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We invite you to read about innovations published and apply in your classroom. We also encourage you to develop your original creative ideas, prepare an article, and submit for review.

This particular issue includes a number of interesting classroom innovations in diverse areas.

Peter J. Billington
Editor

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Encouraging Students to Think Globally: A Map Drawing Exercise

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ABSTRACT

Identifying and locating the continents or understanding the importance of the physical relationships of various countries can bring greater clarity to the complex interconnected issues found in international business. Yet, geographic literacy surveys conducted in 2002, 2006, and 2010 found that students are limited in their knowledge of the world, both geographically and culturally. In fact, a 2006 international survey reported that 75 percent of 18-24 year olds said it was either "not important" or "important but not absolutely necessary" to know where countries in the news were located. The exercise described in this paper can be used as a simple, brief, impactful introduction to the international component of any business class. The exercise encourages students to reflect on their current level of geographic literacy, consider the importance of geographic knowledge in the global business environment, and develop strategies to increase their global literacy.

Keywords: global literacy, global awareness, experiential exercise

INTRODUCTION

Developing students' abilities to work in international situations is an important part of most business education programs today, and a review of recent research reflects this interest. Authors have described experiential exercises that paired students from the U.S. with teams of international students studying in the U.S. (deFigueiredo & Mauri, 2012), had U.S. students interacting cross-culturally with students in Budapest via videoconferencing (Ozcelik & Paprika, 2010), and assessed the acculturation competence of international MBA students when placed in different cultural settings (Molinsky, 2010). Classroom exercises such as these have students from countries including United States, Hungary, Saudi Arabia, Libya, Iran, Turkey, Columbia, China working together on cross-cultural assignments (deFigueiredo et al., 2012). However, research on young people's global literacy suggests that many students participating in these exercises may not know *where these countries are located*.

The short exercise described in this paper (minimum time required is 15 minutes) can be used as an introduction to text chapters or class components on international business issues or as an introduction to the kinds of exercises described by deFigueiredo, et al. (2012); Molinsky (2010); and Ozcelik et al. (2010). This map-drawing exercise allows students to quickly assess their current level of global literacy. The discussion following the exercise encourages students to consider the importance of geographic literacy and to develop strategies for improving their level of global awareness.

GEOGRAPHIC LITERACY

In a 2010 qualitative sample survey of 196 recent college graduates in the United States, 23 percent felt that they had not developed the required global awareness and cross-cultural understanding to be successful (Ghaith). Not only are colleges being asked by graduates and hiring organizations to increase the emphasis on global awareness, business schools must also respond to international professional accreditation's (AACSB, 2013) expectations that they include learning goals related to the international character of business.

Over the past 15 years class exercises have evolved to help close this gap and address AACSB expectations. Many of these activities are designed to address students' behavioral skills – their ability to reflect on their attitudes toward other cultures, their appreciation of diversity, their cross-cultural sensitivity, and their emotional skills in cross-cultural interactions – that will help them operate proficiently in an increasingly globalized world (MacNab, 2012; Ozcelik et al., 2010; Witte, 2010). Although behavioral skills are a critical component of success in a global workplace, basic knowledge about the world is also important (Ozecelik et al., 2010). According to Ozecelik, et al., gaining knowledge about the geographic world, "can help students compare different cultures in terms of their traditions, values, geography, and economic structures" (2010, p. 672). The conceptual framework that Witte (2010)

developed for an international business curriculum also includes consideration of how students acquire basic knowledge of the world.

Understanding the physical connections of countries and continents can be seen as a first step in being an informed global businessperson. Knowing where countries and continents are and how they geographically relate to each other can help students understand, interpret, and predict complex international relationships in business. Research shows that as educators we cannot assume that our students have extensive geographic knowledge or a conscious strategy to become more geographically literate.

In 1987 Grosvenor wrote about the United States, "the nation's young people literally did not know where they were, what other cultures were like, or how things fit together" (p. 17), and 24 years later DaSilva and Kvasnak found that Grosvenor's comment remained relevant to students in the United States and beyond (2011). They studied geographic curricula across several countries and found that only 20 percent of high school students were found to be proficient or better in geography, compared with 27 percent of eighth graders and 21 percent of fourth graders (DaSilva, et. al., 2011). A review of earlier surveys of geographic literacy shows little has changed over time. In 2006 more than half of Americans aged 18-24 who were surveyed could not find Iraq, Afghanistan, Saudi Arabia, Israel, or the United Kingdom on a map; and only 89% of the young Americans tested could find the United States on a map (Roper Public Affairs, 2006).

Researchers have struggled to identify the reasons for limited world awareness on the part of young Americans. Despite the adoption of new geography education standards in 1994 (deSouza & Downes, 1994) and the efforts of the National Council for Geographic Education (NCGE), American students' knowledge of geography is lacking. DaSilva et al. (2011) attribute the relative lack of geographic knowledge by young people internationally to several factors including the inconsistent inclusion of geography across school curricula, the lack of teacher training, and the absence of geography as a component of standardized testing. No matter what the cause of this shortcoming, it is important for students to develop this knowledge in order to be informed employees and global citizens.

The brief exercise described in this article allows students from any country of origin to consider their current geographic knowledge and encourages them to strategize steps they may take to increase their global literacy. Proponents of active learning would suggest that simply displaying a map of the world while encouraging students to learn more about geography would be less impactful than the simple map-drawing exercise described here. Research on active learning suggests that the use of learning methods involving kinesthetic activities, such as map drawing, facilitates students' absorption and retention of information better than conventional techniques (McCarthy & Anderson, 2000; O'Donnell & O'Kelly, 1994).

MAP DRAWING EXERCISE

This map drawing exercise has two components. First, students are given five minutes to draw a map of the world. A discussion, guided by three questions, follows the map-drawing activity. We have found that it takes a minimum of 15 minutes to conduct this exercise in class with the drawing portion taking 5 minutes. However, the exercise can generate significant discussion, and depending on the goals of the class, the discussion time can be extended.

The maps included in this article are composite drawings representing the types of maps students have drawn in our classes – an approach approved by the IRB given the minimal risk to the students who participated in the exercise. The discussion of how the exercise has been assessed includes comments that have been summarized from students' homework and final reflection papers. Individual student's identities are protected, and only summaries of the types of comments we received are included here.

Learning objectives

1. Students will identify gaps in their geographic knowledge.
2. Students will discuss the importance of geographic knowledge as related to their ability to work successfully in a global environment.
3. Students will devise strategies to fill gaps in their geographic knowledge.

Appropriate classes
This exercise can be used in any business class that includes topics related to global business or diversity. It has been used in undergraduate communications, human resources, marketing, organizational behavior, international management, and introduction to management classes; but it could also be applied to production, strategy, and finance classes, all of which include international components.

Students note that it is helpful to include this map drawing exercise at the beginning of the international component of the class. They admitted that the insights they gained from the exercise made them more attentive to the international locations and relationships that were part of the class content and, perhaps more importantly, to the geographic information they encountered in their daily lives.

Preparation and implementation
The only supplies needed for this exercise are unlined sheets of paper for each student in the class and access to an accurate world map (e.g., Google Maps). It is also helpful to have samples of world map drawings from previous classes. For instructors who want to use the exercise for the first time, the map drawings included in this article can be used to prompt discussion.

Students are asked to draw a map of the world in five minutes on a piece of paper the instructor provides. After five minutes the students are asked to stop drawing. At this point, the instructor should display an actual map of the world, so students can compare their drawings to an accurate map.

Discussion
It is helpful to begin the discussion by acknowledging that the maps will likely represent a wide range of geographic knowledge and map-drawing skill (Bell & Archibald, 2011). Although some students will draw maps that are well developed and detailed, some maps may be simple and less complete. The purpose of the exercise should be emphasized – the maps are being used to provide insights into students' current level of geographic literacy and encourage them to develop strategies that will help learn more about geography.

It is also important to stress before the discussion begins that the students are not required to share their drawings with the class. Whether the individual maps are shared or not, they are still valuable as a tool each individual can use to reflect on his or her knowledge of world geography. In all our classes that participated in the map-drawing exercise, some students immediately hold their maps up for review, while others at first turn their drawings over on the table in front of them. For this reason, completed maps from previous classes (shown with permission) or the maps from this article can be used to initiate discussion. Ultimately, students have been willing to share their individual maps in some fashion. Processing the exercise in a way that is meaningful, however, is not contingent on the students sharing their maps of the world.

Whether the class views maps that are drawn by their classmates, included in this article, or from previous classes, the discussion may be guided by the following questions:

1. Why is it important to know world geography?
2. What has influenced students' knowledge of world geography?
3. How can students learn more about world geography and culture?

Question 1 – Why is it important to know world geography?
When discussing question 1, students may intellectually understand that their experiences in the workforce will most likely involve an international aspect; they know that many companies conduct business in the global arena in some capacity and that they will be working with others from around the globe. Students should recognize that this knowledge of the world will benefit them in their current classes, in their future jobs, and even during an interview process. Students can share examples of how knowing – or not knowing geography – has impacted them.

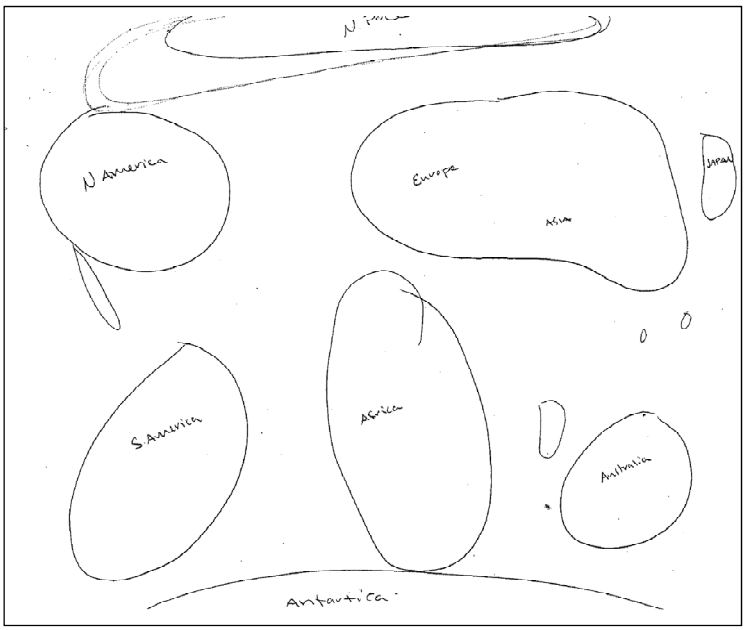
In several classes students confessed that they had interacted with international students on campus and did not know the locations of the international students' countries of origin. Sometimes, with embarrassment, they placed the origin country on the wrong continent. Some students had similar experiences in a work setting and agreed that this type of error was awkward, especially at work. Other students gave examples of how knowing a country's location helped them discuss the impact of events in that country and on neighboring nations. Many students admitted feeling unprepared and uninformed in situations where they did not have geographic knowledge that others

seemed to share. One area of the world mentioned frequently in the discussion is the Middle East. After drawing maps that do not include any representation or area for the Middle East, students hesitantly disclose that they were not clear how the Middle Eastern countries relate geographically to Russia, India, Europe, and Africa. This is an oversight many students expressed an interest in rectifying in an effort to be better informed world citizens.

These realizations explain why a map drawing exercise can be more impactful for students than filling in the names of countries on a handout or playing an on-line geography game that has the continents defined and country borders clearly drawn (Morris & Urbanski, 2010). Such an exercise does not capture students' ability to depict relationships between land masses and countries. Students, who left entire continents off their maps or minimized continents, were surprised by their errors and seemed eager to correct their oversights.

Students admitted they understood that knowledge of world geography is important, but it was not until they viewed their maps that they realized how much more they could learn. Figure 1 below is a composite drawing that represents a frequently observed representation of the world with continents poorly formed, inaccurately sized, and mistakenly positioned blobs.

Figure 1: Continents represented as blobs

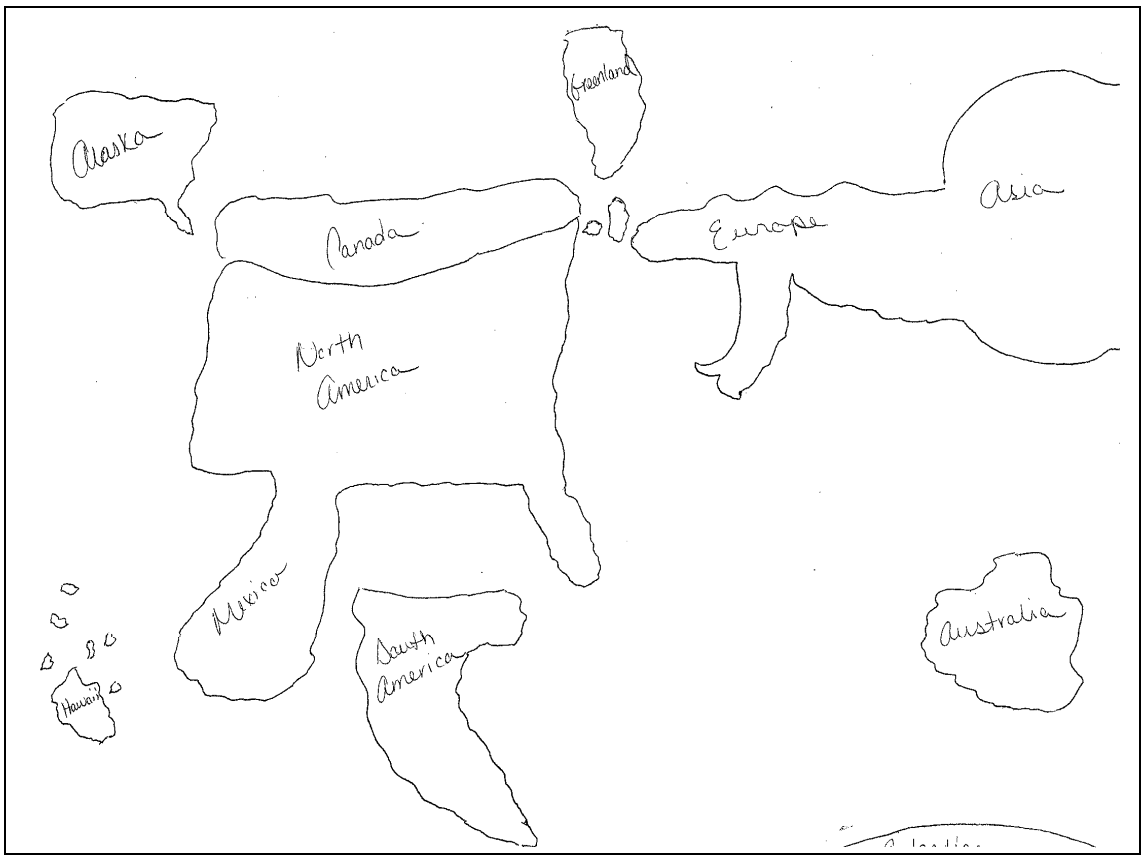


Question 2: What has influenced your knowledge of world geography?
This question encourages students to view the maps as possible illustrations of ethnocentrism. Frequently, the maps drawn by students from the U.S. prominently feature an oversized North American continent in the center of the paper (usually with a prominent United State and a much smaller Canada). Some students do not have room for the other continents after drawing outsized sketches of their home country. Students from countries outside the United States also displayed a similar trend. For instance, students from Europe frequently draw the immediate area surrounding their home countries in such detail that they have little time to focus on other parts of the world. The composite map in Figure 2 below illustrates the tendency of students from the United Sates to draw their home country as oversized in relationship to the rest of the world. This perspective, it can be pointed out, could also be the result of inconsistencies in world map renderings. Blair and McCormack (2009) compared selected maps of the world from a variety of countries around the world and found distortions based on regional perspectives. This is another example of ethnocentrism of which the students may be unaware.

During the discussion of Question 2, students typically quiz their classmates who have drawn accurate and detailed world maps. Students want to hear how those who drew more precise maps gained (and can recall) extensive

knowledge about geography. Such skillful maps generate considerable interest from students, especially in classes where a number of maps consist of simplistic, misplaced, and mislabeled bubbles. Most students initially assume that those who know the world best are international travelers. However, we have found that is not always the case. There has been a range of explanations to the query, "How do you know so much about world geography?"

Figure 2: Composite of the types of maps drawn by students from the United States



Some students who draw expert maps admit to traveling infrequently but having an interest in world geography. Those students may not be world travelers, but they tend to look up locations they do not know. Figure 3 is a composite map that represents those drawn by students who have not traveled widely, but are still able to draw relatively complete and accurate maps. Students who traveled extensively and paid close attention throughout their travels have also drawn impressive maps. This, however, is not always true. Some students who had traveled internationally confessed to not paying close attention during their travels in a way that would help them locate their destinations on a map.

Question 3: How can you learn more about world geography and culture?

In response to this question, students summarize the multiple ways the skilled map drawers gained knowledge about world geography. We have observed that the majority of students who draw accurate and detailed maps simply pay attention to geography – in the news, in their classes, and when they travel. Students admit that it is not enough to glance at a map to see the location of an area being discussed; they realize they have to study relationships between locations. To illustrate this in class, specific areas currently in the news could be discussed using a projected world map. A country like North Korea might be identified on the map and discussion might be focused on the relationship between that and other countries and continents. In this way the students are able to observe the process they could use to help assimilate and recall more information about countries, locations, and relationships. As a result of using this exercise, a specific city, country, or region in class, may be referenced on a map rather than assuming students will already have this knowledge.

Students also discuss how their areas of personal interest might highlight opportunities for becoming more geographically literate. For instance, our students have discussed following the Twitter accounts of favorite bands on world tours and taking time to refer to a map and track the stops on the band's tour. Students have also mentioned how their interests in wines and beers of the world could be used as a way to learn more about geography. Conversations with international students – especially those who might be in the class for this exercise – are also included in the discussion of ways to learn more about world geography.

Figure 3: Example of more skilled map

Assessment of learning objectives

The student learning objectives for this exercise have been assessed in four organizational behavior classes using a review of final reflection papers about "what I learned" and a homework assignment focused on this exercise. Reflection papers were a requirement where this exercise was used. Students were asked to discuss what they had learned during the class and how they planned to integrate the knowledge in future endeavors. Although the map drawing was just one of a number of activities in which students participated during the semester, it was frequently mentioned in students' reflection papers.

Of the 103 students that participated in the exercise, 64 mentioned the map drawing activity in their reflection papers. Student comments generally indicated that as a result of drawing the maps in class, they were determined to become more aware of the world around them. They referred to the activity as a "wake up call" that made them realize the small changes they could make that would increase their knowledge of geography. Several referred to having been embarrassed in the past when caught not knowing where a country was located, but confessed to rationalizing the oversight as an exception. The exercise, they wrote, made it clear that their knowledge of geography could always be improved. Many also acknowledged that not traveling extensively was not an excuse for not knowing the basics of geography. All the students who wrote about the exercise admitted that since drawing their maps they had been making an effort to learn more about the geography.

In the four classes where the exercise was conducted, 98 students completed a written homework assignment that included three questions related to the activity's learning objectives. Of the 98 students who completed the assignment, 95 percent met or exceeded expectations on their ability to point out the gaps in their geographic knowledge; 87 percent met or exceeded expectations in their discussion of the importance of geographic knowledge as related to their ability to work successfully in a global environment; and 85 percent met or exceeded expectations in their development of meaningful strategies to fill the gaps in their geographic knowledge. This sampling of students demonstrated the ability to meet or exceed the learning expectations of the map-drawing activity. The learning goals for this exercise do not include a goal stating that students' ability to draw a map of the world will improve as a result of participating in the exercise. Depending on the course goals where this exercise is used, instructors may want to assess whether conducting this activity in the context of the class actually improves students' ability to draw a map of the world.

CONCLUSION

Data regarding young people's knowledge of geography suggests that instructors in any business class with an international component should never assume that students know where a city, country, or even a continent is located. The "Draw the World" exercise described in this paper allows students to see how "geographically-aware" they are as compared to their peers. Students admit during the discussion of this exercise, in their final reflection papers, and on their related homework assignment that the activity makes obvious how aware – or unaware – they are of distant lands, neighboring countries, and even bordering states. Although students may acknowledge the importance of geographic literacy given globalization of business, we have found (and surveys support) that many students have limited geographic knowledge. This exercise can be used to prompt discussion about why geographic literacy is important to doing business in global environment and to motivate students to become more geographically literate.

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Acceptance and Effectiveness of Online and Hybrid Instruction in an International MBA Program

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ABSTRACT

The research presented in this paper aims to, first, investigate the relationships between acceptance of online instruction (online and hybrid formats) and its perceived effectiveness, and, second, identify the impact of the determinants that affect the level of acceptance for online instruction in an international MBA Program. We introduce the Online Course Effectiveness Model – a new methodological approach to investigate and statistically test those relationships and determinants. The results of these hypotheses testing demonstrate strong relationships between student acceptance of online instruction and the hybrid instructional format, the flexibility benefit of online instruction, and online courses with conceptually-oriented subjects. The testing results also demonstrate a strong association between online course acceptance and prior online experience, female (vs. male) students, and younger students. Finally, we identify a strong association between the online course acceptance and its perceived effectiveness by students.

Keywords: online course acceptance and effectiveness, online course, hybrid course, MBA, international education.

INTRODUCTION

This paper continues research we conducted on several international MBA cohorts that was published in 2009 (Wishniewsky and Radovilsky, 2009). The cohorts consisted of managers who attended an evening intensive MBA program offered in Moscow, Russia, by a large AACSB-accredited public university in the western United States. The cohorts studied in this publication were surveyed in 2008. Subsequent surveys were conducted with other cohorts in 2009-2014. The purpose of this paper is to assess Russian student attitudes toward the acceptance and effectiveness of online and hybrid learning, and to formulate and test a model for the acceptance and effectiveness of online and hybrid education. In this paper, "hybrid" is used interchangeably with the term "blended."

In fall 2009, 36% of Russian's population, or 42 million people, used the Internet (SRAS, 2010). Fifty-nine percent of Internet users in Moscow were adults, and 55% had Internet access at home (Sputnik News, 2010). By fall 2011, Russia surpassed Germany as the country with the most Internet users in Europe, with 50.8 million (Filatova, 2011). Prior to our last survey in 2014, it was estimated that 7.2 million of Russian Internet users were in Moscow (Kritsch, 2014). Around the time of our last surveys in 2014, Russia ranked 6th in the world with 84.4 million users or 59 percent of its population. This was a 220% increase in Russian users compared to the 38.5 million who logged on in 2008 when we conducted our first survey (InternetLiveStats, 2015).

Despite this large number of users, the site MBA in Moscow and Russia (2015) states that not many universities offer online programs "believing it impossible in the present circumstances to provide the necessary quality of training in these programs." Pavel Koshkin (2014), in his summary "E-Learning In Russia - Proceed with caution," states Russia lags the U.S. in online program development and may be 5-7 years behind the rest of the world. Various reasons pointed out include conservative Russian universities, lack of finances, difficulty translating English courses into Russian, and problems adjusting Russian curricula to online delivery. Online and hybrid management courses offered by an American university in English then, might be attractive and acceptable to Russian managers.

LITERATURE REVIEW

To evaluate the acceptance and effectiveness of online and hybrid instruction we reviewed literature in two areas. The first area, course-related determinants, focused on course formats of online and hybrid delivery; the benefits based on anytime, anywhere flexibility in studying; and content in the form of conceptually-oriented or quantitatively-oriented courses. The second area, student-related determinants, includes prior online experience, gender, age, education level, employment level, and years of employment experience.

With regard to format, we found that acceptance of online learning is linked with satisfaction. Much research has been conducted linking satisfaction with online learning to interaction with the instructor (Arbaugh, 2000; Bollinger and Martindale, 2004; Summers et al., 2005). An and Frick (2006) found that the role of the instructor was most important in blended learning courses. On the other hand, research studies found that a primary reason for dissatisfaction with online learning is the lack of interaction with both instructor and classmates. Findings are similar when research conducted in international programs is considered. In comparing student attitudes toward face-to-face and blended learning at an Australian university, Wong et al. (2013 found that face-to-face was the most preferred, had the highest rate of adoption, and the highest average scores for learning effectiveness. Stecyk and Chojnowski (2010), assessing a blended learning course in a Polish university, found that students rated the efficiency and quality of blended learning twice as high as face-to-face learning. The only area that ranked lower was communication with the instructor.

Limited information seems to be available on student perceptions of online learning in Russia. In research conducted among Swedish and Russian students in the Computer Science departments of their respective universities, it was found that both groups preferred face-to-face communication with an instructor: 85% in Sweden; 89.5% in Russia. Eighty percent of Swedish students and 84% of Russian students also favored face-to-face communication with classmates (Fekolkin, 2014). At the Nizhny Novgorod campus of the Higher School of Economics, a study of student and faculty perceptions of a Learning Management System found that nearly half the students surveyed considered the system "inconsistent with their learning purposes." The primary utility perceived by students was for storing course materials, and a preference for face-to-face learning was noted (Emelyanova and Voronina, 2014).

One reason for the lack of acceptance of online learning may be that Russians don't see the value of paying for Internet classes and are not sure of the legality of the courses or certificates earned (Melnikov, 2014). In the Swedish study, responses indicating why online learning was not favored by Russian students included difficulty contacting instructors (50%), lack of timely feedback from instructors (53%), lack of proficiency among teachers (74%), and complication of group work (61%) (Fekolkin, 2014). In the Higher School of Economics' research, students responded that e-learning did not make it possible to earn a higher grade (59%), control of learning by instructors was decreased (58%) and it was easy to cheat by using the Internet (36%) (Emelyanova and Voronina, 2014).

When considering the flexibility of online and hybrid education, we found that some students choose to study in the online format voluntarily while, according to Nguyen and Zhang (2011), some students may have no choice due to schedule conflicts or lack of course availability. In their research, negative influences on acceptance of the online method were identified as student perceptions of lack of face-to-face communication with the instructor and classmates as well as perceptions of extra materials and extra work. The main factor that caused preference for online study was flexibility. In earlier research comparing online and blended formats in two MBA programs, Arbaugh and Duray (2002) also found that flexibility was significantly associated with satisfaction for online learning. Mosca, et al. (2010) found that both undergraduate and graduate students preferred the flexibility of blended learning to traditional and would take a blended course again. When examining research on content, a study of business students in upper division courses determined that the two reasons online courses were selected were convenience and lack of availability of the subject in face-to-face format. Students responded that courses involving description and terminology (i.e., conceptually-oriented) were suitable for online study, while subjects that involved theory or analysis (i.e., quantitatively-oriented) would be most difficult to study online (Kuzma, et al., 2015).

We continued our research with student-related determinants. In a study of blended learners, So and Brush (2008) found that the number of prior courses taken contributed to higher satisfaction. Nguyen and Zhang (2011) also found that acceptance of taking an online course depends on a prior successful experience. When gender is considered, results seem to be inconclusive. Men's ratings of perceptions of usefulness of e-learning, ease of use, and intention to use were higher than women's in a Taiwan study conducted by Ong and Lai (2006). In a study of students in an online programming course in a Turkish university, Yukselturk and Bulut (2009) cited six studies that found gender made no difference in online learning. Their own findings were that male and female students did not differ in terms of motivational beliefs, self-regulated learning, and achievement.

With regard to student-related determinants of age, education, employment, and years of experience, Lewer, et al., (2006) found no correlation between age, gender, or income and a desire to take online courses. So and Brush (2008) cited two studies in which no correlation was found between satisfaction with online and blended learning

and age, gender, level of education and computer experience. In their study older students were found to have higher satisfaction with blended learning than younger students. In our earlier research (Wishniewsky and Radovilsky, 2009) we identified a stronger acceptance of online and hybrid learning by students 18-24 and in middle level management positions. However, we found no correlation between acceptance of online and hybrid methods and undergraduate major, occupation and salary. A study of students in a University of London distance learning course found that gender and age contributed to success while occupation had no effect (Ogunleye, 2010).

Based upon our review of the literature, we found that many researchers discussed acceptance factors for online and hybrid education. Among them were communication with the instructor, flexibility, usefulness, and satisfaction. In several studies face-to-face instruction was the most preferred method. When considering student-related factors, we found that the primary consideration for taking online or hybrid courses was prior successful experience. Age, gender, and employment seemed not to be determining factors. Findings were generally similar whether the research focused on students in the United States or in foreign countries. Overall, we did not find research presented on a concrete methodology for analyzing acceptance factors in international education programs.

RESEARCH DESIGN

The goal of this research is twofold. First, we would like to investigate the relationships between acceptance of online instruction and its perceived effectiveness, and second, factors that affect the level of acceptance of online instruction in an international MBA Program. In this paper, we consider "acceptance" as the level of interest that students express in terms of taking courses in either the online or hybrid format. We also consider "perceived effectiveness" to be the effectiveness of the online or blended delivery model for learning as perceived by the participant.

In case of online instruction (or to be precise, pure online instruction), the entire content is taught over the Internet by a professor at another location. Materials are posted on a site like Blackboard, and the methodology includes online lecture materials and case studies, online class discussion (discussion board), chat room, and technical support. There is no on-ground real-time interaction with the professor except for synchronous lecture presentation via the Internet or interactive chat room times. The hybrid instruction method involves some part of the course taught in an online format and another part of the course taught in a face-to-face format by the same instructor.

The main source of data on student acceptance and perceived effectiveness of online and hybrid instructional formats was obtained by conducting an anonymous survey of students in an international MBA program in Moscow, Russia. The survey was administered to different cohorts of students in a seven-year period from 2008 through 2014, and focused on students completing the program. To conduct the survey, we developed a questionnaire that included a variety of questions in relation to the online and hybrid formats, as well as other on-ground instructional formats.

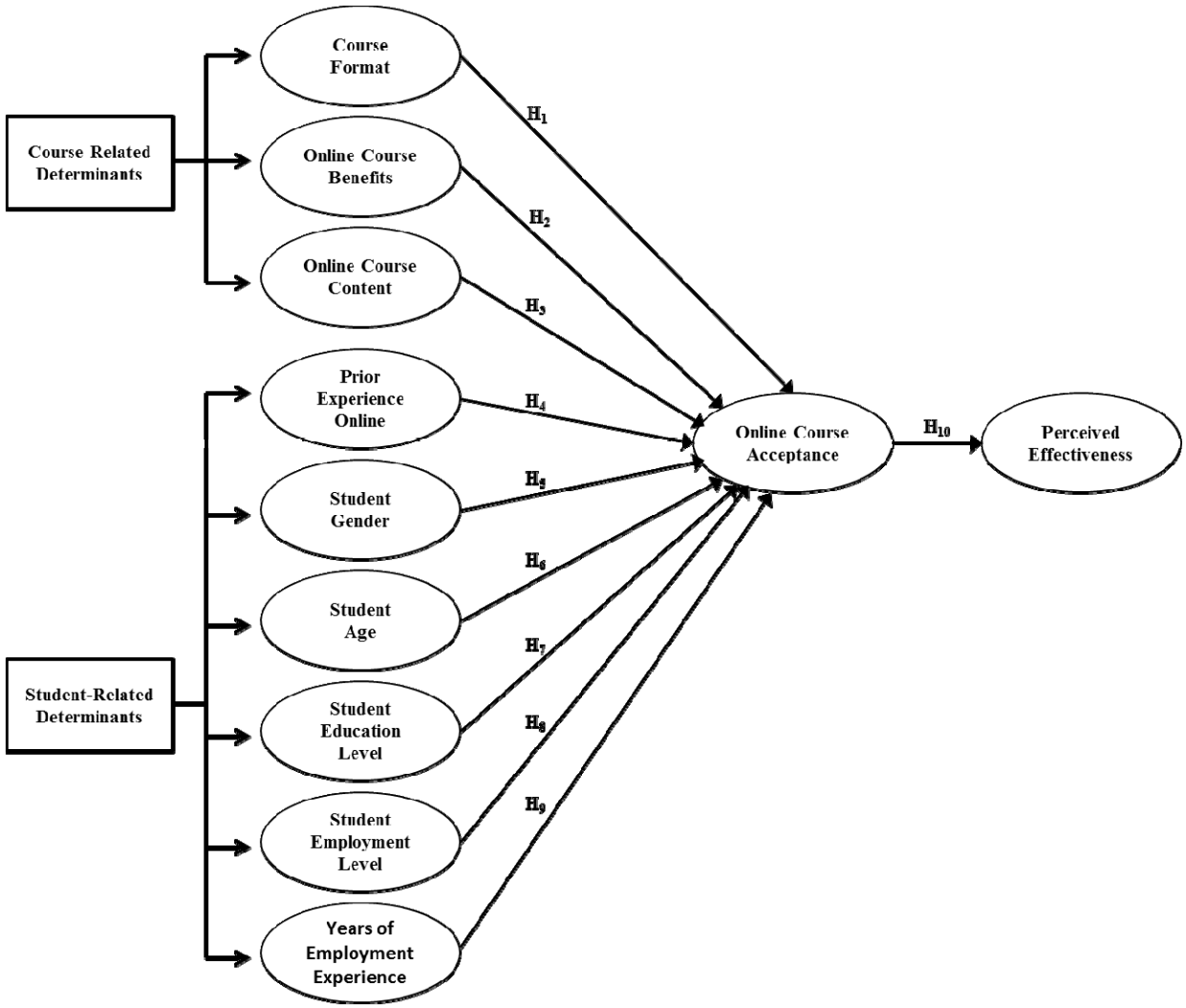
For collecting information on the acceptance of the online and hybrid instructional formats, the students were asked whether they will be interested in taking courses that utilize the respective formats. The choice of five answers ranged from "Very interested" to "Not at all interested." To identify the perceived effectiveness of online instruction, the students were asked to rank the effectiveness of each instructional format (online and hybrid) based on five predetermined answers ranging from "Very effective" as the top rank to "Very ineffective" – the lowest rank. By summarizing the survey data, we identified the percentage of students that accepted each instructional format, and also the percentage of students that ranked its perceived effectiveness. These results were applied in statistical analysis and hypothesis testing described in the next section of this paper. The questionnaire contained questions regarding student preferences of teaching numerically-oriented and conceptually-oriented subjects online, and how many courses with online instruction they prefer to have. Finally, the students were asked a variety of questions to identify their gender, age, level of education, field of study before entering the MBA program, level of employment, years of experience, industry they work in, and annual salary.

We received 267 completed questionnaires, which is about 91% of the total number of students studying in the second year of the International MBA program. The number of returned questionnaires was sufficient enough to statistically analyze the data and to address the research questions identified at the beginning of this section. Based on a review of the literature on online and hybrid education, and taking into consideration some preliminary survey results, we formulated several important research questions that we intended to answer in this paper.

- What are the relationships between the student acceptance of online instructional formats (a.k.a., online and hybrid) and perceived effectiveness of online education?
- What are the course-related factors (determinants) that influence the student acceptance of online instructional formats?
- What are the student-related factors (determinants) that influence the student acceptance of online instructional formats?

To fulfill these research questions, we developed the Online Course Effectiveness Model presented in Figure 1. For the course-related determinants in this model, we selected: (a) course format, i.e., online and hybrid course instruction; (b) online course benefits based on flexibility in studying online; and (c) online course content defined as a conceptually-oriented course and a quantitatively-oriented course. Based on the literature review and taking into consideration data collected from the survey, we also define several important student-related determinants that may influence acceptance of online instruction (see Figure 1): (a) Prior experience with an online course; (b) student gender; (c) student age; (d) highest level of education; (e) years of work experience; (f) level of student employment; and (g) years of employment experience.

Figure 1: Online Course Effectiveness Model



With the determinants defined, we establish, as a part of the Online Course Effectiveness Model, the following research hypotheses:

- H_1 – The hybrid instructional format is preferred to the online instructional format in affecting online course acceptance by students.
- H_2 – The flexibility benefit in studying online positively affects online course acceptance by students.
- H_3 – Conceptually-oriented subjects are more preferred for teaching in the online instructional format than numerically-oriented subjects.
- H_4 – Students that had more prior online course experience indicate more acceptance of online courses.
- H_5 – The online instructional formats are more acceptable for female students than male students.
- H_6 – The online instructional formats are more acceptable for younger students as opposed to older students.
- H_7 – The higher the level of student education, the more acceptance of the online instructional formats.
- H_8 – The higher the level of student employment, the more acceptance of the online instructional formats.
- H_9 – The more years of employment experience, the higher the acceptance of online Instructional formats.
- H_{10} – Higher student acceptance of the online and hybrid instructional formats increases their perceived effectiveness by students.

Based on the type of data we received from the survey, we applied various statistical methods to analyze the described hypotheses. For evaluating hypotheses $H_1 – H_3$ (course-related determinants), we employed the hypothesis testing for proportions. According to the common practice of statistical hypothesis testing (Evans, 2013), we define the *null hypothesis* as the opposite statement to each evaluated hypothesis, and also define the *alternative hypothesis* as the initial (actual) hypothesis $H_1 – H_3$, respectively. Through statistical analysis of a null hypothesis, we either reject it and therefore accept the initial hypothesis ($H_1 – H_3$), or otherwise, fail to reject the null hypothesis. The latter ultimately leads to rejection of the initial hypothesis.

For testing hypotheses $H_4 – H_9$, that describe the relationships between the student-related determinants and acceptance of online instruction (see Figure 1), we apply correlation coefficients between those determinants and the acceptance of online and hybrid instructional formats. The correlation statistical analysis is used in our case to identify the strength (significance) of association between statistical variables, i.e., each student-related determinant and acceptance of instructional formats. We also use correlation coefficients to test hypothesis H_{10}, which is concerned with the relationships between the acceptance of instructional formats and perceived effectiveness.

DISCUSSION

In this section, we analyze the Online Course Effectiveness Model and its hypotheses using the survey data from the International MBA Program in Moscow, Russia. According to the survey results, 77.5% of all surveyed students have completed courses with the online instructional format, and 82.0% of those surveyed courses with the hybrid format (see Table 1). When answering the question on how the students will be interested in participating in online instruction, 50.7% of the surveyed students are "Very interested" or "Somewhat interested" in doing online instruction. For the hybrid instructional format, 74.6% responded "Very Interested" or "Somewhat Interested" in studying in the hybrid format.

To statistically test the H_1 hypothesis' inference (see Figure 1), we formulate a null hypothesis as following: "The Online format attracts more students than the Hybrid format." The hypothesis testing results are shown in Table 1. The testing results in Table 1 show that with the p-value for the one-tail test practically equal to 0, we have to reject the null hypothesis, and thus accept the H_1 hypothesis that the hybrid instructional format is preferred to the online instructional format in affecting online course acceptance by students.

Table 1: Hypothesis H_1: Online vs. Hybrid Instructional Formats

Null Hypothesis	Sample Size	Online Format	Hybrid Format	Test statistic for Z-value	P-value for One-tail Test
The Online format attracts more students than the Hybrid format	267	50.7%	74.6%	-5.89	0.0000

For the H_2 hypothesis, we define two measurements that can characterize flexibility in studying online: (a) ability to study anytime, and (b) ability to study from any location. According to survey results, students consider them as the main benefits of online instruction, specifically, 50.7% of surveyed students consider the ability to study any time as the main benefit of online instruction, and 40.4% of the respondents give preference to the ability to study from any

location, which together represents 91.1% of all benefits identified by the students surveyed. For the hypothesis testing, we compare these results with flexibility of studying online in case of the hybrid instructional format that logically should produce lower flexibility benefits. The null hypothesis is formulated as following: "Flexibility in studying online is more beneficial for hybrid than for online courses," and the test results are presented in Table 2.

Table 2: Hypothesis H_2: Benefits of flexibility in Studying Online

Null Hypothesis	Sample Size	Online Format	Hybrid Format	Test statistic for Z-value	P-value for One-tail Test
Flexibility in studying online is more beneficial for hybrid than for online courses:					
Ability to study anytime	267	50.7%	31.3%	-4.65	0.0000
Ability to study from any location	267	40.4%	32.1%	-2.00	0.0226

As can be seen from Table 2 data, we consider hypothesis testing for each measure – ability to study anytime and ability to study from any location – separately from each other. However in both cases, with the p-value of the one-tail tests being practically equal to 0 or below a significance level of 0.05 (5%), we have to reject the null hypothesis. Therefore, we conclude to accept the H_2 hypothesis that the flexibility benefits to study online (anytime, and from home or any location) indicate the acceptance of online courses by students.

In the survey, the students were also asked about the capability of teaching numerically-oriented and conceptually-oriented subjects online. The results of the survey show that the students prefer to see conceptually-oriented courses more in the online educational format (7.1% of the surveyed students) than they do for numerically-oriented courses (3.4%). For the hybrid format, these results are 25.4% and 16.8%, respectively. To test the H_3 hypothesis regarding online course acceptance based on numerically-oriented versus conceptually-oriented courses, we consider the following null hypothesis: "Numerically-oriented courses are more preferred for teaching online than conceptually-oriented courses." The null hypothesis is tested separately for online and hybrid formats (see Table 3). The testing results for both instructional formats (p-value is below α significance level of 0.05) are indicative of rejecting the null hypothesis. These results confirm the H_3 hypothesis that conceptually-oriented courses are more preferred for teaching in online instructional format than numerically-oriented subjects.

Table 3: Hypothesis H_3: Numerically-Oriented vs. Conceptually-Oriented Courses

Null Hypothesis	Sample Size	Numerically Oriented	Conceptually Oriented	Test statistic for Z-value	P-value for One-tail Test
Numerically-oriented courses are more preferred for teaching online than conceptually-oriented courses					
Online format	267	3.4%	7.1%	-1.92	0.0272
Hybrid format	267	16.8%	25.4%	-2.45	0.0072

In order to analyze the acceptance of online instructional formats in conjunction with student-related determinants (see Figure 1), we calculated, using the survey data, Pearson correlation coefficients and associated p-values between the acceptance of online and hybrid instructional formats and their relevant determinants. These include: (a) prior experience, (b) student gender, (c) student age, (d) highest level of education, (e) level of employment, and (f) years of employment. The correlation results are presented in Table 4. The statistical significance of the correlation coefficients was identified based on the minimum statistically significant correlation coefficient equal to 0.1201 (for the sample size of 267, and T-value of 1.969 for α significance level of 0.05). This means that any correlation coefficient is statistically significant if it has an absolute value of higher than 0.1201, and vice versa, any correlation coefficient of less than 0.1201 will be statistically insignificant.

Table 4: Correlation Coefficients for Student-Related Determinants

Student-Related Determinants	Online	Hybrid	Statistical Significance
Prior Experience			
No experience with online instructions	-0.014	0.115	No for both
Prior experience with online instructions	0.417	0.507	Yes for both
Student Gender			
Male	0.304	0.419	Yes for both
Female	0.020	0.328	Yes for Hybrid Only
Student Age			
20-24	0.413	0.531	Yes for both
25-29	0.392	0.494	Yes for both
30-34	0.295	0.387	Yes for both
35-39	0.095	0.226	Yes for Hybrid Only
40-44	-0.114	0.103	No for both
>44	0.112	0.119	No for both
Highest Level of Education			
Bachelor	0.115	0.316	Yes for Hybrid Only
Specialist	0.005	0.001	No for both
Master/Magister	0.327	0.401	Yes for both
Doctoral Student/Aspirant	0.109	-0.110	No for both
Doctoral	0.091	0.107	No for both
Level of Employment			
Support Staff	0.000	0.099	No for both
Entry-Level Management	-0.118	0.196	Yes for Hybrid Only
Middle Management	0.355	0.398	Yes for both
Senior Management	-0.204	0.329	Yes for Hybrid Only
CEO, Managing Director	-0.113	-0.005	No for both
Years of Employment			No for both
Less than 5 Years	0.000	0.005	No for both
5-9 Years	0.089	0.111	No for both
10-14 Years	-0.112	0.054	No for both
15-19 Years	-0.036	0.117	Yes for both
20 or More Years	-0.219	-0.147	Yes for Hybrid only
No Work Experience	0.114	-0.209	No

The data of the correlation coefficients in Table 4 produces various results for the H_4-H_9 hypotheses. There is a strong positive correlation between prior experience with online instruction and student acceptance of online and hybrid formats. This confirms the H_4 hypothesis that students that had more prior online course experience are more accepting of online courses. With respect to the H_5 hypothesis, the statistically significant correlation coefficients are identified for female students for both instructional formats, and for the male student – for the hybrid format only, with the correlation coefficient being lower than that for the male students (see Table 4). Therefore, we can approve the H_5 hypothesis that the online instructional formats are more acceptable for female students than male students. As for the H_6 hypothesis, there are significant positive correlation coefficients between the younger students for the 3 age intervals (20-24, 25-29, and 30-34 years), and also for the hybrid format only for the 35-39 year olds. At the same time, for the older students, from 40 years or older, the correlation coefficients are not statistically significant. All this allows us to confirm the H_6 hypothesis that the online instructional formats are more acceptable for younger students as opposed to older students.

For the highest level of education, we only identify significant correlation coefficients for the "Master/Magister" level of education and acceptance of online and hybrid formats, and for the hybrid format only in case of the "bachelor" as the highest level of education. At the same time, for the highest level of education ("Doctoral Student/Aspirant" and "Doctoral") the correlation is insignificant (see Table 4). Thus, we need to reject the H_7 hypothesis that the higher level of student education will increase the acceptance of the online and hybrid instructional formats. For the level of employment, the results are very similar to those for the highest level of education; only the "Middle Management" and "Senior Management" categories have significant relationships with acceptance of online education. This necessitates rejection of the H_8 hypothesis that the higher the level of student employment will make the online instructional formats more acceptable. In addition, for the years of employment all correlation coefficients for the employment categories of less than 20 years are statistically insignificant. Therefore, we also need to reject the H_9 hypothesis that more years of employment experience will increase the acceptance of online instructional formats.

Finally, we consider the H_{10} hypothesis establishing the relationships between the acceptance of the online educational formats and their perceived effectiveness by students (see Figure 1). The acceptance measurements for the online and hybrid formats are the same as those used for H_1-H_9 hypotheses testing. For measuring the perceived student effectiveness, we are using the survey results of the question on how students rank effectiveness of online or hybrid teaching formats, specifically their answers as "Very effective" and "Somewhat effective." The correlation coefficients between the educational format acceptance and its effectiveness are 0.547 for online and 0.649 for hybrid formats (see Table 5).

Table 5: Correlation Coefficients for Hypothesis H_{10}

	Online	Hybrid	Statistical Significance
Correlation Coefficient between "Online Course Acceptance" and "Perceived Effectiveness"	0.547	0.649	Yes for Both

The identified correlation coefficients are higher than the threshold coefficient of 0.1201 (for the sample size of 267, and T-value of 1.969 for α significance level of 0.05), and thus statistically significant. Therefore, we have a relatively strong positive correlation between the acceptance of the online educational formats and their perceived effectiveness, which confirms that the H_{10} hypothesis that higher student acceptance of the online and hybrid instructional formats increases their perceived effectiveness by students.

CONCLUSION

The main objective of this research includes two critical streams of investigation for online and hybrid instructional formats: (a) the relationships between acceptance of online instruction and its perceived effectiveness, and (b) factors that affect the level of acceptance of online instruction in an international MBA Program.

The review and analysis of the literature demonstrates that the discussion on the acceptance of online education, specifically in the international locations like Russia, is still an ongoing one. The literature analysis shows a number of different research results regarding the factors (determinants, in our research) that influence this acceptance. Some of these determinants, as prior research demonstrates, may come from the educational format (online vs. hybrid format) and course benefits, or from students' associated characteristics like age, gender, education, and so on. All this necessitates development of a new research methodology and research instruments to investigate those determinants. In this paper, we introduce a new Online Course Effectiveness Model that combines and tests online acceptance and perceived course effectiveness in conjunction with course-related and student-related determinants (see Figure 1).

The statistical data to test the model's 10 hypotheses (H_1 – H_{10}) is collected from surveying students of the International MBA program in Moscow, Russia for a seven-year period, from 2008 through 2014. According to hypothesis testing of the Online Course Effectiveness Model, we identity several important results in student acceptance and perceived effectiveness of online instruction in an international MBA program. With respect to the course-related determinants, students (a) have higher acceptance of the hybrid course format; (b) they give

preference in accepting conceptually-oriented subjects; and (c) the flexibility benefit of studying online at any time and any location positively affects students' acceptance of online/hybrid instructions.

For the student-related determinants, we found strong relationships between acceptance of the online/hybrid courses and students with more prior online experience, female students, and younger students. However, we did not identify (and have to reject) the hypotheses that the higher level of student education, the higher level of employment, and that more years of employment will signify more acceptance of online/hybrid education. Finally, we proved that there is a strong relationship between the higher acceptance of online and hybrid courses and students' perceived course effectiveness.

This research produces a number of contributions to the theory and practice of online teaching. First, we introduce a new methodological approach – the Online Course Effectiveness Model – to investigate and statistically test relationships between online course acceptance and its course-related and student-related determinants, as well as the association between online course acceptance and its perceived effectiveness by the students. Second, we identify, through hypothesis testing of survey data, very important and practical course- and student-related determinants that affect online course acceptance and its perceived effectiveness. Finally, these results can be used by the administrators of international MBA programs to better understand how to facilitate and improve student acceptance of online instruction, and also to developing a fully online MBA program in the international arena.

From an administrative perspective, the first step in program development would be identifying the characteristics of the target market. Our research shows strong correlations between prior experience with online instruction and acceptance of online and hybrid formats, H_4, and that younger students are more accepting of online courses than older students, H_6. Thus a fully online program could be offered to students under 40 who have prior experience learning in that format.

When the students are at various locations and hybrid instruction is not possible, administrators may want to consider an introductory credit-no credit course in how to study online. This would give all students a common background and allow the program to set expectations as well as give students practice with a web-based system such as Blackboard, threaded discussion, group work, uploading of assignments, online testing, and other course features. Such a course would also mitigate the differences between students with prior online experience and beginners. Based on the preference expressed for conceptually-oriented courses, H_3, it may also be useful to begin the program with these type courses, followed by potentially more difficult quantitatively-oriented courses. When the students are in one location it could be more productive for student learning to begin with hybrid courses, with the face-to-face component first, followed by the online component. Students would gain familiarity with various instructors' teaching styles and expectations, and perhaps learn more successfully during the online component. Again, consideration should be given to commencing a program with conceptually-oriented courses.

With regard to faculty, administrators should require participation in a training program in online and hybrid instruction, as well as vetting course outlines to make sure learning objectives, outcomes, and accreditation requirements are met. Those faculty teaching numerically-oriented courses may want to provide more learning aids, such as problem set examples, and the release of homework answers once a submission deadline has passed. In addition, when possible, faculty should consider synchronous chat sessions adjusted for maximum global access.

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A Study of Graduate Student Performance and Different Testing Formats in Operations Management

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ABSTRACT

This study analyzes differences in student performance between two different testing formats across different instructors and learning environments. Graduate students, regardless of the teaching methodology and instructor, performed better on scaffolded questions than open-ended questions. Regardless of the learning environment and in keeping with Bloom's taxonomy, instructors need to consider the activities that they are using in order to achieve the desired level of student understanding and their course learning objectives.

Keywords: student performance, student learning

INTRODUCTION AND LITERATURE REVIEW

As education continues to add evolving technology into delivery methods, instructors need to evaluate the educational value of the various activities used to assess student performance - particularly as more courses and programs transition to the online environment and/or employ online features. Traditional education in terms of face-to-face (FTF) instructional delivery using paper-and-pencil assessments continues to be modified to include more 'virtual' elements. 'Virtual' elements exist in online programs, hybrid (or low residency) programs, online courses (100% online), hybrid courses (substantial portion online and substantial portion FTF), and blended courses (campus-based courses that use online components). As online education and its associated techniques continue to grow, academic administrators argue that the learning outcomes through online education are the same or superior to those in the traditional FTF classroom (Allen & Seaman, 2013). However, critics argue that due to intrinsic differences, online education does not replicate the learning that occurs in the traditional FTF classroom (Bejerano, 2008). Correctly or incorrectly, educators assume that whatever information technology is implemented in a classroom, it contributes to student learning (Peng, 2009). With respect to online and hybrid courses, which are the more common methods with online materials used to supplement traditional FTF teaching, a lack of research on best practices exists (Baugher, Varnelli & Weisbord, 2003; Biktimirov & Klassen, 2008). Regardless of delivery method, instructors need to assess the relevance of the various assessment activities used to evaluate student performance and enhance the learning environment. Assessment techniques may include homework, quizzes, exams, discussions, case study evaluation, individual or group projects, and other activities. Instructors need to consider the level of student understanding that they seek to achieve through the methods they utilize – whether online, traditional or hybrid delivery systems.

As instructors develop their lectures, in-class and out-of-class activities, they do so within the context of the course learning objectives. Whether the instructor is using in-class activities with discussion questions or out-of-class, computer-managed homework, the instructor knowingly or unknowingly will use questions that may be considered 'open-ended' or 'scaffolded'. 'Open-ended' problems are large, complex problems where the student is not prompted through to a logical solution - essentially, 'a blank sheet of paper'. 'Scaffolded' questions 'walk' the student from one step to the next in a logical manner until the solution is attained. Given today's technological capabilities, computer-generated *and computer-graded*, open-ended problems, whereby large, complex problems are given and the student, without prompting from one logical point to another, pose great challenges. Therefore, many online activities are scaffolded in nature, with the quantitative data in problems being randomized and thus different from one student to the next. Hence, unless customized and instructor-graded computer problems are assigned, online assignments tend to be scaffolded and automatically graded, 'walking the student through the problem logic'.

Of particular interest in this study is the testing format. At the turn of the 21st century, instructors explored the relationship between homework and in-class testing, and concluded that required homework is not significantly related to performance on a multiple choice exam (Peters, Kethley & Bullington, 2002). However, more recent

studies show that differences exist between student performance for different question formats for both undergraduates (Fish, 2015) and graduates (Fish, 2014). Graduate students' performance on computer-managed homework and subsequent in-class testing revealed a moderate-to-weak relationship between the two; however, student performance differed by testing format (Fish, 2014). Graduate students demonstrated moderate relationships between computer-scaffolded online and in-class scaffolded questioning; however, graduate results showed that the relationships between partial, open-ended in-class testing and computer-scaffolded online homework were weaker. While another study shows differences in online homework performance between graduates and undergraduates (Fish, 2013), when exploring testing format differences, undergraduates performed similarly to graduates as undergraduates performed better on in-class scaffold questions than open or partially-open questions and a moderate correlation between computer-managed homework and in-class testing exists (Fish, 2015). For both undergraduates and graduates for the same instructor, students' performance differs by question format as undergraduates perform better on scaffolded questions than on open or partially-open questions.

Instructors may use different activities to facilitate student learning, such as homework or suggested problems. While instructors may believe homework improves student's abilities, knowledge and material retention (Rayburn & Rayburn, 1999), studies evaluating homework's value to student learning are mixed, showing positive relationships with homework (Rayburn & Rayburn, 1999; Eskew & Faley, 1988) or no relationship (Peters et al., 2002) or even negative or indifferent results (Anstine & Skidmore, 2005; Bonham, Beichner, & Deardorff, 2001; Bonham, Deardorff & Beichner, 2003; Cole & Todd, 2003; Daymont & Blau, 2008; Horspool & Lange, 2012; Peters et al., 2002; Topper, 2007). Additionally, the value of online ancillary materials, such as online homework and quizzes, needs to be assessed. Empirical research indicates that results for online homework are also mixed (Smolira, 2008) as several studies indicate positive results (Biktimirov & Klassen, 2008; Arasasingham, Taagepera, Potter, Martorell, & Lonjers, 2005; Arasasingham, Martorell, & McIntire, 2011), and moderate or negative results (Anstine & Skidmore, 2005; Bonham et al., 2001; Bonham et al., 2003; Chamala, Ciochina, Grossman, Finkel, Kannan, & Ramachandran, 2006; Cole & Todd, 2003; Daymont & Blau, 2008; Fish, 2014; Fish, 2015; Fisher & Holme, 2000; Horspool & Lange, 2012; Topper, 2007).

Online homework offers several benefits to students and instructors over the traditional paper-and-pencil methods including: students receiving immediate feedback which may increase student performance (Kulik & Kulik, 1986); algorithmic (versus static) problems reducing the possibility of student's copying from one another (Smolira, 2008); students repeating units multiple times with a virtually unlimited pool of questions to work with (Arasasingham et al., 2011); early feedback on student learning that allows instructors to change instructional methodologies or clarify concepts during instruction (Arasasingham et al., 2011); the instructor spending less time grading homework; and the likelihood that since each student receives a new and different set of problems, students are encouraged to think and really understand the material (Arasasingham et al., 2011). From a student perspective, students appreciate online homework most when it is easy to use, carefully planned and integrated seamlessly with course material, and supported by the instructors (Arasasingham et al., 2011). From an instructor perspective, positive aspects of online homework include keeping the class on task and on track, and the ability of students to work at their own pace on different practice problems (Arasasingham et al., 2011). In some Web systems, the instructors can track individual student progress and pinpoint exactly where student difficulties lie (Mendicino, Razzaq & Heffernan, 2009). However, other instructors may find online instruction too time-intensive, relationally unrewarding due to the continual e-monitoring throughout the course, and feel a loss of interactions with students (Bejerano, 2008). In general, if course instructors enthusiastically embraced the online approach and integrated assignments with course material, students embraced it as well (Arasasingham et al., 2011). Educators cannot use a 'one-size fits all' approach with respect to online homework systems as not all students benefit equally from online homework systems (Peng, 2009).

With respect to online homework, researchers are just beginning to explore new technology's effect in the educational setting, and individual differences. Educational settings can include student performance differences with respect to many facets such as the number of times students may retry problems, availability of instruction manuals and ungraded problems, seeking mastery versus limited number of attempts, static versus algorithmic problems, unlimited versus limited completion time, and printing abilities. For instance, some researchers question the number of times to re-try homework as some feel it may lead to students not studying as hard since they know they can rework their mistakes. That is, using multiple tries for online homework encourages a 'guess-and-check' strategy instead of careful reasoning to solve a problem (Pascarella, 2004). Similarly, a study of an operations management online homework system found that allowing for 4 attempts instead of just 2 actually decreased student

success (Yourstone, Kraye & Albaum, 2010). In short, there is still a lack of consensus regarding the effectiveness of online homework which highlights the need for further investigation (Arasasingham et al., 2011). Further, one should view results with caution due to the differences between instructor effects, instructional methods, prior student knowledge, technical ability, learning styles, and media differences (Horspool & Lange, 2012).

Inherently, differences between the methodologies, instructors and the student body exist across classes. In a comparative study between four instructors using the same online homework system, only one instructor noted student improvement in exam performance through online homework, while three others did not detect any significant gain (Dufresne, Mestre, Hart & Rath, 2002). Others noted that online education does not necessarily replicate the learning that occurs in the traditional FTF classroom (Bejerano, 2008; Fish, 2014). For example, student performance in online statistics and economics courses produced inferior learning outcomes relative to the traditional environment (Anstine & Skidmore, 2005). Researchers did not detect any significant differences in predicting student success for several Web-based homework systems for teaching undergraduate business statistics (Palocsay & Stevens, 2008). Students using online computer-generated math homework did not perform better on examinations; however, students' success rate in terms of the overall course grade appears to be better than the traditional homework group (Kodippili & Senaratne, 2008). With respect to performance differences between FTF and online education, academic maturity is a significant factor as freshmen performed significantly worse than upperclassmen (Urtel, 2009), and undergraduates performed significantly worse on homework than graduates (Fish, 2013). Caucasians tend to do better in FTF than online, while student performance is insignificant for Blacks or Hispanics. Gender is not a significant factor for student success (Urtel, 2009). Yet another study noted that regardless of whether the course was taught online, through a summer session or FTF, there were no significant differences in student performance between the different educational formats as students performed significantly better on scaffolded questions than open-ended (Braunscheidel, 2014). Since many of these studies were for just one instructor, it prompts the focus of this study which explores the relationship between testing formats and student performance for different instructors and teaching methodologies: *Does student performance vary by testing format – regardless of instructor or teaching method?*

Bloom's taxonomy is a framework for classifying what instructors expect students to learn as a result of instruction and represents a continuum of increasing cognitive complexity (Krathwohl, 2002). Students are expected to acquire knowledge ranging from concrete to abstract, and may be categorized as factual, conceptual, procedural and metacognitive (Anderson & Krathwohl, 2001). In the most recent version, the lowest level is knowledge, whereby the student recalls information. The next level of Bloom's taxonomy is comprehension (where the student can explain information), followed by application (where the student can use the information in a new way), then analysis (where students can distinguish differences), then synthesis (where the student can join similar concepts), to evaluation at the pinnacle of student knowledge and understanding (where a student can fully justify a decision). Bloom's taxonomy encourages instructors to develop learning objectives represented by the knowledge dimension and the cognitive process dimension, and then develop relevant activities to test this knowledge. *How do the learning activities relate to student learning?* Intuitively, if an instructor uses scaffolded questions in an educational activity, then students are essentially learning at the lower levels of Bloom's taxonomy (knowledge and comprehension) and not attaining a deep level of learning and questioning, which is associated with the evaluation or synthesis stage of Bloom's taxonomy. Thus, we might intuit that using open questions in an educational activity helps students learn at a higher level of Bloom's taxonomy, since such open questions make for deeper problem-solving, which would be associated with the synthesis or evaluation phases. *What level of student learning is the instructor targeting and testing? What level of student learning – and assurance of learning – do instructors seek students to attain?*

The primary purpose of this paper is *not* to investigate whether or not there are differences among traditional homework methods (paper-and-pencil) and online homework software that is often packaged with textbook purchases, but rather whether differences in student performance differ by testing format – scaffolded and open-ended questions, regardless of the educational techniques. Results for one instructor's educational methods (when using online homework) for both graduates and undergraduates demonstrate that testing format is a significant factor with respect to in-class student performance (Fish, 2014, 2015). *Does this effect occur regardless of the instructor and educational methods used?* To that end we pose the following hypothesis:

Hypothesis: Student performance on scaffolded questions will be significantly different from student performance on open-ended questions, regardless of whether the educational environment is a traditional face-to-face course

('Traditional'), whether students are required to use computer-managed homework ('Required'), or whether students may choose to use computer-managed textbook software to assist their learning ('Suggested').

METHOD

Three sections of a graduate-level introduction to operations management course in the masters of business administration program at the same AACSB accredited institution in the northeast participated in the study. Each section made use of the same textbook and learning objectives. The learning objectives of the course included:

- *MBA graduates will understand global operations, management, and marketing concepts.* Explain how value is created and managed through the product lifecycle, marketing mix and structure, and value of a supply chain and its members in a dynamic environment.
- *MBA graduates will apply quantitative methods in accounting, finance, statistics, and management science.* Master quantitative applications to (a) collect data, conduct and interpret statistical analyses, (b) prepare clear business reports explaining the data, analytical methods, and results, and (c) interpret such reports written by others.

A different instructor taught each section of the course, and in keeping with academic freedoms, each instructor developed a different syllabus. Each section was taught using the traditional face-to-face method. However, for this course, the instructors agreed upon the required and optional topics relevant to operations management that were to be included. A listing of these topics is shown in Appendix I.

The first section, 'Suggested' (taught by Instructor 1) used the required book and required the use of the textbook's online software tool to administer quizzes. Quizzes, given periodically throughout the semester, tested conceptual material through true-false questions – and not quantitative material – and counted toward 10% of the course grade (with the best 5 of 6 used to calculate the final quiz grade). Students could also choose to use the publisher software to practice problems online. Problems were assigned after each applicable lecture in which similar problems were demonstrated by the instructor during class. Static (problems that matched the textbook exactly) and algorithmic (problems whose numbers changed from those in the textbook) were assigned. For the online homework assignments, between 4 and 11 problems (static and algorithmic) were assigned. A total of nine (9) sets of practice problems were available through the online program throughout the semester. The practice problems did not count as part of the course grade, and students were not limited in the number of attempts at each problem. The incentive for the students to perform the practice problems was that they would prepare the student for the midterm and final exams. The two exams counted for 55% of the course grade and the computational problems, such as those reinforced by the online software's practice problems, counted for 40% of each exam. Students in the 'Suggested' class were part-time MBA students who took the class once a week in a session lasting 2 hours and 45 minutes.

The second section, 'Required' (taught by Instructor 2), used the required book and required students to use the same online software tool as the 'Suggested' section. However, the online software was only used to complete the 9 required homework assignments throughout the semester – and not in-class quizzes. Each online assignment consisted of 2 to 4 questions (potentially with sub-sections) that specifically corresponded to material covered the prior week; these questions were 100% quantitative, scaffolded, and corresponded to similar book problems. (Students could choose to attempt other problems associated with each chapter, but it was completely voluntary on their part.) Homework was due on the evening prior to a quiz covering the same material. (Note that the instructor had the ability to add customized quantitative and qualitative questions; however, this was not done for any assignment.) Homework took the student roughly 20 to 40 minutes to complete and represented 5% of the student's final grade. Additional suggested problems were available on the institution's learning management system, and the instructor encouraged students to review these prior to attempting the online homework. The online software was set such that the students had three tries on each problem; problems were algorithmic not static; students were given an unlimited time to complete the homework by the required due date (which corresponded to an upcoming quiz and recently taught materials); and the students could not print out the homework to work on off-line. Student evaluation also consisted of corresponding quizzes (31% with 2 out of 10 quizzes dropped) that followed homework due dates, and two exams (32% each). Quantitative material counted for approximately 33% of the in-class quiz score and 34% of the midterm exam. Students in the 'Required' course were full-time, one-year MBA students at the university that had lectures twice a week with each lecture lasting an hour and 15 minutes.

The third section of the course, 'Traditional' (taught by instructor 3) used the same textbook, but did not use the online textbook software at all. In fact, there was no graded homework in the course. Students received a handout that contained suggested problems for each topic. For the midterm exam, nine suggested problems for quality control and four for breakeven analysis were assigned to students for preparation. Similarly, four EOQ problems and five MRP problems were assigned and suggested as preparation. The instructor provided full solutions of all suggested problems to the students. Student final grades were composed of a midterm exam (30%), a final exam (30%), and quizzes (35%). Students in the 'Traditional' class were also part-time MBA students who took the class once a week in a session lasting 2 hours and 45 minutes.

To test the two testing formats (open-ended versus scaffolded), the instructors agreed to two common questions (1 open-ended and 1 scaffolded) each on the midterm and final exams. For every course section, the midterm exam included an open-ended, statistical process control question requiring calculation of 3-sigma control limits, and a scaffolded, break-even analysis question. Similarly, the final exam included an open-ended, MRP question that asked students to build a material requirements plan with the use of tableaus, and a scaffolded question on the economic order quantity (EOQ) model. These common questions were agreed upon by the instructors, and so was a common rubric; the instructors also performed analysis to test for rater bias and inter-rater reliability. Details regarding the questions used on the exams, solutions to these questions, and the rubric employed, are available upon request.

RESULTS

Each instructor administered midterm exams at the approximate midpoint of the semester. The final exam was administered during the final week of the semester on the date and time scheduled by the university. Upon completion of the exams, each instructor copied the appropriate answers to the questions and provided them to the other instructors for their independent evaluation. Upon completion of the evaluation, the instructors compiled the scores for each of the sections on an Excel spreadsheet.

Analysis began by testing the effective reliability of the judges using a technique suggested by Rosenthal and Rosnow (1991). The formula for the effective reliability of judges is:

$$R = {}^{n\bar{r}}/_{1 + (n-1)\bar{r}} \qquad (1)$$

where R is the effective reliability (i.e. the reliability of the total set of judges), n is the number of judges, and $\bar{r}$ is the mean correlation among all the judges (Rosenthal and Rosnow, 1991). Initial-effective and post-effective reliability analysis was performed. For the post-reliability test, the instructors met to discuss differences in the interpretation and scoring of the exams. When an instructor's score for a particular student differed by more than 1 point, a review of the scoring for that particular student's question was performed. Out of the 93 students, twelve (13%) of the open-ended and six (6.5%) of the scaffolded questions required a review for the midterm exam. 88 students took the final exam. Sixteen (18%) of the open-ended and five (5.7%) of the scaffolded questions required a review. Initial and Post-effective Reliability test for the open-ended (Table 1A & B) and scaffolded (Table 2A & B) questions indicate that both the initial and post inter-rater reliabilities were excellent (R > = 0.970).

Table 1a: Initial And Post Effective Reliability of Judges: Midterm Exam, Open-Ended Questions

Initial Reliability of the Judges					
Instructor	1 & 3	1 & 2	2 & 3		
Section				$\bar{r}$	R
A	0.963	0.911	0.947	0.940	0.979
B	0.976	0.990	0.991	0.986	0.995
C	0.978	0.956	0.963	0.966	0.988
Post Reliability of the Judges					
Instructor	1 & 3	1 & 2	2 & 3		
Section				$\bar{r}$	R
A	0.986	0.991	0.987	0.988	0.996
B	0.989	0.996	0.993	0.993	0.998
C	0.986	0.983	0.988	0.986	0.995

Table 1b: Initial and Post Effective Reliability of Judges: Final Exam, Open-Ended Questions

Initial Reliability of the Judges					
Instructor	1 & 3	1 & 2	2 & 3		
Section				$\bar{r}$	R
Suggested	0.975	0.964	0.988	0.976	0.992
Required	0.986	0.963	0.983	0.977	0.992
Traditional	0.973	0.853	0.915	0.914	0.970
Post Reliability of the Judges					
Instructor	1 & 3	1 & 2	2 & 3		
Section				$\bar{r}$	R
Suggested	0.990	0.985	0.992	0.989	0.996
Required	0.992	0.983	0.986	0.987	0.996
Traditional	0.984	0.974	0.972	0.977	0.992

Table 2a: Initial And Post Effective Reliability Of Judges: Midterm Exam, Scaffolded Questions

Initial Reliability of the Judges					
Instructor	1 & 3	1 & 2	2 & 3		
Section				$\bar{r}$	R
Suggested	0.946	0.899	0.935	0.927	0.974
Required	0.950	0.946	0.973	0.957	0.985
Traditional	0.931	0.990	0.936	0.952	0.984
Post Reliability of the Judges					
Instructor	1 & 3	1 & 2	2 & 3		
Section				$\bar{r}$	R
Suggested	0.982	0.988	0.983	0.985	0.995
Required	0.983	0.978	0.975	0.979	0.993
Traditional	0.990	0.990	1.000	0.993	0.998

Table 2b: Initial And Post Effective Reliability Of Judges: Final Exam, Scaffolded Questions

Initial Reliability of the Judges					
Instructor	1 & 3	1 & 2	2 & 3		
Section				$\bar{r}$	R
Suggested	0.891	0.870	0.858	0.873	0.954
Required	0.979	0.976	0.997	0.984	0.995
Traditional	1.000	1.000	1.000	1.000	1.000
Post Reliability of the Judges					
Instructor	1 & 3	1 & 2	2 & 3		
Section				$\bar{r}$	R
Suggested	0.939	0.924	0.965	0.943	0.980
Required	NO SCORES DIFFERED BY MORE THAN 1				
Traditional	NO NEED TO RECONCILE r = 1.00				

As shown in Table 3, the exams were significantly different for the suggested and required treatments but insignificant for the traditional treatment. Therefore, the results from the midterm and final exams were not aggregated for question format comparison. As shown in Table 4, the midterm and final exam averages (and standard deviations) for each teaching method and question type demonstrate that students performed better on scaffolded questions than open-ended questions. Table 5 contains the results of a t-test performed for each of the six (6) observations contained in this study. The results show that for the midterm exam, regardless of treatment, students performed significantly better on scaffolded questions than they did on open-ended questions. However, the results for the final exam were not as compelling as they were for the midterm exam. For the final exam, students in the 'Traditional' section performed significantly better on the scaffolded question than they did on the open-ended

question. This is in support of the research question and hypothesis. However, for the 'Suggested' treatment, while the results showed that scaffolded question performance was greater than for open-ended question performance, the results were only significant at the 10% level. This demonstrates weak support for the research question and hypothesis. Regarding the 'Required' section, no support was found as the differences were not significantly different even though the scaffolded question average was greater than the open-ended question average. Figures 1 and 2 present a graphical view of the results. Thus, four (4) of the six (6) observations showed significant support for the hypothesis, one (1) case demonstrated weak support and one (1) case did not support the research question. However, in every case, students performed better on scaffolded questions than open-ended questions.

Table 3: Averages (Standard Deviation) by Treatment and Exam (10 points/question)

	Suggested	Required	Traditional
Midterm Exam	8.51 (2.09)	7.7 (2.85)	9.11 (1.75)
Final Exam	6.17 (2.47)	8.88 (1.79)	9.33 (1.39)
Significance	.004	.000	.428

Table 4: Averages (Standard Deviation) by Treatment and Question Type (10 points/question)

Midterm Exam			
Question Type	Suggested	Required	Traditional
Scaffolded (Breakeven)	9.30 (1.52)	8.96 (1.92)	9.59 (1.01)
Open-ended (X-bar & R chart)	7.79 (2.30)	6.43 (3.09)	8.62 (2.17)
Final Exam			
Question Type	Suggested	Required	Traditional
Scaffolded (EOQ)	6.71 (1.39)	9.08 (1.09)	9.89 (0.25)
Open-ended (MRP)	5.62 (3.14)	8.67 (2.29)	8.77 (1.80)

Table 5: T-Test Comparison Open-Ended vs. Scaffolded Questions, Significance By Treatment

Treatment	Suggested	Required	Traditional
Midterm Exam	0.005	0.000	0.006
Final Exam	0.072	0.388	0.002

DISCUSSION

Since several studies noted that online education does not necessarily replicate the learning that occurs in the traditional FTF classroom (Bejerano, 2008; Fish, 2014), the focus of this research was to replicate previous studies that demonstrated differences in student performance by question type – regardless of the teaching methodology or instructor. As highlighted in a previous study (Fish, 2015), insight into different testing formats in other studies may explain differences in the mixed results shown in studies that evaluated the use of homework or other educational methodologies (as previously discussed in the literature review). The results of this study clearly demonstrate that students will inherently perform better on scaffolded questions than open-ended questions. This study provides a replication of graduate student performance on different testing formats that used computer-managed homework as a required educational activity (Fish, 2014); however, as demonstrated here, this result exists regardless of the teaching methodologies or instructor. The midterm exam results completely supported the hypothesis that students always perform better on scaffolded questions than open-ended questions. However, the final exam results did not completely support this. Potential reasons include: a difference in student motivation and exam timing on the final exam than the midterm; students preparing more for one exam than the other; and the nature of the questions themselves. To elaborate, students in the required treatment who did poorly on the midterm may have devoted more time to studying for the final to improve their grade; further, the midterm for the required treatment was at the end of the week versus the final exam which was at the beginning of the week. Alternatively, for the suggested treatment, students may have done well on the midterm, and did not prepare as well for the final exam. As for the nature of the questions, the MRP question, which by the nature of its completion required the student to complete one level prior to the next (thus being inherently 'scaffolded') may have contributed to the mixed results on the final.

The result that students perform significantly better on scaffolded problems than open-ended problems should not be a surprise to anyone if one considers the relationship to Bloom's taxonomy (Krathwohl, 2002). As discussed previously, if an instructor uses scaffolded questions in an educational setting, then students are expected to perform at the lower levels of Bloom's taxonomy (knowledge and comprehension). Regardless of the teaching method or instructor, graduate students are able to demonstrate the lower knowledge and comprehension levels of Bloom's taxonomy. The implications for any instructor are that the majority of graduate students will be able to perform well on scaffolded questions as the internal problem-solving logic is conveyed indirectly to the student by the scaffolded nature of the problems. However, since graduates – regardless of the teaching methodology or instructor – do not do as well on open-ended questions as scaffolded questions, this implies that they may not be able to develop the deeper problem-solving associated with higher levels of Bloom's taxonomy (that require a deeper comprehension, application, synthesis and/or analysis). Essentially, using open-ended questions requires graduates to demonstrate a deeper problem-solving level than scaffolded learning. Obviously, many students – regardless of teaching methodology or instructor – did not develop their understanding of the concepts to a deeper level and cannot develop the problem-solving abilities associated with the open-ended problems on their own. Therefore, when instructors develop testing activities, they need to consider the level of student learning that they expect students to attain. Similarly, as universities continue to develop assurance of learning procedures and testing, the level of understanding that they expect students to attain should relate to the testing format that is used.

While two of the three teaching environments used online computer-managed questions in student activities, instructors need to be aware that current systems that automatically grade the questions only allow for scaffolded questions. Hence, online instructors seeking to develop and test deeper student understanding must develop activities that are custom and instructor graded. As artificial intelligence technology improves and so do computer-managed grading capabilities, the ability of computer-managed programs to grade open-ended questions will change. Unfortunately, many online instructors only use the computer-managed grading activities associated with the textbook. While not directly tested here, the implications are that students who take online courses that only develop and test concepts using scaffolded questions may not be developing or able to demonstrate the depth of understanding that FTF students do. Administrators and instructors need to approach this topic cautiously and to carefully consider the educational activities and testing that are used in any educational setting or research that explores online and FTF educational settings.

In conclusion, regardless of the educational delivery method, instructor or educational activities used, this study further strengthens the argument that one needs to be aware of the question formatting when analyzing student understanding and in interpreting the results. These results support the idea that the educational activities – and format of the testing questions used to demonstrate that learning - which an instructor chooses may impact upon the level of learning that a student attains.

FUTURE RESEARCH AND LIMITATIONS

The focus of this study was on differences among student performance on scaffolded and open-ended questions. This is a somewhat narrow focus. Potential future research in this area includes:

- Investigating potential interactions among the various treatments, exam questions and exam timing (midterm vs. final)
- Replicating the study with each instructor assuming a different treatment (e.g. in this study, Instructor #1 = 'Suggested'; in the next, Instructor #1 = 'Required')
- Replicating the study within each instructor (e.g. Instructor #1 performing each of the different treatments over three sections/semesters)
- Studying the differences in the student samples

Limitations to this study include the sample size. The 'Suggested' treatment had 29 students, while the 'Required' and 'Traditional' treatments had 32 students each. However this represented the semester's population. As mentioned above, the results were not controlled for student academic differences as students self-selected treatments. While the degree of difficulty for the midterm and final exams as well as the open-ended and scaffolded questions was intended to be equivalent, it was not. Additionally, instructor differences may exist despite the fact that each of the instructors has been awarded teaching awards (multiple times in two of the three cases).

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Up-dating the O.B. Classroom to the New Business Paradigm

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ABSTRACT

Courses that have group interactive, experiential exercise components, like organizational behavior, do not initially appear good candidates for on-line offerings. These exercises are designed to illustrate interpersonal dynamics, group problem-solving techniques, and a sharing of ideas among students sitting together in a breakout room. Treating these activities as virtual office assignments provides a more real-life setting for the way students will interact in the future. A virtual office depends upon technology to support communication: people working together who may never meet face-to-face. Companies that permit working from home, or have global operations are already using virtual teams extensively. Results show that students face extra challenges and need to develop new skills, especially important time management skills, when asked to do their group work on-line. Conclusion recommends the consideration of hybrid pedagogies to gain greater learning impact from these usual classroom activities.

Keywords: virtual office, experiential exercises, organizational behavior

INTRODUCTION

Asked to teach an on-line course, I was open to any one of several management courses except one – Organizational Behavior (O.B.). My reasoning was simple: Part of each weekly O.B. class meeting was usually devoted to some type of experiential group exercise practiced face-to-face. It seemed obvious that the O.B. course was the least appropriate candidate for on-line treatment. Weeks later, the semester course schedule came out and much to my displeasure my name was listed next to O.B. as an on-line course. The Registrar declared that it was too late to make a change, and I would have to make the best out of the situation.

One question needed to be answered: How to present a course on-line that tries to simulate interpersonal, team activity? While trying to answer that question, I realized that classroom groups would not prepare students to work in teams in the way the world was heading – virtual organizations built on the performance of virtual teams. Why teach using an antiquated practice, when students could be better prepared for the way they will be working in the future?

RATIONALE FOR VIRTUAL OFFICES

Experiential exercises are often employed as a means to increase the student's comprehension of such topics as innovation and creativity, social responsibility and ethics, team effectiveness, decision-making, organizational and international culture, emotional intelligence, and conflict management. (Potter). The closer the activity mirrors what students will find in their work world, the more beneficial it will be. The question becomes, "What will that work world look like for our students?"

Although we still teach the sages of the industrial revolution, the fact is with the start of the 21st century a new organization type has been developing. Traditional organizational management methods and structures are failing to adequately accommodate a complexity-based world-view, which is characterized by discontinuous change, hyper competition, and the exponential explosion of information science. It is in reaction to the pressure of rapid change in a borderless, connected and wired world, that organizations are relying more and more on virtual structures. With the advent of new technology, there has been a change to virtual management. (Murphy) As a result, more professional workers are finding themselves as members of virtual teams, consisting of individuals in remote locations who work together primarily through computer-mediated communication. (Robey, Khoo, and Powers, 2000) Telecommuting and group teleconferences are part of the new technologies that support this type of organization.

Virtual teams are made up of people in different physical locations. Ferrazzi (2014) reports than a survey of 1700 knowledge workers, 79% reported working always or frequently in dispersed teams. There are specific challenges that face individuals working on these teams. RW3, LLC (2010) conducted a survey that noted several aspects of

group dynamics that are more difficult when working on virtual teams than on conventional teams, including group decision-making and expressing opinions. However, studies have shown that virtual teams increase organizational productivity, offer more flexibility, reduce time-to-market, often offer better work outcomes than conventional work teams, attract better employees and increase knowledge sharing. (UNC, 2011)

Many of our management courses teach about teams and the interpersonal dynamics such as member interactions, communication, conflict and decision-making. Few courses have included coverage of virtual teams and how group characteristic elements will change. Given this is the direction teams are taking, we are really not preparing students for the work conditions they are likely to face. (Gilson, Maynard, and Bergiel, 2013)

Although this paper is supporting the idea to move the traditional O.B. experiential exercise to a virtual team environment, there is a lack of research on how to teach or train individuals to be effective members of such teams. (Gilson, Maynard, and Bergiel, 2013) Admittedly, the activities described here do not address this problem directly. However, there is time put aside during the semester requiring team members to assess their group's performance, and explicitly state what they will do to improve their virtual teams' effectiveness.

One element that might delay the implementation of this new learning model is that it departs from the traditional teaching method. Potter claims that, "a professor's reluctance of trying something new and different in the classroom is real." A case in point: Two "traditional" O.B. teachers went to my department chair and convinced him that O.B. should never be an on-line course. The result was that I was not scheduled to teach the course the following semester. I went to the Chair and strongly suggested that before he decided my Organizational Behavior class was unsound pedagogically, maybe he should listen to what it was I was doing. It turns out he had no idea what a virtual office was, nor how it actually enriched the O.B. learning experience. The two who voiced strong reservations just felt it was a course that did not lend itself to on-line presentation given the face-to-face activities that usually took place – the same knee jerk reaction I originally had. After this "enlightening" discussion, my on-line section was put back on the schedule. On the other hand, no one else in the department has moved to modernize the team work experience, even though they now have heard my rationale.

MANAGING THE VIRTUAL OFFICE CLASSROOM

Initiating the Semester

The first week of the semester students introduce themselves on-line. (It seems so normal in an on-line class to start this way, and yet how many of us do the same for the on-ground students?) Students post to a discussion thread what they are studying, their work experiences, what they hope to get out of the class, and what worries them the most about being a manager. There is no experiential exercise the first week.

Starting at the end of the drop and add period, the students are randomly divided into groups of four to form the virtual offices. Each virtual office receives an email recommending they touch bases with each other, and get an initial agreement on the best way they can communicate with each other. All the group tools in Blackboard are made available to each virtual office. These include: File Exchange, Group Blog, Group Discussion Board, Group Journal, Group Wiki, and Email.

The third week presents the first problem solving exercise. The design of the on-line portion of the course is a single folder that becomes visible at 12:01 A.M. Monday morning under the "Weekly Assignment" tab. In that folder is the weekly quiz over the assigned chapter, the virtual office folder with the group exercise, and any reading/enrichment material I feel appropriate for the week's textbook subject matter. The folder disappears at 11:59 P.M. Sunday night.

Team responses are submitted to a tab entitled, "Virtual Office Responses," which has folders labeled for each exercise. One student from each virtual office is responsible to post the group's consensus response to the exercise in the appropriate folder by Sunday night. This folder stays available to students all semester. Any student can click on one of the exercise folders and see what the other groups posted as their answers. This course design is very convenient when the previous week's exercise is the stimulus for the next week's discussion topic, "What do you think about the answers given by the other virtual offices?"

Working in a Virtual Office
Although my initial expectation was that students would use email to pass along their individual responses, that is not usually the case. Texting seems to work better for them than email in sharing ideas. This seems to reinforce the findings that the rate of texting for 18- to 24-year-olds is "more than double the comparable figure for 25-34 year olds, and 23 times the figure for text messaging users who are 65 or older. (Gahran, 2011) Some groups have tried conference calls; a couple have actually found time to meet face-to-face. (Defeated my purpose, but I did say the first semester that they can use any method that works. Now there is an indication this is not acceptable.) Use of a wiki or Google docs where they can advance their ideas and have everyone read and comment on them in one place seems to be the preferred written communication method.

Experiential Exercises Used
The same experiential exercises that would be used in class are used on-line. Some are mental puzzles that require a predetermined strategy to solve as a group. An example is the exercise, "What is the baseball line-up?" where understanding the solution logic before starting to solve is critical. Others are very short cases where there needs to be a discussion among themselves. I have also used "The Managers Hot Seat" videos as the focus which serves as a virtual role play. Some weekly exercises are more business-like, i.e. they are given a dozen names with a short explanation of each employees' job performance, and the group has to come up with recommended salary increases.

About half way through the semester, students are asked to complete the "Survival in the Desert" exercise, which is a two-week activity. At the end of the first week groups post their rank ordering of the listed items based on their importance to survival. The next week, the answers with the experts' explanation are included in the weekly folder. They are asked to score their rankings individually, and score the groups'. One member posts their numbers to the "Virtual Office Responses" folder. The questions to be answered this second week are: "How did the group do? Did the group do better than all the individuals in the group? If not, why not? If no, analyze why the group dynamics prevented the better answers from emerging."

The following week has no exercise but rather a formal group self-assessment of how they are doing. They are asked to post what they plan to change in order to have their virtual office perform more effectively through the remainder of the semester. The number one improvement that is almost always mentioned is better time management, i.e. being responsible for getting individuals' initial responses to the other group members earlier in the week so there is more time to discuss the best answers by Sunday night. Just understanding this obligation and meeting it, by itself is an important learning product that is not available in the traditional classroom.

Evaluating Level of Student Participation
Students are told in the syllabus and also either the first day of class or when they first log into the course, that there will be a peer evaluation at the end of the semester regarding their virtual office participation. This is done the last week of the semester. Each student is told they have $1,000 bonus dollars to distribute to members of their group, including themselves. The distribution should be based on how much the individual participated and supported the office during the semester. Many times a student will provide an explanation or rationale for their distribution, although I don't ask for one. Obviously, this is submitted privately to me. A tally is kept of the number of dollars distributed to each person. Many times the money is divided evenly. For a virtual office that managed to get their responses in on-time every week, with different members posting the weekly response, this is not surprising and probably appropriate.

Another situation that commonly arises is that one person in the group is given much less than the other three, and all of those three independently agree. Such an evaluation will lower a final grade. Often while recording the bonus distribution given by these under-performing individuals, it is amusing that they consider themselves the star of the group. However, this is a case where the majority wins.

Professor's Role
The professor's prime role the first week or two of group activity is to check if every virtual office actually posted their responses. Frequently, one or two groups have not worked things out yet. Or it is obvious, that one person in a group decided to submit their personal responses, and never made contact with their group. In these cases, an email is immediately sent out noticing the omission and again asking them to make contact. This Monday morning email usually provokes a couple of replies regarding how someone tried to contact the other members but no one responded. An email to that person, but copying the others in the office, requests that he or she should reach out

again, and that the other people should respond. Some semesters, this is still not enough in a particular group and I have to remind them that participation in these exercises has bearing on their final grade.

When there is a correct answer to an exercise, the professor acts as a score keeper. Scores from the entire class are sent in an email, with the hopes it might stimulate a little competition between virtual offices.

On the weeks where there is a case discussion, the professor reviews the posted discussion and sends out an email to everyone, with reactions and suggestions that add a different perspective to the problem. Assuming that at most one or two students would go back and read what other groups responded, the comments also include the commonalities mentioned in the various groups' responses. This includes playing devil's advocate, and mentioning a possibility that no group advanced. For example, on the exercise where they had to determine merit raises, (cost-of-living is noted to be a separate raise) most groups still give a merit raise to someone who obviously from the description does not deserve anything. The comment would suggest that to give this person any sort of merit raise detracts from the recognition value of the merit raise to the others in the group, and that 0% seems appropriate. Hopefully, this facilitation augments the learning gained from the exercise.

Student Reaction to the Course

The university collects student course evaluations for on-line courses, but very few students bother to respond. I have found that including my own feedback mechanism in the last week's folder provides me with useful feedback.

> *I would like your feedback about this course. Did you feel you learned new, helpful material? What aspect of the course did you like? Dislike? What could have been done better? Any other recommendations? I would appreciate your comments.*

Given such a wide-open question, different students focus on different aspects of the course. Looking over the general comments for the past three years, there were several mentions of the virtual office. The negatives are mainly about the difficulty of coordinating different people's schedules. This should be considered a part of the "extra" learning experience this course design offers: If they can't figure out how to synchronize when they are all in the same time zone, what will they do when there is 7-12 hours difference? Some of the positive comments are also about time – that the almost daily deadlines during the span of the week to arrive at Sunday's final response, helped improve their time management skills. A couple of students thought it disconcerting working with people they had never met. While another student proudly declared he would work with his teammates anytime, even though he never met them. The experience teaches that personal comradery can develop even in *absentia*. There is also frequent mention about the Virtual office improving communication skills. Brevity and clarity become more of an issue when trading ideas in a non-face-to-face situation. Several students mentioned how they tried different methodologies/technologies to better coordinate their answers with each other – again an additional learning point virtual offices provide. Even better support for this pedagogy are comments that learning to work with others on-line was the most important thing they got out of the class. (Not sure how happy that should make me.)

My Reaction to the Course

Do I now think Organizational Behavior can be taught successfully as an on-line course? Most certainly. In fact, the virtual office component probably contributes far more to the students' preparation for the work world they will be entering, than the structured classroom exercises that still generally persist in most on-ground OB .sections.

FINAL THOUGHTS

For faculty who don't feel secure with new technologies, moving classroom activities to an on-line environment requires no more skill than uploading or attaching a file. It is the students who have to feel comfortable with the electronic tools available to them. And if they are not, participating on a virtual team will give them the experience they will need when they get out into the work-world.

To be perfectly clear, I am not advocating that on-line courses are better educational vehicles than traditional classes. In fact, I am not an advocate for on-line courses -- a live professor in front of the classroom is far superior to a completely on-line approach. I cannot easily supplement textbook illustrations with anecdotes from my own experience when I am teaching in a distance learning format. Furthermore, I certainly almost never get any questions, or hear about students' own experiences with groups, conflict, or decision-making. What I would suggest

is a hybrid approach. The professor maintains the traditional role of knowledge giver during on-ground meetings, while selected experiential team activities presented on-line help students learn the new aspects of organizational behavior as they will likely experience it in the future. It is certainly something that even the most resistant to change faculty member should consider.

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Four Scores! Making Connections Through An Integrative Business Game

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ABSTRACT

While colleges of business try to integrate functional areas of business in its curriculum, numerous studies find that colleges and universities could do more to improve student learning in this capacity. These studies, along with AACSB International, encourage instructors to develop cross-functional, integrative pedagogical approaches. We answer this call with a team-based game that requires students to identify the relevant issues in current business articles and then apply their understanding of these areas to defeat their opponent. This activity facilitates integration, active learning and critical thinking skills while also making the classroom experience enjoyable.

Keywords: active learning, integrative business game

THE IMPORTANCE OF INTEGRATING BUSINESS KNOWLEDGE

In today's competitive workforce, companies want graduates with a greater understanding of business decision-making across functions, rather than a pure concentration on one area of business (*Business Wire*, 2008; Seethamraju, 2011). Having a cross-functional perspective allows employees to be more customer-focused (Celsi & Wolfinbarger, 2001) and adaptive to handle complex business problems more quickly (Parker, 2003). Moreover, Ibarra (2014) claims that managers should have continual training in areas outside of their functional "silos." Collaboration across departments and divisions in a company encourages managers to become creative and resourceful and build partnerships with employees in other disciplines.

Benefits of integration include student recognition of the dependencies between functional areas, enhanced communication, greater ability to work in cross-functional teams, and a better understanding of organizational dynamics. (Athavale, Davis, & Myring, 2008) When Athavale et al., (2008) surveyed 143 AACSB business school deans, they found that a resounding majority (81%) felt cross-functional integration was a key to student success. Furthermore, the American Institute of Certified Public Accountants ("AICPA"), one of the leading professional accounting organizations, states: "critical thinking encompasses the ability to link data, knowledge, and insight together from various disciplines to provide information for decision-making. Being in tune with the "big picture" perspective is a necessary component for success" (*2013 AICPA Core Competency Framework*, p. 1).

Moreover, students recognize that an understanding of cross-functional integration enhances their value in the job market by being more effective managers (Schelfhaudt & Crittenden, 2005). This is one reason AACSB International (Association to Advance Collegiate Schools of Business), the leading business school accrediting body, encourages schools to design more integration into the business curriculum. In fact, AACSB International asks schools to demonstrate "how the content is organized and sequenced to create a systematic, integrated of teaching and learning" (*2013 AACSB Business Standards*, p. 29). Still, innovative, integrative approaches are not widespread among business schools even though integrative knowledge is crucial for today's business graduates (Seethamraju, 2012; Bajada & Trayler, 2013).

Complicating matters is how educators define integration. Raef et al., (2014) and Strempek et al., (2010) expound there is not one approach to integration. Similarly, Clark & Wallace (2015) document that numerous perspectives exist regarding what integration entails but this provides challenges for those who attempt to assimilate disciplinary-specific topics. The authors write that this is especially problematic in higher education, where "adherence to disciplinary structures have created a highly fragmented approach" (p. 249). However, Clark & Wallace (2015) agree that most viewpoints broadly define integration as, "the combining of disparate things, events, or processes with the goal of fitting them together in such a way as to better understand both the parts and the emergent whole" (p. 236). The authors also support that a framework be employed to overcome these challenges.

Our classroom approach fits this broad definition and allows students to organize their thoughts. Students not only identify different disciplines explicitly stated in the article (a lower level of Bloom's Taxonomy of Learning) but also synthesize and construct arguments (the highest level) that demonstrate how other business areas can be influenced.

For example, in an article we used in class, "BMW Tosses Salesmen for 'Geniuses' – Video Display and Product Adviser Replace Old-Style Rows of Cars, Banners" by Roger & White (2014), students immediately can identify that marketing (sales) and information systems topics (video displays) are involved. The article mentions fewer cars sit at newly-designed showroom floors (operations management), fewer balloons and banners promote sales (marketing), and that declines in new-car margins and higher overhead costs (accounting/finance) are reasons for the new strategy. But once the obvious details of the article are taken, students must support other business areas that are not explicit, such as: shifts in marketing will require manufacturing to adjust to a more just-in-time approach (operations management); fewer salespeople translate into a smaller workforce but "product geniuses" require tech-savvy employees with higher compensation and continuous training (human resources); and vast amounts of marketing data captured in showrooms will require data storage and analysis (information technology). Fitting to Clark & Wallace's definition, the above exemplifies how individual business functions impact other areas, and that causal model embodies integration.

Finally, most business schools attempt to infuse integration into the curriculum through a single, senior-level, capstone strategy course (Schelfhaudt & Crittenden, 2005). While this is a vital course, students often have not begun to think about integration until this last semester. Of course, there are other methods of integration such as internships, cooperative education and multidisciplinary projects and classes. However, these approaches often apply to a small number of students and require external dependencies (cost and faculty resistance to name a few), thwarting their success. Unfortunately, there is little reinforcement of a cross-functional perspective during a typical business student's tenure which can leave students ill-prepared for today's business world (Schelfhaudt & Crittenden, 2005). Indeed, a challenge still remains in finding creative methods to integrate cross-functional areas of business that meet a school's learning objectives and budget (Tucker & Bryant, 2008).

This paper addresses the above challenges by developing a game that integrates knowledge surrounding various areas of business and demonstrates how one business area impacts another. In other words, students make "business connections." An example of a business connection is: "X Company laid off workers this quarter (human resources) because of the decrease in demand for its product last quarter (supply and demand - economics) and the decline in sales and profits (finance)." This integrative, but low cost approach can be applied in any business course and provides numerous benefits as described below.

LEARNING OBJECTIVES OF GAME

The main objective of this game is for students to gain a relational understanding of the various business disciplines and to think holistically (to see the whole as well as the parts).

After reviewing numerous articles and studies on business education, Harrison & Ritchie (2011) determine that certain skills are desired of business students; they believe that in addition to an "active-based, integrated course work environment" (p. 33), business programs also need to develop critical thinking, communication, and creative problem solving skills. Finally, according to AACSB International, business school curriculum should typically include general skill areas such as written and oral communication, analytical thinking, interpersonal relations and teamwork, and application of knowledge (*AACSB 2013 Business Standards*, Standard 9). The current game includes all of these skills and student feedback specific to these general skills has been gathered.

Second, the current student body, Millenials (born after 1980), insist on action-oriented learning as is done in this game. Studies show that students learn and retain more when they actively participate in problem solving rather than passively absorb information through lectures (Azriel, Erthal & Starr, 2005). Freeman, Eddy, McDonough, Smith, Okoroafor, Jordt, & Wenderoth (2014) find that active learning increases examination performance and development of concept inventories.

This is consistent with Hoffjan (2005) who explains that instructors are increasingly using games in business courses because they increase the student's ability to recall factual knowledge and require peer cooperation. He writes, "the

integrated view of business games promotes actions that relate to the company as a whole and promotes thinking across the boundaries of individual departments, overcoming the typical departmental focus, and supports coordinated actions." (Hoffjan, 2005, p. 63) Jaijairam (2012) recognizes games as a "way to actively engage students" (p. 77) in accounting courses, where it is critical that students understand and recognize concepts at work in the real world. AACSB International also requests active learning in the curriculum. The *AACSB 2013 Business Standards* read: "curricula facilitate and encourage active student engagement in learning. In addition to time on task related to readings, course participation, knowledge development, projects, and assignments, students engage in experiential and active learning designed to improve skills and the application of knowledge in practice is expected." (p. 29)

Furthermore, this approach can be played in any undergraduate business course and, therefore, can benefit students throughout their academic career. Athavale et al., (2008) recommend creating multi-disciplinary case studies that can be incorporated across all key courses, not just at the end in a capstone course. Doing so provides "the integrated nature of business … higher-order critical thinking skills, and a real-world orientation" (Athavale et al., 2008, p. 297). This integrative business game can be used similarly; instructors who teach core courses can easily select recent articles in the popular press and play the game. With the exception of an hour, there are very few costs associated with using this integrative game.

A final benefit of this approach is its usefulness in assessment, an area that is becoming increasingly valued at colleges and universities. Consistent with the recommendations of Ammons & Mills (2005), this exercise incorporates both direct and indirect course-embedded assessments to evaluate the cross-functional integration present. The direct component is a worksheet that the students must complete prior to playing the game. We capture indirect assessment through the surveys we administer at the end of the game. We explain both types of assessment below.

BASIC APPROACH TO GAME

Preparation for the game proceeds as follows. First, the instructor either assigns students to find business articles on a particular company or business area or selects articles that she feels addresses multiple functional areas. Using recent articles helps to gain interest and involvement from the students. Once the instructor collects the articles, she distributes these articles as an assignment and asks students to complete the worksheet in Table 1.

Table 1: Blank Business Connections Worksheet

This article addresses the following business area *because*:

Accounting	**Economics**
Entrepreneurship	**Ethics**
Finance	**Globalization**
Human Resources	**Information Systems**
Legal Environment	**Marketing**
Operations Management	**Social Responsibility**

The authors developed this worksheet to prompt students to think about multiple areas of business when analyzing the articles and to assist in organizing their thoughts. Also, if the instructor chooses to collect this worksheet (as the authors have done), it becomes an assessment tool to capture how well individual students are identifying various business disciplines and making connections among them.

The instructor emphasizes that students should prepare as many viable examples as possible because their opponent and the game board might prevent them from employing a particular answer. In fact, in the feedback discussed below, one student wrote, "The game was good but if you can't answer something (globalization [for example]), it makes it more difficult." Next, the students return to class with the completed worksheets and the instructor randomly assigns them into two opposing teams. Then, in their teams, students compare answers and develop a strategy to play the game. After students complete these steps, the game begins. The rules of the game are similar to Milton Bradley's Connect Four. Non-proprietary versions also exist (*Wikipedia*).

Connect Four is a derivation of tic-tac-toe where a team wins by gaining four cells consecutively in a row, column or diagonal. With this game, the exception is that a team member must identify and defend his/her position on why the article addresses certain areas of business in order to earn a space on the game board. The 7 x 6 matrix game board (Figure 1) includes cells for specific business areas as well as blank cells where students can argue any business category.

Figure 1: Business Connection "Unplayed" Game Board

1 Info. Systems	7	13 Entrepre-neurship	19 Human Resources	25 Marketing	31 Finance	37 Ethics
2	8 Finance	14 Accounting	20 Social Responsi-bility	26	32 Marketing	38
3	9	15	21	27	33 Globalizatio n	39 Info. Systems
4 Globalization	10	16	22	28 Entrepre-neurship	34 Human Resources	40
5 Legal Environment	11	17 Social Responsi-bility	23	29 Operation Mgmnt.	35	41
6 Accounting	12 Economics	18	24 Ethics	30 Legal Environment	36 Economics	42 Operation Mgmnt.

The two opposing teams, Red and Black (the colors used in the original Connect Four game), use their notes on the articles to play the game. Students must communicate and coordinate with teammates to determine the best offense or defense to win the game. Both teams present arguments to secure spaces while strategically preventing their opponent from obtaining four cells in a row. This requires teams to constantly update strategies based on their opponents' actions. Because of this, the game demands that students think "critically" and "creatively" in order to arrive at reasonable arguments to win spaces.

If the instructor accepts a team's reasoning, she marks the cell denoting that team's acquisition of the space. Then the other team argues for another space. However, the opposing team can challenge the argument. If so, the instructor decides if the cell is won or not after hearing why the opponent disagrees with the particular argument. If

the instructor agrees that the opposing team's, not the current team's, logic is correct, then the current team loses its turn.

It is possible for a team to win upon reaching the fourth row. However, once a team or teams occupy the fourth row (but no winner has emerged), the instructor can move on to the next article. Indeed, it becomes more difficult to come up with valid arguments as the game progresses.

DEMONSTRATION OF THE GAME

Following is a demonstration of an actual game played in a freshmen Introduction to Business class during the Fall 2008 semester. Due to changes in teaching schedules, the instructors have not taught Introduction to Business since this time. However, a colleague played the game during the Fall 2013 semester at another school, and we incorporated it into Spring 2014 semesters in two sections of Principles of Marketing. As the examples show, the applicability and usefulness of this classroom approach is timeless.

For the purpose of the demonstration, it is assumed that the players on both teams all have the same worksheets as shown in Table 2 (in a real game situation, they would differ). Also, assume the Black team begins.

In order to be consistent with the original Connect Four game, the team must choose a bottom cell of one of the columns or select to argue a cell above one that is already occupied. Table 3 includes a step-by-step account of each team's selection of a space on the game board. Due to space restrictions, the first six cells of the actual classroom session are presented. Please contact the authors for the entire step-by-step proceeding of this game. Figure 2 represents the "completed" game board from this session.

Table 2: Sample Completed Business Connection Worksheet from Levy, (2007) article

This article addresses the following business area *because*:

Accounting *Cost (2)* *Sales/Reduced Revenue (4)* *Lowering Prices (2)* *Losing Money*	**Economics** *Profit (2)* *Selling songs at a price higher than equilibrium price (3)* *Cutting costs (2)* *Sales (2)* *Payments for downloading of songs* *Diminishing value of music (2)* *Questionable value of music (2)* *Obsolescence of CDs*
Entrepreneurship *Independent artists (2)* *Selling songs only on-line (5)* *Negotiating deal between Apple and Music Labels (3)*	**Ethics** *Ethical issues surrounding stealing/downloading of music (27)* *Radiohead gave consumers the right to name price, potentially allowing buyers to pay nothing (8)* *Is free file-sharing acceptable?*
Finance *Prices of songs (4)* *Penalty because of illegal sharing* *Losing money because of illegal downloads (4)* *Sales prices and sales quantities (6)* *Selling online versus physical CDs* *Maximizing profits*	**Globalization** *Worldwide piracy increased through the internet (7)* *English Band Radiohead (2)* *Global purchase of music through the Internet (4)*
Human Resources *Cutting costs of songs means cutting production costs, eventually cutting benefits*	**Information Systems** *MP3 devices/iPods (2)* *Free downloading services (6)* *Sell music online* *Downloading music (6)* *Technology and downloading music (2)* *Advancements in technology (2)*
Legal Environment *Minnesota court cases regarding illegal downloading/sharing of music (12)* *Record Labels sue for illegally downloading music (9)* *Illegal downloading of music/Copyright infringement (10)* *Intellectual Property* *Free file sharing*	**Marketing** *Marketing new ways to sell songs (3)* *Marketing/selling differently (4)* *Radiohead's promotion based on consumer-determined price (11)* *iTunes' price (3)* *Rhapsody's prices decreased and sales increased six-fold ((6)* *Marketing songs on Rhapsody and iTunes (2)* *Market for cheaper music (1)* *Music streaming funded by advertisements (2)*
Operations Management *By not selling music physically through CDs, cutting down on manufacturing and shipping costs (4)* *Cost of distribution regarding on-line versus physical media (5)*	**Social Responsibility** *Companies should provide a fair price for music (2)* *"Music is the center of the emotional lives of millions, the source of incalculable pleasure" and, therefore, should be made cheaper.* *Illegal downloading/trading (3)* *Radiohead let people act responsibly, but some stole anyway (5)*

(Number of student responses for a particular argument is indicated in parentheses.)

Table 3: Demonstration of Game

Team	Cell #	Explanation Provided to Entire Class
Black	18	Since this was a blank cell, the team chose Accounting and stated that the article mentions Rhapsody cut prices of songs and albums in half and this increased revenue six-fold.
Red	24	This cell was marked "Ethics." The Team argued that downloading music without paying is unethical.
Black	30	This cell is marked "Legal Environment." The team built on their opponent's answer and stated that downloading music is also illegal as a person is stealing copyrighted material of the artist. By choosing and obtaining this cell, the black team boxed the red team horizontally.
Red	23	This was a blank cell. The Team tried to argue Human Resources. A team member noted that "real" customers do not always agree with musician's and Record Labels' pricing of music, whether in physical or digital format. While this was an interesting observation, the Team's point represented more of a customer perspective (marketing) than an employee/Human resource perspective. As such, the Red team lost its turn.
Black	23	Trying to block a vertical building by Red, the Team chose this blank cell and identified Finance as the category. The team argued illegal downloading can significantly impact profitability for both artists and music companies.
Red	29	This cell is marked "Operations Management." A team member stated that manufacturing costs can be markedly decreased by selling music through the Internet rather than just selling it in physical media forms (CDs).

Figure 2: "Played" Game Board

1 Info. Systems	7	13 Entrepre-neurship	19 Human Resources	25 Marketing	31 Finance	37 Ethics
2	8 Finance	14 Accounting	20 Social Responsi-bility	26	32 Marketing	38
3	9	15	21	27	33 Globaliza-tion	39 Info. Systems
4 Globaliza-tion	10	16	22	28 Entrepre-neurship	34 Human Resources	40
5 Legal	11	17 Social Responsi-bility	23	29 Operation Mgmnt.	35	41
6 Accounting	12 Economics	18 **Four in a row!**	24	30 Legal Environ-ment	36 Economics	42 Operation Mgmnt.

After deliberations on two to three articles, a winning team usually emerges. The authors suggest that an instructor dedicate at a minimum an hour to play the game if he wants to give teams the chance to actually win.

STUDENT FEEDBACK

Introduction to business students

The authors had students play this game in four different sections of an Introduction to Business class, collecting student worksheets from over 90 students. In the first section, overwhelmingly positive verbal feedback was received – students commented that the game helped them connect various areas of business, develop teamwork and communication skills, and test their strategic and critical thinking skills. All of these skills have been deemed important for successful business graduates (Harrison & Ritchie, 2011; *2013 AACSB Business Standards*). The authors formalized students' reactions with a brief questionnaire that touched on perceptions of how the game improved the above-mentioned skills. As the game was used in the next three classes, students were asked to complete the questionnaire. In all, 66 usable responses were collected.

Question 1 was open-ended while Questions 2-7 (as noted in Table 4) required students to rate their level of agreement/disagreement with various aspects of the game. Questions 8 and 9 asked students to rate the game and articles, respectively, as either poor, fair, good, very good or excellent. Questions 1, 8 and 9 attempted to assess the learning goal of maintaining student interest. Question 2 asked about critical thinking skills. Questions 3, 4 and 7 focused on enhancing student awareness of functional areas of business and how they are interrelated. Questions 5 and 6 asked about interpersonal and communication skills.

Students became deeply involved in arguing their team's position and the overall reaction has been extremely favorable. While one student indicated that he/she did not like the game and a few others responded that it was "okay" or "so-so," the majority of the students felt the game was beneficial and enjoyable. Responses to Question 1 included: "It was fun." "It was interesting." "It was very involved and a good way to connect different topics in business. It brought everything together." "The game was a good way to summarize the articles and understand the different concepts." Using t-tests assuming unequal variances, the students' level of agreement for Questions 2-7 is shown in Table 4.

Table 4: Results of T-Tests for Debriefing Questions 2-7 from Introduction to Business Students

Level of Agreement
(1=Strongly disagree; 2 = Disagree; 3 = Neutral; 4=Agree; 5 = Strongly Agree)

Question #	N	Mean	Std Dev	t Value	p-value
2. The game allowed me to practice my critical thinking skills.	66	4	.56	10.92	<.0001
3. The game provided me with a broad perspective of the functional areas of business.	66	3.93	.83	8.39	<.0001
4. The game helped me to understand the inter-relationships among functional areas.	66	3.88	.60	9.21	<.0001
5. The game allowed me to practice my oral communication skills.	66	3.68	.62	7.03	<.0001
6. The game allowed me to practice my interpersonal and teamwork skills.	66	3.77	.79	7.04	<.0001
7. The game helped me to gain a better understanding of the business world.	66	3.80	.68	7.88	<.0001

First, this evidence strongly suggests that the game helps students gain a better understanding of the functional areas of business and how they are interrelated. Responses to Questions 3, 4 and 7 result in means of 3.80 or higher. All means are statistically different from the neutral response of three at $p<.0001$ level. This finding is reinforced by some of the written responses above.

With respect to student interest, 26% of the students ranked the game "Excellent" while 33% rated it "Very Good." 32% rated the game "Good"; 8% "Fair"' and 1% "Poor." With respect to the articles used in the game, the ratings by students were as follows: 18% "Excellent"; 36% "Very Good"; 30% "Good"; 8% "Fair"; and 8% "Poor."

To assess the level of critical thinking, Question 2 asked if the students agreed that it allowed them to practice such a skill. The mean response was 4 ($p<.0001$) asserting that the students agreed that it allowed for this type of thinking. This is further supported by one student who wrote, "It is a very good idea and forces you to think and use strategy." Another commented, "It made us think and I thought it was entertaining."

The responses to Questions 5 and 6, which address softer skills such as interpersonal and verbal skills, generated means of 3.68 and 3.77, respectively. Again, these means are statistically different from the neutral response at $p<.0001$ level.

Principles of marketing students

To demonstrate the applicability of the game to business classes in the core curriculum, the game also was played in two sections of a Principles of Marketing class. In this setting, the majority of the 38 students expressed that it was a positive learning approach. Responses to Question 1 included: "It was insightful. Made me realize just how much each separate business subject is connected." "The game was a fun, interactive, friendly-competitive way to emphasize and explore the interactions between marketing and business as a whole!" A third student noted, "I think the game helped review all of the topics we covered in class." Again, using t-tests assuming unequal variances, the students' level of agreement for Questions 2-7 is found in Table 5.

Table 5: Results of T-Tests for Debriefing Questions 2-7 from Principles of Marketing Students

Level of Agreement
(1=Strongly disagree; 2 = Disagree; 3 = Neutral; 4=Agree; 5 = Strongly Agree)

Question #	N	Mean	Std Dev	t Value	p-value
2. The game allowed me to practice my critical thinking skills.	38	4.11	.69	8.19	<.0001
3. The game provided me with a broad perspective of the functional areas of business.	37	4.13	.56	9.19	<.0001
4. The game helped me to understand the inter-relationships among functional areas.	38	4.18	.75	8.43	<.0001
5. The game allowed me to practice my oral communication skills.	38	3.97	.57	7.97	<.0001
6. The game allowed me to practice my interpersonal and teamwork skills.	38	4.16	.62	9.04	<.0001
7. The game helped me to gain a better understanding of the business world.	38	4.08	.83	7.29	<.0001

With respect to student interest, 29% of the students ranked the game as "Excellent' while 34% rated it "Very Good." 24% rated the game "Good"; 13% "Fair"' and none "Poor." The students also assessed the articles used in the game – one from the *Wall Street Journal* and the other from the *New York Times*. The first article described alternative approaches to marketing at BMW (Rogers & White, 2014) and the second described the new product mix at Lego (Schmidt, 2014). With respect to the articles used in the game, the ratings by students were as follows: 26% "Excellent"; 40% "Very Good"; 26% "Good"; 8% "Fair"; and none "Poor."

Overall, as one can see from the above feedback and results presented in Table 5, the responses in the sophomore-level Principles of Marketing classes were even more favorable than the ones in the freshmen Introduction to Business courses, possibly indicating students appreciate the use of the game more with greater exposure to business disciplines.

CONCLUSION

The paper describes a game approach to understand the cross-functional integration of business disciplines. Taken together, these findings indicate that the goals of showing the connections among business disciplines, making an interesting learning activity, and improving on critical thinking and interpersonal skills were met. As discussed above, understanding the integration of business disciplines is knowledge that students should possess prior to entering the workforce. Indeed, it appears that this game is effective in facilitating student learning. Critical thinking, active learning, communication and interpersonal skills are other important educational benefits from this classroom tool. Using a game can make learning fun and is a "win-win" situation for all involved. Future research on the effectiveness of this business game will explore whether the game retains its effectiveness when executed with advanced business students in other function-specific business core courses.

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Grant Writing as a Pedagogical Tool

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ABSTRACT

While most students attending a college or university can recognize the need to be trained in writing and research, the matter of tangibility comes into the picture more now than ever before. As students prepare to enter a hectic job market, more and more they will ask, "how will learning this help my resume stand out?" Students can be provided with professional communication skills without compromising academic content through an exercise in grant writing, which encompasses research, writing, and document layout. I discuss the value of a grant writing project in the classroom and how it can be implemented into the undergraduate classroom.

Keywords: grant writing; information literacy; document production

INTRODUCTION

The recent push for vocationally-relevant learning experiences in the college classroom has raised the question, "which pedagogical strategies will make the student a more marketable candidate for employment?" While this question echoes through college and university campuses, faculty must contend with the core curriculum and maintaining an academically rigorous curriculum. How does one continue to incorporate writing and literacy skills in a climate where qualification outweighs learning for learning's sake? The answer lies in grant writing: a method of requesting funding for a project through a written proposal. Many college faculty members seek out grants for equipment upgrades, funding extensive research projects, or to aid in travel to professional development venues. It is rare, however, that students are acquainted with the benefits of mastering the art of grant writing. Grant writing can serve as an excellent means for providing students with practice in traditional academic skills while providing them with a professional credential that can help qualify them for jobs, enhance their academic pursuits, and hone in technological aptitudes that are applicable to the business professions.

GRANT WRITING AND ACADEMIC COMPETENCIES

Grant writing can act as a forum for teaching basic professional communication skills that are seldom included in the general education curriculum, despite their importance in the workplace. First and foremost, this includes the ability to write for business purposes, rather than composition. Grant writing in the classroom aligns to Janet Emig's (1977) statements about writing process-and-product, and how writing can serve as an integrative medium of expression. This style of writing, while foreign to some students, is usually embraced because of its direct and succinct nature. Rather than trying to impress the reader with a sophisticated use of language, the student can focus on getting their idea across quickly and clearly. As Gholipour, Lee, and Warfield point out, "a good grant proposal should communicate clearly by being (1) easy to read, (2) concise, and (3) attractive" (2014, p. 1512). This requires the student to be organized and learn what to leave out of their prose, as opposed to composition assignments where they are often encouraged to strive for length and depth. Most undergraduates are required to enroll in a composition course that usually revolves around the writing of multi-paragraph research papers. While such courses in writing are valuable, students do not often appreciate them, as they do not have direct applicability to one's resume. Since most freshman-level writing courses focus on compositional writing, this project acquaints students with a style of writing that will generally be more prevalent in their professional career.

An additional area in which grant writing can assist is the development of research skills, which tend to be tailored to a specific academic discipline or geared toward a specific scholarly endeavor. By requiring students to seek out travel directions, lodging, subsistence, and correlations to their academic program, they must be able to apply information literacy skills, such as Internet research, to a project that has more urgency and relies on precision a lot more than a research paper would. For the introductory course in computer literacy, this is a novel opportunity to expose students to web browsing, word processing, downloading, and document production.

Due to the on setting pervasiveness of computing, it is becoming something of an expectation that students possess word processing skills such as font selection, margin setting, use of headings, and the development of tables and

charts. This expectation has resulted in such fundamentals no longer being taught in much depth, if at all. A grant proposal, unlike most composition papers, is a business document. Much like a memo or a legal brief, proper formatting and use of text is essential to achieve a professional appearance. Further, such skills are often taught in conjunction with a software program, such as *Microsoft Word* or *Corel WordPerfect*. Thus, the instructional focus is on the development of technique, not the acquisition of document production skills. The grant writing exercise will allow students to gain practice in word processing skills by requiring them to properly format a cover page, make use of different fonts, and format tables and charts as needed. It also allows them to practice pagination and outputting a document into multiple formats, such as the Portable Document File format (.pdf). For decades, the ability to create a document that is professional in appearance is an important skill that is necessary for the business world. As Bowman and Renshaw (1989) pointed out:

> "Appearance is one of the factors that determines how much attention a particular message receives. The appearance of the document contains a metamessage about the competence of the sender and the sender's organization. The *neater* the document, the competent the sender seems to be" (p. 60).

Insofar as document formatting fundamentals are important, students are not expected to prepare sophisticated graphic designs. Having a basic understanding of font selection, margins, and the creation of tables and charts is a good start for preparing a grant proposal.

For this exercise, the student is given a small but realistic scenario for which they must seek grant funding, such as travel support to attend a conference. While small in scope, this type of grant will acquaint the student with the various elements of a grant proposal, while not being overloaded with a large proposal requirement. Further, since this type of grant falls under the category of "career development grant" (Gholipour, Lee, & Warfield, 2014), the usefulness of the assignment will be higher. Students are supplied with a "conference brochure," usually relating to their field of study, that contains the conference date, location, registration information, and other pertinent details. The students must begin by examining their own qualifications by preparing a project narrative statement that explains their progress toward their degree, including any relevant extra-curricular activities or volunteerism. Using the college catalog, they must correlate the experience to their program of study in an effort to prove it is a worthwhile venture, and consequently, worthy of funding. Using the Internet, students must chart directions from the college campus to the venue, with which they will request mileage remuneration. Further, they must find a hotel within the proximity of the venue and price a room for the duration of the event, factoring in related costs such as parking and meals. Finally, as an exercise in demonstrating one's qualifications, the students are required to attach their resume to the proposal. Students are graded based upon the written quality of the prose, the professional appearance of the document, and the compelling argument they make in the proposal.

ASSESSMENT OF GRANT PROPOSALS

The assessment of the final deliverable is best accomplished using a rubric that clearly delineates expectations in regard to content and quality. This provides value beyond aiding the instructor in providing a comprehensive assessment of the document. The *Journal of Business and Educational Leadership* argues, "When a project is assigned and the specific criteria for success are spelled out at the same time, student know even before they begin work what is expected of them" (Makani-Lim, Agee, Wu, & Easter, 2014, p. 7). The grant proposals are assessed using an analytic, standards-based rubric. The following scoring domains are included on the rubric:

Narrative Summary – The narrative summary succinctly outlines the breadth of the proposal, what is being requested, and why.
Statement of Need – The statement of need specifically describes what is being requested. It is specific, compelling, and vivid without being overly detailed.
Objectives – The objectives list what is to be gained from the experience requiring grant funding (in this case, is attendance at a conference.) The objectives are clearly stated, measurable, and relevant to the rest of the proposal.
Statement of Significance – The statement of significance shows how this proposal correlates to the "big picture" of the requestor's professional growth within their field of study. It should be clearly written and correlate to the statement of need.

Budget Summary – The budget summary lists all planned expenditures, such as a registration fee, mileage, subsistence, and lodging. This summary should account for all monies to be spent and show the relation of all expenditures to the overall purpose of the proposal. Thus, specificity is essential.
Supporting Documentation – The supporting documentation includes, but is not limited to, the requestor's resume, a mileage summary, registration form, and hotel reservation. This documentation should provide legitimate and clear evidence of the validity of the proposal.

By using a rubric to assess the grant proposals, assessment can be aligned to the three dimensions of learner generated content, which include **content, format, and process.** (Pérez-Mateo, Maina, Guitert, and Romero, 2011). The content of the grants should be assessed for the student's ability to make a compelling case for funding that is backed up by thorough argument and supporting documentation. Being a formal business document, the rubric should also look at the format, or, the student's ability to structure the document, its printed layout and professional use of word processing techniques. Finally, the processes of reflection, research, and synergy of resources should also be a factor in the final assessment.

See an example of the grading rubric on the next page.

OUTCOMES OF THE EXERCISE

The purpose of assigning the grant writing project is to provide students with practice in the rudimentary elements of writing, research, and computer literacy while instilling in them a professional skill that can prove to be useful within their professional careers. By assigning this project, the following outcomes are kept in mind:

1. **Students will see the value of writing in a professional capacity.** By gaining practice in a style of writing that has clear connection to the professions, students will feel more motivated to hone in their writing abilities and work toward perfecting their skills.
2. **Students will be able to develop research skills that can be utilized for business and professional purposes.** Much of the information literacy skills presented within the general education curriculum are focused on the acquisition of knowledge for an academic artifact, such as a composition paper. Research need not be a monkish activity, but a process that will help advance one's careers and add more value to their writing and, resultantly, their professional reputations.
3. **Students will be briefed in fundamental computing skills that are essential for success in college and the workforce.** In many cases where students are taught document production skills, they are taught in conjunction with a specific generation of a program, such *Microsoft Word 2013*. As a result, the skills are not taught as formatting skills, whereas they are simply used as "props" to demonstrate a software technique. In this exercise, students can receive direct instruction of word processing skills that can be applied to any program at any point in time.
4. **Students will gain a professional competency that will aid in their marketability as a job candidate.** Regardless of one's field of study, the need to seek and obtain funding for projects is a valuable skill. By acquainting students with this process, they will then be able to list it on their resumes and set them apart from other applicants for a position.
5. **Students will feel more empowered to complete professional-quality work within their academic careers.** By acquainting students with the grant writing process, they can now realize just how boundless their work can become. Realizing that they can seek funding sources for projects, or travel support to gain additional training, students will begin to hold their work at a higher regard and turn a classroom assignment into a professional artifact that could lead to employment.

It should also be noted that the process of grant writing can serve as an excellent means for students to appraise their own accomplishments. In writing a "narrative statement," students must think about their own qualifications in regards to their major: courses taken, club participation, awards received, and what efforts they have taken to advance their knowledge. While this method of reflection may seem unfamiliar to students, many find that they have accomplished more than they had originally thought.

Figure 1: The Grant Project Rubric

Component	Outstanding (3 points)	Satisfactory (2 points)	Unsatisfactory (1 points)	Not Attempted (0 points)
Narrative Summary	Succinctly outlines the breadth of the proposal. Includes what is being requested and why.	Provides minimal perspective of the proposed activity. Leaves out several details.	Provides very little perspective of the proposed activity. Leaves out many critical details.	Does not provide any insight into the nature of the proposal.
Statement of Need	Specifically and compellingly describes what is being requested without being verbose.	Describes need without being specific enough or using vivid language (or) prose is overly wordy.	Provides a very weak case for grant funding, does not articulate need in a compelling manner, (or) too wordy.	Does not make a case for what is needed and how grant funding will satisfy the need.
Objectives	Provides at least four objectives that are clearly stated, measurable, and relevant.	Provides 2-3 objectives that are somewhat clear, measurable, and moderately relevant.	Provides 1-2 objectives that are not written clearly, are not measurable or entirely relevant.	Provides no objectives or the objectives have no relevance to the rest of the proposal.
Statement of Significance	Clearly explains the impact of this proposal and the benefits that would come from funding.	Provides some explanation of the proposal's impact and potential benefits of funding.	Provides a short explanation of the proposal's impact. Does not discuss potential benefits.	Provides no explanation of the proposal's potential impact or benefits of the proposal.
Resume	Provides relevant information that helps demonstrate the qualifications of the requestor.	Information provided is somewhat helpful and sheds light on the requestor's qualifications.	Information provided is not relevant and barely sheds light on the requestor's qualifications.	Did not attach a resume.
Mileage Summary	Provides a computer-generated mileage calculation with directions and a map printout.	Provides directions and a map printout without calculating the mileage.	Provides only directions (or) only a map printout.	Did not attach any mileage documentation.
Lodging Information	Provides specific information on a hotel, the cost for a room per night and subsistence costs.	Provides somewhat specific details on hotel and subsistence costs.	Provides vague information on hotel and subsistence costs.	Did not attach any lodging information.
Document Formatting	Document closely adheres to standard formatting conventions for grant writing and all text is formatted properly.	Document is nearly formatted properly and text has very few formatting errors.	Document formatting has multiple flaws and text is not formatted properly.	Document does not adhere to the specified format and text is not formatted properly.
Writing Quality	Sentences are clear and succinct, use of language is professional and no mechanical errors exist in the document.	Sentence structure has minor errors, language choice is acceptable (or) document has several mechanical errors.	Sentence structure has major errors, language choice is not at the professional level and document has multiple errors.	Writing is illegible, word choice and sentence structure is poor, and the document was not proofread for errors.
Professionalism	Document was submitted on time with all required information appended	Document was submitted close to the deadline with all (or most) of the required information appended.	Document was submitted late (or) is missing most of the required information.	Document was submitted late and is missing nearly all of the required information.

Several weeks after the grant writing project, students were requested to provide feedback on their grant writing experience. A triangulation of data was utilized to gain understanding of student benefit from a project in grant writing, which included qualitative reflection through an open-form opinionnaire (Best & Kahn, 1993); quantitive data in the form of a Likert scale that analyzed the project's usefulness in various academic areas; and an artifact assessment, which was the instructor's assessment of the grant proposals.

Several students remarked on the on the benefit of the grant writing project in terms of providing a forum for critical self-reflection.

> "…it helped me learn to be more critical towards my skills and capabilities."
>
> "It helped me to see where I am at, and what I can improve on such as management skills."
>
> "Reflecting on my own skills and experiences was helpful because it helped me remember things about myself that I tend to forget."

Other students commented on the project's benefit in regards to helping develop professional writing skills.

> "This project provided real-life writing and information-gathering experience that will be useful for future education and/or careers"
>
> "This project helped me refine my formal writing skills and persuasive ability."
>
> "It helped with my knowledge of business writing."

Using a Likert scale, students were asked to rate the grant writing project in terms of how helpful it was toward the four major elements of the project. The scale was numbered 1-5, with 5 being that the project was very helpful with this area, and 1 being no help at all.

Figure 2: Quantitative Data

Perceived Usefulness of Grant Writing Project					
Element	**1**	**2**	**3**	**4**	**5**
Document Formatting				75%	25%
Basic Internet Research			37.5%	25%	37.5%
Business Writing				50%	50%
Self-Reflection			25%	12%	62%

CONCLUSION

Finding the balance between content that is academic versus content that is vocational is a challenging endeavor. We want our students to have a strong foundation of writing and research skills, yet, we also want to provide them with as many practical experiences as possible. By implementing a grant writing project, the need to address the core curricular subjects is met while helping students develop a valuable skill for the professional sector. This project helps students to apply a range of skills presented within the general education curriculum, such as research, word processing, and writing. It also provides students with an excellent opportunity to reflect on their own accomplishments and articulate them in writing. Grant writing is a valuable skill for students in any field of study, and can be used to provide purpose and incentive for mastering the basic nuances of the core curriculum.

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That's a Wrap: Evaluating Different Methods for Creating Video Lectures

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ABSTRACT

The ease-of-use and availability of video technology is a powerful tool. Video lectures relax some of the in-person constraints of distance and time, but instructors without prior experience can face difficulties incorporating these lectures into their courses. This paper examines the advantages and disadvantages of different methods of choosing or creating lecture videos and offers recommendations for each method. In addition, the paper describes several best practices for creating videos based on first-hand experience.

Keywords: Video lectures, online learning, hybrid class, flipped classroom, student engagement

INTRODUCTION

The demand for online instruction (Capra, 2011), hybrid classes (El Mansour & Mupinga, 2007), and "flipping the classroom" has increased dramatically in the past few years (see Bergmann & Sams, 2012, and Hamdam et al., 2013). These new methods have allowed instructors to reach out to new students, introduce new pedagogy, and reinvent classroom activities (see Fulton, 2012, and Berrett, 2012). They have also provided students flexibility in scheduling study time and given them control over the speed of course content (Baker, 2012). However, moving instruction out of the classroom has also led to new challenges (Bichsel, 2013). Instead of choosing a small set of questions to put into a homework assignment, instructors are now struggling to find or create a new set of active learning problems and cases that will engage students during classroom hours (Freeman, et al., 2014). In place of answering student questions during office hours, instructors are now struggling to give students sufficient one-on-one time in the classroom, without depriving other students of needed help. Carefully preparing and delivering a lecture has been replaced with trying to decide whether to find a set of pre-recoded video lectures or to make them. Where instructors were trying to keep students awake in class, instructors are now trying to motivate students to watch the assigned videos and read the assigned chapters of the textbook (Silverthorn, 2006). Many instructors today learned from the proverbial "sage on the stage," consequently the shift away from lectures in class and keeping students engaged in video lectures online is challenging (King, 1993). In this paper we address one of these challenges by discussing methods for replacing or supplementing in-class lectures with video lectures.

Many options exist for instructors to create or share videos with their students. However, determining which option is best for a given class or teaching style can be daunting. The wrong choice can lead to frustrations for both the instructor and the students, reducing engagement and retention while undermining the purpose for the shift to online, hybrid, or flipped classes. For example, students at some universities feel that they are entitled to current instruction from their assigned instructor. These students view videos created by other instructors or textbook authors as laziness or "cheating" by their instructor, even when the instructor has spent hours carefully compiling a set of videos that will teach the course material effectively. Other students are excited by the opportunity to hear from someone other than the assigned instructor, leaving them open to videos from other sources and frustrated when they hear from only one person.

In addition to the difficulties in matching video style to student attitudes and learning style, the options for creating or sharing videos can discourage faculty members, especially those with little or no experience with the necessary technology. These instructors find it difficult to give up their traditional lecture style. Finding a method for creating videos that makes instructors comfortable is as important as providing videos that match students' learning style. Students learn best from instructors that enjoy teaching, not from those that force themselves to use the newest and most exciting technology just for the sake of the technology.

In this article, we will discuss the importance of finding a good fit for the videos that instructors use in their courses, then discuss four methods for providing video lectures for an online, hybrid, or flipped course and the pros and cons of each method. Finally, we offer some tips and ideas for integrating video lectures into a class. Our goal is to

provide those considering whether to integrate videos into their courses with enough information to decide which option will best match their style and their students' needs.

THE IMPORTANCE OF FINDING A GOOD FIT WITH COURSE VIDEOS

Determining how to best integrate video lectures into a course can be one of the most frustrating challenges for instructors moving away from a traditional course. There are a myriad of options available that provide similar benefits and must be considered carefully. There are high expectations for course content from students and institutions. In addition, as instructors, we often pressure ourselves to use "trendy" videos in order to hold our students' attention. These expectations make it difficult to generate a set of video lectures for a course.

One of the authors dealt with this issue when a friend decided to reuse a course that had been recorded by the author. The new instructor changed very little, even using the videos created by the author. When the author had taught the class, the evaluations were high, but the new instructor struggled with the students and the course. The students constantly wondered why they were being taught by one instructor (the one who made the videos) and evaluated by another instructor. By the end of the semester, everyone was frustrated, and the student evaluations reflected that frustration. Unfortunately, this instructor used the experience as an excuse to walk away from technology and continue the "sage on the stage" style of teaching.

Rather than use what another instructor has created or provided, most instructors would benefit from answering three simple questions about themselves and their courses. Those answers provide an effective roadmap for how to proceed:

First, why do you want to incorporate video lectures into your course? Some instructors provide videos to highlight recent events or to provide a different perspective to the one already shared in the traditional lecture. For these instructors, videos created by others are typically more effective than instructor-created videos. Other instructors want to provide help on specific problems or concepts that they have noticed students struggling with in the past. These instructors might benefit from a few short videos provided by the textbook authors or by creating concise videos of their own. Still other instructors want to flip their class or are preparing for an online class. These instructors need to choose a method that will allow them to provide their students with a full set of video lectures that will replace the in-class lectures.

Second, how much time do you have available for incorporating these videos? Some methods of incorporating videos, such as choosing videos created by others or making quick videos that answer specific questions, take little time. Other methods, such as recording full length lectures in a recording studio or creating a set of short lecture segments, may require several hours per video. Instructors rushed to prepare a new online class will probably be better off creating a set of recorded PowerPoint® slides originally and then creating a set of video lectures for the next time.

Third, do you intend to change or update the videos? Some course material remains relatively static over time, allowing you to create a set of videos and use them for several years. For example, basic statistical methods or the foundations of accounting, which the authors teach, have not changed in decades. Instructors with this type of material can create carefully crafted videos that take a lot of time and effort. Other course materials are based on current events or on rules and methods that consistently change, such as marketing techniques or information systems. Instructors with this type of material will want to use faster recording techniques to avoid putting too much time into videos that will have to be replaced every semester.

Once instructors consider these three questions and their implications for their classes, they can move on to choosing the best method for providing videos for each course. In the next sections, we discuss the four general methods for creating videos along with the pros and cons for each.

METHOD 1 – USING VIDEOS FROM ANOTHER SOURCE

The easiest method for providing video lectures for a course is to not create them. Many instructors have already published videos on YouTube™ and many textbooks include a set of videos with the instructor resources. With this plethora of videos available, instructors uncomfortable with the idea of recording themselves or with the technology

required to create videos, as well as those who do not have the time available to create an effective set of videos, can simply use those already available.

Pros

There are four main benefits to this first method. First, using videos already prepared by others saves time and energy. Creating videos can be time consuming, especially if you choose to record and edit your work. Not only do you need to spend time preparing the materials, but you must learn the technology and do the recording. Using videos already available avoids this time commitment. Second, this method allows instructors to choose professional looking videos. Most instructors are not actors, directors, or film editors. Thus, our videos are not going to look like professional movies. However, some videos available through publishers or YouTube™ do look like professionally-produced videos because of the time and resources available to those who created the videos. Third, this method allows instructors to mix and match recordings to provide students with the best video, method, and discussion available on each topic. Fourth, this method allows instructors to easily provide materials that emphasize, extend, or provide additional examples of concepts discussed in-class, giving students a broader perspective.

Cons

Despite the benefits videos prepared by others provide, there are problems with this option. First, students want to be taught by the instructor of record. Not only does this connect them with their instructor, but it also makes them feel that we are doing our jobs. Carefully vetting the many options available to find the best videos available does not count as really teaching the course in the eyes of some students. Only actual lectures in the classroom or videos prepared by the instructor satisfy this student need, so using videos prepared by others can lead to student frustration and lower teaching evaluations. Second, it can be difficult to find videos that match either your teaching style or the content to be covered. Some videos go too far, others not far enough. Either way, it can make the process difficult and time consuming. Third, a selection of videos created by others will not have the same coherence and consistency as instructor-created videos. Even if the instructor chooses one set of videos, such as those provided by the textbook, those videos will not integrate perfectly with the course schedule, assignments, projects, or exams, and that gap can be frustrating to students.

Recommendation

This method works best for instructors who want to provide some additional resources to their students, but who do not have the time, experience or resources to create their own videos. We recommend using it as one part of a traditional class with traditional lectures.

METHOD 2 – RECORDING YOUR CLASSES

The next method for providing videos is for the instructor to record in-class lectures. With the addition of a microphone and a video camera, this can be a relatively easy process. Many universities even have classrooms set up to record lectures. Often the classroom has microphones for both instructor and students, video cameras that capture the instructor, the students, and the desktop, as well as computer programs that integrate everything. But just a high resolution video camera and a good microphone can provide adequate videos, especially with a little editing.

Pros

There are three main benefits to this method. First, because instructors capture their own lectures, this method is relatively easy and requires little extra time. Because most of us already feel like we are performing for our students, or at least maintaining a professional presence and atmosphere in our classroom, no special adjustments need to be made to existing lecture materials. Also, if you choose to use your lectures as recorded (i.e. without editing) no time is required outside of class to create the videos.

Second, recording the classroom gives the students watching the videos a sense of community. Many online students feel disconnected, as if they are doing the work on their own instead of being part of a class. Using classroom lectures reduces that feeling, because these videos make students feel that they are part of the class they are watching. The student-instructor interaction, and the instructor's more natural lecture style in an actual class, contribute to students feeling like active participants instead of passive observers.

Third, watching a classroom experience allows students to hear actual discussion between their instructor and other students. They hear questions from the class and the instructor's answers, as well as active discussions about course material, and the asides that many instructors add as part of a fluid classroom discussion. Just hearing the instructor talk without student interaction can seem sterile or boring, so using the more dynamic setting of an actual classroom can improve your videos dramatically.

Cons

Despite the benefits of creating classroom videos, there are challenges with this option. First, the students are often self-conscious during the recording process. That self-consciousness can lead to less discussion, fewer questions, and lower teaching evaluations. One of the authors had this experience the first time he flipped a class. It took extra effort to generate discussion, and he often had to restate questions or comments because many students did not speak loudly enough to be captured by the recording equipment.

Second, the instructor is often also uncomfortable or self-conscious during the recording process. Instructor self-consciousness can be overcome eventually, in the same way we get over the fear of being in front of a classroom, but it takes extra effort and can lead to some odd behaviors. For example, one of the authors had the opportunity to record several courses using a university recording studio. In addition to the cameras, the students, and the video monitors showing what was being recorded, the studio also included a small window immediately across from the podium that allowed a technician to look into the classroom during the recording process. When creating this window, the university decided to use one-way glass, so the instructor was watching himself in a mirror throughout the recording process. This led, partially by choice and partially subconsciously, to the instructor lecturing off to one side of the podium, using a clicker to advance slides and keeping his head down when he did have to be at the podium. While the recordings still worked, they looked a little strange because of the instructor's efforts to avoid seeing himself in a mirror.

Third, it can be difficult to capture the video. For example, instructors have to either stand in one place to be captured by the video camera or having a TA, technician, or colleague follow the instructor with the video camera as he or she moves around. In addition, without the proper software to capture audio, video, and the computer screen at the same time, it can be difficult to integrate PowerPoint® slides, Excel® examples, and other materials into the video and audio feeds. While some video cameras do have the resolution to capture anything projected to the front of the classroom, the contrast between projector and instructor can cause lighting issues and other challenges with the videos, especially when no one is available to assist in controlling the camera while the instructor is teaching.

Fourth, recording an entire class results in long videos that are difficult to maintain, download, or stream. In addition, even with modern editing software, these videos can be difficult to edit because of their size and because it is challenging to keep them from looking "choppy."

Recommendation

Classroom recording works best for those new to creating videos, because it provides them with the comfort of making videos in their normal teaching environment. It also works well for those who are creating an online class instead of "flipping" their classes since it provides a sense of community for those who will not be with their instructor in the classroom. We recommend using it for the first time you record a course, for busy instructors who lack time beyond their normal teaching schedule, or for those who do not plan to edit or redo lectures.

METHOD 3 – RECORDING STUDIO-STYLE LECTURES

The next method for providing videos for a course is to record the lectures in an office or recording studio, and talking to the camera as if to a class. Each video includes a full lecture, matching closely with what the instructor would do in a normal classroom. This type of video is typically made using the technology available in a university recording studio or created as a PowerPoint® voice over.[1] When recorded in a studio, the final video has an image

[1] While a PowerPoint® voiceover is the most common method for creating these videos, there are many other software options available. Some, like Camtasia®, allow the user to record video, audio, and the computer screen and provide a full range of editing options as well as options for saving the final product as an MP4 and for
(footnote continued bottom of next page)

of the instructor, the computer monitor, and a white board or document camera. When recorded using a PowerPoint® voice over, the final video consists of the slides and the instructor's voice.

Pros

There are five main benefits to this method. First, these videos are probably the easiest to create. Because the basic lecture follows what the instructor would normally do in class, the instructor can use existing materials. Without students in the room, the instructor does not have to worry about interruptions while speaking or questions taking up time. The lecture is not dependent on student comments or interactions with the instructor, so the instructor can move forward without awkward pauses and without worrying about the quality of student responses. Finally, there is no need to edit the final product if you don't wish to spend the time doing so.

Second, without editing, the final videos give the students a more personal relationship with the instructor. Edited videos that are "perfect" often lack a personal dimension (in other words, the instructor is all business with none of the "play" that creates a personal connection with students). When the instructor records a full lecture, all of the normal stories and jokes that would be part of the normal class session can be told. In fact, many instructors add additional anecdotes or jokes because they are not limited to the time available in the classroom. In addition, the little mistakes or slips that normally occur make an instructor more of a "real person" in the final video. This benefit is shared with Method 2, recording live class sessions, but there is one additional benefit to studio-style recording. When recording a live class, the instructor gets one "take," so any mistakes or issues that occur will be part of the final video. When recording in a studio without a class, even if that studio is an office, the instructor can redo the lecture if necessary to improve the flow of information or to avoid making a significant mistake.

Third, the content is easier to follow in these videos for two important reasons. One, instructors can often make connections and keep key concepts and examples together more clearly than they can in the classroom because of the additional time available when recording. Two, if the recorded lectures don't flow well, then the instructor can quickly redo videos (an option not available in class).

Fourth, recording full lectures eliminates the need for multiple introductions and conclusions between shorter video segments, reducing the overall time needed for each topic area. This benefit is shared by both the instructor, who does not need to provide the content for these introductions and conclusions, and the students, who do not need to find the additional time necessary to watch these introductions and conclusions.

Fifth, sophisticated studio equipment records the audio separately from the video. One of the authors taught an online course where a few of the students wanted to listen to the audio during the commute to and from work. Because of the recording method used, he was able to publish an audio only version of his class. This version was also useful to students who had difficulty downloading the original videos because they exceeded the bandwidth available.

Cons

Despite the benefits of creating full lecture videos in a studio-style environment, there are problems with this option. First, many of the recording options for this type of video do not allow the instructor to edit the final product. While a few small mistakes or issues are endearing to students, large mistakes or confusing discussions frustrate students. In a classroom setting, an instructor carefully considers the effects of these mistakes and takes care to avoid them. If they do occur, a joke or apology can often cover these mistakes. In recorded lectures, however, students expect the instructor to correct significant mistakes before publishing the videos. For instructors with a tight schedule of grading, office hours, service, research, etc., having to re-record a lecture to remove a significant mistake can be frustrating. When using a university facility, the instructor may be limited by the time available to use the studio, making it even more difficult to re-record videos (finding a time to return, scheduling the room, etc.).

Second, most studio-style recording options pick up only specific aspects of the lecture. For example, PowerPoint® voice over will only pick up the slides and the instructor's voice, not other programs, such as Excel® or the Internet.

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uploading the video directly to YouTube™ or another server. Other options, such as Google On Air, provide fewer editing options but allow multiple users to attend (such as a TA or another instructor that can team teach or play the role of a student) and automatically save the final version directly to YouTube™ or other server.

If the instructor wants to record multiple programs or video and audio, then special recording software, such as Camtasia®, must be purchased and learned.

Third, when using a video camera, everything the instructor does will be recorded. If instructors makes a funny expression or scratch their noses, it will be seen by the students. In a traditional lecture those actions are part of normal behavior and are expected by students. However, when recorded those actions are now permanent, and tech savvy students can use them as jokes or publish them on social media. While we wish college students were more mature than that, it is a risk that the instructor runs when publishing an unedited video.

In addition to the problems for the instructor, this type of video also includes several challenges for the students. First, the file sizes tend to be very large. If the videos are published on YouTube™ size is less of an issue, but university servers often struggle with large files, making viewing slow (and frustrating) for students. Second, both this method and the recording your class method require the students to watch full lectures as if they were in class. For many students, this inflexibility is irritating. For most students, the greatest benefit of a flipped or online classroom is the ability to watch the videos when it is convenient. Longer video segments reduce flexibility because students must allocate large time blocks to watch each video. Third, these videos often seem impersonal to students, because they are just the instructor talking to the video camera or, even worse, using a voice over so that the student never even sees the instructor. While longer lectures feel more personal if jokes and comments are included, they still lack the intimacy that comes from in-person teaching.

Recommendation
Recording studio-style lectures works best for those instructors who are comfortable and experienced with their lecture materials, since they are unlikely to have to redo lectures to correct mistakes. It also works well for those without the time to create and edit multiple video segments. We recommend using this method when your university has an effective studio setup. For example, some universities pay a technician to work in their studio. These technicians can flip the recording back and forth between you, your slides, your whiteboard, etc. while you give your lecture, reducing the need to edit the videos. We also recommend using this method when the instructor has little time to produce or create a first set of videos. Because the instructor is giving the lectures in one large block, a little time to practice and review session notes then the time to actually do the recording are all that is required to finish a video.

METHOD 4 – RECORDING LECTURE SEGMENTS

The last method for providing videos for a course is to create and edit short videos segments. This style is based on research demonstrating that students can only concentrate for a short period of time before their mind wanders (Szpunar, Moulton, & Schacter 2013, and Ward & Wegner 2013). By providing several short videos, each focused on a specific conceptual element or problem, instructors can reduce the chance of students losing interest, falling asleep, or missing important information. These videos are typically created in an office or studio using, again, PowerPoint® voice overs or a video production software such as Camtasia®.

Pros
There are four main benefits to this method. First, each video segment is relatively short, making it easier to replace or edit each one. An instructor can re-create a 15 minute video more easily than a 50 or 75 minute lecture. An instructor using production software also benefits from a shorter format because the shorter videos are easier to edit. While full length lectures can also be edited using this type of software, the files are larger and more cumbersome to work with, making it difficult to retain consistency and coherence throughout the editing process.

Second, short video segments provide flexibility to change your lectures to match changes in economic factors, updated regulations, new discoveries, technological innovations, etc. Rather than redoing an entire lecture, you only replace or edit the appropriate segment. For example, one of the authors teaches accounting, and the accounting standards are constantly being updated or changed by the Financial Accounting Standards Board (FASB). When the FASB recently changed the rules for recording extraordinary items on the Income Statement, the author only had to make small changes to three video segments using an editing software and eliminated one segment that had focused on the old method. While a short transition segment had to be added to one of the videos, he didn't have to recreate a full length lecture.

Third, this method provides flexibility for students and for class structure. A flipped classroom or an online class allows students to watch or listen to the course content on their own schedule. Providing short videos allows students to easily fit viewing times into their schedule. Shorter segments can also improve content retention, because their duration allows students to refresh and prepare mentally between videos. Time commitment flexibility also makes it more likely that students will watch the videos. Of course, some students prefer longer videos, but many services, such as YouTube™, allow instructors to create playlists that transition automatically between the segments.

Fourth, shorter video segments allow each video to focus on a specific topic. Narrowing the scope of each video allows students to focus their attention on one or two concepts at a time, as well as making it easier for students to review material they struggle with. In addition, instructors using this style can easily create supplemental materials or additional examples that focus on those areas most challenging for students. For example, one semester after finishing up a lecture on a difficult concept in a traditional lecture, one of the authors discovered a more logical way to explain the concept. Because he could not go back and take additional class time on the topic due to a tight schedule, he created three short videos for those members of the class that still felt uncomfortable with the material.

Cons

Despite the appealing benefits of short videos, they have some drawbacks. First, they require more time for both instructors and students than other methods. For instructors, additional time is spent when creating the videos. The average time for creating a polished, well-edited 15-minute video using production software, such as Camtasia®, is about 3 hours. Each segment must be prepared, recorded, and edited. The video must be translated into an MP4 or similar format and uploaded to YouTube™ or other online platform. To create an entire course this way can take more than 300 hours. Of course, the time required to create each video is markedly less if the videos are created using PowerPoint® or another voice-over software that does not allow video editing, such as ScreenChomp. However, even with alternative software options, smaller segments typically take more time to create than longer videos because there is a propensity to keep rerecording and enhancing videos until they are perfect. After all, it only takes 10-15 minutes to record a short segment, so why not try again?

Second, shorter videos also require more student viewing time. When using short videos, instructors usually provide introductory and concluding comments in each video to connect the material within a chapter or topic. These transitions can add 3-4 minutes to each a video, which can add up to several hours over a semester. Because the summaries help students focus on the most important topics, they do not typically notice the additional time, but it is a factor to consider.

Third, short videos can become difficult to edit or recreate, not because of the video duration, but because of the previous time investment in each video. After taking three hours to plan, create, and edit each segment, it becomes your baby, and you do not want to change or delete it.

Fourth, it can be difficult to develop a personal rapport with the students using short videos. Like longer videos that are recorded alone in an office, these short videos are typically made by lecturing directly into a video camera. Using this method requires additional work to stay engaged and interested, to remember that you are talking with students and not technology, especially if you have had to record a segment multiple times. It is also challenging to remember what anecdotes or jokes, main points, and examples, have been used in earlier videos. Using editing software, you can remove needless duplication, but removing large segments of a video can disrupt the flow of the audio/visual track and leave you uncomfortable with the final product.

Recommendation

Recording short segments works best for those who have sufficient time to edit and create a set of permanent (or semi-permanent) videos. It is also a good choice for those interested in creating a library of videos covering challenging topics instead of a full set of course material. We recommend using this method if you are sure that you have the time and the resources necessary to complete the full series. While the other methods will work, we believe that this final method is the most effective for several reasons. First, this method has greater long-run efficiency, because you can edit individual segments as needed without recreating or rerecording entire lectures. Second, students prefer the shorter videos that are like the YouTube™ and other videos they watch on their own, making this method more acceptable to the audience. Third, with the proper software, this method allows instructors to add

emphasis to key points and topics within the videos and to highlight the most important topics as part of the regular transitions between segments, allowing repetition of key information without becoming boring.

IDEAS AND TIPS FOR CREATING VIDEOS

Each method we have discussed can work well for providing video lectures if the instructor invests the time to produce a quality product. After several years of creating and using videos, we have learned a few important lessons from the "school of hard knocks" about how to effectively create and use videos that apply to all four methods:

1. **Remember your audience.** The videos are meant for students, not other academics. Make sure that the videos deliver content at the appropriate level for the students being taught. Also, remember that students have other classes and commitments. Try to ensure that your students will spend no more time watching videos than they would have spent in class listening to a lecture. One author learned this the hard way the first time he recorded a class. He used a university studio and taught a class he had not taught before. The result was a set of videos that were technically the right length, but were so full of material delivered at such a rapid speed that the students had to spend twice as much time watching them as he intended. The outcome was unhappy students who had trouble learning the material.

2. **Prepare before you start.** Whether choosing videos or making videos, instructors should ensure that they have sufficient time to prepare. When choosing videos, instructors might want to list exactly what the students should get out of each video: content, examples, supplemental material, etc. Instructors also may consider how accessible the video is and if there is a cost associated with the videos. One of the authors chose to use a third party video to supplement his online summer class that had a cost per view. While the school paid for enough views for each student to see the video, some students failed to follow the instructions and watched the video multiple times, leaving too few views for the rest of the class. Finally, when picking a video, instructors should ensure that they are comfortable with the tone and methods being used. If the tone is condescending, demeaning, or boring, the students will blame the instructor for choosing the video, not the video's creator. Also, if the methods diverge from those used in class, be prepared to answer questions about the differences. You should provide justification for why students need to know both methods and what they can expect on exams.

   When creating videos, instructors should take time to review and edit PowerPoint® slides and other content to ensure that they are accurate and easy to use. Remember, anything published online is permanent, so do everything possible to reduce the chances of mistakes. Instructors should also walk through the calculations or other examples that will appear in the video and make sure their notes are in order and easily accessible before beginning to record. Taking time to refresh your memory and prepare your notes will ensure that you sound like the competent teacher you are, instead of like an actor that has forgotten his or her lines. Also, keep in mind that recording videos differs from teaching a class. While some small mistakes are forgivable, those watching videos want to see a good, well-organized video. They will not be as forgiving as students in the classroom. Student expectations have been set by their experience with YouTube™ and other video series, and because they know software exists to edit videos those expectations are high.

3. **Play around with the software.** When choosing videos, become comfortable with the platform students will use to access the videos (D2L®, YouTube™, etc.). Several questions should be considered: How will students get to each video? Is the service ever unavailable? Can the students speed up the videos? YouTube™, for example, allows viewers to speed up the videos to 1.5 or even 2 times the normal speed. Faster speed is not usually the best option for those learning the material, but it can be useful when reviewing the material. It may be worth mentioning to the class. Also, are alternative options available for accessing each video? What platform do the students prefer? What content is displayed with the videos (ads, pop-ups, etc.)? Considering these issues in advance will help you to choose videos that work well for your students, avoiding frustration later on.

   When creating videos, this tip is even more important. It is well worth the time to determine the basics, such as how to start and stop recording, how to switch between programs while recording (when applicable), how to emphasize key points, etc. In addition, it is also a good initial investment to learn about the editing tools available, to check out editing tips and hotkey lists, to ask a colleague for a brief

demonstration of how to use the software, and to watch videos on how to use the software (available for almost every program on YouTube™). Practice on a few early videos, and be ready to go back a recreate or reedit those videos when necessary (and it will be necessary). If recording in a studio, take time for at least one dry run to learn the limits of the cameras and how long it will take to transition between elements, such as moving from recording the computer screen to recording the whiteboard. A few minutes of practice and study at the beginning of the process can greatly speed up production later on.

4. **Decide on a theme and a style for your videos.** When choosing videos, instructors should try to find videos that match their style as closely as possible or that are so significantly different that they serve as a complement to what the instructor is doing with the students. When making videos, choose an introductory image or slide that students will come to recognize and decide how to start and end each session. Continuity and consistency help to give the class structure and help students transition back into learning mode as they start each video lecture.

   Habits or traditions within your video also help create a bond between the instructor and students, which is especially helpful when teaching an online class. One author ends each of his videos with "I'll see you next time! Thanks." Every video ends the same way, except for the final video of the semester. Recently he met one of his former students and, after talking with her for a few minutes he excused himself, and she used his phrase to say good-bye, wearing a huge smile on her face. It started a new, more personable conversation, as they built on the rapport generated by a simple, consistent phrase.

5. **Start with one course.** If you choose videos instead of creating them, it might be possible to add videos to multiple classes at once, but even then the process of adding videos to courses can be time consuming, and it is even more time consuming to create and edit the videos yourself. Instructor burn out or running out of time are common results. One of our colleagues got so excited about the ideas of flipping her classes that she started flipping two classes at the same time. They were similar classes, and she hoped creating the videos for both courses at the same time would create synergy and speed up the process. Unfortunately, about halfway through the semester she could no longer keep up with the video production, in class activities, office hours, research commitments, service obligations, and grading requirements that are part of a normal semester. She ended up having to stop flipping the more senior class and go back to a traditional style. It was depressing for her, because she felt she had failed, and it was frustrating for the students and they let her know about their frustrations in the course evaluations. If an instructor wants to add videos to multiple classes, we recommend picking one and getting those videos ready, then moving on to the next class. This process will save both time and energy, as well as resulting in a better product.

   Of course, sometimes instructors find themselves in the unfortunate position of needing multiple sets of videos at the same time. For example, some instructors are assigned to teach multiple online sections in the same semester. One author has experienced this more than once. Under these circumstances we recommend creating unedited, full-lecture sets of videos for each class. By eliminating the time required for editing and tying together multiple sections the time burden can be reduced, deadlines can be met, and all of the classes can continue to move forward without interruption. After creating the initial video sets, changes to flow, content, and organization, can be incorporated as time allows. If you choose to switch to a new set of videos, we recommend rolling out the new videos for each course as a whole rather than of replacing the original videos one by one. This method avoids gaps in the material and student frustration with different video styles.

6. **Do not stop!** Once an instructor starts using videos, he or she should keep moving forward and using the methods learned. If an instructor starts by adding one video created by someone else as a supplement to a traditional lecture, additional videos can be added as student needs are identified. If desired, the instructor can then begin creating videos, especially for those topics where he or she cannot find an appropriate video from a third party. Keep learning new tips and techniques and recreating the videos that can be improved. If an instructor starts with one class, these techniques can be adapted to other classes.

   Over time, instructors who continue to work on making or producing videos will typically find great success and satisfaction with the process. In addition, continuing to add videos will improve some of the courses you are assigned to teach dramatically. For example, one author had a course that he struggled to

teach for years. The students did not see the value of the material to their career goals and found the class boring and frustrating. While he tried various teaching techniques to encourage the students and to demonstrate the importance of the material for their long-term careers, the results were continually frustrating. Because of the difficulties he had, the author felt that the class was not a good candidate for video lectures. However, one summer he was assigned to teach the course online, requiring him to create a set of video lectures for the class. The shift from traditional lecture to videos allowed him to stop thinking about the lecture material and focus on discussions with the students. He invented new projects that applied the material learned to real world applications and eliminated elements of the class that were frustrating to everyone. He also created videos featuring actual professionals talking about how they used the content from the class in their careers. The results were immediate and impressive. The students were happier and more engaged, and the instructor was much more relaxed and enthusiastic as he focused on the "fun" application of the material rather than the rote lectures he had given for so long.

7. **Have fun!** Like all pedagogical innovations, adding video lectures can be a fulfilling experience that will improve student education and reenergize the instructor. If the instructor can focus on the fun of the project and play around with different choices or video styles, that enthusiasm will find its way to the students. One instructor we know chose a combination of selecting videos and making videos for his graduate class in order to teach students how to improve their writing and critical thinking skills. He chose to use YouTube™ clips from *You're a Good Man, Charlie Brown*, *Karate Kid*, *Scrooge*, *Fiddler on the Roof*, and other movies to engage his students in a topic that had been dreadfully boring in the classroom. In between each of these fun video segments, he added a short video of his own discussing what the fun videos demonstrated about writing and critical thinking, then introduced the next fun video by asking the students to watch how the video demonstrated a specific idea or concept. The result was a fun production process for the instructor and more engaged students. While the specifics of that process might not work in every course, the idea of weaving fun in with the lecture material can make videos, like in-class lectures, more enjoyable for everyone.

CONCLUSION

The use of video lectures, whether to supplement in-class lectures or replace them, is not going away. The students now entering our college and university classrooms, and those we will see in the future, are citizens of the digital age; using technology helps these students to become more engaged in learning. In addition, flipping and online classes are becoming a more important part of university teaching and learning because of restricted resources. With these pressures, it will become increasingly important for all of us to use videos to improve our classroom instruction. How you choose to incorporate video lectures, however, is up to you. There are many styles and methods available. The important thing is to choose a method and start incorporating it into your classes. As you do, you, and your students, will reap the benefits of the digital revolution.

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Learning Transferrable Competencies/Skills in the College Classroom

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ABSTRACT

Employers report current job applicants are critically lacking transferrable competencies and skills. Active learning in the college classroom can facilitate the development of these qualifications. This paper describes an active learning project where student teams (1) analyze and solve a unique problem, (2) write a paper, and (3) present an interactive training seminar to their peers. The project incorporates multiple transferrable competencies and skills, including creativity, problem solving, critical thinking, written, oral and interpersonal communication, collaboration, research, and evidence-based analysis, and can be easily modified for numerous university courses.

Keywords: active learning, critical thinking, college students, transferrable competencies

INTRODUCTION

In filling available jobs, hiring managers are seeking job applicants who have several types of qualifications. One is the ability to perform specific job tasks (e.g., balance accounts, purchase materials from vendors, conduct cost-benefit analyses). A second is the ability to use technology (e.g., track inventory, use an application program to assist in decision-making, develop social media to connect with customers). A third qualification for some positions is a specific certification/accreditation, license, and/or academic degree (e.g., police officers, public accountants, electricians, real estate agents, physical therapists, college professors). A fourth qualification is having experience or prior involvement with one or more job tasks. Finally, according to the majority of surveyed employers, the most important qualification is the ability to demonstrate transferrable competencies or skills, which can be defined as any skill that can be learned or developed in one context yet also be used in another environment (i.e., classroom/workplace or job/different job) (Noe, 2010; Jones & George, 2014). Examples of transferrable competencies/skills include the ability to analyze and solve problems, communicate, manage people, and think creatively (Adams, 2014).

PROBLEM

In spite of the recessionary recovery, along with a solid increase in job availability since 2008, and a significant number of people having earned college degrees, employers are experiencing difficulties in filling positions in their organizations. A survey by *The Wall Street Journal* ("Small Business CEO," 2014) found 33 percent of 848 small business owners, 37 percent of 270 service business employers, and 12 percent of manufacturing firms had open positions but could not find qualified applicants to fill them. In addition, a Harris Poll that was conducted in behalf of CareerBuilder indicated more than 50 percent of 1,025 employers surveyed online reported that job applicants for their organizations lacked the necessary qualifications to perform successfully in the work environment ("The Shocking Truth," 2014).

Interestingly, hiring managers looked for qualifications beyond work experience, certification, or job-specific ability to perform a particular job. According to a study of employers who were business owners, chief executive officers, presidents, and vice-presidents, several key findings were noted: (1) 95 percent indicated it is essential that applicants be innovative thinkers and doers; (2) 93 percent sought applicants who can demonstrate the ability to communicate effectively, critically analyze and diagnose situations, and solve complex problems; and (3) 90 percent described attractive job candidates as those who can exhibit ethical judgment, integrity, intercultural skills, and a readiness for continued learning. In summary, employers found it more important for job recruits to proficiently demonstrate a broad set of transferrable competencies/skills than merely to have earned undergraduate majors and degrees (Hart Research Associates, 2013).

Unfortunately, there is a significant gap between the skills employers want job seekers to have and the skills that they actually possess. Among journalists, employers, job seekers, scholars, and academia, there is a common

agreement of the existence of a major skill gap between employers and job applicants. Rampell (2013) of *The New York Times* identified it as a "mismatch between the requirements of the four million jobs available and the skills held by many of the 12 million unemployed" (para. 3). The skill gap is referenced by Peters and Wessel (2012) of *The Wall Street Journal* as a "big conundrum in today's labor market" (para. 4).

Ferguson, Hitt, and Tambe (2013) reported that due in large part to the skills gap, the unemployed often become frustrated in their search for a job, along with their enduring long waiting periods to hopefully hear feedback from employer interviews. As time progresses, and there is a minimum of employment activity, many job applicants cease looking for jobs, "… and in turn, aren't counted in the unemployment figures despite a desire (and personal need) to contribute to the economy. For all of these [unemployed], skills atrophy over time [makes] it more difficult to get back in the game" (p.4).

Finding ways to bridge the skills gap is an interest to many stakeholders, including, employers, job seekers, scholars, and professionals in academia. For example, employers can provide organizational training and assign mentors who can help develop new skills possibly needed by new hires in the workplace (Ferguson, Hitt, & Tambe, 2013).

Job seekers, too, can take initiative in developing their job skills by enrolling in seminars, classes, and volunteering for internships. Professionals in academics can work with greater diligence through various communication channels to gain a better understanding of the employability skills needed in the workplace and, in turn, change curriculum to more closely match employers' requested skills ("The Shocking Truth," 2014, p. 11).

Also, scholars and researchers can bring focus to potential ways of narrowing the skill gap. For example, Tulgan (2015), discussed bridging the gap through training individuals on revised "old-fashioned basics," while Wagner (2008) emphasized the importance of training individuals to freely ask questions that would encourage correct responses from the recipient. The correct responses would be instrumental for the trainees, who could then make better decisions.
Certainly, persons in academia and college instructors can also implement more active learning strategies in their schools and classroom, specifically designed to help students develop their transferrable competencies and skills. As instructors incorporate more experiential exercises, students gain experience and expertise, becoming more prepared to narrow the skills gap and meet the needs of their future employers.

ACTIVE LEARNING

Unlike passive learning, which results from traditional lecture-based instruction, active learning is a student-centered approach in which students engage in activities requiring the use of one or more "higher-order thinking tasks such as analysis, synthesis, and evaluation" (Bonwell & Eison, 1991, p. iii), all of which address "important learning outcomes" (Prince, 2004, p. 4). Fortunately, active learning strategies may accompany traditional lectures or serve as the primary course instructional method.

A plethora of research (Ausable, 1963; Springer, Stanne, & Donovan, 1999; Lumpe & Staver, 1995; Novak, 2002) affirm that active learning "can lead to increased motivation to learn, greater retention of knowledge, deeper understanding, and more positive attitudes toward the subject being taught" (Michael, 2006, p. 160). Additional advantages of active learning include students connecting classroom activities and learning goals with real life, improving their self-esteem, strengthening social interaction with their peers and authority figures, and appreciating the personal freedom to meet learning outcomes (Benefits of Active and Cooperative Learning, 2006). The active learning approach described in the following pages has the potential to incur all of these advantages.

TRAINING SEMINAR PROJECT

This project helps students learn and develop multiple transferrable competencies/skills and can be easily adapted for use in multiple classes. To begin, the instructor divides the class into teams of 4 to 6 students and assigns each group a unique problem related the course subject matter. Next, the instructor explains the three primary tasks of the project.

TASK 1: COLLECT AND ANALYZE INFORMATION

1). Research: Team members research details about their assigned problem by interviewing professionals, searching the Internet, and reviewing, newspaper and magazine articles. Members share their findings within the group and combine the most pertinent findings to provide a comprehensive description of the problem. In addition to the development of research skills, this task fosters students' ability to communicate and organize information, collaborate, and accept others as team contributors (Kember & Leung, 2005).

2). Analysis: Team members study the components of the problem, examine the potential effects of the interrelationships, and question various aspects of the problem by using a "what-if" analysis. This task requires students to explore and evaluate new solutions (Kember & Leung 2005), which improves their analytical/critical thinking skills. Other skills promoted in this task include listening to teammates as they communicate their analyses of the problem, offering feedback, and sharing ideas about alternate solutions to the problem based on criteria of feasibility, practicality, economics, while using ethical judgment and integrity (Jones & George, 2014).

3). Implementation of a Decision: After teammates have appraised the collected information and evaluated the alternatives, they begin working on reaching consensus regarding the most effective way to solve the team's problem. Members learn to circumvent obstacles that can thwart good decision-making, including biases, stereotyping, groupthink, and faulty perceptions (Jones & George, 2014). This process enables students to apply collaborative decision-making skills in their future workplace.

These initial research and discussion steps not only promote transferrable competencies/skills, but also help foster self-esteem, confidence, and positive attitudes toward the learning outcomes (Springer, Stanne, & Donovan, 1999).

TASK 2: WRITE AND REVISE DOCUMENTATION

1). Working Copy: Each team submits documentation of their principle findings, analysis, and solution to the problem. After reviewing this working draft, the instructor meets separately with each team to discuss the strengths and weakness of their copy. Members are encouraged to ask questions to clarify their understanding of the required writing assignment.

2). Revising Copy: Based on the instructor's comments, teams revise and resubmit their final paper.

Because this task requires student collaboration to organize notes and ideas in a clear, concise written format, as well as verbal communication with the instructor, it enhances multiple transferrable skills: critical thinking and decision-making, writing, editing, and revising documentation, collaboration, social interaction with peers and an authority figure, as well as accepting and responding to constructive feedback from an authority figure.

TASK 3: PLAN AND DELIVER TRAINING SEMINAR

1). Planning: Once working copy from each team has been submitted and accepted, the team begins planning activities designed to promote class participation.

2). Set-up: For approximately five minutes prior to the presentation, the team plays a selected piece of music in the background that relates to the content of their upcoming presentation. While music is playing, team members circulate about the classroom, greeting students and making light conversation. These tasks create a socially interactive and lively atmosphere where the trainees are encouraged to enjoy themselves.

3). Introducing Team Members: Team members introduce themselves and the training topic and then pose questions to determine participant knowledge of or experience with the topic. The use of these questions demonstrates the team's desire for class participation and identifies those with expertise, who may be called upon later to add opinions or further clarification during the presentation.

4). Presentation: Team members provide an overview of their agenda and then present a description of the problem assigned to them, their analysis process, and final decision/s on how to solve the problem. During the presentation,

team members incorporate four techniques (see below) to engage the student-audience in critical thinking, discussion, and an activity, all of which are designed to help the audience more clearly understand the training topic.

Questions/Rewards: Since an individual's attention span is approximately 15 minutes (Hartley & Davies, 1978), team members intersperse questions during the presentation to hold the interest of the student audience. When a peer responds to a question, the team rewards the participant with a quarter, a piece of gum or candy, or some inexpensive token. The reward not only motivates students to respond but also builds rapport and reinforces the positive atmosphere. As audience members become aware that questions are an integral part of the presentation, they tend to listen more attentively, so they can be prepared to respond in case a question is directed to them. Although team members may incorporate a few questions requiring a mere "yes" or "no" response, the majority of questions should be designed to encourage more critical commentary, such as: "How do you think this action was made possible in the first place?" or "In what ways do you think the organization should have reacted?" or "In your opinion, why would consumers respond in this manner?"

YouTube Video: In addition to posing questions to encourage audience discussion, the team also shares a brief YouTube video relevant to the presentation's theme. A YouTube video is typically an attention grabber with a quick message. Team members use the video as a means of motivating the student audience to react to it and learn more about the topic.

Stories: Another tool in acquiring and maintaining the attention of the audience is sharing a story that reinforces one or more themes of the presentation. The story may be based on a personal experience, documented in an article, or based on an interview with someone associated with the main topic of the presentation. When the audience hears the words, "Let me tell you a story about…," they generally take immediate notice. Follow-up questions encourage participants to critique what they heard, as well as share their own related stories, which makes the content more personally relevant and meaningful to them.

Activity: A fourth motivational tool that a team uses is an innovative game-like exercise. Engagement in the exercise is a means of learning by doing, which enhances the audience's understanding of the team's topic. Some examples include: break-out groups, role plays, cross word puzzles, jeopardy games, or physically competitive games. At the completion of the exercise, team members lead the student audience in a debriefing about how the exercise reinforced the training topic.

6). Quiz: Next, team members divide the student audience into pairs and administer a short quiz. Working in pairs minimizes stress as students share in recalling specific information from the presentation. The quiz may be multiple-choice, fill in the blank, matching, or a combination of any of these. Once everyone has completed the quiz, student-pairs exchange papers with other student-pairs. A team member leads students in sharing their answers to the questions and self-grading the quizzes.

Student-pairs who make a perfect score receive some type of reward from the presenting team (e.g., gum, candy, packets of popcorn). The quiz reinforces the importance of group work, tests conceptual understanding of the training topic, and provides team members with a measure of how well they advanced their audience's knowledge of the assigned problem.

7). Summary: Team members conclude by playing the music used at the beginning of their presentation and highlighting the main topics of their presentation. This final review reinforces the primary take-away thoughts for audience.

CONCLUSION

There is widespread pessimism about the availability of high quality employment today and job growth in the future. Evidence suggests, however, that there are sufficient good-paying jobs and promising possibilities in the future. The real problem, according to employers, is that job seekers commonly lack transferrable competencies and skills, such as leadership, ability to work in a team, problem solving, critical thinking, written and oral communication, applied knowledge, interpersonal communication, research and evidence-based analysis. To address this deficit, college instructors need to implement more active learning exercises to help students develop these skills.

The training seminar project described in this paper illustrates an active learning project that has been implemented in a college course entitled "Fundamentals of Management" for several semesters. The project consists of multiple exercises, including student teams assessing, researching and analyzing a problem, writing a detailed paper describing a viable solution to the problem, and then presenting the content in a training seminar to their classmates. During the presentation, the audience is actively engaged in answering questions, discussing a YouTube video, reacting to a story-telling activity, and participating in an exercise. The overall purpose of the team presentations and the audience participation is to provide all class members with a meaningful opportunity to gain experience in and further develop those transferable competencies and skills employers claim current job applicants lack. Being equipped with these skills will help our students close the gap between employers who have available jobs and job applicants seeking to fill those positions.

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Using Branded Online Peer-to-Peer Fundraising Platforms for Client-Based Projects

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ABSTRACT

Experiential business project assignments, particularly client-based group projects, are often used to help students develop the appropriate business skills and encourage them to engage the material more deeply. Unfortunately, client-based projects have significant drawbacks that often preclude their use in introductory marketing courses. This article describes a client-based project (P2P client-based project) that utilizes branded online peer-to-peer fundraising platforms of non-profit charity organizations. Among the major advantages of this project over other client-based projects is that it provides a service learning opportunity, encourages a high level of engagement, and reduces much to the administrative burden on the instructor.

Keywords: Client-based project, Experiential learning, Peer-to-peer fundraising

INTRODUCTION

Hiring managers and business leaders have long bemoaned that many college graduates entering the business world lack critical thinking skills, the ability to apply knowledge, and the soft skills necessary to interact with others (Bennis & O'Toole, 2005; Korn, 2012). Experiential business project assignments, particularly client-based group projects, have been used to help students develop these skills and encourage them to engage the material more deeply (Calco & Veeck, 2015; Hunt & Laverie, 2004). Unfortunately, client-based projects have significant drawbacks that often preclude their use—particularly in introductory marketing courses that can be large, and have students of varied interest and knowledge levels. This article describes a client-based project that utilizes branded online peer-to-peer fundraising platforms of non-profit charity organizations.

This peer-to-peer fundraising client-based project (P2P client-based project) was developed in an effort to provide an experiential learning activity that would appeal to students of varied backgrounds, interests, and majors enrolled in an undergraduate introductory to marketing course. The project utilizes the existing fundraising infrastructure of charity organizations, called branded online peer-to-peer fundraising platforms, as a means to track team outcomes. These online platforms allow individuals to fundraise on behalf of the charity organization through a personalized webpage integrated seamlessly with the charity's website (detailed information about this type of fundraising is provided in the upcoming section). The P2P client-based project has a number of advantages: 1) it allows students to apply marketing concepts in a real-world situation and experience tangible results; 2) the P2P client-based project provides a service learning opportunity and shows students (particularly non-business majors) that marketing can be used outside of the consumer product and service marketplace—to advance social good; 3) it allows enough flexibility for students to not only find a client that is relevant to them, but one about which they can be passionate; and 4) it can be administered with less burden on the instructor than traditional client-based projects.

BACKGROUND

Client-based projects allow students to observe, experience, and apply the core concepts of a course (Glick, 2013); lead to the development of critical thinking skills (Devasagayam & Taran, 2009); and enhance leadership skills (Facca-Miess, 2015). This type of project helps immerse students in the material in a "real world" context; and "places the responsibility of learning upon the student—producing student motivation and accountability that transcends traditional boundaries of pedagogy" (Devasagayam & Taran, 2009, p. 28). Students who participate in such projects should be "motivated by intrinsic rewards such as job responsibility, decision making, and authority" (Barram, 2011, p. 108).

Unfortunately, significant barriers exist for the effective implementation and use of client-based projects. Most notably, they require significant commitment on the part of the instructor who must often establish and manage relationships with clients that may have competing interests (the operation of their business versus the learning objectives of the project) or misguided expectations (i.e. free labor). Selecting an appropriate client is a critical

decision and has significant effect on the learning experience for the student and the overall success of the project. The instructor must balance the needs of both the students and the clients—ensuring that the students receive a quality learning experience while ensuring that the quality and content of the work is responsive to the client's needs (Gilbert, 2014). Clients must be willing to commit appropriate time and resources to the class and remain engaged throughout the process (Gilbert, 2014). The client must also be willing to disclose financial and strategic information that may be propriety or confidential in order for students to provide a comprehensive analysis and informed recommendations (Gundala, Singh, & Baldwin, 2014).

For students, the most common complaints tend to be the limited timeframe (often one term) in which the project must be completed (Razzouk, Seitz, & Rizkallah, 2003); and the process of learning while doing (Razzouk et al., 2003). Students may be too grade oriented, distracted by group dynamics, and fail to fully benefit from the "real world" experience (Gilbert, 2014). In addition, students (particularly non-marketing majors) may not find the client, or project, relevant and thus be less likely to fully engage the project (Grau & Akin, 2011).

Not unlike other client-based projects, the P2P client-based project requires that students work in conjunction with a real client to address an actual marketing issue. However, the P2P client-based project is unique in that it utilizes the branded online peer-to-peer fundraising platform of an established charity. Rather than just act as marketing consultants, students are required to plan, execute, evaluate, and report outcomes on a plan to raise money for a public charity (the client). A 501(c)(3) registered public charity organization with a branded online team peer-to-peer fundraising platform is a very unique and specific type of project client with significant advantages over other clients.

Using charity organizations as clients allows students to experience firsthand how marketing principles can be applied outside of the consumer products and services marketplace with which they are more accustom; in addition with over 1.5 million 501(c)(3) public charities registered in the United States, students can choose a cause (or "client") that is relevant to them and thus increase the likelihood that they will remain engaged throughout the project. Public charities also tend to publish significantly more information that might be closely guarded by private firms. Raising funds is a common problem for public charities and as with for-profit firms, generating revenue is often the ultimate goal of marketing activities. By tasking students to actually raise funds, they are able to see the effects of their marketing efforts and use the "scorecard" of business—revenue. Many charities have a developed infrastructure and a number of tools available to aid supporters in the fund raising process. Peer-to-peer fundraising has grown in popularity in recent years and is the chief tool that allows this project to be administered.

Peer-to-peer fundraising occurs when the supporters of a charity raise money from their peers on the organization's behalf. The organization provides motivation and guidance, as well as tools for supporters to create their own personal fundraising effort (Castillo, Petrie, & Wardell, 2014; Saxton & Wang, 2014). Peer-to-peer fundraising is often seen in the form of *campaigns*, *personal events/challenges*, or *activities* (Wu, 2015). *Campaigns* run for a fixed period of time and supporters of the charity aim to meet personal fundraising goals in an effort to meet the charity's overall goal. For example, the Juvenile Diabetes Research Foundation (http://team.jdrf.org/campaigns/) encourages supporters to join their fundraising effort during National Diabetes Awareness Month in November. *Personal events/challenges* focus on individual accomplishments such as a particular event (e.g. anniversary or graduation) or a challenge (e.g. climbing a mountain or growing facial hair). The Movember Foundation (https://us.movember.com/get-involved/moustaches) uses this format during its Moustaches in Movember campaign where men are encouraged to grow facial hair in conjunction with their fundraising. *Activities* typically consist of a physical challenge such as a marathon or walkathon for which supporters fundraise in order to participate. The American Cancer Society (http://relay.acsevents.org/), for example, hosts Relay for Life events annually throughout the country and supporters are asked to raise money in order to participate.

The proliferation of the internet and increased participation in online social media by the general public has resulted in a significant increase in the use of online peer-to-peer fundraising by many nonprofit organizations (Castillo et al., 2014). Over $22 billion was donated online in 2010, of which a significant portion was raised through peer-to-peer solicitation (Castillo et al., 2014). The online tools available through many charities allow anyone to see the progress of any given fundraiser and thus makes the fund raising and financial transactions more transparent. While online peer-to-peer fundraising can be done in many different ways, typically, a supporter signs up (an individual or as a part of a team) online as a fundraiser for the organization. The organization then provides the donation infrastructure, a personalized fundraising webpage, motivation, and support. The fundraiser establishes a goal and

solicits friends, family, and others in their social network to donate to the organization through their personalized webpage. The fundraiser can also raise money offline and use social media to promote the cause.

Branded online peer-to-peer fundraising platforms should not be confused with crowdfunding sites such as gofundme.com, causes.com, or crowdrise.com where most anyone can create an account to raise money. Often the funds collected through these sites go directly to the account creator who is then expected to donate to the proper cause or "do good" with the funds. Like many crowdfunding platforms, most anyone can create an account on a branded online peer-to-peer fundraising platform; however, unlike crowdfunding sites, the platform is hosted on the charity organization's website and all funds donated online go directly to the charity.

PROJECT DESIGN

The following elements of design are based on Volkema's (2010) guidelines for designing effective projects. The design elements include: 1) project identification, 2) project scope and focus, 3) team composition, 4) team leadership, 5) course content, 6) content delivery, and 7) evaluation.

Project identification

Among the first steps for designing an effective client-based project is the identification of a client and the negotiation of the project agreement. The project can be identified and selected by the instructor, the student, or by collaboration of the two. That is, the instructor may identify the client, and negotiate the project; the instructor may identify the client, but allow the students to negotiate the project; or the students may identify the client and negotiate the project. As students assume more responsibility for identifying the project, they tend to take greater ownership of it and may be more motivated throughout the project (Volkema, 2010). However, because of their lack of experience and knowledge, the task of doing so may consume valuable time that might otherwise be spent on the actual project and frustrate students searching for eligible clients.

The P2P client-based project allows student teams to choose any 501(c)(3) registered public charity organization with a branded online team peer-to-peer fundraising platform as their client. As previously noted, the vast array of potential charity clients from which to choose increases the likelihood that students can find a cause (or "client") that is relevant and thus keep them engaged. The project is structured so that students do not need significant access to the client organization, and neither the students or instructor need to negotiate access or scope with the client. Charities with a branded online peer-to-peer fundraising platform are likely to provide significant resources for its supporters, including form letters, press releases, and media kits.

Project focus and scope

Project focus defines the problem to be addressed for the client by the project—the core capabilities of the class and client need must be balanced when negotiating project focus. Scope, on the other hand, refers to the extent to which the problem will be addressed; that is, the level of involvement and execution that should be expected of the class. Negotiating project scope often entails a trade-off between time (student, instructor, and client) and human resources. As noted by Volkema (2010, p. 533), "The ideal project, of course, is one that both takes advantage of the unique expertise of project members and meets the most critical needs of the client".

The client need (the need to raise funds) remains relatively stable, thus, the need to negotiate this portion of the project is eliminated. The focus of the project can be further refined to match the capabilities and goals of the class by adjusting the assignments. The P2P client-based project was initially developed for an introduction to marketing course where students were required to develop a marketing plan in conjunction with their fundraising efforts. However, this project can be easily modified for use in other marketing or management courses. For example, rather than developing a marketing plan, an advertising course may require the development of a promotions plan; a management course may require the development strategic plan, or an organizational behavior class may concentrate on the group dynamics of the various teams.

The P2P client-based project addresses many of the issues identified by Volkema (2010) as a problem with scope. Because the project relies on the use of the existing peer-to-peer fundraising platform of the nonprofit client organization and the problem to be addressed is predefined, significantly less time is required of the instructor to set-up and maintain the project and there is virtually no time commitment on the part of the client. Another common concern with many client-based projects is that students are restricted to an advisory role and are left wondering if,

when, and how their recommendations may have been implemented. Even when involved with the execution of their recommendations they are often unable to see the ultimate outcome of their work due to the time limitations of the academic term. With little or no responsibility to report to the client, the timeframe required to run the project can be easily adjusted to run for just part of a term or be continued over multiple terms and even multiple courses. In addition, students can see directly the effects of their fund raising efforts and end the project knowing the final outcome.

The size and composition of teams

Research on group projects suggest the use of teams with 3 to 5 members (Volkema, 2010). Having too few members risk not being able to provide a true team experience (especially if a team member drops out), while having too many members could cause communication breakdowns, social alienation, subgroup formation, and freeloading. In addition to determining the size of the team, the manner in which the teams are composed must be addressed. Teams can be composed in one of three ways: 1) the instructor assigns team members (either randomly, or using some set criteria); 2) students form teams on their own; or 3) team leaders are identified who subsequently choose or "draft" members for their team. The P2P client-based project can be done with teams of any number or composition and there are no restrictions on the number of teams that the project can handle.

Team leadership

Leadership may be formally assigned or develop informally. The leadership role may be held by one individual throughout the entirety of the project, rotated, shared with another individual or shared among all members to form a self-directed team. The P2P client-based project lends itself to any one of these models of team leadership. At the very least a team spokesperson or point-of-contact should be identified to facilitate efficient communication with the instructor.

Course content

The P2P client-based project was designed with the introduction to marketing course in mind. For the initial implementation of the project (conducted in the fall semester of 2014), teams of 4-5 students acted as fundraising consultants to a real non-profit organization. The goal was for each team to develop, execute, and evaluate a marketing plan. The marketing plan was broken down into smaller interim assignments submitted throughout the semester. A sample of the interim assignments follows, but as previously stated, the assignments can be modified to meet the goals and objectives of a variety of courses.

Assignment 1: Client (Charity) selection – Each team must identify the members of the team, team point-of-contact, as well as identify and research the charity of choice. The research must include a description of the cause that the charity organization champions as well as the organization itself—its history, mission, organizational structure, and past performance. For example, students choosing the American Diabetes Association as their client must not only report on the organization itself, but also the cause—the fight against diabetes.

Assignment 2: Strategic Planning-part A (Strengths & Weaknesses) – Each team must assess the strengths and weaknesses of the situation. Teams are asked to address the strengths and weaknesses of their team, the charity organization, and the cause.

Assignment 3: Strategic Planning-part B (Opportunities & Threats) – In a similar manner as Assignment 2, each team must assess the opportunities and threats of the situation. Teams are asked to address the opportunities and threats of their team, the charity organization, and the cause. This allows students to consider the SWOT analysis at multiple levels.

Assignment 4: Strategic Planning-part C (Mission & Goals) – Having assessed the situation for the team and the charity organization, each team must develop a team mission statement that aligns with the mission of the charity organization and establish a fundraising goal. Based on the situation analysis, mission, and stated fundraising goal, the team must establish a series of fundraising events and/or activities to solicit donations to reach their goal. Fund raising activities could include any activity to drive donations—activities could be meant to encourage supporters to donate through the online peer-to-peer fundraising platform (e.g., a letter writing campaign, social media blitz, participation in the charity's pre-established event such as a walk-a-thon, run, or rally) or solicit donations offline (e.g., a carwash, benefit function, or donation table).

Assignment 5: Segmenting & Targeting Markets – For this assignment, each team must segment the market of potential donors and identify the target market for their efforts.

Assignment 6: Promotional Planning – Each team is tasked to develop a promotions plan to include how each of the following would (or would not) be used: advertising, publicity/PR, personal selling, sales promotion and social media.

Assignment 7: Progress Report & Team Peer Evaluation – Parts 1 through 6 of the P2P client-based project are predominately planning phases. While students were allowed to begin the execution of their fundraising efforts at any time, they were cautioned to be sure that all parts of the plan were in alignment and properly integrated. This assignment allows the individual team members to evaluate one another and make any final modifications or adjustments to the marketing plan or fund raising goal.

Assignment 8: Final Report & Evaluation – A written final report is submitted by each team. The report should include an executive summary, completed marketing plan, discussion and an evaluation of all fundraising efforts, and evaluation of the team. Each team must do an in-class oral presentation summarizing the final report. This allows teams to share their experiences with the class and learn from one another. Any offline donations are required to be donated to the charity through the online P2P platform by the submission of the final report. The funds reported in the final report are verified by the instructor by reviewing the publicly available team fundraising page.

Content delivery

As a learning exercise, there are two primary concerns regarding the delivery of course material: 1) when should the skills needed to execute the project be taught? and 2) how can these skills best be developed? In order to have a successful project, students must apply skills and knowledge; however, the goal of the project is to teach the skills and knowledge necessary. Thus, learning and doing must often occur simultaneously. Course content can be delivered in a variety of ways with the P2P client-based project. The instructor may chose to focus first on content delivery and then project execution, or to deliver the content throughout the duration of the project in a just-in-time manner.

During the first implementation of this project, the first half of the term was dedicated to intensive engagement of the subject matter (in this case the marketing plan) and planning. The second half of the term was dedicated to the execution of the marketing plan and more in-depth study of select topics in marketing (e.g. ethical and social responsibility, international marketing, consumer behavior, and product development). Additional instruction relevant to the project and its execution was delivered throughout the semester on a just-in-time basis.

Student project evaluation

As with most team-based projects, students can be evaluated a number of ways—evaluation can be based on knowledge and skills gained by the individual student, the process of completing the project, or project outcomes. For the P2P client-based project, students are required to take individual exams throughout the term based on the concepts emphasized in the course. Individuals are also evaluated by teammates throughout the term. Teams are evaluated based on the interim assignments submitted throughout the semester, as well as, the final report and presentation. Teams are also evaluated on the attainment of their fundraising goal, but it is worth noting that teams should not be evaluated simply on the amount of money raised. Evaluating teams based solely on the total amount of donations raised would not be equitable since teams and charities organizations will have different situations. Rather, teams are evaluated on the appropriateness of their goal (not too low so that it is easily met nor too high as to be unattainable) and the actions taken to reach the goal. Extra credit or bonus points may be given for the most dollar amount raised or percentage of goal met. In addition, each team is evaluated by the class during the final presentation. Thus, multiple opportunities for evaluation exist.

DISCUSSION AND CONCLUSION

The P2P client-based project was developed in an effort to provide students with diverse backgrounds, experiences, and knowledge levels a hands-on experience in an introductory to marketing course—experiential learning is often posited as the primary means of doing so. Clark, King, and Jurn (2012, p. 265) define experiential learning as "an action strategy where the student is directly in touch with real things and people or is involved in activities that simulate real activities or people." This is consistent with Kolb's suggestion that "knowledge results from the combination of grasping and transforming experience" (1984, p. 41). The benefits of experiential learning have been well documented in business education literature—it encourages higher order thinking among students (Hunt & Laverie, 2004); offers greater cognition than conventional lecture (Gilbert, 2014); influences personal, as well as professional growth; and enhances student ability to perform as a part of a team (Facca-Miess, 2015).

Skilton, Forsyth, and White (2008) find that most experiential business project assignments can be classified as *abstract*, *realistic*, or *real-life*. The development of a marketing plan based on a case-study of a fictitious or real (but distant) organization is perhaps the most common *abstract project* assignment and basic form of experiential learning. Devasagayam & Taran (2009) suggests that such case-study based projects are insufficient to motivate students to achieve deep learning and don't foster the development of critical thinking and skills sought by today's managers. *Realistic projects* tend to be more complex and include such activities as computer-based simulations and entrepreneurial pitch presentations. These projects provide feedback or consequences based on student decisions, allow students to integrate knowledge, and may provide greater motivation as the project may be more personally relevant; however, like simple *abstract projects*, realistic projects are limited by academic constraints (e.g. course length, size, schedule) and elicit behavior in artificial situations (Glick 2013; Skilton, Forsyth, and White 2008). *Real-life projects* (i.e. client-based projects) provide the most challenge to students as they are often complex, may not be fully defined, and have many elements with ambiguous relations (Skilton, Forsyth, and White 2008). These projects provide the immersion of students in business to provide opportunities to apply knowledge and theory as well as develop critical thinking and soft skills. However, as previously noted, a number of barriers exist to the effective implementation and use of client-based projects. The P2P client-based project discussed in this article provides the benefits of a *real-life* client-based project while reducing complicating issues normally associated with such projects.

For its first run, the project was integrated into two sections of an introduction to marketing course at a mid-sized regional university in the southeastern United States. Ninety-four students worked in groups of 3-4 to form 28 teams across the two sections during the 16 week semester. Teams were allowed to choose any 501(c)(3) public charity with its own branded online peer-to-peer fundraising platform. A total of eighteen charities representing a variety of causes were selected as a project client; however, the Wounded Warrior Project proved to be the most popular for this project with four teams choosing it as the client (see table 1).

Teams executed a variety of on- and off-campus fundraisers—the most popular of which included car washes, email campaigns, bake sales, raffles, yard sales, and donation tables. Some of the more unique activities included a gospel concert, toilet seat toss, bicycle rodeo, a stationary bike riding marathon, and bagging groceries for tips at a local grocery store. Teams established fundraising goals ranging from $100 to $1,000 (mean = $286). One team failed to complete the project and raise any funds whatsoever. The average amount actually raised among the 27 active teams was $173.73—ranging from $38.05 to $400. A total of $4,690.83 was raised for 17 charity organizations.

A project evaluation by the students was overwhelmingly positive and suggest that the project was effective as a hands-on learning experience. Further feedback suggests that some students may have become too focused on fundraising efforts and that the goal of the project—the application of course principles—could have been reinforced more strongly throughout the semester. Several others commented that more detailed instruction was needed; however, as previously noted, real-life projects are effective experiential learning tools, in part, because of their complexity, ambiguous relations, and requirement that students think critically (Skilton, Forsyth, and White 2008). But, because real-life projects may be unfamiliar to some students, great care should be taken to explain the process and expectations to students at the beginning of the semester.

In addition to providing the benefits of a real-life client-based project while reducing the administrative burdens associated with such projects, the P2P client-based project incorporates a service learning component that shows the value of service, that demonstrates marketing can be responsible, and challenges students to think critically (Barram,

2011). While initially developed for an introduction to marketing course, the project can be adapted for a variety of marketing and management courses.

Table 1: Team Fundraising Results

Team	Goal	Funds raised
National Breast Cancer Foundation Inc (Team a)	$300.00	$400.00
American Cancer Society (Team b)	$1,000.00	$389.87
National Breast Cancer Foundation Inc (Team b)	$200.00	$300.00
Homes for our Troops	$350.00	$290.00
National Multiple Sclerosis Society	$100.00	$255.47
ALS Association (Team c)	$500.00	$254.00
Breast Cancer Research Foundation	$225.00	$243.00
Save the Children (Team c)	$200.00	$220.00
ALS Association (Team b)	$300.00	$212.00
Save the Children (Team b)	$200.00	$193.00
American Red Cross (Team a)	$200.00	$178.00
Save the Children (Team a)	$400.00	$170.00
The Movember Foundation	$150.00	$164.00
American Cancer Society (Team a)	$500.00	$149.51
Wounded Warrior Project (Team b)	$200.00	$147.00
ALS Association (Team a)	$300.00	$140.00
Juvenile Diabetes Research Foundation	$250.00	$138.50
Wounded Warrior Project (Team d)	$100.00	$130.11
Michael J. Fox Foundation for Parkinson's Research	$150.00	$130.00
Rape, Abuse & Incest National Network	$900.00	$100.00
Sickle Cell Disease Association of America	$100.00	$100.00
American Red Cross (Team b)	$100.00	$90.00
Wounded Warrior Project (Team c)	$100.00	$82.82
United States Children Emergency Fund	$100.00	$80.00
American Society for the Prevention of Cruelty to Animals	$500.00	$51.00
Ronald McDonald House Charities	$200.00	$44.50
Wounded Warrior Project (Team a)	$100.00	$38.05
Oxfam America	$0.00	$0.00
TOTAL	**$7,725.00**	**$4,690.83**
MEAN	**$286.11**	**$173.73**
MAXIMUM	**$1,000.00**	**$400.00**
MINIMUM	**$100.00**	**$38.05**

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Assessing Global Awareness in Undergraduate Introductory Business Finance Course with a Reading Assignment of Wall Street Journal Articles

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ABSTRACT

In light of the recent emphasis on globalization and technological skills in business education, this paper provides an example of how Global Awareness can be accessed in a finance course required of every undergraduate business student. International aspects of the financial management are likely not covered in detail (or not covered at all) in an introductory business finance course among most business programs nationwide. In the meantime, this course itself may be the only required finance course in most business schools' core curricula. The method described in this paper offers an alternative to assess students' global awareness with a *Wall Street Journal* reading assignment without allocating much of the seat time in a semester. In addition, the implementation of the assessment activities is not complex either. Overall, the results of this assessment have indicated that the level of students' global awareness is satisfactory.

Keywords: undergraduate business student; global awareness assessment; business finance

INTRODUCTION

In light of the recent emphasis on globalization and technological skills in business education, a reading assignment of students' global awareness was given to undergraduate students enrolled in Business Finance in the fall semester of 2010. The university was a state-supported four-year institution located in the south region of the United States, and its business program has been accredited by The Association to Advance Collegiate Schools of Business International (AACSB International) since June 2013. The instructional delivery mode of the course was web-enhanced, and the assignment itself was given online through Blackboard. The web-enhanced instruction mode referred to the course delivery method of having all course materials online, with multifaceted applications of Internet-based technologies applied, while no seat time was reduced.

Although the assessment was conducted five years ago, the implications remain pertinent today. International aspects of the financial management are unlikely to be covered in detail (or not covered at all) in this introductory business finance course among most business programs nationwide. In the meantime, the course itself may be the only compulsory finance course in most business schools' core curricula. The method described in this paper provides an alternative to assess students' global awareness without allocating much of the seat time. The aims of this paper are twofold: (1) The author presents the method of how to access the global awareness in a finance course required of each undergraduate business student; (2) the author analyzes the assessment outcomes and the implications.

THE READING ASSIGNMENT OF THE GLOBAL AWARENESS ASSESSMENT

How Was the Global Awareness Assessment Conducted?

The reading assignment was posted to Blackboard at the beginning of the semester along with the four selected *Wall Street Journal* articles. It was stipulated in the syllabus that a student's grade on the Global Awareness Assignment would carry four percent weights towards his or her final course average. Students' written answers to the questions posted in Table 2 below were the assessment data collected by the end of the fall semester of 2010 through Blackboard.

The Grading Rubric of the Assignment

As part of the learning outcome assessments required in the initial AACSB International accreditation process, the Assurance of Learning (*AOL*) committee of the College of Business made the decision during the fall semester of 2009, planning to conduct the Global Awareness assessment during the fall semester of 2010 in the core business course at upper level, *FIN 3713,* Business Finance. It was decided that the grading rubric of this assessment was to be the same as that of assessing university-wide students' learning outcomes of Global and Cultural Perspectives. In addition, the committee set the target that at least 65% of the students assessed would perform at the Proficient level

or better on the university's rubric. The university's rubric of Global and Cultural Perspectives was available online through the following *Uniform Resource Locator* (*URL*): http://uafs.edu/sites/default/files/Departments/SLO/ulo_global_cultural.pdf. Table 1 contains the requirements of the Proficient level as listed in the rubric.

Table 1: The Rubric of the Proficient Level

Element	Proficient
Objective Statement 1: Students will demonstrate an understanding of their discipline in a global environment and apply the principles of their discipline within a global environment.	
1a) Discipline functions in a global environment	Articulates how the discipline is practiced in at least two other cultures.
1b) Applications of principles in a global environment	Applies the principles of the discipline in a manner that is culturally responsive to at least two other cultures.
Objective Statement 2: Students will demonstrate how their discipline impacts or is impacted by those of different cultures.	
2a) Impact of values within a culture	Articulates in *appropriate detail* how the practice and application of their discipline impacts those of other cultures.
2b) Impact of values on other cultures	Articulates in *appropriate detail* how the practice and application of their discipline is impacted by those of other cultures.

In order to assist students in their understanding of the global awareness as it was reflected in the discipline of finance, the author prepared four questions in the reading assignment. These questions were corresponding to each of the four sub-objective statements listed in Table 1. Using the university's rubric, students' learning outcomes were assessed by the author's grading of their written answers to these four questions contained in Table 2 below.

Table 2: The Questions Contained in the Reading Assignment

1. How does the discipline of finance function in a global environment? Please articulate how the discipline is practiced in at least two different cultures.
2. How would you go about to apply the principles of finance that you have learned in a global environment? Please apply the principles of finance in a manner that is culturally responsive to at least two different cultures.
3. How does the discipline of finance impact values in the U.S. culture? Give examples. In addition, please articulate *in appropriate detail* how the practice and the application of the discipline of finance in the U.S. impact those of other cultures.
4. How does the discipline of finance impact on values in other cultures? Give examples. In addition, please articulate *in appropriate detail* how the practice and the application of the discipline of finance are impacted by those of other cultures.

Why Were *Wall Street Journal* Articles Used?

The financial market conditions and the structure of U.S. financial system are constantly changing. *The Wall Street Journal* is, therefore, an important part of the class, as it describes and discusses many of these changes. It is the author's belief that undergraduate business students should have daily access to the Journal, so they can keep current with regard to the changing and evolving financial landscape.

Why Were These Four Articles Selected?

The author has been a regular reader of the Journal since he was a doctoral student. For the reasons stated above, it was natural to think of utilizing the Journal articles in conducting this assessment. Several months prior to the start of the fall semester of 2010, the author began to work on the article selections as part of the course preparatory process of FIN 3713. These four articles were published in the Journal between May 11, 2010 and September 29, 2010. The selection criteria were as follows: (1) Students' reading of the article would help them answer the questions listed in Table 2; (2) the length of each article was appropriate due in particular to the fact that international aspects of the financial management would not be covered in detail in this course; hence, the number of words contained in each selected article was limited between 750 and 1,200. The author felt hopeful that students'

reading of these articles would provide a springboard for provoking their interests and thoughts in global and cultural perspectives of business finance. These four selected *Wall Street Journal* articles were:
EU Bailout Sparks New Challenge: Reining In Free-Spending Countries
In Africa, Google Sows Seeds for Future Growth
Ecuador Renegotiates with Foreign Oil Firms
Currency Wars: A Fight to Be Weaker

The Seat Time Spent in Discussing the Assignment
Approximately, three weeks prior to the due date of this reading assignment, one class session of 75 minutes was spent in discussing it along with answering questions raised by students. Prior to this particular class session, the following concepts and topics had been covered in the semester:

1. Finance is, truly, the cornerstone of the free enterprise system. Good financial management is therefore vitally important to the economic health of business firms, hence to the nation and the world.
2. Financial Statement Analyses
3. Cash Flows
4. U.S. Corporate Taxable Incomes
5. Time Value of Money
6. Bond Valuation
7. Stock Valuation

During this class session, the author gave an overview of currency exchange rates. Corporations and individual investors alike expect to receive cash flows from investments made overseas. However, these cash flows will be in a foreign currency and thus will be of relatively little use to the investor if they cannot be converted into the investor's domestic currency. The nature of risks in an international financial setting takes one new dimension. The additional risk of foreign investment arises from uncertainties associated with converting these foreign cash flows into domestic currency, which is known as the exchange rate risk. In addition, suggested reading of these selected articles was provided to help students answer each of the four questions listed in the assignment. Table 3 contains the list of the suggested reading.

Table 3. Suggested Reading of Selected Articles

Questions	Suggested Reading of Selected Articles
1. How does the discipline of finance function in a global environment? Please articulate how the discipline is practiced in at least two different cultures.	*Ecuador Renegotiates with Foreign Oil Firms; In Africa, Google Sows Seeds for Future Growth*
2. How would you go about to apply the principles of finance that you have learned in a global environment? Please apply the principles of finance in a manner that is culturally responsive to at least two different cultures.	*In Africa, Google Sows Seeds for Future Growth; EU Bailout Sparks New Challenge: Reining In Free-Spending Countries*
3. How does the discipline of finance impact values in the U.S. culture? Give examples. In addition, please articulate *in appropriate detail* how the practice and the application of the discipline of finance in the U.S. impact those of other cultures.	*In Africa, Google Sows Seeds for Future Growth; Currency Wars: A Fight to Be Weaker*
4. How does the discipline of finance impact on values in other cultures? Give examples. In addition, please articulate *in appropriate detail* how the practice and the application of the discipline of finance are impacted by those of other cultures.	*EU Bailout Sparks New Challenge: Reining In Free-Spending Countries; Currency Wars: A Fight to Be Weaker*

EVIDENCE FROM UNDERGRADUATE BUSINESS STUDENTS

The Summary Statistics of the Assessment
The author was teaching three sections of FIN 3713 in the fall semester of 2010. There were 68 students enrolled in these sections, and 59 of them participated in the assessment. Thus, the participation rate was approximately 87%. Except Objective 2b) listed in Table 1, 65% or more students performed at or above the Proficient level. Meanwhile, nearly thirty-four percent of the students performed at or above the Proficient level of Objective 2b).

Overall, the results of this assessment reflected that the level of students' global awareness was satisfactory. Table 4 contains the pertinent summary statistics of the assessment.

Table 4: Summary Statistics of the Assessment Results

	Objective 1a)		**Objective 1b)**		**Objective 2a)**		**Objective 2b)**	
	The Number of Students and the Proportion		The Number of Students and the Proportion		The Number of Students and the Proportion		The Number of Students and the Proportion	
Below Expectation	7	11.86%	9	15.25%	11	18.64%	26	44.07%
Developing	3	5.08%	5	8.47%	8	13.56%	13	22.03%
Proficient	43	**72.88%**	39	**66.10%**	36	**61.02%**	16	**27.12%**
Exemplary	6	**10.17%**	6	**10.17%**	4	**6.78%**	4	**6.78%**
Total	59	100%	59	100%	59	100%	59	100%

Note: Totals of the proportions may not be exactly 100% due to rounding.

The Nonparametric Statistical Analyses of the Data

The usual parametric method of testing the null hypothesis of no treatment differences among several related samples is the two-way analysis of variance (ANOVA). However, proper inferences of an *F* test used in a two-way ANOVA rely upon the assumption that the populations follow the normal distribution. The normality assumption appears to be violated in the sampling distributions of students' scores corresponding to each of the four sub-objectives. Hence, the two-way ANOVA analysis on ranks is instead performed with the Friedman test, a nonparametric procedure, as presented in Conover (1980). Exhibit 1 contains the results.

Exhibit 1: Analysis-of-variance on Ranks Using the Friedman Test

The analysis herein follows the procedure in Conover (1980, Page 299 and Page 300).

H_0: There is no difference in students' scores corresponding to each of the four sub-objectives.
H_a: Students score differently in at least one of these four sub-objectives.

Student	Rank of Objective 1a) Score	Rank of Objective 1b) Score	Rank of Objective 2a) Score	Rank of Objective 2b) Score
Student 1	4	2	2	2
Student 2	4	2.5	2.5	1
…				
Student 30	3	3	3	1
Student 31	3	3	3	1
…				
Student 58	2.5	2.5	2.5	2.5
Student 59	2.5	2.5	2.5	2.5
***Rj* (totals)**	**173.50**	**165.00**	**151.00**	**100.50**

Firstly, calculate the total sum of squares of ranks. It is computed as $A_2 = 1{,}591.50$.
The total number of blocks used is denoted by b, and $b > 1$. In this analysis,
$b = 59$ (the number of students participating in the assessment)
$k = 4$ (the number of treatments, e.g., the number of sub-objectives)
Secondly, calculate the value of B_2, and it is computed as $B_2 = 1{,}529.30$.

Thirdly, compute the value of T_2. T_2 is the test statistic.
$T_2 = 50.6275$.

Finally, compare the computed test statistic with the 0.99 quantile of the F distribution with the numerator degrees of freedom of 3 ($k_1 = 3$) and the denominator degrees of freedom of 174 ($k_2 = 174$). The corresponding critical F statistic is estimated to be 3.8962.

Decision Rule: Since the test statistic of 50.6275 is greater than the critical F statistic, the null hypothesis is rejected at the significance level of 1%.

In descending order of students' performance in this assessment, they scored the best in Objective 1a) and the worst in Objective 2b). This result was understandable. As mentioned earlier, in class the author had emphasized that finance was the cornerstone of the free enterprise system. Good financial management was important to business firms, the nation, and the whole world. It was relatively straightforward for students to answer questions pertaining to Objective 1a). In order to give answers to questions regarding Objective 1b), it was necessary for students to find financial applications in a global setting of the topics discussed in class, such as time value of money, stock valuation, and the currency exchange rate risk. Regarding Objectives 2a) and 2b), it required that students be capable of thinking in abstract terms as well as concrete terms since they needed to demonstrate how finance impacted those of other cultures or was impacted by them. Evidently, students performed worse on these two sub-objectives in comparison with their performance of the first two sub-objectives. Nevertheless, students fared better in their answers to Objective 2a) due most likely to the fact that almost every student who participated in the assessment was from the U.S. Hence, it was easier for them to elaborate how finance impacted values in the U.S. culture as well as how the practice and the application of finance in the U.S. impacted other cultures. Although it is not shown in Exhibit 1, it is not surprising that the most statistically significant difference among students' scores on four sub-objectives is the one between those of Objective 1a) and those of Objective 2b).

Why Did Many Students Not Perform at or above the Proficient Level of Objective 2b)?
As listed in Table 1, the rubric of the Proficient level of Objective 2b) states, "Articulate in *appropriate detail* how the practice and application of their discipline is impacted by those of other cultures." There may be a couple of reasons why many students did not perform at the target level: (1) Most students did not have the experience of either living or traveling outside the U.S.– it was challenging enough for them to articulate how the practice and the application of finance in the U.S. impacted those of other cultures, let alone expound how the practice and the application of finance were impacted by those of other cultures; (2) financial analyses inherent in FIN 3713, Business Finance, were by its very nature quantitative– although one class session was spent on helping students understand the assignment, it seemed that most students lacked either necessary course trainings or cross-cultural experiences to perform on this particular sub-objective at the Proficient level.

SUBSEQUENT ASSESSMENTS: CONTENTS AND METHODS

As aforementioned, the course, Business Finance, was chosen to assess global awareness in the fall semester of 2010. Although it has been rotated out to assess other learning outcomes such as learning outcomes of students' technological skills, the author has continued to assess global awareness in the course informally with an extra credit written assignment. Every semester when the author is teaching Business Finance, an extra credit is contributed by a reading assignment of selected Wall Street Journal articles. A student may earn up to two grade points by completing the written assignment. The grading rubric of each extra credit assignment is the same as the one used in the assessment of the fall semester of 2010, and the same questions contained in Table 2 are used. For instructors who may be interested in conducting Global Awareness assessment in an introductory business finance course with the method introduced in this paper, suggested reading of these additional selected articles (apart from those contained in Table 3) is provided in Table 5 below.

Table 5. Suggested Reading of Additional Selected Wall Street Journal Articles

Questions	Suggested Reading of Additional Selected Articles
1. How does the discipline of finance function in a global environment? Please articulate how the discipline is practiced in at least two different cultures.	Talley, I. (2015); Curran, E. (2013); Pasztor, A. (2012); Reddy, S., and Stein, P. (2011)
2. How would you go about to apply the principles of finance that you have learned in a global environment? Please apply the principles of finance in a manner that is culturally responsive to at least two different cultures.	Talley, I. (2015); Linebaugh, K. (2013); Pasztor, A. (2012); Wonacott, P. (2012)
3. How does the discipline of finance impact values in the U.S. culture? Give examples. In addition, please articulate *in appropriate detail* how the practice and the application of the discipline of finance in the U.S. impact those of other cultures.	Clark, D., Wakabayashi, D., and Barr, A. (2016); Miller, J. (2014); Linebaugh, K. (2013); Wonacott, P. (2012); Reddy, S., and Stein, P. (2011)
4. How does the discipline of finance impact on values in other cultures? Give examples. In addition, please articulate *in appropriate detail* how the practice and the application of the discipline of finance are impacted by those of other cultures.	Miller, J. (2014); Curran, E. (2013); Wonacott, P. (2012)

CONCLUSIONS

In light of the most up-to-date stress on globalization and technological skills in business education, this paper illustrates how Global Awareness can be accessed in a finance course required of every undergraduate business student. Admittedly, an introductory business finance course incorporates few international aspects of the financial management (or not incorporates at all). Meanwhile, the course itself may be the only compulsory finance course in most business schools' core curricula. The method described in this paper provides an alternative to assess students' global awareness with a *Wall Street Journal* reading assignment without allocating much of the seat time in this course. The implementation of the assessment activities is not complex either. Overall, the results of this assessment have indicated that the level of students' global awareness is satisfactory.

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Elixr Pharma: The CFO Challenge
Converting from US GAAP to IFRS

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ABSTRACT

Case studies are a method of teaching that most heavily focused on graduate education. As effective as case studies can be as a teaching tool, many undergraduate faculty members avoid their use due to the cost and time commitment involved. Additionally, most case studies available are written at a level that is beyond the expected skill sets of undergraduate students. This paper provides an example of a compact case study, and through the teaching notes explains how it can be utilized in a way that can increase student satisfaction, participation and learning as shown to be important through research. Compact case studies present material in a manner that can be more appropriate to undergraduate students at the introductory and intermediate levels.

Key Words: Case, Compact Case, IFRS, Student Satisfaction, Student Learning, GAAP, accounting, balance sheet

INTRODUCTION

According to a study by The National Student Survey in the UK, as well as the Course Experience Questionnaire in Australia, student satisfaction in accounting courses is traditionally lower than courses in other disciplines. This dissatisfaction can be influenced by many variables. Opdecam and Evaret (2012) show that team learning can increase a students' satisfaction in a course. Use of techniques such as the flipped classroom can allow opportunities to shift the class away from the lecture, allow more team learning in class, focus on increased discussion, application and increase student satisfaction. Franklin (2015) shows that students are willing to invest more time in a class when there is a clear linkage between what is delivered in a textbook to current events, policy and application of subject matter to career options, consistent with Opdecam and Evaret (2012). One method of teaching that has shown to be an effective tool to increase learning and satisfaction through increased discussion and application is the case study. Michlitsch and Sidle (2002) show that the case study has been an effective tool of learning, specifically in business school disciplines. As effective as case studies are, due to the expense of development and acquisition, as well as time involved to cover the case they are not commonly used in many programs at the undergraduate level. Nkhoma, Sriatanaviriyakul, Cong and Khai Lam (2013) show that localized and real case studies that are properly designed can be an effective tool to significantly enhance learning. An example of a localized and real case study is the compact case. A compact case is designed to be short, simple, and related to businesses that an undergraduate student can relate to in a manner significantly better than traditional cases, which are often too complex for the introductory student. The compact case can fit into the flipped classroom nicely as an in class activity that can allow group work, increase participation and improve student satisfaction. Typically with minimal outside preparation such as advance reading (no more than 3-4 pages), a compact case can be analyzed in one class period. This paper provides an example of a compact case study, and through the teaching notes explains how it can be utilized in a way that will increase student satisfaction, participation and learning as shown to be important through research.

COMPACT CASE STUDY

This compact case concerns a real-life situation that will require students to develop awareness and discuss differences in disclosure as well as reporting on a balance sheet between US GAAP and IFRS. The case would be appropriate for an advanced introductory financial accounting student, or intermediate accounting student early in the course when the topic and related text chapter on the balance sheet is covered, typically the third or fourth chapter of the course.

Facts

Ryan Johnson for the past 15 years was CFO for Elixr Pharma, a drug company headquartered in New York. A large segment of Elixr's business has been to manufacture and distribute generic drugs. These generic drugs produced are very common prescription and over the counter medication drugs that are beyond patent protection

from original developers, can be produced at low cost and sold to retail drug chains and local drug stores using customized store branding.

Elixr is not a major company, but does have a significant drug under development that has shown promise and looking to become a developer of other new drugs. This is Elixr's first attempt at developing a new drug. Management at Elixr knows that the cost to take this drug through FDA studies and approval is significant and of high risk. Any roadblocks or failure will most likely bankrupt the company. In addition to the significant cost to take a drug to market, there is also a large volume of legal compliance and regulatory standards that Elixr is not familiar with. If this drug is to be taken to market by Elixr, it will require the assistance of another drug company with significant experience to partner and provide their expertise in their process. Elixr is a private held company majority owned by Walter Furman. Based on discussion with legal council and other experts in the industry who Walter has had close relationships with, it was decided that Elixr would approach MeaCate plc, a British company with significant experience in drug development and known to have complimentary projects underway in the same area as Elixr about a joint venture to develop and market the new drug under development by Elixr.

Following a period of negotiation, it was agreed that MeaCate plc would purchase Elixr Pharma. The purchase would be structured as an inversion transaction for tax purposes, common in the pharmaceutical industry. This transaction would pay Walter Furman a significant sum of money up front, and following the inversion and formation of the new company leave Furman as a 45% owner of the new company, which would be a subsidiary of MeaCate plc., Furman would no longer be a majority owner of his new business, but was OK with this, as the development of the drug in process if successful would increase his future income significantly. Additionally, with MeaCate being a British company, they would significantly increase the customer footprint of the present generic drug manufacturing of Elixr and distribution on an international scale. MeaCate has an interest to increase its efforts producing and distributing generic drugs as Elixr has been successful with, which will significantly increase future income of the new entity, and Walter Furman. As the purchase transaction was done through an inversion, following the purchase, Elixr Pharma emerged as a new company known as Elixr plc., a British company treated as a subsidiary of MeaCate. As a 45% owner, Walter Furman served as president and CEO of the newly formed subsidiary.

Prior to the purchase and inversion, Elixr did produce US GAAP financial statements annually, and they were audited statements per requirements of banking institutions that held significant debt. Following the purchase and inversion, the US banks that held debt of Elixr were paid off through a re-financing by three British banks. As a subsidiary, the new company Elixr plc now needs to convert and produce financial statements using IFRS to comply with British financial reporting requirements, as well as the British banks now holding the debt of the former Elixr Pharma.

Ryan Johnson, as CFO of Elixr Pharma for the past fifteen years and no previous work experience has no exposure with IFRS. As CFO of the new company, he now has to assure that all financial statements comply with IFRS and provide useful information. Jamus Martin is a staff accountant for parent company MeaCate plc and has been assigned on a temporary basis to Ryan, along with Jamus's staff accountants to assure that he is properly trained to prepare and understand IFRS financial statements that Elixr plc needs to provide. To begin the process, Jamus took the prior year balance sheet from Elixr and converted it from US Currency to the British Pound and IFRS format. The balance sheet as prepared by Jamus is presented below:

Table 1: Elixr Pharma Balance Sheet

Elixr Pharma Balance Sheet (amouts in £ millions)	
Non-Current Assets	
Goodwill	174.40
Other intangibles	31.20
Property, Plant and Equipment	449.12
Investments in affiliates	8.24
Trade and other receivables	32.44
Deferred tax assets	33.16
Post-employment benefit surplus	0.52
	729.08
Current Assets	
Inventories	236.32
Trade and other receivables	301.20
Recoverable income tax	19.60
Available for sale investments	0.48
Cash and equivalents	178.00
	735.60
Assets held for sale	4.76
Total Assets	1,469.44

Current Liabilities	
Bank overdrafts	1.92
Bank and other loans	4.48
Obligations under finance leases	0.40
Trade and other payables	271.04
Income tax liabilities	6.08
Provisions	40.12
	324.04
Non-Current Liabilities	
Bank and other loans	274.92
Obligations under finance leases	1.44
Trade and other payables	10.84
Post-employment benefit obligations	137.40
Deferred tax liabilities	10.12
Income tax liabilities	31.80
Provisions	7.68
	474.20
Total Liabilities	798.24
Net Assets	671.20
Capital and reserves	
Ordinary share capital	31.84
Share premium account	319.68
Own shares	-3.28
Capital redemption reserve	368.72
Currency translation reserve	-37.20
Available for sale reserve	-0.36
Accumulated deficit	-8.20
Total Equity	671.20

Part I

As Jamus presents this balance sheet to Ryan, Jamus needs to educate him on the significant differences this balance sheet has to GAAP and how to use it in order to gather useful information. Jamus asks you, his assistant to prepare a presentation which addresses the below points:
1. What are several significant differences in balance sheet reporting that Ryan needs to be aware of between a US firm and the current and future IFRS balance sheet of Elixr plc?
2. As Ryan reviews the revised IFRS balance sheet as provided by Jamus and his staff, how does the new format as presented provide information that can be used by financial statement users? Is the information provided different than when prepared under US GAAP?

Part II

Additionally, as Jamus and his staff assure Ryan is properly trained and able to operate in an IFRS environment, part of the transition also involves understanding of other issues concerning the disclosure of accounting policies, some of which are different than when Elixr was a US company under US GAAP. It is important that all disclosures are properly stated so that investors and creditors have all necessary information, and so there are no accusations against Elixr plc for improperly disclosing information in the event a disclosure not properly stated. To assure Ryan is properly trained, he was introduced to the official IFRS authoritative literature, which is available on the Internet at http://eifrs.iasb.org to collect the information needed. To assure that Ryan is proficient in application of IFRS rules, and necessary disclosures before setting Ryan off to work on his own, Jamus asks Ryan to in a memo address the following questions to him:
1. How are accounting policies defined in the official literature?
2. Per the literature, what are IFRS guidelines in the application of accounting policies?
3. What are the common disclosures that will be required in the Elixr plc financial statements?

It is important that two objectives be accomplished from the interaction between Jamus and Ryan to assure that there is an adequate background to properly produce IFRS financial statements. The first objective is that Jamus and his staff prepare the presentation in Part I to assure that Ryan has a basis for IFRS, and that for the second objective Ryan follow up with the information presented in Part II so it is documented to Jamus that he has an understanding of presentation and disclosure.

As the training comes to a close, Ryan does mention to Jamus that he has many concerns relative to accounting and calculations for Elixr plc's inventory reporting, fixed asset valuation and receivable valuation under IFRS, but these issues will be addressed at a later time once the initial framework for reporting and financial statement format has been established.

TEACHING NOTES

The purpose of this compact case is to provide an initial, first introduction to IFRS and some of the significant differences in financial reporting between IFRS and US GAAP. In the context of a case, the student can also to apply it to a business setting for context. The target audience for this case, depending on program structure is either advanced introductory financial accounting students near the end of the course, or ideally intermediate accounting students early in the course during initial coverage of balance sheet concepts. As a compact case, its design by nature is to be significantly shorter and less detailed than many traditional cases published in casebooks, but focus on a limited number of general learning objectives. The purpose of a compact case is to provide a case mechanism that can be worked within a class period with little outside preparation on one specific problem. For this specific case, the learning objectives are:

1. Explain the differences between a US GAAP and IFRS balance sheets.
2. Analyze an IFRS balance sheet and explain specifically how it provides useful information to an outside user.
3. Describe the required financial statement disclosures required under IFRS balance sheets

Part 1:

The first question is open ended and expects the student to use prior knowledge of a US GAAP balance sheet, compare to an IFRS balance sheet and discuss differences. Though there are several differences that a student could correctly identify, some expected responses would be:

Differences in form: Current liabilities are deducted from current assets, and a total of net assets is provided. Additionally, the British balance sheet under IFRS provides in an opposite order of US GAAP. The new balance sheet is not a listing of decreasing liquidity. The assets are presented in a matter that would be 'bottom up' from GAAP, starting with more subjective intangibles such as Goodwill, then slowly moving up to the less subjective non current assets. Current assets are listed secondarily starting with what would typically be least liquid and ending with the most liquid.

It is important to note that using IFRS there is considerably more judgment that can be exercised by management, and many differences may be as a result of management preference. The only prescribed format is when there is a need for a specific liquidity based presentation. There are other more technical differences that students can discuss, such as differences in the offsetting of assets or liabilities or presentation of minority interests, but at the level student this case is targeted to it is not expected that these differences will be reported. It is most important that students can provide significant differences in form and understand the significant increase in flexibility management has in reporting under IFRS.

The second question is designed to show that despite the differences in presentation, assets and liabilities with similar characteristics (current and non current) are still grouped together. As such, despite the different formats, once a reader has an understanding of the format, the financial statement can provide users with the same information such as liquidity and solvency. As there is more flexibility in form, it might be more difficult for the novice user to gather what is needed, and there might be differences in how some of the numbers are calculated on the statement, but the enough information is provided in each format to evaluate the same measures as a US GAAP balance sheet.

Part 2:

These discussion questions are designed to allow the student to reflect on disclosure under IFRS and identify/utilize IFRS source material. The reflection in the first question allows the student to locate and discuss the source documents on the requirements. It should be stated that IAS 8 covers the disclosure of accounting policies. For the second question, the disclosures are the specific principles, bases, conventions, rules and practices applied in the preparation and presentation of financial statements. For consistency as an example, An entity shall select and apply its accounting policies consistently for similar transactions, other events and conditions, unless an IFRS specifically requires or permits classification of items for which different policies may be appropriate. Specific information and technical details can be located on the website provided in the case.

For the final question, the student should use source documents to discuss the rules of disclosure. These criteria can all be located from the source website provided, and should be easily presented by the student once the correct section is located on the website.

The objective of this question is NOT that the student present all of the criteria as presented exactly on the website, but enough to demonstrate that they can locate the criteria, and this should be demonstrated through a deliverable such as a presentation or memo in a format to show proper professional communication of some of the above information in the students' own words. If students only have access to the 'free' section of the website, they will only have access to source material, and not professional explanations.

There are a variety of ways that this case can be utilized, it is suggested within the case that Part I be in the form of a presentation, and Part II in the form of a professional memo to practice multiple methods of professional communication as required. This case can serve as a demonstration of professional writing and/or research and communication; and be utilized as an assessment tool for accreditation such as AACSB or regional accrediting bodies. It is also possible to break the class in half, or break teams in half, and ask one half to prepare and present Part I, and the other half prepare and present Part II. This case was designed to create awareness to the differences between US GAAP and IFRS, but to also encourage proper presentation skills and increased class participation as the concepts are applied to a real life client situation that a student can relate to.

CONCLUSION

The purpose of this paper was to present a compact case that can be utilized effectively within an undergraduate accounting classroom. This case is one example of a specific activity to illustrate one of several underlying topics in a financial accounting course. Use of a variety of compact cases throughout the term can provide an effective activity as part of a flipped classroom environment, effectively relate traditional textbook delivered topics to real-life situations, encourage student interaction, participation, increase learning and student satisfaction. There are plenty of areas that can be researched in the future, including whether or not compact cases are successful tools to increase learning, and whether or not they indeed increase student satisfaction.

Instructors should locate or develop compact cases for topics where relevant and develop a model that works best with their students for their specific course. Based on the skill set of students in a class, these cases will work differently in each setting where used, but when used in an appropriate manner to the class enhance the overall student learning experience.

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A Teaching Note for Risk Management and Insurance Instructors and Students: Statutory Accounting Example for a Life Insurance Firm

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ABSTRACT

In the U.S., each state requires life insurance firms to file financial statements using Statutory Accounting Principles (SAP). A limited number of published resources exist to explain to instructors and students in risk management and insurance courses the application of SAP. We provide a teaching note using a simple example of balance sheet and income statement entries for a life insurance firm filing financial statements using SAP guidelines. Additionally, we demonstrate the balance sheet calculation of "policy reserves" of an insurance firm, and also guide the student through implementation of SAP.

Keywords: Statutory Accounting Principles (SAP), Insurance accounting, Life insurance

INTRODUCTION

It can be a challenge for instructors to teach the application of SAP as it regards life insurance firms. This note provides a clear and simple example for instructors of risk management and life insurance classes to use in order to enhance student understanding of application of SAP with life insurance firms.

Examples of financial statement entries for Property and Casualty firms are included in several sources (Mooney et al. 1995, Rejda 2011, Vaughan and Vaughan 2008, and Santos and Richman 2015). In addition, there are limited number of publications that include policy reserve calculations for life insurance firms (Rejda 2011, Vaughan and Vaughan 2008, and Miles 2006), However, no examples of either a balance sheet or an income statement are included for instructors' use in explication to students.

Further, the nature of life insurance requires that any collected premiums must be held for longer periods than property and casualty premiums before distribution of compensation for any losses experienced. Therefore, a life insurance firm must carefully forecast loss reserves in its balance sheet and assure the state regulatory agency that the collected life insurance premiums are safely invested for years to come.

A FICTICIOUS FIRM EXAMPLE

This example utilizes information germane to a standard life insurance firm. Table 1 introduces assumptions for a fictitious firm called "The Secure Life Insurance Corporation."

Table 1: Assumptions for The Secure Life Insurance Corporation

1. The Secure Life Corporation (SLC) began initial operations at the end of 2013.
2. Policies are issued and life insurance premiums are collected at the beginning of each year while payments for life losses occur at year's end.
3. SLC issues one policy type: 10-year level term-life insurance for 30-year-old males with a face value (paid to beneficiaries one time and immediately if the insured dies anytime during the 10-year period) of $100,000.
4. SLC writes 100,000 identical 10-year level term-life insurance policies each year. Each policyholder pays a $170 premium annually. Therefore, the annual total net premium written is $17,000,000 ($170 premium per policy x 100,000 policies).
5. SLC is publically-held and has issued 200,000 shares of common stock price of $50/share. SLC's total equity is $10,000,000 ($50/share x 200,000 shares). A $0.50 per share dividend is distributed to

SLC's investors in 2014, SLC's first year.
6. Investment income as interest earnings for the first year equals $1,350,000 after premiums and capital are invested for one-year in long-term bonds bearing 5% interest {0.05 (5% interest) X $27,000,000 (premiums of $17,0000,000 + $10,000,000 capital)}.
7. State laws require SLC to allocate annual policy reserves (also termed legal reserves). SLC uses the 2010 Actuarial Life table from the Social Security area population to calculate expected life losses [E(L)].
8. SLC has operating expenses equivalent to 10% of Expected Losses [E(L)].
9. The corporate tax rate is 30% ; the state tax (premium tax) is 3% of collected premiums.

BALANCE SHEET ENTRIES FOR THE SECURE LIFE CORPORATION

SLC raises capital by issuing 200,000 shares of common stock shares at $50 per share. Its total equity capital therefore is $10,000,000 ($50/share x 200,000 shares). Table 2 shows that on December 31, 2013, before starting operations, SLC, has $10,000,000 from the sales of new stocks credited to "Cash" in assets and "Capital" in liabilities and surplus. As SLC has not yet started operations, "Policy Reserves" currently equals $0.

Table 2: Balance sheet of Secure Life Corporation before starting its operations on December 31, 2013

ASSETS		LIABILITIES AND SURPLUS	
Cash	$10,000,000	Policy Reserves	$0
		Capital	$10,000,000
		Surplus	$0
TOTAL ASSETS	$10,000,000	TOTAL LIABILITIES AND SURPLUS	$10,000,000

Table 3 notes that on January 1, 2014, SLC issues 100,000 individual 10-year term $100,000 face value life insurance contracts with a $170 per annum premium per contract to 30-year-old males; collecting a total of $17,000,000 in premiums. This $17,000,000 ($170 annual premium x 100,000 contracts) is credited to the "Cash and Investments" (an asset item) account in addition to the $10,000,000 ($50/share x 200,000 shares) cash in hand from the common stock issue for a total of $27,000,000.

For this year, based on the actuarial estimate calculated using Table 4, the firm allocates $1,975,642 under the Liabilities and Surplus side as the required "Policy Reserves". Additionally, a "Capital" item of $10,000,000 and a "Surplus" item of $15,024,358 [($27,000,000 of assets - $10,000,000 of capital) - $1,975,642 of reserves for the first year] are also allocated under the Surplus side.

Table 3: Balance Sheet of the Secure Life Corporation before Beginning Operations on January 1, 2014

ASSETS		LIABILITIES AND SURPLUS	
Cash and Investments	$27,000,000	Policy Reserves	**$1,975,642**
		Capital	$10,000,000
		Surplus	$15,024,358
TOTAL ASSETS	$27,000,000	TOTAL LIABILITIES AND SURPLUS	$27,000,000

The formula to calculate the policy reserves shown on Table 4 is:

Policy Reserves = (Present Value of Total Expected Future Death Benefits Payable – Present Value of Total Expected Future Premiums Receivable)

The third column of Table 4 shows the "death probability" of a typical 30-year old male who buys a 10-year level-term life insurance contract. These probabilities are based on the Actuarial Life Table for the 2010 period, available on the Social Security Administration's website. The total values for the Present Value of Total Future Death Benefits Payable, Present Value of Total Future Premiums Receivable, Policy Reserves, and Expected Losses are also shown for the 100,000 policyholders beginning with the 4th column of the table: **Present Value of Total Future Death Benefits Payable** through and including the last column: **Expected Losses**.

Table 4: Actuarial Table for The Secure Life Corporation Showing Policy Reserves*

Years	Age	Death Probability	Present Value of Total Future Death Benefits Payable (1)	Present Value of Total Future Premiums Receivable (2)	Policy Reserves: (1) - (2)	Expected Losses
1	30	0.001408	121,964,138	119,988,495	1,975,642	14,080,000
2	31	0.001435	113,982,344	109,011,856	4,970,488	15,937,193
3	32	0.001466	105,351,666	97,510,746	7,840,921	16,018,755
4	33	0.001499	96,000,899	85,459,431	10,541,468	16,071,438
5	34	0.001539	85,875,443	72,830,923	13,044,519	16,163,046
6	35	0.001592	74,868,405	59,597,002	15,271,403	16,301,845
7	36	0.001660	62,808,447	45,728,251	17,080,196	16,444,294
8	37	0.001741	49,496,705	31,194,030	18,302,675	16,544,659
9	38	0.001837	34,745,233	15,962,383	18,782,850	16,635,637
10	39	0.001953	18,337,962	0	18,337,962	16,740,164

*See Appendix I for the details of "Policy Reserves" calculations using an Excel worksheet.

Figure 1 below compares the 10-year level premium of $170 per policy against the expected loss for each policyholder. Note that death probability increases with age, therefore a higher loss for each policyholder is expected throughout the life of policyholder.

Figure 1: Annual Expected Losses [E(L)] versus Annual Premium

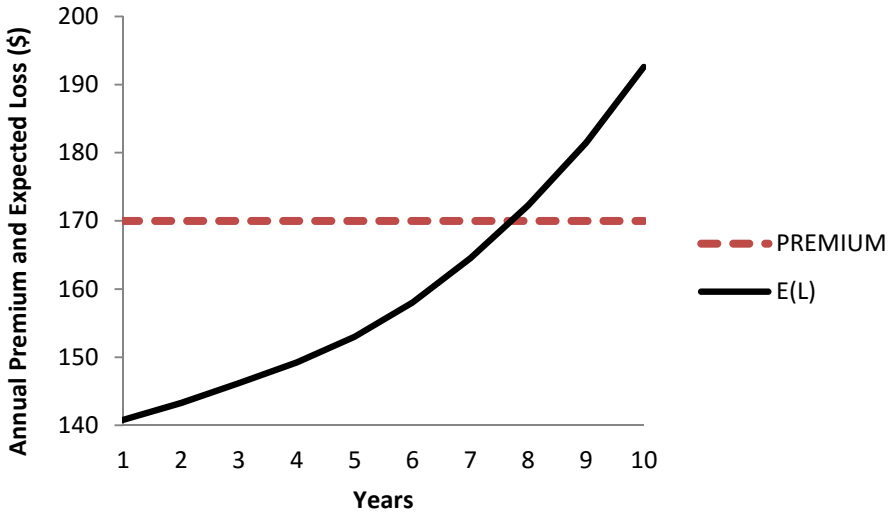

Figure 2, however, demonstrates how the present value of future payouts (PVB) and the present value of future premiums (PVP) for one policyholder decline over the life of a 10-year level term-life insurance contract. A gradual increase in the required policy reserves occurs each year as well.

Figure 2: Present Value of Future Payouts (PVB), Present Value of Future Premiums (PVP), and Policy Reserves

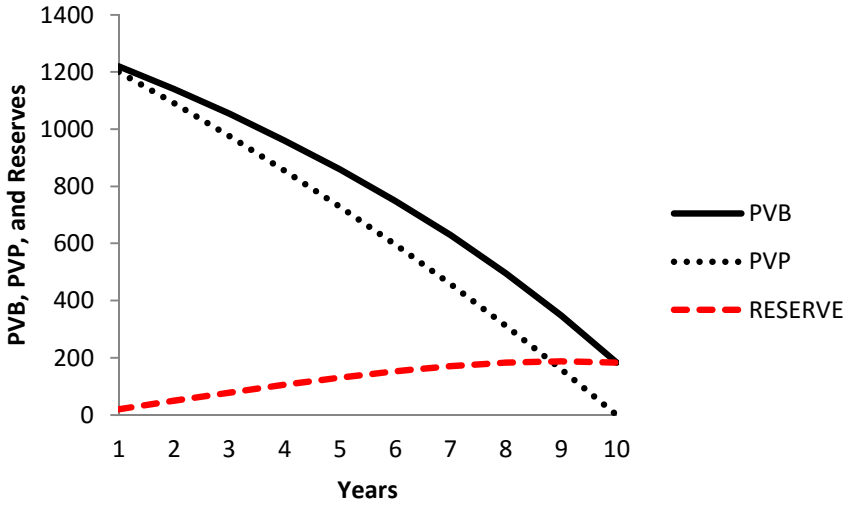

Table 5 incorporates SLC's total expected losses of $14,080,000 over the first year of the 10-year term of the 100,000 contracts issued January 1, 2014. Thus, "Cash and Investment" becomes $12,920,000 [$27,000,000 (Total premiums paid of $17,000,000 + $10,000,000 in capital) - $14,080,000 of expected losses] on the asset side, "Capital" stays at $10,000,000, Surplus is down to $2,920,000 ($17,000,000 of premiums - $14,080,000 of payments for the expected losses), and Policy Reserves is at $0 for 2014.

Table 5: Balance sheet of The Secure Life Corporation before starting its operations on December 31, 2014

ASSETS		LIABILITIES AND SURPLUS	
Cash and Investments	$12,920,000	Policy Reserves	$0
		Capital	$10,000,000
		Surplus	$2,920,000
TOTAL ASSETS	$12,920,000	TOTAL LIABILITIES AND SURPLUS	$12,920,000

INCOME STATEMENT ENTRIES FOR THE SECURE LIFE CORPORATION

In addition to the balance sheet items, Table 6 demonstrates the impact occurring to the Income Statement of SLC. Revenues are a total of $18,350,000 (The $17,000,000 of premiums + $1,350,000 of earned interest from Table 1). Expenses consist of the $14,080,000 of expected losses [E(L)]; the $1,975,642 change in reserves; $1,408,000 of operating expenses [(0.10) x ($14,080,000 of E(L)See #8, Table 1], and $510,000 of premium taxes [= (0.03) x ($17,000,000) See #9, Table 1]. Thus, Earnings Before Taxes (taxable income/ EBT) is equal to the difference between Total Revenues and Total Expenses, here equaling $376,358. Federal taxes equal $112,907 [0.30 (30% tax rate) x $376,358 (EBT)], Net Income = $263,450 [$376,358 (EBT) -$112,907(Federal taxes)]. Finally, the firm pays

$100,000 of dividends [0.50 ($.50 dividend/share) x 200,000(shares outstanding)]. Finally, Retained Earnings are calculated: Net Income – Dividends ($263,450-$100,000) equal Retained Earnings of $163,450.

Table 6: Income Statement of Secure Life Insurance Corporation on December 31, 2014

REVENUES		=Premium + Investment Income
Premium	$17,000,000	($170 premium)*(100,000 life insurance contracts)
Investment Income	$1,350,000	(0.05)*(27,000,000)
EXPENSES		
Benefits (Expected Losses)	$14,080,000	Expected Losses for the first year
Change in Reserves	$1,975,642	Change in reserves is $1,975,642 in the 1st year
Operating Expenses	$1,408,000	(0.10)*($14,080,000 of E(L))
Premium (state) taxes (3%)	$510,000	(0.03)*($17,000,000)
Earnings Before Taxes (EBT)	$376,358	REVENUES - EXPENSES
Federal Taxes (30%)	$112,907	(0.30)*($376,358)
Net Income	$263,450	EBT – Federal Taxes
Dividends	$100,000	(0.50)*(200,000)
Retained Earnings	$163,450	Net Income - Dividends

As SLC begins its second year of operations on January 1, 2015, the balance sheet is updated by incorporating the retained earnings item from the prior year, 2014. We assume no new contracts are issued and SLC now collects the existing 10-year term life contract premiums at the beginning of the second year. Thus, under the assets, "Cash and Investments" now becomes $27,163,450 [($17,000,000 from the second year total premium of the 100,000 contracts + $10,000,000 from Capital transferred from the first year + $163,450 from the retained earnings from the prior year's income statement. Under liabilities and surplus the Policy Reserves item is $4,970,488 (as before, an actuarial estimate from Table 4), Capital is $10,000,000, and Surplus is $12,192,962 [($27,163,450 - $4,970,488) - $10,000,000)].

Table 7: Balance sheet of Secure Life Corporation before starting operations for the second year on January 1, 2015

ASSETS		LIABILITIES AND SURPLUS	
Cash and Investments	$27,163,450	Policy Reserves	$4,970,488
		Capital	$10,000,000
		Surplus	$12,192,962
TOTAL ASSETS	$27,163,450	TOTAL LIABILITIES AND SURPLUS	$27,163,450

CONCLUSION

To enhance both instructor and student understanding of the recording of balance sheet and income statement items to comply with SAP for the life insurance industry, we provide a simplified example of main entries

of these items for a fictitious firm; The Secure Life Insurance Corporation. Instructors and students can now readily understand the financial reporting operations required when a life insurance firm issues new policies, collect premiums, issues stock, invests premiums and common stock receipts in mostly fixed income securities in addition to adjusting its policy reserves, capital, and surplus based on these changes. Students and instructors can follow how revenues and expenses are entered in an income statement to find net income and the retained earnings. Further, calculation of "policy reserves" in the balance sheet of an insurance firm are demonstrated and guide the students for the implementation of SAP.

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Appendix I: PV of Total Benefits, PV of Total Premiums, Policy Reserves, and Change in Reserves*

YEARS	PV of Benefits	PV of Premiums	Policy Reserves	Change in Reserves
1	1219.64	1199.88	19.76	19.76
2	1139.82	1090.12	49.70	29.95
3	1053.52	975.11	78.41	28.70
4	960.01	854.59	105.41	27.01
5	858.75	728.31	130.45	25.03
6	748.68	595.97	152.71	22.27
7	628.08	457.28	170.80	18.09
8	494.97	311.94	183.03	12.22
9	347.45	159.62	187.83	4.80
10	183.38	0.00	183.38	-4.45

*The estimations on Appendix I is based on a one 10-year Term-Life Contract for a 30-year male paying $170 annual premium, and interest rate is 5%.

Appendix II: PV Calculations for the Total Benefits*

YEARS	PVB*	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
1	**1,220**	134	-	-	-	-	-	-	-	-	-
2	**1,140**	130	136	-	-	-	-	-	-	-	-
3	**1,054**	126	133	139	-	-	-	-	-	-	-
4	**960**	123	129	135	142	-	-	-	-	-	-
5	**859**	120	126	132	139	146	-	-	-	-	-
6	**749**	118	124	130	137	143	151	-	-	-	-
7	**628**	117	123	129	135	142	149	157	-	-	-
8	**495**	117	122	129	135	142	149	156	164	-	-
9	**347**	117	123	129	135	142	149	157	165	173	-
10	**183**	118	124	130	137	144	151	158	166	175	183
TOTALS		**1,220**	**1,140**	**1,054**	**960**	**859**	**749**	**628**	**495**	**347**	**183**

*PVB refers to Present Value of Benefits Payable at the end of each year by the insurance firm and all the numbers is furbished for one 10-year term-life contract. The numbers in the shaded area are calculated by using probabilities from the Actuarial Life Table (2010) at the Social Security Administration website shown on Table 4 above. For example, the number, $134 (at the third column and second row intersection), is calculated as: (0.001408) *(100,000)/ (1+0.05) ^1 where $100,000 is the face value of the life insurance contract. Similarly, the number, 130 (at the third column and third row intersection), is calculated as: (1-0.001408) *(0.001435) *(100,000)/ (1+0.05) ^2. Interest rate is assumed to be 5%.

Appendix III: PV Calculations for the Total Premiums*

YEARS	PVP	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
1	**1,200**	-	-	-	-	-	-	-	-	-	-
2	**1,090**	162	-	-	-	-	-	-	-	-	-
3	**975**	154	161	-	-	-	-	-	-	-	-
4	**855**	146	154	161	-	-	-	-	-	-	-
5	**728**	139	146	153	161	-	-	-	-	-	-
6	**596**	132	139	146	153	161	-	-	-	-	-
7	**457**	126	132	139	146	153	160	-	-	-	-
8	**312**	120	126	132	138	145	153	160	-	-	-
9	**160**	114	119	125	132	138	145	152	160	-	-
10	**-**	108	113	119	125	131	138	145	152	160	-
TOTALS		**1,200**	**1,090**	**975**	**855**	**728**	**596**	**457**	**312**	**160**	**-**

*PVP refers to Present Value of Premiums Receivable at the beginning of each year by the insurance firm and all the numbers is furbished for one 10-year term-life contract. The numbers in the shaded area are calculated by using probabilities from the Actuarial Life Table (2010) at the Social Security Administration website shown on Table 4 above. For example, the number, $162 (at the third column and third row intersection), is calculated as: (1-0.001408) *(170)/ (1+0.05) ^1 where $170 is the flat one-year insurance premium paid by the insureds. Similarly, the number, 154 (at the third column and fourth row intersection), is calculated as: (1-0.001408) *(1-0.001435) *(170)/ (1+0.05) ^2. Interest rate is assumed to be 5%.

Career Goal Planning System (Career GPS): A Model of a School of Accounting's Success in Student Development

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ABSTRACT

This paper describes a concerted effort by the School of Accounting at a Midwestern university to prepare students for careers in the accounting field. Courses, advising, internships, and professional development take place continuously throughout the students' college education. The Career Goal Planning System (Career GPS) is a mechanism used to keep students on track for graduation, certification, and job placement by encouraging them to repeatedly look at their goals and create viable plans for achieving them.

Key Words: career planning, career goals, placement, accounting

INTRODUCTION

When you start on a road trip and have a location in mind, you use your GPS to get directions so that you get to your destination. Not unlike a traveler, accounting majors usually have a career goal (destination) in mind and need directions to reach that desired entry level job and position themselves for their future career. As educators, it is our job to provide a guidance system to help them to reach their goals. The purpose of this paper is to describe a process we use to help accounting students get the most out of their time in college and prepare them for their future careers in accounting. The Career GPS is a career goal planning system that is integrated into several courses and supporting activities in the accounting major to help students chart their path and reach their career destination of graduation and beyond. An outline of activities can be found in Exhibit 1.

The role of an accountant has changed dramatically over the years. A decade ago a student needed only to do well in their coursework to be able to get an accounting job. Now employers are looking for job candidates who possess much more than a degree. Robert Half International, Inc. (2016), a top-ranked staffing agency for accounting and finance professionals, indicates that business acumen, technical abilities, and communication skills top the list of additional qualifications sought by hiring managers. This sentiment is echoed in the CPA Horizons 2025 Report (AICPA, 2012) which cited "communication skills, leadership skills, critical-thinking and problem-solving skills, anticipating and serving evolving needs, synthesizing intelligence to insight, and integration and collaboration" as core competencies for accounting professionals.

Despite entering the job market with little or no job experience, students can set themselves apart with activities undertaken while in college through leadership roles in campus organizations, projects, or volunteer activities. Other ways to distinguish themselves include specializing in a particular emphasis of accounting, learning a foreign language, focusing on technology, earning specialty certificates, or working toward professional certifications such as a CPA, CMA, and CIA. Most students don't enter an accounting program knowing what additional skills employers want or expect of them, and if they do, they seldom know how to obtain those skills without some additional guidance.

University accounting programs approach the task of educating students for the accounting profession in different ways. One method is to provide accounting boot camps (Myring, Wrege, and Van Alst, 2008). These are usually one-day intensive events that can introduce students to various aspects of the profession such as the accounting curriculum, professional dress, resume writing and the art of interviewing. Typically there are also networking opportunities and interaction with the school's accounting alumni and/or local accounting professionals.

Another approach is to provide a series of workshops that address the same topics that are covered in the boot camps. Landgraf, Stanko, and Jinkerson (2012) describe the program at Loyola University (Chicago). This program incorporates four workshops over the course of the fall semester. Attendance is not required and is open to all students. Results from Landgraf et al. (2012) indicate that the first workshop was well-attended, but that attendance declined substantially by the last session.

Our method of developing students is different from the boot camp or workshop approach. We include elements of professional accounting development into the curriculum by systematically incorporating the components into the classroom. This ensures that all accounting students are exposed to the accounting profession and its requirements. Continuous reinforcement is provided over the course of three semesters and therefore any changes to the student's career goals or requirements to reach them can be incorporated easily. The classroom approach also eliminates scheduling conflicts that students may have for specific boot camp or workshop dates.

PLANNING THE ADVENTURE

Selecting a general direction

Students tend to approach college and job hunting as sequential activities. First, you get into college, second, you choose a major and, near the end of your program, you look for a job. We want to encourage students to look at the time they are working on their degree as an opportunity to make choices that will help them be in a position to get that first entry-level job they want and be poised to progress beyond that point to a career in the accounting field. The Career GPS is our attempt to get students to make mindful choices while in school that steer them in the right direction for the jobs they hope to attain.

ACC 240 Financial Accounting Applications: the bridge

The Career GPS is first introduced in ACC 240, a one-credit bridge course taken after the introductory financial accounting course, which students are required to complete before taking Intermediate Accounting and Accounting Information Systems. The course uses a practice case that takes students from source documents through posting and adjusting entries to preparing financial statements so that they understand the flow of information in the accounting system. Using a computerized practice case, students get some exposure to how technology is used to process information. In this course they are also required to start on their career planning. Accounting degree requirements are explained and students are encouraged to make an appointment with a faculty member to start planning their educational path. Staff from Career Services are invited to class to conduct a resume workshop. In this course, students are required to deliver the following:

1. A rough draft resume which is reviewed by the faculty member. Students then resubmit the resume with corrections and improvements.
2. A help wanted advertisement for a position the student aspires to 3-5 years after graduation. The ad must include details regarding requirements for the position.
3. A spreadsheet outlining the student's remaining time in the program (semester by semester) with what classes they plan to take (both required and elective courses).
4. A short paper tying 1-3 together. The student explains what attracts them to the job, what the minimum and desirable qualifications and certifications are, and what they can do with the remaining time in school to move them to a point where they are qualified for the job. These should include course selection, professional experience via internships and other jobs as well as extra-curricular activities.

Faculty review the course spreadsheets to see if the student is selecting the right courses for their chosen path and to make sure the work is properly balanced over the remaining semesters since some courses are more demanding than others. They also point out things that students might miss such as the CPA certification requirement being 150 hours, that is, additional credit hours beyond the BBA requirements, and that passing certification exams is more likely when taking the proper elective courses.

STARTING THE JOURNEY

Taking the required courses

Sometimes students don't know what kind of accounting job they want after graduation. They choose accounting because they like numbers, they heard that there were lots of jobs available in accounting, or that they would make lots of money in business. For these students, it is important they start focusing on what paths are available. Required courses in tax, cost, audit, and accounting information systems give them some idea as to the variety of accounting areas to choose from. Just as a driver stops at an information center to learn more about what activities are available in an area, students need more than these classes to find out what is interesting about different accounting career choices.

Acquiring a mentor
All accounting majors are offered the opportunity to have an alumni mentor working in the accounting field assigned to them. Mentors typically meet with students twice a semester and are available via phone or e-mail at other times. Since the mentors have taken the road the students are travelling, they offer invaluable insight as to what elective courses and activities have value. They are also a first link in helping students develop a professional network.

Continuing to explore career options
To help students better understand accounting career options, each year we host an event called "Backstage Pass". Students who perform well in the accounting principles courses are invited to come to the event. It is intended to recruit accounting majors and to better inform those that have already chosen accounting as their major of the different career paths in the accounting field. Students rotate between several venues staffed by CPA firms and corporations who recruit students for internships and jobs. One location will tell them about tax as a career, another about audit, a third about corporate opportunities and the last is an internship panel composed of upper-level students who have completed internships. Students have an opportunity to interact with professionals and learn more about entry-level jobs they could obtain with an accounting degree.

Through class visits by students or professionals, students learn about available organizations and extra-curricular activities that provide leadership experience, networking opportunities and the chance to learn more about career paths. Organizations available to students include Beta Alpha Psi (focus on public accounting), a student chapter of the IMA (Institute of Management Accountants), and a student chapter of the IIA (Institute of Internal Auditors). These organizations give students the opportunities to attend leadership and technical conferences, plant tours, network with local professionals, serve on executive boards and learn about different areas of accounting. The college of business also promotes professional development activities including resume workshops, dress for success, etiquette dinners, and business competitions.

For students uncertain as to the specific path they want to take, as well as the ones who think they know what they want to do, it is important to provide them with information on what will qualify them for a particular job. This can include specific accounting courses (internal auditing, not-for-profit, forensic accounting, etc.), other academic work (advanced spreadsheet courses, additional finance courses, etc.), work experience, leadership experience, study abroad, and so on. When the student looks at their resume and compares it to the requirements for the job they are interested in pursuing, they will likely find they fall short of what is required and desirable. But they have time while in school to make course choices, participate in extra-curricular activities and get relevant experience through summer jobs or internships that can move them in the right direction. A meeting with a faculty advisor often helps point them in the correct direction for their journey.

DECIDE ON A DESTINATION

Specialized courses, certifications, soft skills
The career project students began in the bridge course is continued in the two Intermediate Accounting courses so that students can refine their goals and their plans to achieve them as they continue to obtain information on career tracks.

In the first Intermediate course, students either present an expanded paper along with an updated resume or produce a short video to be presented in class. The papers/videos provide the instructor a chance to determine whether the students have a good understanding of the accounting profession in general as well as specific career paths and to fill in details or correct inaccuracies. This also provides yet another chance for all students in the class to learn about career choices. In addition, students are learning to work in teams on projects and practicing presentation and communication skills. A sample assignment may be found in Exhibit 2.

By having the students present in class, articulating their goal, provides another opportunity for the faculty member to add clarification in many areas. A particular sequencing of courses might be suggested. Students might also be advised regarding appropriate choices within the major. Our students can choose between two tax courses, individual or entity, and two audit courses, internal or theory and practice. Often students can be helped with non-accounting elective courses such as Advanced Spreadsheets, Business Writing, ERP, etc. Information on what is needed for a particular certification can be provided as well as suggestions as to appropriate Masters Programs (Master of Science in Accounting or Master of Science in Tax) which would assist the student in attaining their career goal.

In the second Intermediate course, students are required to meet one-on-one with their professor for fifteen minutes. They come in to the office with an updated resume and discuss their goals and how they plan to achieve them. By this time (usually second semester junior year) students should have a much clearer idea of what career path they want to pursue and they have an academic record that indicates whether they will be likely to qualify for their chosen position. The one-on-one meeting with their professor presents an opportunity for the faculty member to redirect the student if they are pointing towards a job they are not qualified for (for example, a student with a 2.2 GPA aspiring to a job with a CPA firm that requires a 3.5 GPA to even qualify for an internship) or to fine tune plans for students who are mostly on track for their destination. A sample assignment for this course may be found in Exhibit 3.

GAIN EXPERIENCE ON THE ROAD

Recruiting

Just as you might find when you start on a major road trip, you may encounter detours, interesting side trips or change altogether where you want to go. The same happens as students work on their degree. Each fall, right after classes start, employers come to campus for a pre-recruiting night. Students dress in business attire, bring their resumes and meet briefly with several potential employers hoping to make an impression which will result in a campus interview. In subsequent weeks, those employers schedule initial and follow-up interviews, meet with faculty members and career services personnel, and make their choices regarding internships and job offers.

CPA firms are recruiting students earlier in the students' college careers than they did previously. Many offer one or two day events in the summer to students who have finished the second or third year of their program. The events give the students insight into the firm and give the firm an opportunity to interact with the student in a time period longer than the usual campus interview. Many students come back from these events with offers for an internship for the following January-April busy season. Between the recruiting and summer events, students are not only refining their career preferences but are gaining experience in interacting with professionals and honing communication skills.

Internships

The best way to determine whether or not you will like a particular career track is to experience it firsthand. While some of our students have summer internships, the majority will spend an entire academic semester with a corporation or public accounting firm. Some students will have multiple internships over the course of their education. Often, the internships are for the January-April busy season. The interns gain professional experience, get paid well, and often come back with an offer for a full-time position when they complete their program. Because the busy season internships are plentiful, we offer a variety of courses in the summer to help students get back on track with their pursuit of a degree. We encourage them to trade their usual summer job for a winter one that pays better, provides professional experience and usually results in a full-time job offer. During these internships students are given projects which enhance critical thinking and problem solving skills while learning about life beyond college.

Study Abroad

Another valuable opportunity for students is a study abroad. Like an internship, this may be a short summer experience or an entire semester. Learning to function in another country is a skill which is appreciated by many employers. Like an internship, study abroad gives students the opportunity to adapt to new and challenging situations and work on problem solving skills.

YOU HAVE ARRIVED AT YOUR DESTINATION

Job Placement and Certifications

Travelling life's superhighway is not always easy or straightforward. Students don't (and shouldn't) go to college to get a degree – they go to pursue a career in a chosen field. A student's measure of success in completing the educational journey is in attaining a job in their chosen field and/or earning the certification which shows that they have achieved the level of a professional. If they have planned properly and taken courses in a particular order, it is possible to have begun on certifications while still in college. Many of our students graduate with parts or all of their certification programs completed.

CONCLUSION

Many accounting programs offer a variety of activities to aid students in career preparation. Ball State University uses a day-long "boot camp" (Myring, Wrege, and Van Alst, 2008) with alumni panels providing advice about dress, interviewing and soft skills. Loyola University has a one-semester series of workshops, "Preparing for the Professions" which is open to all students and addresses the recruiting process (Landgraf, Stanko, and Jinkerson, 2012). We take a different approach. We systematically integrate coursework with the development of soft skills and professional attributes over several semesters so that students continuously focus on career preparation and keep their goals in mind as they select courses.

Educational institutions are charged with helping students to navigate their way to achieving their career goals. We, as an educational institution, measure our success in doing so in many ways. Institutional exit interviews of our graduates indicate that students appreciate the career advice they received. Our CPA pass rates are consistently in the top three in our state, evidence that we are preparing students with the technical knowledge they need to enter the profession. Our excellent placement rates for internships and subsequent job offers speak volumes as to the preparation of students to conduct themselves as professionals. The number of firms coming to interview our students increases each year. Even though we are a regional university, due to the quality of our students we attract employers which usually interview only at larger state universities.

The most important measure of the success of a program comes from the students themselves. They return to campus or write to their professors to share the news of their successes. And as alumni, they return to hire the next wave of students because they know how well the students will be prepared.

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Exhibit 1: Career GPS Roadmap for Accounting Majors

Step 1. Planning the adventure (career)
- i. Bridge course and career planning
- ii. Career services
- iii. Accounting faculty advisor

Step 2. Start out on the journey
- i. Take accounting and other required courses
- ii. Acquire a mentor
- iii. Continue exploring career options
  - a. Back-stage pass
  - b. Intermediate Accounting paper/video
  - c. Join professional organizations (BAP, IMA, IIA, ALPFA)

Step 3. Decide on a destination
- i. Specialized courses
- ii. Consider certifications (CPA, CMA, CIA, SAP)
- iii. Improve soft skills

Step 4. Gain experience on the road
- i. Pre-recruiting and recruiting interviews
- ii. Internships
- iii. Study abroad

Step 5. You have arrived at your destination
- i. Job placement
- ii. Certifications

Exhibit 2: Assignment for Intermediate I

This assignment requires that you revisit your goals paper from ACC 240. Update the information in the paper and prepare an outline of your professional goals five years after graduation. You will then present your future goal plans to the class. Your presentation must follow your outline and be motivated by a job announcement**.** For full credit, presentations must be between 3 and 5 minutes.

For this project you will hand in the following:
- 1 job announcement
- 1 outline

Exhibit 3: Assignment for Intermediate II

The Professional Development project involves a short meeting with the instructor. You are expected to schedule a 10-minute appointment with the professor to discuss your future goals and plans. You must submit an updated resume and a two-paragraph (minimum) write-up of your future plans, and how you will get there, due at least one full day before the scheduled one-on-one meeting. In addition, during the semester you are expected to attend two professional meetings that provide opportunities for you to interact with professionals currently practicing in the area of your interest.

Online Accounting Course Design: One Professor's Approach

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ABSTRACT

Many online accounting courses are presented in a format that relies heavily on publisher produced materials. This method of course delivery can make it difficult to distinguish one online presentation from another. Designing an online accounting course that replicates a good face-to-face course and uses instructor produced lectures and materials keeps ownership with the instructor, infuses individual personality into the course and ultimately distinguishes the course from others.

Keywords: Online Accounting Course Design, Universal Design for Learning

INTRODUCTION

A college instructor's decision to deliver a 100% online course is a significant commitment of time, energy, and willingness to learn new technologies. Many publishers offer prepackaged materials to make the transition to online delivery easier, but in most cases, if the instructor elects to adopt the publisher's materials, they must give up much of their personal ownership of the course.

For a long time, I resisted the encouragement to prepare my courses to be delivered 100% online. I sensed the threat of commercialized education through prepackaged online instruction as reported by Appana (2008). I had taken CPA continuing education courses online for years and worked as an instructor for the Becker CPA Review course, as Becker developed an online presence. The courses were convenient, and the material was presented in a clear manner, but I did not feel the courses engaged the students as effectively as a good classroom presentation. Research has shown the importance of the trust relationship and communication between student and instructor (Coppola, Hiltz, & Rotter, 2004, Reeder, 2010, Simsek, 2011). I wanted to maintain the strong relationships I established with my students in my face-to-face courses and feared losing this if I were to teach the material online.

The intent of this article is to relate my own experience in delivering my first 100% online course to a junior level Cost Accounting class. I hope to give a broad overview of the technology that I used and provide a step-by-step process to develop a first-rate course for online delivery. My goal was to deliver a user-friendly course, with easy to understand processes, infused with the personality of the instructor, which provided strong communication with the students, while enabling the instructor to adapt and use his/her own course materials.

Getting Started

There are many steps to the process of delivering an online course and when looked at in its entirety, the process can seem to be overwhelming. A counterintuitive first step is to envision the final product before you give a thought to how you will make it happen. This can be especially challenging for instructors, like myself, who do not have strong technology skills. The idea is to describe to yourself the course you want the students to see and experience. Later you can get help to implement your ideas. In my case, my vision was to deliver an online course, available to students 24 hours a day, which replicated my face-to-face course and my teaching personality in every way possible. As in a face-to-face class, I wanted to provide a well-organized learning experience by presenting activities in chronological order. I also wanted to transfer the Universal Design for Learning (UDL) strategies I use in my face-to-face courses to the online environment. Universal Design for Learning, while often cited for use when teaching students with disabilities, offers benefits for all student learning by encouraging the instructor to provide learning experiences that incorporate multiple means of engaging with the course material, multiple ways of presenting course material, and multiple ways of expressing skills and knowledge (Tobin, 2014). I envisioned a sequence of activities, with each activity designed to be completed within 8 to 12 minutes. While some researchers (Wilson & Korn, 2007) question the validity of the assumption of loss of focus after 10 minutes of lecturing, texts addressing best practice strategies including McKeachie (1999) and Bates (2011) have long recommended varying class activities to improve student engagement. The activities included my lecture, my notes, homework problems, homework solutions, quizzes and assigned reading from the textbook. The goal was to create an asynchronous course that enabled students to start and complete any activity, or sequence of activities in the process, in the time they had available at that point in their day. This format also provided students with the opportunity to review material as many times as needed and send questions to me as they were going through the material. I made it a point to respond to student questions as quickly as possible. Due to the lack of synchronous communication

between myself and the students, it was essential that the online materials were clearly organized and easy to follow. (Willis, Stommel, Simmons, 2001).

OVERVIEW OF TECHNOLOGY

Once I had a picture in my mind's eye of how I wanted the online course to look and feel, I sought the help and guidance of Kent State University at Stark Campus Technology Director, Kathleen Baer. Ms. Baer identified the software and hardware necessary to make my vision come alive. Equally important, she walked me through the detail of the technology and explained how to make it all work together.

Hardware

I chose to use a Microsoft Surface Pro computer. The Microsoft Surface Pro can be configured as a tablet or as a laptop computer. In preparing my course, I used the Surface Pro exclusively as a tablet. The act of writing on a Microsoft Surface Pro computer is as natural as writing in a traditional notebook and the look of the screen is identical to a standard whiteboard in a classroom. While other computers will undoubtedly work, the key is to have a computer that will work with a digitized pen. The digitized pen will allow you to write on the computer screen as if you are writing on a whiteboard. You will be able to rest your writing hand on the screen without affecting the pen or the screen, and you will be able to select ink colors as well as ink widths as you are writing. In combination with a lecture capture software, discussed below, the end result is remarkably similar to a live classroom lecture.

In fact, it was the availability and performance of the Microsoft Surface Pro computer with the digitized pen that gave me the confidence that I could deliver an online lecture that was equal in quality and personality to the lectures I deliver in the classroom. In addition, I found I could easily work solutions to problems in a step-by-step manner and demonstrate common missteps and errors and show how to avoid them.

Software

Several software programs are necessary to bring your online course to life. The first is a learning management program, the second is a program to record and capture the sound and screen of your lectures and classroom activities, and the third is a program to convert your exams and quizzes into a format that can be read and delivered by the learning management program. Mastering the software is not necessary. Using the software is, for the most part, a straightforward experience that does not require a thorough understanding of the many capabilities within the software program.

The Learning Management System

A Learning Management System, often referred to as a LMS, or e-learning, is the software that enables an instructor to deliver an online course to students. There are several popular Learning Management Systems available whose names you may have heard; Moodle, Edmodo, and Blackboard to name a few. I used Blackboard because Kent State University is licensed to use the software program as the learning management system to deliver online courses across the university**.** The Blackboard software provides the framework for the instructor to present the course to students and for the students to interact with both the instructor and other students**.** In addition, Kent State University provides a template that standardizes the look and provides basic information about the university system including technological assistance. By selecting the LMS already in use by the University, students would be familiar with the look and operation of the website. The need to provide detailed tutorials for the students on how to use and access the materials was eliminated**.** Blackboard software enables the instructor to deliver lectures in a variety of formats. Lectures can be recorded videos, a simple voice over PowerPoint or, as in my case, voice over handwritten lecture notes written as if delivered in class. The instructor can interact with students and the students can interact among themselves through discussion boards and email. Finally, the instructor is able to administer quizzes and tests and have grades automatically posted to the grade book within Blackboard. Each instructor is able to customize their own course within Blackboard by developing their own materials or importing materials developed by others.

The Screen Capture Program

The second key piece of software is the Screen Capture Program. Screen capture refers to the video and audio recording of whatever is on the screen of your computer. There are many options available, ranging from free downloadable software to sophisticated commercial programs such as Camtasia. Kaltura, and Panopto. Kent State University at Stark is licensed to use Panopto and the software is powerful, with many user-friendly features. This is a software that once loaded on your computer, can be turned on with a couple of mouse clicks and it records

everything you see on your computer screen as well as the audio to accompany the visual. Once recorded, all audio and visual components are packaged together and uploaded to a hosted video content management system, which allows students to stream the videos from any computer or mobile device. A link, posted to your Lecture Management System, allows students to access your lectures 24 hour a day, seven days a week.

Software to Integrate Quizzes and Tests into Blackboard

Respondus is software that allows you to prepare your quizzes and exams using the familiar Microsoft Windows. Once completed, the quizzes and exams can then be uploaded to Backboard with a click of the mouse. While you can create quizzes and exams directly within Blackboard, using Respondus can be more user-friendly and efficient. With the exception of essay questions, the exams can be automatically graded as soon as the student finishes the quiz or test and the grade will be posted to the student's grading record within Blackboard. If essay questions are included in the test, all other questions can be automatically graded, but not posted until the instructor individually grades the essay questions through the Blackboard website. Respondus can automatically grade not only multiple choice and true/false questions, but also, open ended calculated problems. Calculated problem answers that were marked as incorrect require a quick online, visual review to be sure they were graded correctly.

ProctorU

One of my concerns regarding online learning was the ability to maintain the integrity of the online testing experience. Given that students taking the course would be from across the region and some even out of state, a secure, online testing environment for problem-oriented exams was essential. ProctorU provided the solution.

ProctorU is an online test proctoring service that enables students to take examinations online, in a secure environment. Kent State University subscribes to the service and students are able to take an exam from anywhere they have Internet access. A student clicks on the link to ProctorU and once the connection is made, ProctorU is able to open the exam for the student and observe the student taking the exam through the camera on the student's computer. ProctorU is available 24 hours a day, 7 days per week to monitor test taking.

COURSE DEVELOPMENT

Once I understood the technology necessary to make the course available to students, I was able to begin actual work on developing the course.

My first step was to transfer the course materials that I already had completed into my Blackboard course on the Kent State University website. These included my own chapter-by-chapter notes, individual pages with each of the assigned homework problems, and the page from the Solutions Manual that corresponded to each of the homework problems. These are the same items I make available to my students at the beginning of each semester. I created the materials with as much clarity and specificity as possible (Reeder, 2010) and organized it in a consistent and logical manner including due dates for each activity (Coppala, 2004). As with all my materials, I followed Universal Design for Learning principles in their development.

I then went chapter by chapter, first working each of the homework problems, while capturing each problem solution with the Panopto screen recorder. Depending on the problem type, I would either work the problem from the page with the problem on it, or if it was especially complicated, I worked the problem on the page from the Solutions Manual. In either case, I explained how, why and from where the solution was derived. Immediately after working a problem or problems on a specific topic, I would then record my lecture on the same topic, capturing it with Panopto. Using a blank sheet from Word as a whiteboard, I recorded my lecture on the topic while writing on the whiteboard just as I would in the classroom. I tried to keep each lecture between 8 and 12 minutes. I recorded the lectures in my home office in a relaxed atmosphere with my dogs at my feet. If the doorbell rang and the dogs ran off barking, it was all included in the lecture. Several students commented on how much they enjoyed this. While Moore (2013) recommends recording lectures from a script, I found when I tried scripting my lectures, it caused me to sound mechanical. On the other hand, delivering my lectures from my working notes that I had provided to the students resulted in a more fluid and more human delivery helping me to begin to establish the important personal relationship with my students.

At the beginning of the semester, I let the students know that I would hold "office hours" from 8:00AM until 9:00AM and from 8:00PM until 9:00PM every weekday. During the "office hours" I responded immediately to questions. During times outside of "office hours", I tried to respond to email questions within one hour. If the question was about the material we were covering or about a homework problem, I copied the question and pasted it with my response, and that was distributed to all of the students without identifying the student that asked the question. This structure also helped with the building of the trust relationship with the students. I wanted them to know that I was present and available to support their learning. As Coppola (2004) believes, direct communication between the instructor and the students is essential from the beginning and needs to be consistent for the duration of the course, for students to build and maintain a trust relationship with the instructor. Students needed to know that I was present and available if they had questions (Simsek, 2011). Several students commented in the evaluations that they found sharing the answers to specific student questions helpful. In addition, as an instructor I was developing a well-developed bank of answers to common questions.

When it came to testing, I offered students three options, again, in line with the tenets of Universal Design for Learning. First, they had the option to come into school and take the exam in a traditional setting in a classroom with me as supervisor. Second, they could schedule a time to take the exam in one of Kent State University's on campus testing centers at one of the seven regional campuses. Third, they had the option to take the exam online with ProctorU.

DISCUSSION

The real test of the success of my online course, was the course evaluation by the students. Kent State University uses the Student Evaluation of Instruction (SEI) assessments to determine students' learning experiences in their courses. These are conducted anonymously at the end of each semester and are unavailable to the instructor until after grades are submitted. While such evaluations can be flawed, they do provide a consistent comparison of my face-to-face courses to the online course. I compared my face-to-face ratings and my online ratings on the summary question regarding the learning experience. See Table 1.

Table 1: Overall how would you rate your learning experience in this course?

	No. of Respondents	Excellent	Very Good	Good	Fair	Poor
Summer 2015 100% online	17	59%	18%	5%	18%	
AY 2014-15 face-to-face	30	37%	37%	13%	10%	3%

The online course had very similar or slightly better ratings from the students. In the above chart, 77% of the online students rated their learning experience as Excellent or Very Good while in the face-to-face classes, 64% of the students rated their learning experience as Excellent or Very Good. This mirrors the results found by Roblyer and Ekhaml (2001) who found that students perform better in online courses due to the flexibility and responsiveness inherent in online learning. In addition, the students' written comments were overwhelmingly positive. A few representative comments were:

- The syllabus was clear and the way he structured the chapters was actually great.
- I liked the way the learning process is structured in this class.
- Assignments were graded on time and help was given when needed.
- The class was/is organized and expectations were clear to us. The pace was fast but I appreciated the time the professor took to provide lectures for each chapter. Good class.
- Professor Dorff communicates very well with his students and is always prompt when it comes to answering questions or offering guidance.
- I received feedback on all my quizzes before the exam.

These comments reflected my success in developing an atmosphere of trust and caring in the potentially impersonal world of online learning.

Reflections of the Experience

While the overall experience was successful for both my students and myself there are areas I would examine for further development. In the format the course was presented, there was little opportunity for students to work with each other. As this has been shown as a way to personalize the learning experience for students and increase their engagement with the material (Coppola, Hiltz & Rotter, 2004), I would like to investigate activities that would support student learning while providing these opportunities. The course did allow for email communication on Blackboard among the entire class but opportunities to work together on the course materials were not arranged as part of the course.

I would also like to investigate varied mechanisms for the assessment of the learning. In a Cost Accounting course it is essential to measure students' understanding of the material and this has traditionally been done through tests and exams. Investigation of other methods of assessment could enhance the course by providing different ways of expressing the students' knowledge and be in keeping with my philosophy of utilizing the Universal Design for Learning.

CONCLUSION

The experience of creating a 100% online course was challenging. It required a large amount of time for course preparation, certainly equal to or greater than my preparation for a face-to-face course. Staying true to the principles of Universal Design for Learning, by preparing a variety of materials and activities to meet the needs of a variety of learners is time consuming. While I had heard anecdotal remarks from my peers that once their classes were up and running they had little to do, I did not find this to be the case. The time spent responding to students' questions was extensive and in my mind essential to creating the virtual classroom environment I value. I found the preparation before the beginning of the course and the effort to maintain contact with the students during the course to be essential in the students' positive experience and their ability to achieve mastery of the material.

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Helpful Tools for Managing the Assurance of Learning Process

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ABSTRACT

While important to improving teaching and learning and to complying with regional and professional accreditation, the assurance of learning process can challenge, if not overwhelm, meager college resources. Data must be managed, reports compiled and updated, faculty involvement must be documented and archived, progress toward achievement of multiple student learning goals must be tracked, and actions taken to improve student learning must be substantiated. This high-stakes, large-scale undertaking can generate stress and frustration among faculty, and it can be difficult to communicate to internal and external audiences. This article describes tools that have proven useful in managing the assurance of learning process: assessment plans, curriculum maps, schedules of assessment and artifact collection, faculty engagement maps, artifact review procedures, and dashboards. Each makes a contribution to the efficient, effective management of the systematic process of assessing and improving student learning. We provide examples of these tools in the context of our assurance of learning experience and describe how they can be adopted by readers to make their efforts more manageable and more effective.

Keywords: assessment; assurance of learning; recordkeeping; planning; student learning; accreditation

INTRODUCTION

The context for assessment in many business schools is created through a confluence of at least three streams of expectations. For our campus, the first emanates from the North Central Association and the Higher Learning Commission (HLC). The North Central Association requires its members to have accrediting processes that foster quality, encourage academic excellence, and improve teaching and learning (North Central Association, n.d.). The HLC accredits degree-granting post-secondary educational institutions in the North Central region of the United States (Higher Learning Commission, n.d.).

The HLC states that "an organization's commitment to and capacity for effective assessment of student learning will figure more prominently than ever in the accreditation relationship established between the Commission and that organization," (The Higher Learning Commission, 2003, p. 1) and affirmation of that relationship is essential to maintaining the viability of our campus. The second stream of expectations hails from The Association to Advance Collegiate Schools of Business (AACSB) and its Assurance of Learning (AoL) requirements. The AoL process is a continuous quality improvement effort focused on teaching and ensuring student learning. Finally, assessment provides faculty with a way of knowing how well students are meeting a program's (e.g., undergraduate major, MBA) outcomes.

Universities in geographic regions across the globe face similar expectations (Nicholson, 2011; Reddy, 2011). Nearly 50 countries and territories are represented by AACSB-accredited schools. Moreover, assessing student learning at a program level isn't a concern only for AACSB-accredited schools. Many countries have agencies or institutions that require the assessment of student learning and specify requirements that must be met. In Portugal, for example, when applying for accreditation, programs must indicate the expected learning outcomes and the methods by which these will be attained and assessed. The Portuguese requirements are heavily inspired by the orientations produced in the context of the Bologna Process, known as the European Standards and Guidelines for Quality Assurance (the ESG) (C. Sin, personal communication, January 27, 2014). And in Ireland the National Framework of Qualifications (NFQ) requires program assessment strategies that are valid and reliable. The NFQ also requires universities to have assessment management and coordination procedures that result in assessment that is "professionally managed and coordinated" (Assessment and Standards, 2013, p. 10). The tools described in this article are directly relevant to those working at universities facing similar expectations. The purpose of this article is to help other schools effectively and efficiently manage the assessment process through a description and discussion

of tools and processes that can help in this quest. These tools and processes have had a large positive impact on our management of these processes, and it is our hope that they will help other schools as well.

SETTING AND BACKGROUND

Our assessment process fits the paradigm followed by many other universities, including these stages cited in Lawson et al. (2011):

1. Establishing measurable learning objectives for the program;
2. Mapping learning objectives to suitable units of study in the program;
3. Aligning relevant assessment tasks to assure learning objectives;
4. Communicating learning objectives to students;
5. Collecting data to show student performance for each learning objective;
6. Reporting student performance on the learning objectives; and
7. Identifying areas for program development ("closing the loop").

The leadership at our campus accepts the same learning goals and assessment processes that are suitable for the AACSB's AoL process and for on-going improvement of student learning that our faculty value. This means that our school has only one assessment plan for each undergraduate major and graduate program rather than engaging in multiple plans to meet the needs of the HLC, AACSB, and the faculty. While the university does have a simple annual reporting template that we are required to submit, we consider it an opportunity to summarize and reflect on the work we have done to assure student learning rather than as an extraneous requirement.

The campus assessment culture supports faculty as the drivers of assessment at all levels. Faculty members develop assessment processes, select the measures and tools used, review student learning, and determine the targets or standards of performance expected. The faculty members are then responsible for using assessment results to improve learning, where improvement is indicated. Faculty are best positioned and most likely to value and use assessment results they have collected and, consequently, are more likely to engage in meaningful, authentic program improvement when it is needed. It is therefore essential that the business school faculty invest in and assume responsibility for all aspects of assessment in their school.

ASSURANCE OF LEARNING AND ASSESSMENT CHALLENGES

As the AACSB states in its accreditation standards, "schools should be demonstrating a high degree of maturity in terms of delineation of clear learning goals, implementation of outcome assessment processes, and demonstrated use of assessment information to improve curricula" (AACSB International, 2011). The time when business schools could successfully survive the assessment-of-student-learning portion of an accreditation review by merely knowing what assessment is and making some efforts in that regard is gone; on-going authentic improvement in teaching and learning is the standard by which effectiveness is now evaluated.

Like so many other campuses (Lawrence, Reed, & Locander, 2011; Sampson & Betters-Reed, 2008), we continue to experience a number of challenges in creating and attempting to maintain a productive assessment process. For example, in addition to setting aside enough time to engage in assessment, faculty struggled to define their role in this new and unfamiliar responsibility. We strove to make assessment-related assignments fair and equitable over time because we were not sure how much time and effort any individual was dedicating. Ultimately, a few faculty members felt overloaded and under-appreciated for their efforts.

Assessment also creates challenges for administrators (Martell, 2007a), particularly deans, because it is their responsibility to identify and allocate resources to support it. We discovered that our need for resources to support our assessment efforts (e.g., commercially-produced tests, assessment management systems) often exceeded their availability, if those additional resources were forthcoming at all. Further, a climate of transparency and trust is essential for the assessment program to be successful. Based on discussions shortly after appointing a new AoL team, our faculty members were apprehensive about volunteering to provide assessment artifacts from their own classes for fear that negative results might be assumed to be their fault. We continually stressed that assessment is an evaluation of learning at the program level and not the responsibility of any single faculty member or course and that we all own the results and share in efforts to improve. Over time, the climate became much more positive and faculty involvement subsequently increased as a result.

Assessment can also create challenges for students. If we are to use the results of assessing our learning goals to make changes to our programs—some of which may be significant—then we must have some level of confidence that students are engaging in the demonstration of those learning goals in authentic, genuine ways. If our results do not reflect our students' best work, then we will not get an accurate snapshot of their level of competency on which to base improvement efforts.

These issues illustrate why it is important to administer AoL activities efficiently and effectively. AoL is a substantial undertaking, and it is helpful to look for ways to reduce associated cost, stress and difficulty. Next we discuss tools we developed that have helped us cope with the challenges of AoL more effectively.

OUR ASSESSMENT TOOLS

For this section, we use a challenge-solution framework so it will be clear what issue prompted the development and implementation of each tool. Before describing the first tool, however, please note that schools are encouraged by accreditors to choose, create, and innovate learning measures and management tools that best fit their circumstances, the goals of their degree programs, and the pedagogies in use. You should adapt our tools accordingly.

Challenge 1: Creating an overall efficient and effective assessment process

Solution: Assessment Plan

An assessment plan comprehensively describes a program's assessment processes and how, when, and by whom they will be used. A carefully constructed assessment plan is key to assuring that the entire process for assessing learning goals is useful; that is, it outlines the specific, high-quality, reliable qualitative and quantitative information that will reveal how well students are learning and, equally important, what faculty will do to continuously improve learning. But a good assessment plan can also be instrumental in avoiding redundancies and inefficiencies and for keeping the faculty on track and focused. Assessment plans allow faculty to review the entire process and to communicate to others what assessment looks like in the program. Constructing an assessment plan requires faculty to think through important issues such as whether the learning outcomes are appropriate, whether the curriculum provides sufficient opportunities for students to develop desired skills, and what the program's goals are regarding assessment, student learning, and process improvement. Readers may be familiar with Gardiner, Corbitt, and Adams' (2009; p. 140) sequential assessment management model, beginning with *develop program learning goals/outcomes* and cycling through a variety of actions ending with *execute approved improvements*. Assessment plans are pertinent to the model's action, *plan assessment activities*.

We have found that the best assessment plans include the mission of the program and its learning goals, the curriculum map, a description of the assessment methods and timetables for assessing each learning goal, and how the results will be used for on-going program improvement. Our assessment team periodically refers to the assessment plan to make sure we are on track. We also use it as a tool for communicating our commitment to assessment to internal (e.g., faculty, administrators) and external (e.g., AACSB, HLC) groups. An example of an assessment plan, along with the other tools mentioned in this article, can be found at http://static.www.csupueblo.edu/itc/web/aoltools/. We created the website and all of the tools included there.

Challenge 2: Ensuring that learning goals are adequately addressed in the curriculum and identifying appropriate artifacts of student learning

Solution: Curriculum Maps

A curriculum map is a tool that visually aligns course objectives with the program's learning goals. Like assessment plans, curriculum maps fit in the *plan assessment activities* step of the Gardiner et al. (2009) sequential assessment management model.

A well-developed, accurate curriculum map helps faculty identify gaps and overlaps in the curriculum and improves faculty understanding of the role each course plays (or does not play) in accomplishing the program goals. It also reveals likely points at which assessment activities could occur (e.g., capstone experiences) or those at which

existing classroom assignments and exams might be used for academic program assessment purposes. Using classroom assignments to the extent possible to measure the program student learning goals makes the academic program assessment process more efficient because faculty can take advantage of student-generated artifacts already created. Artifacts are examples of actual student performance and include items such as videos of student presentations, portfolios, case analyses in capstone courses, standardized tests, and licensure examinations (Frew, 2009). We have adopted embedded assessment processes to minimize the burden of AoL on students and faculty alike. Embedding assessment means that we use course assignments not only for a graded assignment in class, but also to measure our learning goals (Maki, 2004). Consequently, it is unnecessary for students to engage in a separate test or process to provide evidence of accomplishment of the learning goals.

Our assessment team developed a curriculum map by asking faculty teaching each of the core classes in the curriculum to identify which of the learning goals their courses help students learn. In addition, faculty indicated the level or sophistication of understanding students achieve in that course (i.e., introductory, developing, mastery) and the type of in- and out-of-class activities in which students demonstrate the learning goals. We use the curriculum map to identify which activities we want to sample to measure a given learning goal and then work with the appropriate faculty members to collect them. The curriculum map, which is periodically updated for new faculty orientation and to reflect program changes, also serves as a way to concretely and explicitly demonstrate the contribution each course makes to the program and its learning goals.

It is important to note that curriculum maps can be used in a diagnostic fashion. By tracking the degree of coverage in the curriculum for a particular learning goal, we can see if we are providing students sufficient opportunities to develop the related skills and knowledge. For example, if there are few opportunities for undergraduates to *develop* a skill in junior-level courses, it is likely they will not be able to exhibit *mastery* in senior-level courses and therefore, faculty must take action to provide scaffolded or additional learning opportunities.

Challenge 3: Assuring that learning goals are assessed when they should be

Solution: Schedules of Assessment and Artifact Collection

Scheduling the evaluation of a number of learning goals and the collection of different artifacts to evaluate them can become an onerous and complex task. Initially, our assessment efforts were too ambitious to sustain over time and, as we progressed, the timing of artifact collection and review as well as follow-up activities became more difficult to track.

Table 1 is a portion of an undergraduate assessment timeline we developed as a tool to visually represent our past results and future activities. This tool fits in the *manage assessment execution* step of the Gardiner et al. (2009) sequential assessment management model. The one-page summary shows, for each goal and sub-goal, the key assessment activities over a five-year timeline, and provides all the information needed to schedule future assessment activities. The status column gives an indication of the need for future artifact collection and review. Our current approach is to measure sub-goals for which student learning is meeting expectations on a two-year cycle. Those sub-goals on which progress is being made toward meeting the expectations are assessed more often, after appropriate improvement activities are instituted. We chose a two-year cycle so that at least two complete assessment reviews are completed within a five-year accreditation window. Other schools have chosen a framework in which each core course in each degree program passes through the assessment process over a three-year period (Stivers & Phillips, 2009). AACSB does not stipulate the cycle, as long as closing-the-loop is accomplished and each sub-goal is assessed at least twice during the review cycle.

Table 1: Portion of the Undergraduate Schedule Timeline

Learning Goal	Status	Fall 2010	Sp. 2011	Fall 2011	Sp. 2012	Fall 2012	Spr. 2013	Fall 2013	Spr. 2014	Fall 2014	Spr. 2015
1. Communication											
1.1: Demonstrate proper mechanics in written formats.	Meets standard	Prev. was Spring 2009					Assess				Assess
1.2: Use vocabulary appropriate for target audience.	Meets standard	Prev. was Spring 2009					Assess				Assess
1.3: Be effective in oral communication and presentations.	Meets standard	Assessed MGMT 485					Assess				Assess
2. Problem Solving											
2.1: Appropriately use methods to solve problems.	Making progress	Assessed in MKTG 340				Assess MGMT 311		Assess			
2.2: Evaluate business situations.	Making progress	Assessed in MKTG 340		Assessed in BUSAD 360		Assess MGMT 311		Assess			
2.3: Develop viable recommendations.	Making progress	Assessed in MKTG 340		Assessed in BUSAD 360		Assess MGMT 311		Assess			
3. Global Awareness											
3.1: Demonstrate appropriate terminology associated with the global business environment.	Meets standard	Prev. was Spring 2009	Assess in ECON 201				Assess				Assess
3.2: Effectively evaluate situations associated with global organizations.	Meets standard	Prev. was Spring 2009	Assess in ECON 201				Assess				Assess

With this tool in place, we are able to ensure that processes are scheduled such that the faculty is not overburdened in any one semester.

Challenge 4: Identifying artifact reviewers and tracking contributions

Solution: Faculty Engagement Maps

We developed faculty engagement maps as a tool to address the challenge of obtaining and maintaining engagement and support and documenting faculty involvement. Faculty engagement maps are useful in the *manage assessment execution* step of the Gardiner et al. (2009) sequential assessment management model.

Although many institutions have an assurance of learning committee of some sort, it is not possible for these few individuals to perform all of the duties necessary for proper assurance of learning. Because our business school is small, we have fewer faculty to call upon for engaging in the assessment process. As a result, it was necessary to involve as many of the faculty as possible to better distribute the load as well as increase faculty awareness and understanding of the processes.

One of the key challenges is, of course, to convince faculty of the value of assurance of learning. Most faculty are interested in assuring that their students are, in fact, learning what should be learned in any given course, but it may initially be difficult for them to appreciate the benefit of measuring learning at the program level. Furthermore, faculty might be concerned that artifacts of student learning collected from their courses will be used to judge their effectiveness in delivering course content. Research indicates that fear that assessment results will be used in performance evaluations is an issue (Martell, 2007b; Kelley, Tong & Choi; 2010). It should be made clear—with the aid of the curriculum map—that individual faculty members are not personally responsible if artifacts collected from their course indicate students are not meeting the learning goals. At the program outcome level student learning is a function of the curriculum, not a particular course. The faculty as a whole—not individual instructors—collectively own the process, and this should be stressed and reinforced by administration and faculty alike. This will help develop a climate of trust and transparency, which is integral to an effective assurance of learning process.

Even after a supportive and trusting climate is in place, faculty might still be unsure of how they can contribute to the assurance of learning process. One way faculty can help is to review artifacts. Generally, it is best to have faculty members review artifacts gathered from other courses, not their own. This allows for a more objective review that is not biased by the faculty member responsible for delivering the course and gathering the artifacts. To support this approach, a cross-section of faculty members must be available and willing to review artifacts gathered from various courses other than their own.

A tool we have utilized that might be helpful to other institutions to increase faculty engagement is what we call a faculty engagement map. This is different from the curriculum map discussed in Challenge 2, as it indicates who can *review* artifacts, not who can *provide* artifacts.

The engagement map was drafted initially when we asked faculty to indicate which of the learning sub-goals they believe they possess the expertise to evaluate. In the modified faculty engagement map in Table 2, the goals and sub-goals are listed across the top of the document and the columns below them contain the name of each of the faculty who can be called upon to evaluate them. We initially distributed these at a faculty meeting and asked our colleagues to indicate the learning goals they can assist in assessing. At the same time we answered questions and addressed concerns faculty articulated about the requisite level of expertise necessary to evaluate a learning goal or sub-goal.

Table 2: Faculty Engagement Map (modified)

COMMUNICATION *Written and Oral*			PROBLEM SOLVING			GLOBAL AWARENESS	
1.1 Written Demonstrate proper mechanics in written formats	**1.2 Written Use vocabulary appropriate for target audience**	**1.3 Oral Be effective in oral communica-tion & presentations**	**2.1 Appropri-ately use methods to solve problems**	**2.2 Evaluate business situations**	**2.3 Develop viable recom-mendations**	**3.1 Demonstrate appropriate terminology associated with the global bus. environment**	**3.2 Effectively evaluate situations associated with global orgs**
Wes James Gayle Kim Brian Stewart Andrew Bob Lee	Wes Kim Rick Gayle Stewart Andrew Bob Lee	Mike Rick Tony Bob Paul Brian Stewart Lee	Kevin Gayle Angie Wes Scott Herman Larry Joe	Kevin Gayle Angie Wes Scott Herman Larry Joe	Kevin Gayle Angie Wes Scott Herman Larry Joe	James Andy Tony Sam Andrew Lee	James Andy Tony Sam Andrew Lee

We compiled the results of this meeting into a single document and examined it for gaps in coverage of the sub-goals. At a later faculty meeting we discussed this document and our desire to spread artifact review duties equitably and again asked for volunteers to fill any gaps or lightly populated cells that still existed for some sub-goals. After this session, we had an adequate list of reviewers for all the learning goals.

We periodically review the engagement map with faculty to make sure that entries are current, to account for faculty member changes, and to remind them of the commitment they made to participate. We also utilize this document to track who has reviewed so we can rotate through all faculty and not burden any individuals. When we have new artifacts to review, we simply consult the faculty engagement map and see who is next on the list. Generally, faculty members understand the rotation and are willing to review when called upon.

Challenge 5: Assuring quality and consistency in artifact review

Solution: Artifact Review Procedure

As with other judgment processes (e.g., selection interviews), the protocol for evaluating student learning is critically important (Assessment and Standards, 2013). In this section we focus specifically on reviews of artifacts of student learning. While the tendency is to "jump in" and start scoring artifacts, we discovered that advance planning assures reliable results and ultimately saves time. For example, we learned that it can be important for artifact reviewers to spend time upfront with faculty members who provide artifacts so that they understand the assignment, the expectations, and the limitations (e.g., page-length maximums) within which students were working. We have also observed that artifact reviewers may introduce unwanted variability into the artifact review process, a well-documented phenomenon (Parkes, 2012). For example, when multiple faculty review the same set of artifacts, they often do not score (e.g., exceeds expectations, meets expectations, does not meet) each artifact the same because they have different implicit standards. This is similar to challenges with assessment center raters with "highly idiosyncratic mental models regarding the standards they set for assessing individual performance"

(Jackson, Atkins, Fletcher, & Stillman, 2005, p. 19). We have therefore found it helpful for artifact reviewers to score a few artifacts, compare their results, and discuss their schema and their observations to gain a common frame of reference before proceeding to review the full set of artifacts. This approach has proven useful in increasing interrater reliability in analogous tasks (Jackson et al.; Schleicher, Day, Mayes, & Riggio, 2002).

There are other ways individuals reviewing artifacts can deviate from a school's preferred approach. When comparing differing scoring results, some groups of artifact reviewers may decide to go with the majority opinion, to "split the difference," or some other method. Even worse, reviewers may forego comparing results altogether, and simply turn in their ratings to someone who compiles them, with no discussion at all. Similar to the rater approach used by Hoover, Giambatista, Sorenson, & Bommer (2010), we believe conflicts among raters should be settled by discussion and reaching agreement. We prefer that artifact reviewers meet and compare how they scored each artifact, discuss the basis for any differences in scores, and reach consensus about the most appropriate score. We generally use two reviewers for a set of artifacts if we have two faculty members who are suited to the task and who have moderate-to-high self-efficacy for the task. We believe at least two reviewers are necessary to get alternative perspectives on students' work. However, gratuitous use of much more than two reviewers may reduce the willingness of faculty to assist in the process.

There are also post-review tasks that we have found important. Often artifact reviewers gain insight into student performance that can be lost if their observations are not elicited. Some of these observations may not be related to the learning goal being reviewed but are nonetheless useful. For example, it is possible that, while reviewing students' work related to ethical reasoning, reviewers may notice particular deficiencies in student writing. As Pringle and Michel (2007) note, meeting to discuss the observations is a crucial step in the process, and building this into a procedure will help ensure this takes place.

In addition, reviewers may identify changes that would improve the scoring rubrics. These potentially useful observations are less likely to be apprehended unless there is an explicit step in the post-artifact-review process to draw them out and discuss them as a group of faculty.

The process other schools prefer to follow will differ from ours, but these examples illustrate how easy it is for the artifact review process to be deviated from or forgotten. For these reasons we designed the artifact review procedure included in the website supplementing this article (http://static.www.csupueblo.edu/itc/web/aoltools/). The procedure is another of our tools useful in managing assessment execution (Gardiner et al., 2009).

Since designing the assessment procedure, we have learned another lesson: It is important to remember to use the procedure. The procedure is of little value if it is not followed. We also recommend meeting with artifact reviewers ahead of time to "walk them through" the process (in case they do not read the procedure carefully or have questions). This has proven helpful in standardizing the process and in reducing faculty anxiety related to understanding what is required of them during the review process. The procedure we provide to the reviewers gives them a step-by-step process to follow before, during, and after the review, as well as a guide for what comes next and what the expectations and deliverables are from the reviewer. This minimizes confusion among reviewers. Ideally, a member of the assurance of learning committee and the providers of the artifacts will meet with the reviewers so that all aspects of the review are covered and discussed.

Challenge 6: Understanding, communicating, and documenting current learning goal status

Solution: Dashboards

The assessment team initially was unsure how to summarize all the data collected from the assessment of artifacts. We concluded that a one-page summary in tabular graphic form, dubbed the dashboard, would be beneficial. We consider dashboards a major breakthrough for us because they enabled us to capture a great deal of information and communicate it in a simple format. Much of the content of the dashboards is a summarization of assessment processes we have conducted, and the results of those processes are reported on sub-goal dashboards. We visualized building a pyramid of data, with a large amount of data at the base (i.e., artifacts, assessments, reports) that are then summarized on a one-page dashboard for each sub-goal (the middle of the pyramid). In turn, these sub-goal results are summarized on a one-page main dashboard (the top of the pyramid). Any stakeholder reviewing this dashboard can find additional detail by drilling down the pyramid to the next level of sub-goal dashboard. More detail can be

found by looking at data from artifacts and other documentation at the bottom of the pyramid. Table 3 shows the page format for sub-goals.

Table 3: A Sub-Goal Dashboard

Goal:	2. Problem Solving		Current status
Sub-Goal:	2.2: Evaluate business situations		Making progress
Semester:	Spring 2012	Date of this document: May 2012	
Contacts:			

Last 3 assessments, oldest first

Semester	Course	Instructor	Artifact	Results	Status
Spring 2008	ECON 202 MGMT 311	Jones Smith	Exam problems Exam problems	70.2% M or E 60.4% M or E	Does not meet standard
Fall 2008	MGMT 311	Smith	Exam problems	79.0% M or E	Making progress
Spring 2010	MGMT 311	Smith	Exam problems	80.0% M or E	Meets standard
Fall 2010	MKTG 340	Stone	Marketing Simulation	75.0% M or E	Meets standard
Fall 2011	BUSAD 360	Taylor	Adv. Bus Statistics	60.0% M or E	Does not meet standard

Target for this sub-goal is at least 70% Meet or Exceed.

Narrative: Most recent assessment showed failure to meet goals. Two assessments in a row above the target, followed with below target in latest.

This has consistently been a challenge area. Will need to assess and then follow up in the spring of 2013 as loop closing for any interventions so we can get artifacts from the same course for procedural equivalence.

Do assessment in a non-quantitative course to see if there is a different result.

Next Assessments

Follow-up from previous semesters

Recommended actions:

Close the Loop Activities:
Activities from sub-goal 2.1 apply to this sub-goal as well.

A quick glance provides the timeline of the last assessment processes and the learning goals. Future assessment actions, comments on previous results, and ideas about possible solutions to sub-standard performance can be included here. After each assessment activity, the page is updated with the results and action plans. This sub-goal, and 14 additional sub-goal dashboards, are then summarized to the main dashboard, a portion of which is shown in Table 4. For a more comprehensive version of the dashboards, see the website accompanying this article.

Table 4: Portion of the Main Dashboard

Learning Goal	Last Assessment	Status		Next Assessment	Action Required
1. Communication					
1.1: Demonstrate proper mechanics in written formats.	Fall 2009 BUSAD 493	Past performance has exceeded goals (+90%), but performance slipped during the last assessment.	Meets standard	Spring 2013	Monitor. No action required at this time.
1.2: Use vocabulary appropriate for target audience.	Fall 2009 BUSAD 493	Exceeds goals.	Meets standard	Spring 2013	Monitor. No action required at this time.
1.3: Be effective in oral communication and presentations.	Fall 2010 in MGMT 485	Assessment of MGMT 485 artifacts resulted in change to green.	Meets standard	Spring 2013	Monitor. No action required at this time.
2. Problem Solving					
2.1: Appropriately use methods to solve problems.	Fall 2010 in MKTG 340	Last assessment above goal. Upward trend.	Making progress	Fall 2013	Implement best practices for teaching problem solving and then measure results.
2.2: Evaluate business situations.	Fall 2011 in BUSAD 360	Upward trend. Last assessment below goal.	Making progress	Fall 2013	Implement best practices for teaching problem solving and then measure results.
2.3: Develop viable recommendations.	Fall 2011 in BUSAD 360	Last assessment below goal.	Making progress	Fall 2013	Implement best practices for teaching problem solving and then measure results.
3. Global Awareness					
3.1: Demonstrate appropriate terminology associated with the global business environment.	Fall 2011 ECON 201	Exceeds target.	Meets standard	Spring 2013	Assess artifacts collected in Spring 2011
3.2: Effectively evaluate situations associated with global organizations.	Fall 2011 ECON 201	Historically have not met goals. Last assessment was first time exceeded target.	Meets standard	Spring 2013	Assess artifacts collected in Spring 2011

Dashboards seem to fit best in the *execute approved improvements* step of the Gardiner et al. (2009) sequential assessment management model. The primary function of our dashboard system is to communicate important information. Faculty can quickly scan the dashboard for information and also drill-down to each sub-goal for more detailed information including the date of the last artifact review, the current status of assessment, its next scheduled assessment, and any action needed to improve student learning. We take advantage of color to highlight areas and grab attention: green is used to indicate that student performance "meets standard," yellow is used to indicate that we are "making progress" on a learning goal but that it will be monitored, and red is used to indicate that "action is

required" to improve student learning on that goal. The addition of these traffic lights to our dashboard makes it much easier to communicate learning-goal status to colleagues.

TOOLS' EFFECTIVENESS

Our job as leaders of the school's assessment processes would have been much more difficult without the tools we have discussed. The dashboards, for example, made it easier to explain learning-goal status not only to peers, but also to accreditation reviewers. The artifact review procedure enables us to provide shorter, clearer process explanations when orienting artifact reviewers. The procedure also helps ensure that reviewers perform tasks that are easily forgotten (e.g., summarizing, in writing, their observations of students' proficiency). The faculty engagement maps promote a sense of equity and fairness as faculty self-select to review artifacts related to the learning goals they feel most qualified to assess. Although our affirmation of the tools' effectiveness isn't based on any pre- and post-study or scientific analysis, we *can* tell you that we continue to make use of all of the tools and that we successfully passed the assurance of learning portion of our most-recent AACSB accreditation visit.

CONCLUSION

Assessment provides insight into how well students are mastering program-level learning goals and the information it generates acts to mark areas for improvement efforts. Because it comprises many underlying tasks and is subject to a variety of influences, assessment can be a complex undertaking. We have shared six tools that others can adapt to fit their needs. Assessment plans highlight important assessment issues and communicate the overall process to others. Curriculum maps are useful in determining where to collect artifacts of student learning and in diagnosing whether learning goals are receiving sufficient attention in the curriculum. Schedules of assessment and artifact collection make it easier to keep an ongoing program of assessment on track. Faculty engagement maps are helpful in ensuring all faculty members are engaged in the assessment process and in assigning artifact reviewers. Artifact review procedures can lead to valid and beneficial assessment of student mastery related to learning goals. Finally, dashboards are an effective tool for communicating assessment results, priorities, and responses. It is our hope that these tools will prove helpful to others in effectively managing their assessment processes. Additionally, presentation of this article will likely create more discussion of these and related tools and it is through such discussion that we can continue to create an impetus to further refine these processes and/or tools in order to help make the assessment process more manageable for a variety of schools.

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Manuscript Guidelines, Submission and Review Process

TOPIC AREAS (BUT NOT LIMITED TO THESE):

- Course design – current courses, new courses, new trends in course topics
- Course management – successful policies for attendance, homework, academic honesty …
- Class material
  - o Description and use of new cases or material
  - o Lecture notes, particularly new and emerging topics not covered effectively in textbooks
  - o Innovative class activities and action-learning – games, active learning, problem based
- Major or emphasis area program design that is new or innovative.
- Assessment – all aspects including AACSB and university level assessment strategies and programs
- Integration of programs or courses with other academic disciplines
- Internship programs
- Business partnerships
- Successful student job placement strategies
- Any topic that relates to higher education business education.

SUBMISSION AND REVIEW PROCESS:

Copyright

- Manuscripts submitted for publication should be original contributions and should not be under consideration with another journal.
- Authors submitting a manuscript for publication warrant that the work is not an infringement of any existing copyright, infringement of proprietary right, invasion of privacy, or libel and will indemnify, defend, and hold Elm Street Press harmless from any damages, expenses, and costs against any breach of such warranty.

Prepare your manuscript

- See the Style Guideline page for specific instructions.
- Articles must make a contribution to business education innovation.
- Manuscripts should be limited to 8 to 10 pages or less, although longer will be accepted if warranted.
- Articles can be either regular research papers, or shorter notes that succinctly describe innovative classroom teaching methods or activities.
- Manuscripts should be completely finished documents ready for publication if accepted.
- Manuscripts must be in standard acceptable English grammatical construction.
- Manuscripts should be in MS Office Word format. Word 2007 files are acceptable, as are earlier versions of Word. If you are using a new version of Word after Word 2007, save in Word 2007 format.

Submit your manuscript

- Manuscripts may not have been published previously or be under review with another journal.
- Submit the manuscript attached to an email to **submit@beijournal.com**
- We will respond that we have received the manuscript.
- Article submissions can be made at any time.
- Submission deadlines: September 15 for December issue, March 15 for June issue.

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- The editor and reviewers will review your submission to determine if 1) the content makes a contribution to innovative business education, 2) is of the proper page length, 3) is written in proper grammatical English, and 4) is formatted ready for publication.
- Submissions not meeting any of these standards will be returned. You are invited to make revisions and resubmit.
- If the submission meets the standards, the manuscript will be sent to two reviewers who will read, evaluate and comment on your submission.
- The editor will evaluate the reviews and make the final decision. There are 3 possible outcomes:
    - Accept as is.
    - Accept with minor revisions.
    - Not accepted.
- Reviews will be returned promptly. Our commitment is to have a decision to you in less than two months.
- If your paper is not accepted, the evaluation may contain comments from reviewers. You are invited to rewrite and submit again.

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Manuscript Style Guide and Example

An example is provided following these instructions.
This style guide represents style guidelines in effect for future issues, but always check for updates online.
Authors are responsible for checking for correct grammar, construction and spelling. Authors are also responsible for formatting pictures, tables, and figures such that a pdf black and white file sent to the publisher will reproduce in a readable manner.

General Setup:

- All fonts other than exceptions noted below: Times New Roman. 10 point for text. Other sizes as noted below
- Margins: 1 inch on all sides of 8½x11 inch paper size.
- No headers or footers.
- Absolutely no footnotes or endnotes via footnote or endnote formatting. For footnotes or endnotes, place a number of the footnote in the proper location as a superscript. Then at the end of the paper or bottom of the page, add the footnote as text with a superscript number to correspond to that footnote.
- Page numbering bottom centered.
- No section breaks in the paper.
- No color, including url's. Format to black. No color in tables or figures. Use shading if necessary.
- All pages must be portrait orientation. Tables and figures in landscape orientations should be reformatted into portrait orientation.
- All paragraphs should be justified left and right, single spaced, in 10 point Times font, no indent on first line, l line between each heading and paragraph.
- One line between each paragraph.

Titles, Authors, and Headings:

- **Title centered 14 point bold**. One line between title and author's name.
- Authors: centered, 12 point. Name, affiliation, state, country.
- One line space to **ABSTRACT** (title 10 point, bold, all capitalized, aligned left; text of abstract 10 point, no bold)
- After **ABSTRACT**, one line space, then **Keywords**. Followed by one line space to first major heading.
- **HEADINGS, MAJOR**, 10 point, bold, all capitalized, aligned left.
  The specific headlines will be based on the content of the paper, but major sections should at a minimum include an abstract, keywords, introduction, conclusion, and references.
- **Sub-headings**: 10 point, bold, first letter capitalized, no line to following paragraph. Align left.
- *Third level headings: Italic*, 10 point, first letter capitalized, no line to following paragraph. Align left.
- **Keywords:** heading: 10 point, bold, first letter capitalized, no line to following paragraph. Align left. Your list of keywords in 10 point, no bold.

Tables, Figures and Graphs:

- All fonts 10 point.
- Numbered consecutively within each category. Table 1, Figure 1 etc.
- Title: 10 point, bold, left justify title, one space, then the table, figure, etc.
- Example: **Table 1: Statistical Analysis**

References:

- APA format when citing in the text. For example (Smith, 2009).
- References section: 8 point font, first line left margin, continuation lines 0.25 inch indent. Justify left and right. No line spacing between references. List alphabetically by first author.
- Specific references: Last name, First initial, middle initial (and additional authors same style) (year of publication in parentheses). Title of article. *Journal or source in italics.* Volume and issue, page number range.
- Example: Clon, E. and Johanson, E. (2006). Sloppy Writing and Performance in Principles of Economics. *Educational Economics*. V. 14, No. 2, pp 211-233.
- For books: last name, first initial, middle initial (and additional authors same style) (year of publication in parentheses). *Title of book in italics.* Publisher information.
- Example: Houghton, P.M, and Houghton, T.J. (2009). *APA: The Easy Way!* Flint, MI: Baker College.

Example (note that this example represents a change from previous style guides)

Evidence to Support Sloppy Writing Leads to Sloppy Thinking[1]

Peter J. Billington, Colorado State University - Pueblo, Colorado, USA (12 point)
Terri Dactil, High Plains University, Alberta, Canada

ABSTRACT (10 point, bold, all capitalized, left justified)

(text: 10 point Times font, no indent, justified, single space, 150 words maximum for the abstract)
The classic phrase "sloppy writing leads to sloppy thinking" has been used by many to make writers develop structured and clear writing. However, although many people do believe this phrase, no one has yet been able to prove that, in fact, sloppy writing leads to sloppy thinking. In this paper, we study the causal relationship between sloppy writing and sloppy thinking.

Keywords: sloppy writing**,** sloppy thinking **(10 point, bold title, first letter capitalized, left justified).**

INTRODUCTION (10 point, bold, all capitalized, left justified).

The classic phrase "sloppy writing leads to sloppy thinking" has been used by many to make writers develop structured and clear writing. However, since many people do believe this phrase, no one has yet been able to prove that in fact, sloppy writing leads to sloppy thinking. Is it possible that sloppy writing is done, even with good thinking. Or perhaps excellent writing is developed, even with sloppy thinking.

In this paper, we study the writing of 200 students that attempts to test the theory that sloppy writing leads to sloppy thinking.

PREVIOUS RESEARCH

The original phrase came into wide use around 2005 (Clon, 2006), who observed sloppy writing in economics classes. Sloppy writing was observed in other economics classes (Druden and Ellias, 2003).

RESEARCH DESIGN

Two hundred students in two business statistics sections during one semester were given assignments to write reports on statistical sampling results. The papers were graded on a "sloppiness" factor using…

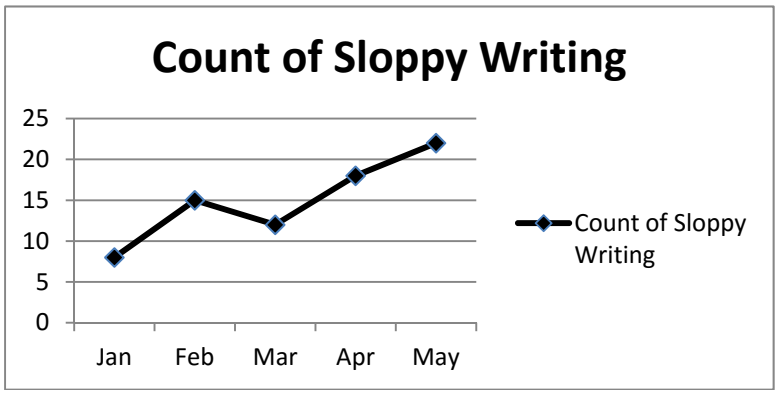
Data Collection (Sub-heading, bold but not all caps, 10 point, aligned left, bold, no line after to paragraph)
The two hundred students were asked to write 2 short papers during the semester…

Data Analysis(Sub-heading, bold but not all caps, 10 point, aligned left, bold, no line after to paragraph)
The two hundred students were asked to write 2 short papers during the semester…

DISCUSSION

The resulting statistical analysis shows a significant correlation between sloppy writing and sloppy thinking. As noted below in Figure 1, the amount of sloppy writing increases over the course of the spring semester.

Figure 1: Sloppy Writing During the Semester



The count results were compiled and shown in Table 1 below.

Table 1: Counts of Good and Sloppy Writing and Thinking (bold, 1 line after to table, left justify)

	Good Thinking	Sloppy Thinking
Good Writing	5	22
Sloppy Writing	21	36

*-Indicates significance at the 5% level)

As Table 1 shows conclusively, there is not much good writing nor good thinking going on.

CONCLUSIONS

The statistical analysis shows that there is a strong relation between sloppy writing and sloppy thinking, however, it is not clear which causes the other…

Future research will try to determine causality.

REFERENCES (title10 point, all caps, bold, align left, one line to first reference)
(1line spacing) (All references 8 point, indent second line 0.25 inch, justify left and right)

Clon, E. (2006). Sloppy Writing and Performance in Principles of Economics. *Educational Economics*. V. 14, No. 2, pp 211-233.

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Druden, G. and Ellias, L. (1995). *Principles of Economics*. New York: Irwin.

(short bio section optional, can run longer than these examples; removed before sent to reviewers)

Peter J. Billington, Ph.D., is a professor of operations management at Colorado State University – Pueblo. His research interests include lean six sigma and innovative education.

Terri Dactil, Ph.D., is a professor of business communication in the College of Business at High Plains University, Alberta, Canada. His research interests include instructional methods to improve student communication skills.

Endnote: (do not use word footnote or endnote formatting to accomplish this; see comments above)

1 The authors wish to acknowledge the assistance of graduate student Philipp Sleckin in compiling and reading numerous student papers.

