-learning has been described in various broad terms as a type of pedagogy, a philosophy, a program, a high-impact practice, a retention tool, and/or an experience pivotal to student learning and engagement (Deeley, 2010; Kuh, Kinzie, Schuh, & Whitt, 2005; Mendel-Reyes, 1998; Tinto, 2012; Yeh, 2010). The National Service-Learning Clearinghouse (2005) defines service-learning as, "...a teaching and learning strategy that integrates meaningful community service with instruction and reflection to enrich the learning experience, teach civic responsibility, and strengthen communities." Another requirement of service-learning may include coursework that is associated with the experience with assignments and assessments attached. Additionally, students must actively participate in real-life activities that meet the needs of the larger community, and students have the opportunity to apply newly acquired skills and knowledge to real-world problems (Cashel, Goodman, & Swanson, 2003; McClain, Diambra, Burton, Fuss & Fudge, 2008).

A 1999–2000 survey of 324 universities and colleges found that 82% offered undergraduate and graduate courses involving service-learning experiences (Moser & Rogers, 2005). The benefits of service-learning to student participants have been studied across academic disciplines including nursing (Calvillo, Clark, Ballantyne, Pacquiao,

Purnell, & Villarruel, 2009), pharmacology (Coffey, Miller, Barnett, & Turberville-Vega, 2003), teacher education preparation (LaMaster, 2001), and social justice (Warren, 1998; Werner, Voce, Openshaw, & Simons, 2002). The benefits of service-learning activities have also been studied in many unique student populations, including honors students (Stewart, 2008), low-income and first-generation students (Yeh, 2010), and first-year students (Stavrianopoulos, 2008).

The literature demonstrates that students participating in service show many positive effects on measures including academic performance (GPA, writing skills, critical thinking skills), values (commitment to activism and to promoting racial understanding), self-efficacy, leadership (leadership activities, self-rated leadership ability, interpersonal skills), choice of a service career, and plans to participate in service after college (Astin, Vogelgesang, Ikeda & Yee, 2000; Yeh, 2010). Other benefits of student participation in service-learning activities include increased attendance, further development of students' personal and social responsibility, and, "the feelings of belonging to a peer group and greater connection to the institution" (Deeley, 2010; Kuh, et al.,, 2005; "What is Service-Learning," n.d.). Low-income and first-generation students, often at greater risk of attrition than their peers, demonstrate increased educational resiliency, increased feelings of personal meaning, and enhanced critical consciousness by engaging in service learning experiences (Yeh, 2010). Service-learning also provides students the opportunity to face societal and personal ignorance, injustice, inequity, and prejudices while allowing them to expand upon their own goals of cultural adaptation, values, knowledge acquisition, and career plans (Aydlett, Randolph &Wells, 2010; Knuston & Gonzalez, 2009).

International service-learning is a combination of study abroad experiences with those aspects of conventional service-learning and integrates a targeted culture into a student's learning experience (Tonkin & Quiroga, 2004). These experiences develop and enhance students' sense of global citizenship by immersing them in situations that involve interacting with community residents while carrying out a project intended to benefit the community (Prins &Webster, 2010). Although short-term programs such as these can reinforce stereotypes of the poor and simplify social problems, short-term international service projects can lead students to question consumerism, cultural norms, foreign policy, and even American cultural hegemony. Short-term experiences also enable students to step outside of their comfort zones and, in some cases, their own borders, to become aware of ideological identity both home and abroad (Prins & Webster, 2010). These trips are often transformative in nature, and enhance participants' abilities to view their world from multiple perspectives (Knuston & Gonzalez, 2009).

This study adds to this body of literature by through quantitative assessment of student expansion of students' worldviews. For the purposes of this study, worldview is defined to be community, civic engagement, diversity, and education & leadership. Student expectations and concerns prior to the experience and reflections following the experience were analyzed to identify changes that occurred as a result of their participation. A review of the course and the service-learning experience establish the context for the study. The University of Central Florida defines service-learning as:

> A teaching method that uses community involvement to apply theories or skills being taught in a course. The institution believes that service-learning furthers the learning objectives of the academic course, addresses community needs, and requires students to reflect on their activity in order to gain an appreciation for the relationship between civics and academics. (Service-Learning, para. 1, 2013)

The aim of the course was for students to gain an appreciation of some of the challenges that educators in southern Africa face on a daily basis beyond exceptionality, race, gender and language barriers, effects of poverty, and access to quality education. The course, which is applicable to overseas study programs, was designed to assist student participants' work within the school community in Botswana while gaining insights into local and global educational issues (Biraimah, 2013).

There were several course objectives, of which included: analyzing how gender affects educational and life opportunities for students in Botswana, examining relationships between education, inequality, poverty, and socioeconomic status (class) in Botswana, demonstrating knowledge of the unique and diverse cultures, commonalities, and shared human condition, and reflecting on students' international field experience with regards to serving "the needs of the global community and experience the rewards of helping others" (Biraimah, para. 2, 2013).

METHOD

Participants

Participants in this study were nine undergraduate students enrolled in an international service-learning field experience at the University of Central Florida in the summer of 2013. The participation rate for both the pre- and post- online survey was 90%. Of the seven students who chose to identify their gender, five (55.6%) were female and two were male (22%). Of the eight students who responded to questions regarding race and ethnicity, four identified as being white or Caucasian (44%), three as being Black or African American (33%), one as Hispanic or Latino (11%). Three of the students self-reported being juniors in college (33%) with the remaining six (66%) identifying as college seniors. Eight students (89%) are completing degrees within the College of Education while one student is pursuing a degree in the College of Sciences (11%). Five of the nine students (56%) indicated that they were Pell Grant recipients. Five students identify as first-generation (56%). Eight of the nine students indicated that they had previously completed service-related activities. Seven of the nine had previously traveled abroad for a variety of reasons, from vacationing and visiting with family and friends, to class trip and business trip, to participating in a mission trip, and/or alternative break programs.

Materials

The International Service-Learning Research Inventory was designed by the researchers after defining the term worldview and determining what construct would be investigated. After performing a meta-analysis of studies using similar inventories, the International Service-Learning Research Survey was developed using three previously validated surveys as its basis. The International Service-Learning Research Inventory is an online survey which consists of 40 questions, 28 of which were 6-point Likert Scale questions. The survey consists of two primary areas: demographic information and assessment questions. Assessment questions asked the participant to rank themselves in areas of sense of community, civic engagement, and thoughts on diversity and educational leadership; all topics that the researchers define as *worldview*.

To ensure the instrument's reliability and validity, a control group of similar participants was asked to complete the inventory. Each of these individuals completed the inventory with a member of the research team present to answer any questions or address any concerns that were raised. Improvements in wording and formatting were then made to the inventory as needed. These individuals were then asked to take the inventory again to ensure that any issues had been resolved.

To validate the measure, a Crombach Alpha was conducted for each of the four factors. One example of a *Community* factor, "My experiences through my International Service-Learning trip have helped me understand opportunities to become involved in my community," yielded a Crombach Alpha of .80. An example of a *Civic Engagement* variable, "It is important for me to vote and participate in other civic opportunities," presented a Crombach Alpha of .66. One *Diversity* factor question, "My community is enhanced with ethnic and cultural diversity," yielded a Crombach Alpha of .46. The fourth factor, *Education & Leadership*, produced a Crombach Alpha of .64; a sample question was, "The thought of combining courses that I am taking with service to my community should be practiced more at my college/university."

Procedure

A one-group pre-/post research design was conducted with nine undergraduate students enrolled in the summer 2013 "International Education Field Experiences" at the University of Central Florida to determine the impact of their participation in a 3-week service-learning trip to Botswana. The course was designed to determine the impact of gender on education and life opportunities and to analyze relationships between education, inequality, poverty, and socioeconomic status (class) in Botswana (Biraimah, 2013).

Ten days prior to the students' departure, a research team member went into the class to discuss the study and how information would be collected throughout the study. All students in the course were urged to participate and reminded to complete the survey by the faculty members in the classroom prior to departure. Participating students were asked to provide consent before completing the online survey. Students choosing to participate in the survey were invited to complete the online inventory. Pre- and post-responses were then matched by the last four digits of the student's cell phone number (this information was not included on the consent form). Individuals who did not submit completed pre- and post-responses were eliminated, leaving a total of nine participants.

Analyses of the pre- and post- responses were conducted using the Statistical Program for Social Sciences (SPSS). Descriptive nonparametric statistics were used to describe demographic data. Paired-sample t-tests were conducted to determine significance in pre- and post- survey aggregate means for each construct. Multivariate and Univariate tests for repeated measures were used to determine relationships between construct scores and demographic information.

RESULTS

A scorecard was developed for each of the four factors of Community, Civic Engagement, Diversity, and Education & Leadership and an overall total score for the pre- and post- survey and +/- in change from the pre-survey to the post-survey results with the ranges yielding Low, Medium, and High.(Table 1). This score card is based off of *The Personal Adult Learning Style Inventory* (Knowles,

Holton, and Swanson, p.291, 2005). The changes from pre to post Low scores for the four factors were negative or nonexistent. At the same time, the changes from pre to post High scores for the four factors were all positive. The overall total scores changed where the Low range from pre- and post- survey decreased by 1, the Medium range from pre- and post- surveys stayed the same and the High range from the pre- and post- survey results increased by 1. This illustrated that student participants have increased their worldview based on the four factors and overall total scores.

Dependent T-tests for all Likert Scale were conducted to investigate mean differences between pre-survey and post-survey results. Of the 28 questions within the four factors, two are worth reporting. There is a statistically significant mean difference (t= -2.53, df= 8, p<.05) in student participant responses in "I am comfortable getting out of my comfort zone" from the Education and Leadership factor in pre- and post- survey responses. The pre-survey answers given prior to the trip to Botswana were significantly lower (M=4.67, SD=1.12) than the post-survey answers given upon their return (M=5.11, SD=1.27). The 95% confidence interval of the mean difference ranged from -.85 to -.039, and did not include zero. Similarly, a statistically significant mean difference (t= -2.53, df=8, p<.05) was found in responses to "I am concerned about the rights of others and sensitive to those being discriminated against" also from the Education and Leadership factor in pre- and post- survey responses. The pre-survey answers given prior to the ISL trip is significantly lower (M=5.00, SD=.71) than the post-survey responses (M=5.44, SD=.53). The 95% confidence interval of the mean difference ranged from -.85 to -.039, and did not include zero.

A repeated measures test was used to determine if changes in rating, opinion, attitude, and evaluation of students' worldview were present. There was no statistically significant difference after running a multivariate repeated measure for all four factors, but there was a large effect size, suggesting that the three-week international service-learning trip accounted for 33.3% of the variance in scores. Using Cohen (1992), that .01, 0.6, and 1.4 represent Small, Medium and Large effect sizes respectively, results indicate that two factors had a Medium effect size (Community Service = .064 and Civic Engagement = .073) and two factors had a Large effect size (Diversity = .286 and Education & Leadership = .254).

A repeated measures test was also used against five pieces of demographic information: gender, ethnicity, first generation, Pell Grant, and whether the participant has traveled abroad. The team was only interested in looking at large effect sizes in the Univariate tests; that of .14 and greater. Tables two and three were measured with interaction effects and tables four, five, and six were measured with main effect sizes. Looking at tables two and three, Univariates for Gender versus time and Ethnicity versus time, the Community factor yielded a commonality as a large interaction effect size. Ethnicity also scored large interaction effect sizes in both Diversity and Education & Leadership.

Large main effects for first generation students and participants who have traveled abroad both included Diversity and Education & Leadership. Similarly, non-first generation students along with those who have not traveled abroad both have large main effects for three factors: Community, Civic Engagement, and Diversity. Main effects for Pell Grant recipients had large effect sizes in Community and Diversity, and for those who do not receive Pell Grants had large effect sizes in all four factors: Community, Civic Engagement, Diversity, and Education & Leadership. Diversity was the common factor for those who answered "yes" to traveling abroad, receiving Pell Grants, and/or first generational students. Converse-

Table 1
International Service-learning Score Card

Factors	Ranges per factor	Pre-High	Post-High	Change +/-	Pre-Med	Post-Med	Change +/-	Pre-Low	Post-Low	Change +/-
Community	37-42 = H	4	5	+1	4	4	--	1	0	-1
CE	31-36 = M	2	5	+3	5	3	-2	2	1	-1
Diversity	≤30 = L	4	6	+2	5	3	-2	0	0	--
Ed & Leader		5	6	+1	2	3	+1	2	0	-2
Overall	Range TOT									
	150-168	2	3	+1	6	6	--	1	0	-1
	131-149									
	≤130									

Table 2
Univatriate Test of Gender*time for Interaction Effect Size

Factor(s)	Pre-survey		Post-survey		
	Mean	Standard Deviation	Mean	Standard Deviation	Eta
Community	36.29	2.21	36.29	2.29	.34

Table 3:
Univariate Test of Ethnicity*time for Interaction Effect Size

Factor(s)	Pre-survey		Post-survey		
	Mean	Standard Deviation	Mean	Standard Deviation	Eta
Community	36.00	4.03	37.11	2.62	.23
Diversity	36.78	3.56	38.00	2.74	.48
Ed. & Leadership	37.33	3.74	38.56	2.60	.27

Table 4
Univariate Test of First Generation Students*time for Main Effect Size

	Factor(s)	Pre-survey		Post-survey		Eta
		Mean	Standard Deviation	Mean	Standard Deviation	
Yes	Diversity	36.20	4.60	37.20	3.42	.19
	Ed. & Leadership	36.00	4.24	37.60	3.05	.43
No	Community	36.75	1.71	37.75	1.71	.33
	Civic Engagement	35.75	.96	37.75	.96	.89
	Diversity	37.50	2.08	39.00	2.58	.45

Table 5
Univariate Test of Pell Grants*time for Main Effect Size

	Factor(s)	Pre-survey		Post-survey		Eta
		Mean	Standard Deviation	Mean	Standard Deviation	
Yes	Community	38.75	2.87	36.75	3.50	.42
	Diversity	38.50	4.43	37.75	3.95	.75
No	Community	33.80	3.56	37.40	2.07	.48
	Civic Engagement	33.80	4.44	36.40	2.61	.69
	Diversity	35.40	2.30	38.20	1.79	.89
	Ed. & Leadership	35.80	3.77	38.40	2.88	.87

Table 6
Univariat Test of Travel Abroad*time for Main Effect Size

	Factor(s)	Pre-survey		Post-survey		Eta
		Mean	Standard Deviation	Mean	Standard Deviation	
Yes	Diversity	37.00	3.69	38.17	3.31	.28
	Ed. & Leadership	37.33	2.42	38.83	2.32	.50
No	Community	34.67	5.86	39.00	1.00	.43
	Civic Engagement	32.67	5.86	36.33	3.79	.82
	Diversity	37.33	6.43	38.00	3.61	.30

ly, those who answered "no" to these same three main effects repeated measures, Community, Civic Engagement, and Diversity were the three common factors that had large effect sizes.

DISCUSSION

Students are coming to college with greater backgrounds in volunteerism and are already familiar with new pedagogies of engagement (Astin et al., 2000). The results of this study support that statement, as eight of the nine participants had previously completed service activities prior to their international service-learning experience. Five demographic variables were found to have large effect sizes: gender, ethnicity, previous travel experience, Pell Grant recipients, and first-generation identification. However, only first-generation identification, Pell Grant recipients, and previous travel experience will be discussed below.

First-generation students

The first variable found to demonstrate a large main effect size with repeated measures was the interaction between first-generation and time. Almost half (43%) of the first-generation students entering college leave before they complete their degree, in contrast to 20% for non-first-generation students (Chen, 2005). Therefore, successful interventions are critical for the retention of this at-risk student population. Service-learning courses has been found to enable first-generation students to develop mentor-like relationships with faculty members while also making the curriculum become more personalized for the students (McKay & Estrella, 2008). This process enables the student to become more academically and socially integrated into the college community (Tinto, 2012). Previous qualitative research has found several important themes: ways in which their work contributed to the goals of the community, enabled the community to accomplish important work, increased their knowledge of social justice, increased confidence in navigating through the bureaucracy of college, and the ability to connect their academic major to careers of service (McKay, et. al., 2008; Yeh, 2010). Additional research on this population is critical to the development of effective retention strategies to ensure the academic success of first-generation students.

Low-income students (Pell Grant recipients)

The second variable found to demonstrate a large main effect size was the interaction between low-income, or students who received Pell Grants and time. In the 2012-2013 academic year, students with an estimated financial contributions (EFC) between $0 and $4,995 were Pell Grant eligible (U.S. Department of Education, n.d.). In his 2010 analysis of data generated by the U.S. Census Bureau, Mortenson reports that there is a 46.8% gap in bachelor degree attainment based on age when measuring family income, with individuals in lower socio-economic statuses less likely to complete degrees. Therefore, research investigating the impact of service-learning on low-income college students is critical to success of this segment of the higher education population.

Previous qualitative research suggests that low-income students often feel like outsiders in the college community but report that service-learning enables them to appreciate the opportunities that higher education provides. Another key finding regarding low-income students engaged in service-learning is the importance of identity, both while completing service and how they saw themselves in the future. Henry (2005) writes that this emphasis on identity development was especially powerful because low-income students reported sharing some important characteristics with the service-learning site, especially, "a similar class background and feelings of isolation and lace of personal value" (p. 64). Future studies should examine the longitudinal impact of such realizations on students' identities, major selection, GPA, and later participation in service-learning experiences.

Previous travel experience

The final variable found to demonstrate a large main effect size was the interaction between previous travel experience and time. While the greatest interactions were found between previous international experiences to complete mission and community service were demonstrated, any previous international travel experience can have a strong relationship with participation in the Botswana trip associated with this study.

Research on the assessment of international service-learning is limited. International experiences involve intense psycho-emotional, ideological, and physiological reactions for students. Therefore, it is crucial that students critically reflect upon their experiences in order for personal growth and transformation of attitudes about the United States to occur (Adler, 1975; Crabtree, 2008). Hartman and Rola (2000) contend that students are "transformed as individuals" as a result of their international service-learning experience, becoming more "caring and affirmed students" in the process (p. 21). Our research appears to compliment these findings. Future research, however, should be longitudinal in nature, focusing on both the short- and long-term effects of international service-learning on students' personal, academic, and career development.

Limitations

This study had several limitations. First, the small sample size makes generalizations outside of the population itself very difficult. As indicated by the statistical results, larger sample sizes may have yielded significant results which would be used to generalize the results to a larger population in order to show that participation in international service-learning influences a student's worldview.

Students were invited to complete the post-assessment only ten days after returning from their trip. Greater gains may have been observed if the inventory were completed after a longer period of time. Students may have been better able to internalize and articulate their experiences after several weeks or even several months after returning home from Botswana. Future studies should consider the benefits and consequences of delivering post-assessment data collection after a longer period of time.

It was determined that a response bias and/or ceiling effect may have impacted the results. "Most likely to agree" and "agree" were the most popular answer choices on both the pre- and post-tests. While individuals in the validation process spent between 10 and 15 minutes completing the inventory, data indicates that the participants in the study itself spent between three and six minutes completing the inventory in both the pre- and post- test situations.

Lastly, the study inferred its findings from statistical data. No attention was paid to the students' academic subject matter associated with the course. A critique of quantitative data is that it limits student outcomes to the measures selected and analyses completed. Qualitative data may help to address these and other weaknesses associated with quantitative studies. The importance of student artifacts such as journals or reflection assignments as well as their participation in less-structured or out-of-class activities should be attempted.

CONCLUSION

This study aimed to determine if participation in an international service-learning experience would greatly impact an undergraduate student's world view. Results suggest that there is some significance with some questions that were in the online survey. Though the study consisted of a small number of participants, the results show large effect sizes with all four of the factors that we define as students' worldview: Community, Civic Engagement, Diversity, and Education & Leadership. Research proved that there were interaction effects with gender and ethnicity with those four factors and main effect sizes with first generational students, Pell Grant recipients, and participants who have traveled abroad. If the study had a larger population, we may have seen some of the large effect sizes become significant from before participants went on their international service-learning trip and upon their return home with the four factors that are defined as *worldview*. To capitalize on the benefits of service-learning possibilities, professionals should be cognizant that students' prior experiences play an important role in the ways in which they create their worldview then challenge and support student participants to become engaged in service while questioning how their experiences impact their abilities to serve as global citizens and responsible leaders.

John Dewey (1933) stated that, "true learning only occurs when students must grapple with true dilemmas" (Aydlett, Randolph, and Wells, p. 152). Connecting classroom curriculum with hands-on experience in the field overseas through international service-learning has many benefits. Students are exposed to a diverse network of people who are also trying to make a difference and have the opportunity to become civically engaged, grow to become leaders, and work together with those who may have different viewpoints but finding a way to seek common ground as a cohesive cohort; creating an impact by expanding students' worldview. The results of this study give a strong charge for faculty in institutions of higher education to consider creating opportunities for service-learning in their class, programs, and in the university.

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An Investigation into Instructor Implementation of Alternative Course Offerings in Education Departments in One Private Liberal Arts University

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ABSTRACT

In order to understand whether a "personal" education found in the mission of a private liberal arts university could be delivered in alternative formats, an investigation into the teaching practice of eight instructors in newly designed alternative delivery courses was conducted during the fall and spring semesters of 2013-2014. The faculty taught in education departments across three levels – undergraduate teacher certification, masters and doctoral studies in education. The alternative delivery courses for the study included online, hybrid and one web-camera distance learning course, so that students were in the classroom with the instructor on alternative weeks, and teleconferencing with him through a web camera during the other weeks. Qualitative data indicated that all instructors met the challenges of training, student bias, course design, yet raised questions of interaction, rigor and workload. Personal mentoring of students was not evidenced. Student feedback established that students were amenable to alternative deliveries, but that they wanted a choice or prior knowledge of such delivery. Particularly, both instructors and students missed the discussion rich environment found in face-to-face environments. Recommendations that would help meet the "personal" education mission in alternative delivery courses were continued instructor training, advanced advertisement of alternative delivery, intentional effort for student legal accommodations and mentorship, and continued assessment of such courses.

INTRODUCTION

Private liberal arts universities are joining the highly popular trend found in public and for-profit universities in offering alternative course delivery to their students for numerous reasons – accessibility, increased revenue, classroom accommodations, student demand, higher education competition, and instructor preferences (Allen & Seaman, 2010; Clinefelter & Magda, 2013; National Center for Education Statistics, 2011). However, the mission of a private liberal arts university whose students live on campus or commute from nearby may emphasize a personal, mentoring atmosphere which, until recently, has been delivered by traditional student-centered, face-to-face with instructor, classroom settings (Garrison & Arbaugh, 2007; Paul & Cochran, 2013). Do alternative course deliveries allow for traditional engagement, attention, and personal mentoring as is expected in face-to-face environments and as stated in a university's mission?

In order to understand whether a university's mission of a "personal" education could be delivered in alternative formats and how the transition is made from teaching face-to-face courses to alternative delivery systems, we investigated the teaching practice of eight instructors in education departments at one private liberal arts university during the fall and spring semesters of 2013-2014. The instructors under study were faculty specifically teaching in education departments across three levels – undergraduate teacher certification, masters and doctoral studies in education. The mission articulated in the university catalog was one "committed to the principles that each student deserves personal attention… The university endeavors to create a learning environment where each student is provided an opportunity to pursue individual excellence, to think clearly and creatively and to communicate effectively…" (Texas Wesleyan University Graduate Catalog 2014-2016, p. 21). What were the challenges, benefits, and teaching practices from an instructor's view in alternative delivery courses particularly as related to the university's mission?

BACKGROUND

Instructors in private liberal arts universities face the challenge of preserving rigorous, high quality learning environments, while providing personal attention to students through relevant courses and programs students expect and perceive to have value (Bennet & Lockyer, 2004; Jones, 2011). Critical and higher order thinking results from best teaching practice, which includes a rich mix of appropriate tools, experiences, scaffolding, mentoring, and reflection (Bandura, 1986; McDonald, Straker, Schlumpf, & Plack, 2014; Vygotsky, 1978). Technology applications and blended learning environments may add to the mix of interaction, engagement and experiences, or may not, if instructors are not able or willing to adapt teaching style and practice (Baran, Correia, & Thompson, 2013). Students, as well, may not welcome teleconferencing, hybrid, or online courses in their expected course of study. Enrollment in an alternative delivery rather than in a face-to-face course may be met with anxiety, skepticism, or concern about value and rigor (Paris, 2000). In USA Today, Karambelas (2013) reported that many students continue to prefer traditional, face-to-face instruction in the collegiate atmosphere.

Perhaps intuitively, students understand how they learn. Social cognition and social constructivist learning theory places the individual in a sociocultural context (Bandura, 1986; Vygotsky, 1978). Interaction is a salient feature of the environment as old and new meanings are constructed over time and experience. Learners create or re-create new understandings and knowledge through the interaction of what they already know and believe and the ideas, events, and activities with which they come in contact. In a constructivist setting, active engagement, inquiry, and collaboration with others, as well as learning from the mentoring expertise of an instructor or peer, characterize activities of learning (Cannella & Reiff, 1994; Sergiovanni, 2005). An online or hybrid environment may or may not include interaction, inquiry and collaboration with others, but could, with planning and adaptation, be filled with constructivist learning mechanisms–less instructor dominance but expert instructor feedback and presence, facilitated interaction among peers, and valued mentoring from knowledgeable peers and the instructor (Dennen, 2005; Floyd, Hughes, & Maydosz, 2012). When given these conditions, most students can learn and may feel their coursework is personal.

Studies have confirmed that engaged learning can and does occur in alternative delivery courses (Baran, Correia, & Thompson, 2013; Bolliger & Wasilik, 2009). Gabriel (2004) examined student perceptions of learning in a hybrid course with a student-centered approach to instruction. Students enrolled were encouraged to communicate regularly, collaborate in learning groups, interact throughout the course, and were asked to consistently participate in online discussion forums. Enrolled students met face-to-face on three different occasions to foster communication and to reflect on course content. Results indicated that students both benefitted from the online instruction, yet faced numerous challenges. Beneficially, students claimed to enjoy learning from their peers, learned to ask questions that challenged others to think and form new insights, and shared resources, gained confidence, worked well in groups, and learned to believe that they could be successful in an online learning environment. Challenges included time constraints to read new postings, reflect upon the material, learn course content, and lack of ease with instructional activities.

Likewise, the instructor's presence in alternative delivery is crucial to engagement by students (Farber, 2008; Paris, 2000). Jones' study on teaching presence had "its genesis in concerns that the online environment is too impersonal" (Jones, 2011, p. 78). She found that students rated instructor's presence as high when the course was intentionally designed for personal meaning and value, when the instructor facilitated well, and when the instructor's subject matter expertise and mentoring was evident. Similarly, Hosler and Arend (2012) found three factors positively affected students' critical thinking in both face-to-face and online courses: a well organized course, clear goals and assignments, and relevance of assignments to personal goals.

RESEARCH QUESTIONS

In order to understand the application of teaching practice in alternative course delivery, and whether a university's commitment to personal education can be delivered in alternative course delivery, we designed the current study with the following research questions:

- RQ 1 What were challenges and benefits experienced by instructors during newly designed alternative delivery courses in one private liberal arts university with a mission of commitment to personal education?
- RQ 2 What constructivist teaching practices (engagement, reflection, mentoring) were demonstrated in newly designed alternative delivery courses in one private liberal arts university with a mission of commitment to personal education?

METHODOLOGY

Purposive sampling allowed the researchers to invite eight instructors to participate in the study. All eight participants were full-time instructors in the education departments at the university; six of the instructors were ranked as associate or full professors. The other two were employed in tenure-track, full-time positions. Years of the instructors' teaching experience at the university ranged from five to 26 years. All had served as leaders of education committees, organizations, departments, and/or programs, and six of the instructors shared evidence of ongoing research agendas. Three were men; five were women. All had been rated by education students as effective to highly effective instructors; however, the instructors had little to no experience in planning and implementing alternative delivery for the courses in the study. Seven of the eight had previously taught their courses in a face-to-face course design. Student enrollment in the alternative delivery courses ranged from five to eighteen.

In the current study, alternative delivery was defined as course delivery that varied from the previous traditional delivery system, which had included a 15-16 week long semester and meeting face-to-face with students each week for a total of approximately 45 contact hours. The alternative delivery courses for the study included online, hybrid and one web-camera distance learning course, so that students were in the classroom with the instructor on alternative weeks, and teleconferencing with him through a web camera during the other weeks. Online delivery was defined as instruction that did not mandate face-to-face meetings or interaction in a classroom setting; rather readings, discussion, participation, and assignments were delivered and expected through posts and chat rooms. Hybrid delivery was defined in that students met face-to-face meetings with the instructor 50% – 60% of the term, while participating in online chat room discussions, posting assignments and responses during the other allotted time. The university controlled Blackboard© system was the primary mode of online delivery and web-assistance; however, Edmodo© and the Good Reads© blog were used as well.

Data were collected from instructors' vitae, course syllabi, semi-structured interviews during implementation, course reflections, and dialogue from an instructors' focus group held after the courses were completed. In addition, triangulation was aided by collecting and comparing student perceptions and feedback from an end-of-course questionnaire.

Data were coded for segments, similarities and differences; charts and tables were used to identify emerging answers to the research questions. Notes from interviews, syllabi analysis, and the focus group revealed nuances in implementation and practice. Student feedback helped clarify course design and implementation. Reflection occurred as a by-product of participating in the study, due to course attention, interviews and focus group discussion. We assumed that because we asked questions, participants reflected more deeply about the change in delivery, and how best to teach so that students (future and current educators) succeeded in the objectives of the course and experienced a strong pedagogical model for learning.

FINDINGS

Challenges

Most instructors in the study were novices at teaching in an alternative format. They overcame their inadequacy in implementing teleconferencing, online and hybrid coursework through direct instruction and coaching from experts housed in the Center for Alternative Delivery (pseudonym) division of the university. The specialized instruction provided the instructors with additional technology aid, such as the use of voice over Powerpoints©, use of Smartboard© software, how to set up group chats, how to use slides at the appropriate rate, and how to use the teleconferencing equipment. The experts helped instructors plan for a tighter schedule with deadline dates. All instructors asked peers and mentors for additional help and devoted numerous hours in planning for the course delivery. One instructor commented that he spent much more time in planning for the alternative delivery than he had previously spent on the face-to-face course. All discovered that preparation for structure, specificity, tight schedule

Table 1
Instructor, Level, Kind of Alternative Delivery

Instructor (#, Level, & Course)			Description	Assignments	Program
1	Undergraduate	ESL theory course	web-camera, teleconference learning delivery with one group, face-to-face delivery with other group, alternate dates	web-assisted	Blackboard©
2	Masters	Psychosocial research in education course	online course, with one face-to-face meeting	web-assisted	Blackboard©
3	Masters	Introduction to research course	online course, with student choice of attending weekly face-to face meetings	web-assisted	Blackboard©
4	Masters	Trends in education course	online course, no face-to-face meeting	web-assisted	Blackboard©
5	Masters	Administration of schools course	hybrid format, 50% face-to-face and 50% asynchronous web meetings, discussion, assignments	web-assisted	Blackboard©
6	Masters	Adolescent reading instruction course	hybrid format, 50% face-to-face and 50% asynchronous web meetings, discussion, assignments	web-assisted	Good Reads©
7	Doctoral	Organization and policy course	hybrid course, 60% face-to-face and 40% asynchronous web meetings, discussion, assignments	web-assisted	Edmodo©
8	Doctoral	Research and statistics course	hybrid course, 60% face-to-face and 40% asynchronous web meetings, discussion, assignments	web-assisted	Blackboard©

and assignments for the term required strict attention to details in the alternative delivery courses.

A particular challenge faced by online only instructors was that of helping students overcome their fears of online learning and bias against online courses. To ease anxiety, instructors posted welcome videos about themselves, asked students to post photos from family and sports activities, kept up an announcement board, sent weekly reminder emails, and hosted Google Hangout© forums. Instructors also offered face-to-face meetings during the term for students to meet and ask questions and receive clarification about particular topics. Several instructors were willing for students to have their cell phone numbers and they accepted calls from students at night and on weekends regarding assignments. One instructor recorded podcasts to accompany learning modules. It seemed that instructors of teleconferencing and hybrid courses did not experience similar levels of anxiety from students because face-to-face meetings were regularly scheduled during the term.

Another challenge expressed by instructors was the unsettled question about rigor and workload. All instructors reported that the objectives of the alternatively delivered course were the same objectives as the face-to-face course, with the exception of increased technology use. However, one instructor questioned if she would have time in the hybrid course to rigorously teach material that she normally taught in a face-to-face class. She also conceded that the current course, a doctoral level course in statistics and research, did not appear well-suited for either an online or hybrid environment. Students had many questions and at this point her work online with them was inadequate for the help they needed. She acknowledged that she would revisit her instructional scheme, and that hybrid timing for this course might mean meeting 70%–80% face-to-face rather than less. One instructor felt that his podcasts and slides included too much redundant material, which then made him question the rigor of the course. One instructor wondered if the reading course was rigorous enough, or simply an online book club? Two instructors announced that possibly the work they assigned was greater in volume than face-to-face courses taught previously, and that the experience of teaching the course over several terms would help them clarify the appropriate amount of readings and assignments.

Another instructor stated that she was required to meet the challenge of engaging students in posts and responses by continually reminding and prodding her students. The students did not respond until she asked. She planned to retool her syllabus and add more stringent guidelines. Conversely, another instructor decided he needed to alter the stringent guidelines to allow exceptions to posting. Accommodating learning styles differences and handling inappropriate comments and assignment-created tension emerged as challenges for further consideration.

Benefits

Beside the benefits of course accessibility and less mandated time spent on campus or in class meetings, other benefits were suggested. One instructor noted that he felt he knew his students somewhat better due to the newly established routine he followed with his teleconferencing students; each morning he opened his students' emails first, and responded to all of them about procedures or content specific information. Another instructor commented that a benefit of the hybrid course was that all comments, posts, assignments, and her resources of articles and sites were housed in one place (her online library, online students' backpack, and online folders in Edmodo©), which brought greater efficiency and less paper consumption to the course. She also liked that the material was archived for future reference. One professor believed that students found communicating via posts a more positive and more public method to share reflection. She had purposively addressed how to post with tact and probing questions, and how to build the community rather than disrupt, while disagreeing and stating differences in understanding.

Another benefit that surfaced upon reflection was that two instructors experienced greater zeal and determination for developing in-depth, technological material delivery and meeting student needs through technology. Both commented that the alternative delivery of online instruction had opened possibilities for learning that had not been noted before. One instructor commented that performing the various technology applications had given an impetus to her other courses as well, that her skill at providing engaging activities for students had greatly improved.

Teaching Practices (Engagement, Reflection, Mentoring)

All instructors agreed that the tools of technology could aid in collaboration and constructing meaning from readings and experiences, even without face-to-face discussion. Efforts of opportunities for students to engage in meaning making, and to be influenced by "knowledgeable others" who provided scaffolding toward greater understanding were evident in syllabi. Online posts and responses indicated that some students were reaching a deeper level of understanding about topics or objectives. Hybrid course instructors used both face-to-face meetings and postings as a means of constructing meaning. However, in focus group dialogue, the question was raised by an online instructor, "how do I know for sure that my students are fully engaged?"

In order to engage students, instructors used a wide variety of technology tools and assignments. Students were required to view and respond to YouTube© videos, participate in Google Chat©, add further elaboration to Blackboard© and Edmodo© discussion posts and responses to classmates, to post assignments and use the web-assisted format for checking grades and announcements. One instructor insisted on the importance of communication in the online course to students, that she expected to hear from each of them weekly. One online instructor explained, "The issue is feedback. That's the real problem. In a face-to-face class, you know when students don't understand. In an online class there is lag time involved. Students may nor may not ask questions about the assignment or what they don't understand. It shows up in the quality of their work....They think they know the material, but I'm not sure they are understanding it. When they finally contact me, I find many have gone down the wrong path."

One instructor of a hybrid class at the doctoral level questioned engagement by students regarding case change proposals assigned for presentation. She reflected, "I suppose the students could report their proposal in the online Cloud© meeting, but I think the feedback will be richer when we share the proposals in our face-to-face meetings. I'm glad we can see each other." As mentioned, another instructor did not witness adequate growth in research methods and statistics through online discussion and practice.

The practice of student reflection was documented in syllabi, through responses, posts, essays, mid-term and final examinations. Instructor reflection, as well, was evidenced from all participants. One instructor questioned his current ability to facilitate online discussion. He raised his self-doubt and the question of "how to be Socratic, how to be organic, how to be constructivist in an online environment" to the focus group and no clear answer was given. Another instructor admitted, "the most difficult part for me was to authentically engage in their discussion. We did it but it didn't seem authentic." He added, "My feedback to myself was that my course was not as effective. It might have been the newness of the format."

An instructor of a hybrid course reflected that his learning moment was when he realized he was trying to do too

much at one time, that he should pull back from trying to accomplish a hybrid atmosphere in all classes, and refocus on one course until he felt comfortable. An instructor at the doctoral level commented that she might move to a flipped or inverted model (Mazur, 2009), so that she uploaded lectures for students before class meetings and required that the students hear the lecture before attending class. All instructors were committed to making improvements and changes as they anticipated another term of alternative delivery. One instructor said, "I always make notes of what worked and doesn't work. When I go back to that course the next time I teach it, I have the notes of what to change and what not to change. For me, the reflection piece is vital."

Specific mentoring activity by instructors was not in evidence. However, all instructors made intentional efforts to be available for dialogue with any student through emails, through posted office hours, and via telephone and texts.

Student Feedback

Students in seven of the eight courses were invited to answer six open-ended questions about the course. Sixty-six percent of the enrolled students responded with feedback regarding which alternative format matched the course content best, which assignments worked best, whether opportunities for discourse with their peers and/or instructor were available, what recommendations could be made about future alternative delivery classes, and whether the technology system worked in the various courses. Responses did not reveal any direct mentoring activity on the part of the instructors, except that most students reported that instructors were accessible and readily responded to calls, texts, emails and office appointments. In general, the majority of students responded with positive reactions to the alternative formats; however, three recurring themes were generated from the students' feedback that corresponded with both the background literature and the instructors' observations.

First, a majority of students who were enrolled in online courses without face-to-face meetings, commented that what was missing in their course was a face-to-face setting for peer interaction. One student wrote, "this class had a lot of reading on topics that would be fun to discuss in a group setting. I miss the peer interaction and hearing others' thoughts." Another commented, " I do not feel there was ample opportunity to authentically dialogue with peers even though the comments on the discussion board were very in-depth. It was tough because people were posting during different days. I got the feeling that once someone posted, he or she never went back to read anyone else's postings or responses." One student wrote, "I felt disconnected. I did my work but I did not feel that the interaction was effective." Another responded with "I liked being able to have discussions with peers online, but nothing replaces face-to-face discussions." Graduate students in hybrid courses, with classes that met face-to-face at least 50% of the time responded with higher satisfaction towards peer interaction, as the nature of their courses allowed full discussion both online and in person.

Another dominant theme gathered from the student responses was the students' insight into technology use and course design. Students found very favorable all courses that were organized and structured, used selected videos, TED© talks, voice over Powerpoints©, and podcasts for online lectures, had assignments that chunked the material into manageable tasks, and were easy to navigate though the chosen technology system. Negative reactions about technology and course design were that there were too many technical locations and directions to follow for posting, that assignments kept changing or were vague, and that Blackboard© technology was not as easy to use as other systems they knew about, and that prepared audio files were not made using their current group. At times, the audio and camera technology in the teleconferencing course did not work; all students agreed that student-student interactions within the two sites were productive, but across-site interactions were non-existent.

Finally, students who were in online or hybrid courses raised the issue that they did not know that the course offering would be online or hybrid, that the expectation at enrollment was face-to-face meetings. Many voiced their dissatisfaction with the discovery that the course would be offered alternatively. One student wrote, "let students know prior to enrollment and offer a face-to-face section for those who don't want online learning." Another expressed his frustration, "the student needs to be informed that a class will have parts online. I think that the use of technology is good, but not everyone is able to learn with online courses." One student summed up the general feeling, "I picked this university because it was small, personal, and face-to-face. I didn't like that the class format changed."

RECOMMENDATIONS FOR PRACTICE

The findings were clustered into observations, which in turn led to four recommendations regarding alternative delivery formats in a private liberal arts university. We observed that education students themselves brought an interesting dynamic to the course settings. Education students, due to their chosen field and coursework in learning and teaching, understand constructivist learning theory, learning styles, and differentiated teaching, which require a plethora of activities that encourage student engagement. Students in the online courses noted that peer

interaction, in the format they had expected, was missing. Instructors also were not satisfied with discussion boards and chat rooms as the only modes of peer interaction. One instructor wrote, "for a face-to-face teacher, online is not satisfactory. My joy comes from working with the students face-to-face. It's not the same in an online class." The current study found that teleconferencing and hybrid courses did allow for face-to-face interaction that students expected. We recommend that teleconference or hybrid designs be advertised in advance of enrollment and that the teleconference or hybrid design be the primary model of alternative delivery in private liberal arts universities whose population lives on campus or commutes from close proximity.

A second observation was that while instructors designed an intentional welcoming platform and planned content rich activities for engagement and forming a community, they expressed doubts about knowing their students personally. Those who established online windows into personal lives, music, and photos were more satisfied with the community that was formed. However, it appeared that important knowledge about a student's legal rights regarding accommodations was absent from the online environment. In order to follow a university's commitment to providing personal education, we recommend that intentional welcome and building of community occur in teleconferencing, hybrid and online courses at private liberal arts universities, with intentional effort or policy established towards identifying and meeting a student's legal accommodation needs.

We observed that in order to become proficient at alternative course design and delivery, instructors purposively engaged in the daily experience of teaching such courses, found time for reflection, gained expert training, and developed a repertoire of technology applications. However, recognized mentoring actions such as shared stories, office appointments for advising, collaborative research papers and projects, informal explanations of professional work in the field, were not readily identified. Students in this private liberal arts university are mentor seekers, and the kinds of mentoring communication that occurs before, after and during face-to-face class meetings will need to find a place during alternative delivery courses. We recommend that the practice of mentoring students, especially during alternative delivery courses and/or degree programs, become intentional. Mentorship in alternative delivery courses will help to fulfill a university's mission of providing a personal education.

A final recommendation resulted from the observation of growth in alternative delivery formats in both instructor and student groups. Several students expressed surprise and greater confidence in online, hybrid or teleconference learning as the term ended. Instructors also found that their growth and agility in technology had increased. We recommend that instructor training and feedback, as well as student satisfaction questionnaires and focus groups in technology applications and alternative delivery systems become yearly constructs in order to assess and design best learning environments for students in private liberal arts universities.

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Understanding Leadership Theory: The documentary of Sir Ernest Shackleton

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ABSTRACT

Leadership theory is one of the most complex groups of theories to teach management students; nevertheless, it is the one of the most interesting and often desired topics to learn from students. Many organizations are seeking soft skills that are commonly discussed in leadership theory such as building relationships with followers, taking initiative and having effective communication skills (Abraham & Karns, 2009; Graduate Management Admissions Council [GMAC], 2012; Loman, 2011). This paper describes the experiential exercise in which the documentary of a historical figure, Sir Ernest Shackleton, is used to facilitate a discussion on the many aspects of leadership (Butler, 2000). Results from a student satisfaction survey of this exercise and pre-test/post-test data are provided to indicate learning in this exercise.

INTRODUCTION

A fundamental topic in management relates to understanding effective leadership and developing leaders within an organization. In fact, the topic of leadership quite often becomes a history lesson explaining the evolution of multiple theories and the complexity related to understanding how leadership works in our world. Leadership could not be discussed without considering the political, societal and/or organizational implications of prominent leaders over time. Moreover, we can learn through historical figures the art of leadership and how effective leadership can lead to positive outcomes. Many graduate students pursue a degree with the intent of becoming effective leaders in the workplace and expect to learn the art of leadership in our curriculum.

One of the major challenges for MBA programs is to provide knowledge and practical skills of leadership in the curriculum. Recently, some researchers have argued to redefine leadership and to focus more on process-related behaviors related to leadership and to place less emphasis on a systems-perspective for leadership (Hay and Hodgkinson, 2006). Meaning, leadership should include the process as well as an understanding of the constantly changing environment. The purpose of this paper is to provide an experiential exercise based the documentary of one historical figure, Sir Ernest Shackleton, and to describe how this exercise can be integrated into a MBA level course teaching leadership. Specifically, this exercise focuses on a historical event in which the leader worked with his followers in an extreme situation and constantly changing environment. The exercise integrates the students' knowledge of leadership theory within the last century to understand the complexities of effective leadership in a dynamic environment.

LEADERSHIP THEORIES

Leadership theories are often grouped into multiple categories in organizational behavior classes: trait theories, behavioral theories, contingency theories and contemporary theories of leadership (Bryman, 1996; Hay and Hodgkinson, 2006). Teaching leadership within an undergraduate or graduate organizational behavior course can be challenging as there are so many different models, theories and perspectives due to the number of years it has been researched. Additionally, due to the complex nature of leadership, it becomes almost necessary to provide a historical perspective of the different approaches to understand the evolution of leadership theory. Hence, in many organizational behavior classes, leadership lectures always start with a historical overview of how we have progressed in understanding the many different dynamics of leadership theory. Once the evolution of leadership theory is explained, then exercises such as the Shackleton documentary (Butler, 2000) described in this experiential exercise and/or case studies can be used to reinforce the leadership models discussed.

Trait theories are often discussed first in a leadership discussion as it addresses our interest in understanding the personality traits relevant to highly effective leaders. Early management theorists questioned whether personality traits, physical characteristics and abilities were predictive of highly effective leaders (Bryman, 1996). During this time period, researchers questioned whether leaders are born and therefore distinguished among ineffective leaders. This discussion often leads to a lively interaction in which students discuss the 'nature or nurture' debate in effective leaders but also addresses whether leadership behaviors can be developed over time.

There is a natural transition to our discussion of behavioral theories after our trait theory discussion as students quickly realize the importance of how leaders behave in understanding effective leadership. More specifically, the behavioral theories, based in the Ohio Studies research lead by Stogdill, identified two prominent behavioral dimensions: consideration and initiating structure (Bryman, 1992). The consideration behavior focuses on building relationships with followers in order to attain goals; whereas, the initiating structure behavioral style focuses on tasks. By understanding these early research models, students can quickly identify with the concept of exhibiting either task-oriented or people-oriented behaviors in relation to effective leadership. Moreover, these models emphasize the importance of how leaders interact with their followers in order to meet specific goals.

Next, our discussion continues with the contingency models in which context and moderators become pivotal components in understanding effective leadership. The lecture builds upon previous models but also discusses the inefficiencies and inconsistencies of the trait and behavioral models. Many textbooks emphasize the Situational Leadership Model or Life Cycle theory of Leadership developed by Hersey and Blanchard (1969) as a prominent contingency model. This model provides a good example of how specific behaviors need to match a particular context in order to maximize performance among followers. Students quickly recognize the importance of adapting leadership behaviors to a specific context.

The last category of leadership models is often called the contemporary models in which we often discuss transactional, charismatic and transformational leadership. In the classroom, we spend a considerable amount of time discussing the similarities and differences in these models as well as how leadership has progressed to this point in time. Additionally, students often provide personal and public examples of these types of leaders. Teaching leadership from a historical viewpoint allows students to see multiple perspectives and complexities in evaluating effective leadership.

MULTIPLE TECHNIQUES FOR TEACHING LEADERSHIP

There have been numerous articles discussing the challenges of teaching leadership and authors have provided multiple techniques for teaching leadership (e.g., Bumpus, 2005; Burns, 2000; Doh, 2003; Harrington & Griffin, 1990; Hay & Hodgkinson, 2006; Podolny, 2011). Specifically, authors have used motion pictures, poetry/classic literature, and many other experiential techniques to teach the complex leadership theories. Increasingly, educators have incorporated more visual learning techniques such as television and movies clips into the classroom because it provides an effective stimulus to learning by engaging students and illustrating course concepts (Bumpus, 2005; Smith, 2009). Discussing Leadership theory without demonstrating these behaviors could be a challenge and prevent an optimal learning experience for our students. In other words, lectures related to these topics can be confusing and tedious as they are often explained from a historical perspective. Therefore, finding different ways to present the numerous models in leadership assists students in their overall learning (Anderson, 2007; Marcketti & Kadolph, 2010).

Leadership Exercise

Sir Ernest Shackleton (1874-1922) was a British explorer most famous for his *Endurance* expedition to Antarctica (Larson, 2011). Shackleton joined the merchant navy at an early age and become obsessed with reaching Antarctica after he was forced to return home due to an illness on his way to Antarctica. In 1914, his ship, *Endurance*, sailed for his third trip to the South Pole. This famous trip is discussed in the documentary, "The *Endurance*: Shackleton's legendary Antarctic Expedition" (Butler, 2000). The *Endurance* became trapped in ice and the crew members were stuck on ice for 635 days. This incredible journey illustrates the stressful excursion and survival of all 28 members in his crew. More specifically, the crew was forced to abandon the *Endurance* after it was trapped in ice. Shackleton and his crew used three small boats to travel to Elephant Island, an uninhabited island off the coast of Antarctica. Although the crew was on land, there was little chance of being rescued from this remote island. Therefore, Shackleton and five members of his crew continued their trek to reach another island sixteen days later. On foot, Shackleton reached a whaling station after thirty-six hours and was able to organize a rescue mission for the remaining men on Elephant Island. Amazingly, all twenty-eight crew members survived this miraculous expedition in the Antarctic.

The documentary is presented after a thorough lecture of leadership theory and discussion of the common categories of leadership theory. The documentary is shown in the beginning of a 3-hour graduate-level class and then a discussion begins relating Shackleton's expedition with leadership theory. Butler's documentary (2000) won awards at the Sundance Film Festival and Telluride Film Festival. It is narrated by Liam Neeson and uses pictures and historical footage from the actual location. Additionally, the documentary includes interviews with surviving relatives as well as archived audio interviews with members of the crew. The documentary is 97 minutes in length which is suitable for a graduate level class that typically meets for 3 hours once a week.

An advantage to using movies/documentaries as a method for reinforcing learning is that it provides a visual image for transferring the knowledge learned in lectures to an example (Bumpus, 2005; Harrington & Griffin, 1990). Students are encouraged to take notes during the documentary and look for examples of the various leadership theories/models we discuss in our lecture. They are informed of the discussion in advance of the viewing in which they will be required to participate and provide examples from the documentary. After viewing the documentary, the instructor facilitates a thorough discussion of each of the leadership categories and illustrates how each of the models may apply to Shackleton and his crew. An alternative would be to break the class into small groups and to instruct each group to focus on a leadership category (i.e., trait theory, behavioral theories, etc.). Within each group, students would be required to provide examples of Shackleton and/or his crew as they relate to each of the leadership models/theories in their respective categories. Once the groups have completed this initial assignment, then the groups could facilitate and lead the discussion with the remaining students.

There are numerous situations within the documentary in which students could relate the historical events to leadership concepts. For instance, the documentary discusses the 'job wanted' ad posted when Shackleton was searching for crew members. The ad stated, "Notice: Men wanted for hazardous journey. Small wages. Bitter cold. Long months of complete darkness. Constant danger. Safe return doubtful. Honour and recognition in case of success." Part of our leadership lecture focuses on the follower characteristics and some of the contingency models include followers as part of leader effectiveness. The job wanted posting by Shackleton provides a unique opportunity to integrate many of these leadership topics from the followers' perspective as well as tie concepts to the Situational leadership Model (Hersey & Blanchard, 1969). Within this documentary, there are several examples of leadership models/theories exhibited by either Shackleton or his crew members during this historic journey. The instructor/facilitator could simply identify specific models/theories in leadership and ask the students to provide examples of these behaviors in which Shackleton or his crew exhibited.

Leadership Exercise Evaluation

The leadership exercise has been successfully implemented in a graduate level Organizational Behavior course and a graduate level Leadership course in a large, public university located in the southeast United States. All of the students taking this course are pursuing a Master's degree in Business Administration. Most students in the course have a minimum of five years of industry experience prior to pursuing an advanced degree. Additionally, only 14% of the students have supervisory experience; nevertheless, most students expressed a desire to move into leadership positions within their own organization.

Data was collected to determine if the leadership exercise improved learning in the traditional leadership theories taught in the course. Prior to our class lecture/discussion on leadership, students were asked to complete a 20-question pretest to determine a base-level of knowledge for understanding general leadership concepts. A posttest was distributed in the class following the viewing of the documentary and class discussion related to the documentary. Additional survey items were included in the posttest and related to student satisfaction with the video exercise. The additional questions were related to the relevance of the video technique for teaching leadership and less emphasis was placed on understanding concepts which were more likely to be tested in class exams for leadership.

Forty-five students completed both the pretest and posttest for the leadership exercise. The average score for the pretest is 11.2 out of 20 questions and the average score for the posttest is 14.7 out of 20 questions. A paired sample t-test was used to analyze the difference in scores between the pretest and posttest. A statistically significant increase occurred in learning from the pretest to the posttest ($t = -5.425$, $p = .001$).

Students were also asked a series of questions related to their general satisfaction with the assignment and usefulness of the video exercise. Seven questions were added to the posttest that addressed whether the video exercise was a useful tool for learning leadership theories. The items were evaluated using a 1 to 7 scale from strongly disagree to strongly agree. The means for each of these additional survey questions are provided in Table 1. Overall, the class appeared highly satisfied with the expectations and objectives of the leadership video exercise.

Table 1
Project evaluation questions and averages

	Survey questions	Mean
1	This exercise was relevant to learning leadership theory.	5.23
2	This exercise was interesting.	5.05
3	This activity reinforced and complemented what I learned about leadership theory.	5.12
4	Watching a video about a real-life leadership situation was very helpful in learning leadership.	5.52
5	This activity helped bring to life what happens between leaders and followers.	5.34
6	Please comment on what you liked about this exercise.	
7	Please comment on what you disliked about this exercise.	

Many students provided additional comments regarding what they liked or disliked about the video exercise. Students commented about the ability to apply multiple leadership concepts within the story of Shackleton. Also, students appreciated the real-life example of a leader in dire situations often commenting about the context in which these leadership theories were demonstrated. Lastly, many students commented about the value of observing these leadership theories in practice and not just learning the ideas/concepts related to these theories. Overall, students enjoyed learning more about this historic expedition in which most students were unfamiliar with this particular journey to Antarctica.

A few students also provided comments about what they disliked in this particular exercise. Specifically, some students commented about the length of the documentary and that they had wished it was shorter in length. Some students noted that the documentary was interesting from a historical perspective but would have liked a more current example of leadership in practice. Nevertheless, most students were more favorable than negative with the comments and the overall video experience.

CONCLUSION

Although some researchers argue we need to redefine how we teach leadership (e.g., Bumpus, 2005; Burns, 2000; Harrington & Griffin, 1990; Hay & Hodgkinson, 2006), there are multiple techniques and strategies that instructors can use to facilitate learning leadership concepts for our students. Leadership continues to be one of the most desired topics to learn within a graduate degree. However, engaging students to learn leadership from a historical perspective as well as how it can be applied in their everyday work life is an incredible challenge (Burke & Moore, 2003). Corporations are concerned about the lack of 'people skills' within recent graduates and there is a higher awareness in students to develop these managerial skills which will make them successful in the workforce. Employers want employees who are capable of utilizing many leadership skills that highlight understanding human behavior and getting the job done (e.g., Association of American Colleges & Universities [AACU], 2015; GMAC, 2012; Selingo, 2015). Leadership theory and the ability to influence others are tied so closely to building relationships and people skills that corporations seek in new applicants. However, the complexity of understanding effective leadership also reinforces the need for meeting goals in a timely manner. Employers are more attracted to students who can demonstrate these leadership skills outside of the classroom and, recently, employers have emphasized the ability to learn as one of the most attractive qualities in a job candidate (Selingo, 2015). Therefore, using visual exercises to demonstrate leadership concepts becomes a priority in helping students learn and make connections with theoretical course concepts.

Movies and/or documentaries provide an additional method for reinforcing learning concepts in the classroom. This medium has the opportunity to bridge the gap between a student's learning environment and a real-world situation through film (Rajendran & Andrew, 2014). Films engage students more intensely and have a higher probability of leaving a lasting impression (Cardon, 2010). Meaning, films can provide an alternative method to understand complex theories and models to improve learning. Specifically, films can improve learning by being more memorable and entertaining to students in a classroom (Champoux, 1999). Although this documentary tells the story of an exceptional journey more than one-hundred years ago, many current leadership concepts can be applied and illustrated by the crew's survival in this strenuous expedition.

As with all research, there are limitations to consider. First, this experiential exercise is a time commitment to the overall class in that the video takes a substantial amount of time to view the documentary plus time to facilitate the discussion. This exercise is most suitable for a three-hour class in which you have ample time to discuss the documentary and leadership theories with students. Even though this exercise has been implemented in multiple graduate courses for years and there is a significant difference in the pre-test and post-test data indicating learning of these concepts, this exercise should continue to be monitored for overall effectiveness. The sample size is relatively small and should continue to be evaluated as

a useful tool in learning leadership theory. Additionally, many graduate students are interested in pursuing management positions during their careers; therefore, students are motivated to learn the concepts of leadership and how to apply them in their everyday work life.

Despite these limitations, this experiential exercise provides another method for instructors to teach leadership theory. As educators, we often look for varying methods to reinforce learning and provide variety in the classroom. Students appreciate the multiple methods for teaching and expect more integration and a higher level of learning than traditional lectures (Bumpus, 2005; Burns, 2000; Hay & Hodgkinson, 2006).

Lastly, by viewing the documentary in its entirety, students can become emotionally connected to the experience and engage more strongly in understanding the situation with leadership theory. Additionally, numerous advantages have been identified when using film to teach complex management concepts such as the ability to engage students, to provide a visual example of concepts and to bridge the gap between leadership concepts with real examples in practice (Ambrosini, Billsberry, & Collier, 2009; Liles, 2007; Rajendran & Andrew, 2014). This documentary provides an additional method for emphasizing leadership theory in practice. Moreover, students can learn how to recognize effective leadership behaviors which may be used in their own personal development as they progress in new careers.

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Beneficial Web 2.0 Tools to Engage Learners and Maximize Learning

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ABSTRACT

Technology has certainly altered the landscape in which students learn today. The use of technology in today's classrooms is continually increasing as educators seek ways to engage learners and maximize learning potential. Incorporating Web 2.0 tools into the classroom can not only encourage collaboration among learners, but also provide a way for students to apply their knowledge. For such benefits to be gained, the Web 2.0 tools must be relevant and purposeful. In this study, researchers surveyed pre-service teachers at one institution of higher learning, whom took classes that integrated several Web 2.0 tools into the curriculum, and sought which instructional tools pre-service teachers found most beneficial, and hence, are more likely to use in their future classrooms.

INTRODUCTION

Today's students are not yesterday's learners. They have grown up with computers, search engines and electronic games, used the Internet for school, work, and leisure, and multitasked while using social technologies to collaborate and share information and thoughts (Fieldhouse & Nicholas, 2008). In fact, based on results from neurobiology research, it was discovered that digital natives are indeed different (Prensky, 2001b). The continuous stimulation, which has become part of their digitally enriched lives, changes their brain structures and affects the way they think (Lambert & Cuper, 2008). As educators of 21st century digital native learners, it is becoming more important than ever that we learn to embrace technology in the classroom, model its plethora of uses, and seek relevant and purposeful instructional strategies to engage learners and maximize learning.

THE RESEARCH PROBLEM AND PURPOSE OF THE STUDY

The purpose of this study was to use a multitude of instructional Web 2.0 tools to engage learners and maximize learning, while encouraging collaboration and providing a way for pre-service teachers to apply their knowledge. Technology has expanded exponentially and continues to impact the landscape of today's schools. That being said, it is imperative that pre-service teachers engage in the use of technology during their college experience so that they will be better able to make a more positive and meaningful impact in their future prek-12 classrooms. Furthermore, it is essential that they are fully aware of how to integrate technology to maximize student learning and see the benefits of implementation in their future classrooms.

LITERATURE REVIEW

We have witnessed extreme change and growth over the past two decades in how information is accessed and these changes are largely due to the Internet, or World Wide Web. More recently, the term, Web 2.0, which refers to the next generation of the Internet, allows users to communicate, collaborate, and contribute with one another. Samouelian (2009) suggested that Web 2.0 embraces collective intelligence and participation and currently offers the opportunity for users to engage and share, rather than exist as passive recipients of information. Additionally, Web 2.0 allows researchers to create, annotate, review, reuse, and present information in new ways (Procter, Williams, Stewart, Poschen, Snee, Voss, & Asgari-Targhi, 2010). Similarly, Thompson (2008) referred to Web 2.0 as changing and dynamic, no longer static. Conversely, he compared the old version of the web as a read-only medium, whereas today's Web 2.0 version is a read/write medium. Users are now active participants throughout the process.

Internet use and access continues to expand exponentially. Just a short time ago, it was reported that approximately 142 million Americans used the Internet. Of these Internet users, approximately 12 percent used blogs, 22 percent shared personal files, 37 percent uploaded photos, and over 20 percent created profiles on social networking sites (Samouelian, 2009). These percentages continue to rise and Internet use continues to rapidly expand. More and more, people depend upon the Internet for much more than just information; it is now a place to collaborate. This new information and communication technologies, such as Web 2.0, has impacted individual and collective access to information, knowledge, and participation (Benkler, 2006; Greenhow, Robelia, & Hughes, 2009). Furthermore, it is acknowledged that Internet connectivity in schools, homes, neighborhoods, and communities has grown substantially and continues to grow (Greenhow, et al., 2009). Interestingly, adolescents ages 12 to 17 represent the largest and fastest-growing group of users (DeBell & Chapman, 2006). These numbers certainly raise questions as to whether today's schools and teachers are prepared to engage these learners and meet their differing needs.

Because so many students are using the Internet and have been retrieving information and collaborating with others via the Web, it can be assumed that today's students learn differently and thus, have different instructional needs. In fact, as a result of the fast-paced, random-access, and graphically intensive environment provided by technology, today's students have shorter attention spans for old styles of learning, but not for games or other areas of interest (Lambert & Cuper, 2008). Web 2.0 offers teachers new methods of teaching and learning and it can certainly alter the way teachers interact with students. Admittedly, while Web 2.0 tools offer a multitude of applications and great learning potential, it is agreed that one must use them to truly reap their benefits (Thompson, 2008). Students need to learn how to apply these tools to maximize their learning potential. With increasing demands for relevant and purposeful application of technology in classrooms, preparing pre-service teachers becomes increasingly important and challenging (Lambert & Cuper, 2008). In an effort to better prepare pre-service teachers, Web 2.0 tools need to be effectively integrated into coursework and use of such tools needs to be modeled and time must be allowed for meaningful application.

OVERVIEW OF THE STUDY

This qualitative study investigated the use of instructional Web 2.0 tools in higher education classrooms for pre-service teachers, which sought to address the following questions:

Research Question 1: Which types of Web 2.0 tools are beneficial to pre-service teachers' learning process?

Research Question 2: Which Web 2.0 tool(s) do you plan to apply in your future classroom?

The most purposeful and relevant instructional Web 2.0 tools were chosen by the researchers and were delivered during the Spring and Summer 2014 semesters. Students enrolled in the researchers' courses responded to an anonymous survey instrument, created by the researchers, at the conclusion of the semesters. Data analysis provided insight into students' learning experiences and reflections on the benefits of integrating Web 2.0 resources and their potential use in future classrooms.

METHODOLOGY

This study was intended to provide information regarding which instructional Web 2.0 tools used were most beneficial to better prepare pre-service teachers for future classrooms where technology is integrated and emphasized throughout the standards. Prior to the start of this investigation, researchers prepared relevant and purposeful learning experiences to engage pre-service teachers in course content that integrated technology. Participants were exposed to 15 weeks of instruction that incorporated Web 2.0 tools such as Blogs, Storybirds, WebQuests, online interactive modules, multimedia, student response systems, and other types of technology resources. At the conclusion of the semester, pre-service teachers enrolled in the researchers' courses responded to an anonymous survey instrument (see appendix), created by the researchers to report their opinions and reflections regarding the use of the Web 2.0 tools. Qualitative data was analyzed and evaluated, which lead to the discovery of which Web 2.0 tools pre-service teachers found to be most beneficial and were more likely to use in their future classrooms.

The sample population consisted of 79 pre-service teachers who were classified as Junior and Senior students, with at least 60 semester hours completed. Survey information was obtained from 85 participants; however, six surveys were incomplete and were not included in the data analysis. Data was collected from pre-service teachers enrolled in the following courses:

- Teacher Education: Diagnosis and Evaluation
- Teacher Education: Applied Mathematics and Science
- Teacher Education: Children's Literature
- Teacher Education: Classroom Approaches to the Teaching of Reading in the Elementary School
- Teacher Education: Reading Instruction and Assessment for Upper Elementary Grades

Several students were enrolled in multiple courses; however, they only completed one survey to avoid biased sample results.

DESCRIPTION OF TECHNOLOGY TOOLS

Blog

Offer an online world of journaling, a place where people share thoughts, experiences, pictures, videos, and instructional strategies, to name a few. Blogs are structured in chronological order by date, with the most current at the top of the blog. All older posts are archived and can be found by month and year (Lambert & Cuper, 2008). Blogs are interactive in that, visitors can post comments and also participate in polls, if applicable.

Virtual Math Manipulatives

"An interactive, web-based visual representation of a dynamic object that presents opportunities for constructing mathematical knowledge" (Moyer, Bolyard, & Spikell, 2002, p. 373).

Storybird

Web 2.0 tool created by Mark Ury that promotes the creation of online stories and can be used individually or collaboratively. Storybird allow individuals to enhance their writing skills while using the artwork provided to tell a story. Furthermore, it allows the learner to structure their writing as well as use appropriate images to enhance meaning (Ramirez, 2013).

Visual Presentations

The use of visual images to enhance instruction and learning, which offers students a picture of their learning and a context to expand their understanding. Hattwig, Bussert, Medaille, & Burgess (2014) noted that students must develop the necessary skills to find, interpret, evaluate, use, and produce visual materials in a scholarly context and these skills are essential for twenty-first century learners.

WebQuests

A Web 2.0 tool that allows students to interact within the site while gaining access to other valuable resources. According to March (2008), "a well-designed WebQuest uses the power of the Internet and a scaffolded learning process to turn research-based theories into dependable learning-centered practices."

DATA ANALYSIS

Research Question 1: Which types of Web 2.0 tools are beneficial to pre-service teachers' learning process?

Pre-service teachers were asked to complete a survey, which sought to determine which instructional tools they found most beneficial as an instructional aid and they were asked to explain their reasoning. Responses varied, as represented in Figure 1. Results indicated that approximately 78% of pre-service teachers' found visual presentations (25%), blogs (24%), virtual math manipulatives (23%), and Storybird (16%) to be the most beneficial Web 2.0 tools. Responses were varied as to which tools were beneficial; however, reasoning patterns of participants were similar, regardless of the application that was chosen. Three primary themes emerged as follows:

Theme 1: Participants noted the value of providing options for multiple learning styles by integrating each of the technology applications.

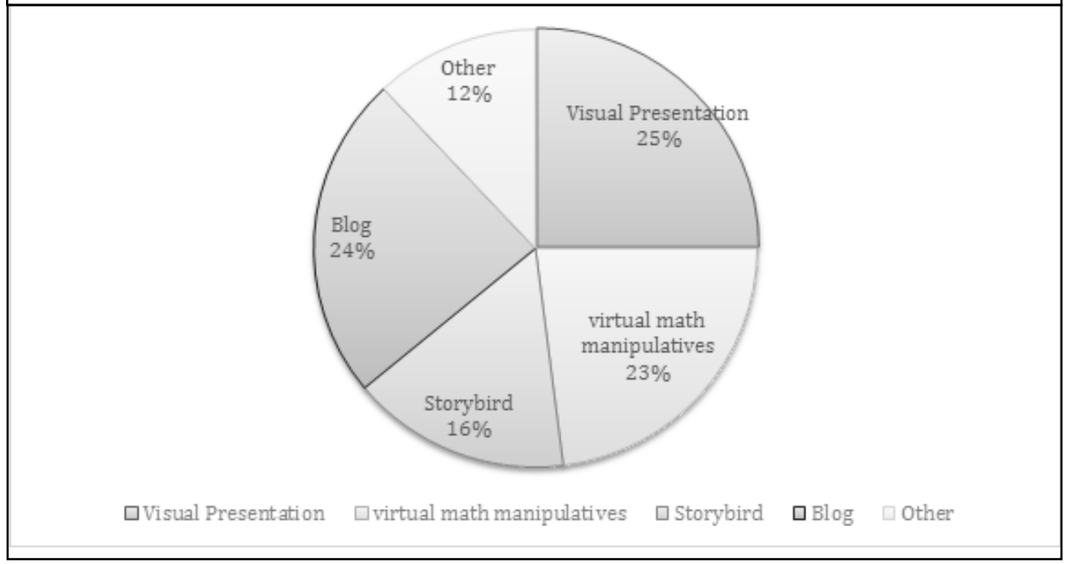
Theme 2: Each of the technology tools selected was free and accessible from any location.

Theme 3: With the exception of the virtual math manipulatives, pre-service teachers expressed the value of having tools that could be used in multiple curriculum areas to aid in content presentation. The virtual math manipulatives would only be integrated in a mathematics classroom. All participants who chose this as the most beneficial technology tool did so because of the potential to actively engage students and provide a visual representation to help them gain a conceptual understanding of mathematics.

Research Question 2: Which Web 2.0 tool(s) do you plan to apply in your future classroom?

Investigators delved further into pre-service teachers' attitudes towards technology by asking the following question: "Which instructional tool(s) do you plan to apply in your future classroom? Explain why." Students in today's educational system are accustomed to a technology enriched world and researchers wanted to establish if the practices incorporated into the teacher education program would transfer to pre-service teachers' future classrooms. Table 1 illustrates the tools that pre-service

Figure 1
Results of Most Beneficial Web 2.0 Instructional Tools for Participants in the Study



teachers plan to use in their future classrooms. Again, participants wanted to engage students, make learning fun, and provide multiple modalities for learning with the aid of free and mobile applications.

Table 1
Participants' Planned Use of Web 2.0 Tools in Future Classrooms

Web 2.0 Tool	Response Frequency	Percentage
Virtual Mathematical Manipulatives	26	33%
Blogs	24	30%
PowerPoint (Visual Presentations)	27	34%
Prezi (Visual Presentations)	24	30%
Storybird	21	26.5%
WebQuest	13	16.5%
Other	13	16.5%

Note: n=79 participants; Respondents were asked to list all instructional tool(s) they planned to apply in their future classrooms.

DISCUSSION

The majority of participants in the study recognized the value of integrating technology into classroom instruction. For example, one student stated, "The children we are teaching are growing up in the age of technology and there is so much out there online to utilize to enhance your lessons." Another student emphasized the value of technology by stating, "Students learn best when they can create something with the knowledge they've gained. Students deal with technology on a daily basis and educators should tap into that form of learning." Other students referenced the value of differentiating and meeting the needs of today's twenty-first century learners. Unfortunately, data also revealed that some students do not see a value in integrating Web 2.0 tools into the classroom.

Researchers expected math manipulatives to be found as one of the most beneficial tools because they were targeted specifically to a mathematical methods course. Likewise, blogs were seen to be most beneficial due to their addition to a children's literature course, which emphasized the integration of reading, writing, and technology. These tools were the primary Web 2.0 tools used consistently in the researchers' courses, therefore, the data supported the anticipated findings. Additionally, research supports providing a variety of technology resources to allow teachers concise integration of technology resources that meet student needs. (Recker, Dorward, & Nelson, 2004). Participant responses were varied as to which technology practices they planned to implement in their future classrooms, supporting the need to provide multiple technology applications so future teachers have a variety of tools that can be successfully incorporated into their classrooms. Varied technology practices, integrated throughout teacher preparation programs, allow pre-service teachers to choose those resources they are most comfortable with and those which will be more valuable to their students, based on varied learning styles and student needs.

Participants were asked to use a Likert scale response, ranging from strongly disagree to strongly agree to demonstrate their view of the following statement, "Twenty-first century learners are influenced by a digital world and such advancements have created the need for educators and pre-service teachers to analyze current teaching practices to ensure students are meeting the changing needs of today's world." Results indicated that approximately 90 percent of participants recognize a changing digital world for students and the need to evaluate existing teaching practices. Therefore, one can infer that the other ten percent of participants are content with the "status quo." Technology is a non-negotiable in today's society; therefore, how can one justify not incorporating these resources? If these future teachers have this stagnant view of education, then one might question how many practicing teachers share this view. Successful implementation of technology may be best summarized by Hardy (2010) as follows:

> Critique technological resources, plan technology-infused lessons, and use a variety of technological resources to explore problems and topics pertinent to education. ... These activities are all of practical value to instructors striving to incorporate technology into their repertoire of teaching methods, and the critiques have the added benefit of requiring consideration of what constitutes an effective technological resource for a given purpose. (p. 82)

LIMITATIONS

The primary limitation of this study was the sample population. All participants were enrolled in the researchers' courses and were exposed to the Web 2.0 tools, which were part of that course curriculum. Although all participants were exposed to multiple resources, they may not have explored all technology applications, which may have altered the study outcomes. Additionally, the virtual mathematics manipulatives are specific to one course; therefore, all participants may not have been exposed to this type of technology. Finally, prior experiences with technology resources may have altered student opinions, either in a positive or negative manner.

CONCLUSION

New teachers entering the field must be equipped with an abundance of resources that will challenge today's twenty-first century learners. Results from this study provided insight into pre-service teachers' views towards technology; however, replication on a larger scale is needed to ensure continued support is provided for our future educators. Web 2.0 tools provide a basis for teachers as they transition from a traditional lecture format to an integrated technology environment. Unfortunately, the majority of teachers will teach in the same way they were taught. As institutions of higher learning, we must model the expectations for pre-service teachers who will be exiting our doorways as former students and entering classrooms as educators of twenty-first century learners.

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APPENDIX
Integrating Web 2.0 Tools to Engage Pre-Service Teachers

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1. Which of the following instructional tools did you use this semester in your courses? Please check all that apply.

Virtual Math Manipulatives	
WebQuest	
Blogs	
Storybird	
Visual Presentations (PowerPoint, Prezi, Animoto)	
Specify	

2. Please complete the following Likert scale to demonstrate your views.

	Very Ineffective	Ineffective	Average	Effective	Very Effective
Virtual Math Manipulatives					
WebQuest					
Blogs					
Storybird					
Other:					

3. Which of the instructional tools did you find most beneficial? Please explain.

_____
_____
_____

4. Which of the instructional tools did you find least beneficial? Please explain.

_____
_____
_____

5. Which instructional tool(s) do you plan to apply in your future classroom? Please be sure to explain why.

_____
_____
_____

6. Do you feel that you are adequately prepared to employ Web 2.0 tools into your future classroom? Please explain.

_____
_____
_____

7. Do you believe that using technology can enhance learning? Please explain.

_____
_____
_____

8. Please complete the following Likert scale to demonstrate your views.

	Strongly Disagree	Disagree	No Opinion	Agree	Strongly Agree
Twenty-first century learners are influenced by a digital world and such advancements have created the need for educators and pre-service teachers to analyze current teaching practices to ensure students are meeting the changing needs of today's world.					
University instructors, seeking to maximize pre-service teachers' efficiency as future educators must model and demonstrate the effective use of technology as resources to enhance student learning.					

9. Any additional thoughts or comments that you would like to share:

_____
_____
_____

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JOINT CONFERENCE
May 25th, 26th and 27th 2016 in Nashville, TN

International Conference on Learning and Administration in Higher Education (ICLAHE.org)

All too often learning takes a back seat to discipline related research. The International Conference on Learning and Administration in Higher Education seeks to focus exclusively on all aspects of learning and administration in higher education. We wish to bring together, a wide variety of individuals from all countries and all disciplines, for the purpose of exchanging experiences, ideas, and research findings in the processes involved in learning and administration in the academic environment of higher education.

We encourage the submission of manuscripts, presentation outlines, and abstracts in either of the following areas:

Learning

We encourage the submission of manuscripts pertaining to pedagogical topics. We believe that much of the learning process is not discipline specific and that we can all benefit from looking at research and practices outside our own discipline. The ideal submission would take a general focus on learning rather than a discipline-specific perspective. For example, instead of focusing on "Motivating Students in Group Projects in Marketing Management", you might broaden the perspective to "Motivating Students in Group Projects in Upper Division Courses" or simply "Motivating Students in Group Projects" The objective here is to share your work with the larger audience.

Academic Administration

We encourage the submission of manuscripts pertaining to the administration of academic units in colleges and universities. We believe that many of the challenges facing academic departments are not discipline specific and that learning how different departments address these challenges will be beneficial. The ideal paper would provide information that many administrators would find useful, regardless of their own disciplines

Academic Business World International Conference (ABWIC.org)

The aim of Academic Business World is to promote inclusiveness in research by offering a forum for the discussion of research in early stages as well as research that may differ from 'traditional' paradigms. We wish our conferences to have a reputation for providing a peer-reviewed venue that is open to the full range of researchers in business as well as reference disciplines within the social sciences.

Business Disciplines

We encourage the submission of manuscripts, presentation outlines, and abstracts pertaining to any business or related discipline topic. We believe that all disciplines are interrelated and that looking at our disciplines and how they relate to each other is preferable to focusing only on our individual 'silos of knowledge'. The ideal presentation would cross discipline. borders so as to be more relevant than a topic only of interest to a small subset of a single discipline. Of course, single domain topics are needed as well.

Conferences

Academic Business World (ABW) sponsors an annual international conference for the exchange of research ideas and practices within the traditional business disciplines. The aim of each Academic Business World conference is to provide a forum for the discussion of research within business and reference disciplines in the social sciences. A secondary but important objective of the conference is to encourage the cross pollination of disciplines by bringing together professors, from multiple countries and disciplines, for social and intellectual interaction.