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Welcome to this issue of the ***Business Education Innovation Journal***.

The purpose of this journal is to assemble researched and documented ideas that help drive successful learning and motivate business students to learn. The intention is to draw ideas from across both methods and disciplines and to create a refereed body of knowledge on innovation in business education. As a result, the primary audience includes business education faculty, curriculum directors, and practitioners who are dedicated to providing effective and exciting education.

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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Integrative Thinking for Business Education: Interdisciplinary Learning and Assessment

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ABSTRACT

Interdisciplinary approaches in higher education are thriving in both teaching and research. The industry-engaged interdisciplinary project-based approach helps graduates become versatile professionals with knowledge and skills that are transferrable across professional boundaries. However, implementation of the project is challenging from a practical perspective such as coordinating activities among various disciplines as well as between academia and industry. Furthermore, assessment of its effectiveness is challenging, because outcomes of the interdisciplinary approach differs from those of discipline-based approach. This paper describes an industry-engaged interdisciplinary project that was developed and implemented at Philadelphia University which involved five courses, nine faculty members, approximately 100 undergraduate students, and a multichannel retailer as an industry partner. The objectives of this paper are to: 1) provide a case study of implementing an industry-engaged interdisciplinary project in business education; 2) address how to incorporate industry support in implementing the project; and (3) address assessment aspects of the project.

Keywords: interdisciplinary learning, assessment, innovative pedagogy, collaboration

INTRODUCTION

As today's employers have increased expectations for graduates to have integrative and adaptive thinking skills, and take an active role in their careers, development of a variety of soft-skills has become an important goal in higher education (Zlotkowski, 1996). The interdisciplinary learning approach facilitates higher-order thinking (e.g., analyzing, applying, generalizing) by motivating students to engage in deep learning and creates integrated knowledge that is more comprehensive than knowledge obtained from discipline-based learning (Ivanitskaya, Clark, Montgomery, and Primeau, 2002; Klein, 1990).

Despite its many benefits, implementation of an interdisciplinary project is challenging at the practical and administrative levels such as designing teams across disciplines, coordinating among disciplines, and scheduling within a time constraint (i.e., one semester−15 weeks). Often the implementation of these projects relies mainly on the faculty's individual experiences and working networks without clear guidelines for procedures. Therefore, little attention has been paid to explore models for interdisciplinary teaching in higher education at an implementation level. Furthermore, assessment of the effectiveness of the interdisciplinary learning approach is challenging as well, because outcomes of this approach differ from those of a discipline-based approach that aims to build the depth of single-subject knowledge. Ivanitskaya *et al*. (2002) noted that outcomes of the interdisciplinary approach should encompass subtle ones such as higher-order cognitive skills, critical and proactive thinking, enlarged perspectives and horizons, ability to synthesize or integrate, and the ability to tolerate ambiguity. Assessment methodologies used in traditional discipline-based courses might not capture the effectiveness of the interdisciplinary learning in achieving the distinctive outcomes.

This paper is based on the experience gained by implementing an industry-engaged interdisciplinary project at Philadelphia University which involved five courses from Marketing, Merchandising, Fashion Industry Management, Fashion Design, and Graphic Design, nine faculty members, approximately100 undergraduate students, and a multichannel retailer as an industry partner. Specific objectives of this paper are to: (1) provide a case study of implementing an industry-engaged interdisciplinary project in business education; (2) address how to incorporate industry support in implementing the project; and (3) address assessment aspects of the project. By sharing logistics of a relatively large-scale industry-engaged interdisciplinary project and addressing challenges in

the implementation, this paper attempts to present one way to integrate an interdisciplinary perspective in business education and some insight that may be of use to other educators attempting to implement interdisciplinary learning.

INTERDISCIPLINARY LEARNING

As higher education is being called to address complex problems that cannot be resolved by a single disciplinary perspective, interdisciplinary initiatives and approaches in colleges and universities have become thriving in both teaching and research (Lattuca, 2001; Klein, 1996; Kandiko and Blackmore, 2008). Moreover, because of the increasingly multidisciplinary nature of the business world, interdisciplinary collaboration with professionals who have various knowledge, jargon, and way of thinking becomes necessary in many fields (Kimmons and Spruiell, 2005). Interdisciplinary learning is the synthesis of two or more disciplinary perspectives to establish integration of knowledge and a more comprehensive understanding (Klein, 1990). The initiatives can be found in integrative curricular development, new interdisciplinary courses (e.g., first-year seminars and capstone courses), team-teaching, collaborative learning, or problem-based learning. Although interdisciplinary approaches challenge traditional notions of disciplinary ways of knowing and specialization, it is not a rejection of the disciplines as it is grounded in the disciplines by constructing integrative knowledge that is greater than the sum of its distinctly disciplinary parts (Newell, 1998).

As suggested by Kleinberg (2008), a problem (or project)-based instruction, which brings more than one discipline together to address a specific issue or solve real-world problems, is one of the effective interdisciplinary instruction methods. Instead of relying entirely on lectures and class discussions, problem-based learning enables students to learn through the problem-solving process itself and provide students with an active leaning environment (Carpenter and Fairhurst, 2005). Active leaning offers opportunities to work with concepts at high cognitive levels—application, analysis, synthesis, and evaluation (Salemi, 2002). Active learning is effective for students with different learning curves in classes; while some learners may learn by listening critically and questioning what they do not understand, other learners may serve as tutors for their peers (Farr, Ownbey, Branson, Cao, and Starr, 2005; Johnson, Johnson, and Smith, 1998). When the interdisciplinary instructional model is used, the blending of various types of learners enables the students to engage in the dynamics of the project while creating well-balanced teams.

The effectiveness of the interdisciplinary projects can be enhanced by industry partnership which could involve solving a real business problem, interacting with professionals in a project, and developing an industry sponsorship. Ideally, educational innovation should be based on a partnership between educators and industry partners (Pearce, 1998; Wright, Cushman, and Nicholson, 2002). Zlotkowski (1996) noted that facilitating development of a variety of soft-skills is an important goal in higher education. The industry-engaged interdisciplinary project-based approach helps graduates become versatile professionals with knowledge and skills that are transferrable across professional boundaries such as creativity, collaborative communication skills, leadership skills, and critical, integrative, and adaptive thinking skills. Also, students can learn how to negotiate the difficulties associated with team work, to use the strengths of each team member, and to function in the business world where they will encounter various opinions (Kimmons and Spruiell, 2005; Russ and Dickinson, 1999; Salemi, 2002). The approach encourages faculty to create working networks across the disciplines and with industry; have a fresh outlook on pedagogical methods; find opportunities for collaborative research; and to produce knowledge through innovative scholarship and foster an informed and critical public (Kleinberg, 2008).

IMPLEMENTATION OF INTERDISCIPLINARY LEARNING IN A CLASS ENVIRONMENT

Overview of the Interdisciplinary Project

The project was implemented during fall semester of 2010 at Philadelphia University with the goal of the project to identify a new market for an industry partner; to create a new apparel line for its target market by engaging in product development; to create brand identity with a logo and promotional items for the products; and to develop marketing strategies (i.e., pricing, promotions, and selling) for the new line. In other words, the project was designed to try to solve a real-world problem for an industry partner from beginning to end. In consultation with the industry representatives and the faculty involved in the project, a potential new product concept that had never been tried by the industry partner was identified. The concept was to develop a women's and children's coordinating clothing line that reflects the concept of having styles that are matching and are appealing to both target markets.

The industry partner does not have a children's line and thought that this would be an interesting approach to gaining more market share in the misses market.

Participants of the project at the University include a total of nine faculty members from Marketing, Fashion Merchandising (FM), Fashion Industry Management (FIM), Fashion Design (FD), and Graphic Design (GD), five undergraduate courses and approximately 100 students enrolled in the courses−three business courses (Consumer Behavior, Merchandise Buying/Operations, and Survey of Global Apparel Industry/Material Research and Production (2 sections)) and two design courses (Advanced Patternmaking (2 sections) and Package Design). Industry participants included professionals from merchandising, selling strategy, and the sourcing departments.

The project began with market/consumer research by Marketing and FM students who formed teams to do collaborative research on industry and company overview; demographics and lifestyle of new target market; and competition. FD students designed new lines of apparel and FIM students worked on the technical aspects of getting specifications for manufacturing the products, sourcing materials, and communicating with factories in China for sample production. GD students worked on branding including brand identity, logo, and promotional items for the products. Marketing and FM students, based on the market/consumer research, worked on marketing strategies for the pricing, promotions, and selling of the garments.

Students across the disciplines worked together collaboratively in interdisciplinary teams where they represented their unique discipline while working together with others from different disciplines. They were engaged in market/consumer research, branding, product design, product development, promotional item design, and marketing strategies to reach the new markets.

Instructional Methodology

One of the unique approaches of this project was for students to work collaboratively, yet respectively in their own disciplines as necessary, toward achievement of the goal of the project. Each course was taught by an instructor who is a specialist in the discipline. Throughout the semester, the instructor focused on topics and materials that reflect the discipline and used the interdisciplinary project as a part of or one of the class projects or assignments in each course. The collaborative work was facilitated through meetings with the entire group, small work groups, industry representatives, as well as through fieldtrips. The approach is based on the notion that the practice of interdisciplinary should be rooted in the strong disciplines (Newell, 1998). Quality interdisciplinary work can be obtained from outstanding works of its each disciplinary part. With this approach, interdisciplinary comprehensive understanding can be maximized at the same time ensuring disciplinary-based knowledge.

Designing Student Teams

Students in the Consumer Behavior class and the Merchandise Buying/Operations class were integrated into six collaborative teams to perform the Marketing/Merchandising part of the project. Each team was formed based on its tasks (i.e., industry research, target market research, competition research, pricing strategy, promotion strategy, and selling strategy). Each FD student in the Advanced Patternmaking class worked individually to design and to create a line for women and children. The FIM students in the Survey of Global Apparel Industry class formed six teams to partner with six FD students whose designs were selected to be manufactured as industry samples using the industry partner's factories in China. Inspired by the FD students' designs, FIM students created modified designs of the lines based on cost analysis and developed technical packets of the modified lines. GD students in the Package Design class individually developed a brand logo and a promotional item for the garments that were inspired by works done by the FD students.

Interdisciplinary Approach

To understand the dynamics of the full spectrum of the process and gain a holistic view, student teams representing each discipline were required to meet with student teams from other disciplines individually, as small groups, and as a whole group. Work done by each team representing its discipline was shared among the entire group by giving several presentations. Information was shared among the entire collective group of students through three presentations: (1) research by Marketing and FM students (i.e., industry research, target market research, and competition research) (Figure 1, Arrow 1); (2) garments designed by FD students and the modified designs and

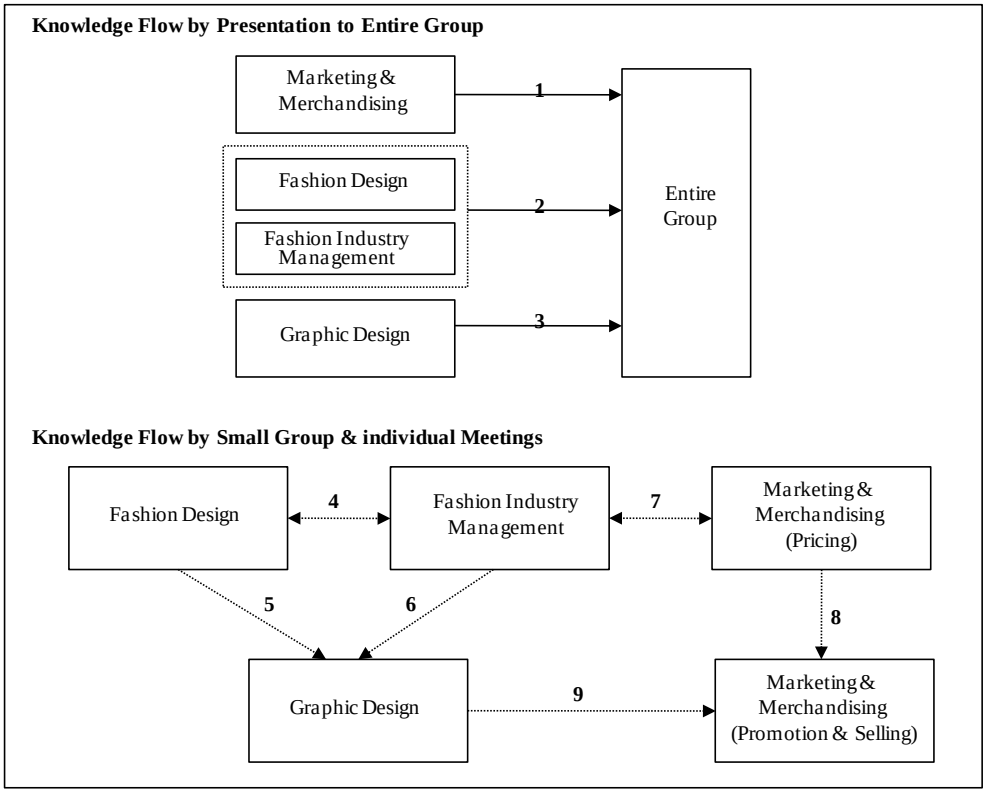
technical specification by FIM students (Figure 1, Arrow 2); and (3) brand identity and logos by GD students (Figure 1, Arrow 3).

Interdisciplinary collaboration was also done in small group and individual meetings. FD students and FIM students met individually to modify the design of the garments to be manufactured as industry samples in the industry partner's factories in China (Figure 1, Arrow 4). Inspired by the six garments by FD students and the six modified garments by FIM students, GD students created promotional items using the bonding theme. The items included toys, activity projects, and interactive accessories (Figure 1, Arrow 5, 6).

Interaction between FD students and GD students was done by individual meetings and through a joint course website that was created on Blackboard. Marketing/ FM students who worked on a pricing strategy met with FIM students through small group discussions. Their cost analysis was based on feedback from the merchandising department and sourcing departments of the industry partner. These students determined retail price and markup for each garment (Figure 1, Arrow 7). Research on price strategies and the cost analysis were shared with Marketing/ FM students who worked on promotion and selling strategies to develop a promotional marketing campaign for the product lines. (Figure 1, Arrow 8). These students met with GD students who developed the promotional items to incorporate the items as a part of promotion and selling strategies (Figure 1, Arrow 9). One of the Marketing/FM groups developed a plan and a script for a one-hour on-air show.

A final presentation was made at the end of the semester with students and faculty involved in the project, industry representatives, and invited faculty and administration. Final deliverables consisted of market research data and marketing strategies including pricing, promotions, and a short mock-up on-air show; technical specifications and industry samples manufactured by the industry partner's factories in China; brand logo and promotional gift items; and fashion designs of the apparel lines.

Figure 1: Knowledge and Information Flow for Interdisciplinary Understanding



Instructional Technological Support for Communication

To enhance communication among participants of the project and oversee the entire process, a joint course website was created on Blackboard. Group schedules, work done by each discipline, pictures and videos taken at meetings, fieldworks and presentations were accessible on the site and available to all students and faculty who were involved. Other technologies such as conference calls to communicate with industry partners and Survey Monkey® to collect information on branding were used.

Industry Partnership

Industry engagement provides a sense of authenticity to student learning. Stinson and Miler (1996) noted that projects in problem-based learning should be similar in nature to the problem that can be found in professional practice which help students develop the types of skills needed for effective solutions. Often times, projects implemented in business courses are neatly designed, well-structured, with prepackaged information; seldom like the situations that happen in practice. Solving a real-world business problem for the industry partner helped students develop the ability to deal with ambiguity and understand challenges that industry faces in implementing a product development process. From modification of the original fashion design concept, to meet requirements regarding costs and production, to communication with manufacturers in China, students had to cope with many real-world issues.

Industry engagement was done in several ways: field trips, industry guest lectures, individual/group feedback, and industry support for industry samples. More specifically:

1. Students had a field trip to the headquarters of the industry partner, at the beginning of the semester. This visit provided students with an overview of the company and allowed them to discuss the project with the industry representatives.
2. Merchandising buyers and representatives from the Selling Strategy departments provided information on the company's unique business model, its merchandising, and its selling strategy through the guest lectures to Marketing/FM students.
3. Industry representatives interacted individually with students helping students develop strategies on pricing, promotion, and production of on-air show.
4. Industry partners provided feedback and input on fashion design which allowed students to gain more insight for the project.
5. FIM students worked with the sourcing team of the industry partner to create technical packets, analyze costs, and produce the industrial samples in factories in China.
6. Industry representatives were on campus to provide feedback to students at the final presentation, at the end of the semester.

ASSESSMENT

Assessment of the interdisciplinary learning approach is challenging but essential to foster student learning and to improve learning, teaching, and the content of courses. Rooted in Stonewater's (2002) Multi-Tiered Model of Assessment, Butler, Stonewater, and Kinney (2005) suggested four guidelines for learning-centered assessment: (1) focus on goals, (2) view assessment from multiple points of view, (3) emphasize student learning outcomes, and (4) disseminate assessment results. They emphasized that assessment should examine the extent to which the actual delivery of the course (project) is congruent with the intended goals and student learning outcomes; and analyze the course (project) from various perspectives including views from students and faculty to add a richness to the assessment. They also stated that assessment results should offer information to redesign the course (project) in order to improve student learning.

Based on Butler *et al.*'s guidelines for assessment, the assessment of the project was done in two ways to ensure views from both students and faculty: (1) by utilizing a survey questionnaire for students to assess the overall effectiveness of the project in achieving the project goals; and (2) by having faculty in-depth discussions to identify issues and challenges of implementation of the projects and potential solutions. While assessment using student survey focused on actual delivery of the project and achievement of the project goals and learning outcomes, faculty assessment focused on overall planning and implementation of the project to improve the project. Faculty in-depth

discussions help faculty members to identify their role as facilitators and to determine how to best guide and support students as they encounter the stumbling blocks of collaboration and the development soft skills (Deretchin, 2002).

Student Assessment of the Project

Based on the notion by Stinson and Miler (1996) that the learning outcomes should be holistic and should not be divided by narrow disciplinary boundaries, the survey questionnaire of the project was designed to assess the overall effectiveness of the project in enhancing students' interdisciplinary, experiential, and collaborative learning experience, rather than improving disciplinary-based knowledge. The survey questionnaire was to evaluate: (1) the usefulness of the project and effectiveness of logistics in enhancing student experience; (2) the effectiveness of the project to achieve the project goals; and (3) the effectiveness of the project to enhance students' soft skill sets. The usefulness of the project and the effectiveness of logistics were measured on a 6-point scale, anchored by "very poor" (1) and "excellent" (6). The effectiveness of the project goals and effectiveness of the project to enhance students' soft skills were measure on a 6-point scale, anchored by "not at all" (1) and "very much" (6). The survey was conducted with students involved in the project. Table 1 shows the mean scores of each evaluation item by disciplines and the results of the mean comparison using Analysis of Variance (ANOVA) among students from the three disciplines. FIM students and M/FM students evaluated the effectiveness of the project higher than FD students did. Generally, students evaluated the effectiveness of the project to enhance students' soft skills highly. The evaluation item that received the highest rating was the effectiveness of the project in providing "the real-world application," and the item that received the lowest rating was "the project organization/coordination."

Table 1: Students' Evaluation of the Project

Evaluation Items	Means				
	M/FM (N=24)	**FIM (N=33)**	**FD (N=7)**	**Total (N=64)**	**F[a] (*df*=2)**
Usefulness and effectiveness of logistics in enhancing student experience					
Clear objectives of this project	4.0	4.2	3.0	4.0	3.57*
Project organization/coordination	3.7	3.3	3.0	3.4	1.61
Feedback from the industry partner	3.6	4.3	3.1	3.9	4.58*
Usefulness of project activities	4.3	4.8	3.3	4.4	5.42**
Usefulness of DEC course website	3.9	4.0	2.7	3.8	2.59
Real-world application	4.8	5.4	4.1	5.0	6.57**
Quality of overall experience of the project	4.4	4.7	3.3	4.5	6.15**
Effectiveness of the project to achieve the project goals					
Understand the product development process	4.1	5.0	3.6	4.5	8.44**
Understand how to market the products to target consumers	4.3	4.7	3.6	4.4	3.19*
Understand challenges that industries face in implementing process of taking products from concept to final products	4.7	5.2	4.4	4.9	3.51*
Effectiveness of the project to enhance students' soft skill sets					
Gain an appreciation for working with students from other disciplines	4.3	4.6	3.6	4.3	1.92
Develop communication skills to work in a team environment	4.8	4.7	3.7	4.6	2.66
Develop critical thinking skills	4.6	4.7	3.3	4.5	5.73**
Appreciate dynamics of working and coordinating work to meet deadlines	4.7	4.9	4.1	4.8	1.50

[a] Mean differences among Marketing/Fashion Merchandising students, Fashion Industry Management students, and Fashion Design students.

* The mean differences among M/FM, FIM, and FD students are significant at the 0.05 level ($p < 0.05$).

** The mean differences among M/FM, FIM, and FD students are significant at the 0.01 level ($p < 0.01$).

Faculty Assessment of the Project

Review of the students' assessments helped to underscore the issues perceived by the faculty during in-depth discussions about the planning, implementation, and outcomes of the project. The nine faculty members who were involved with the project had a number of meetings to discuss issues and challenges of implementing the project. The biggest challenges were the timeline and the scheduling of times to coordinate various aspects of the project. These issues corroborated with the students' evaluation on project organization/coordination. Completing the full process of developing and executing an apparel line within a semester was challenging in the following ways:

1. The time frame did not allow sufficient time for the Marketing students to conduct research on the marketplace and target consumers.
2. The schedule did not allow for enough interaction among disciplines.
3. Course schedules, along with the project implementation through disciplinary courses, did not allow enough opportunity for collaborative teaching among disciplines to foster a greater understanding of collaboration among departments in industry.
4. Time schedules were frequently in conflict and therefore scheduling industry guest lectures and interaction between students and industry representatives were found to be difficult.

RECOMMENDATIONS

In addition to examining the challenges of the project, the in-depth faculty review discussed learning outcomes, evaluation of student works, and areas for opportunity when planning future projects. In implementing an industry-involved interdisciplinary project, both course outcomes and project outcomes need to be articulated at the beginning of the process and shared by both the faculty and the students. The project outcomes must align with the course outcomes and careful thought must be given to the courses that are to be included in the project to insure that the content of the courses support the outcome of the project. Conversely, the goals of the project should also enhance the course goals and contribute to the student's learning outcomes. The level of participation of a course within the project should be determined by these learning goals. In the assessment of the project, the course with sporadic or limited involvement in the entirety of the project was reviewed to be less effective than the courses with long-term and active participation. Therefore, it is important to clearly articulate the goals of the project to each audience and create long-term and active opportunities for all student populations involved.

Evaluation of student works is one of the important issues. In this project, student works were evaluated by the instructor of each class based on criteria and outcomes of the individual course. While this method is effective to evaluation the disciplinary skills and knowledge developed by students, it cannot capture the development of the soft skill sets defined as a project goal. The faculty needs to collaborate when identifying the project goals to create an evaluation system throughout the course of the project to provide feedback to students in a timely manner, not only at the conclusion of the project (Hernon, Dugan, and Schwartz, 2006; Stevens and Levi, 2005). One consideration for timely and meaningful feedback may be a project rubric, designed by the faculty team to identify and quantify the dimensions and levels of achievement. A rubric may also be used to diminish the variance in grades related to the project across the courses, as this tool type clearly defines expectations and performance levels.

Future project frameworks should encourage cross instruction by faculty to offer students a better understanding of other disciplines and their contributions to the project. Also, extending the time frame for the project to be at least six to eight months will allow more time to develop relationships among the faculty and with the industry partner. Developing an interdisciplinary course that may occur over two consecutive semesters will be effective to insure that there is continuity and coordination among the courses. Also, it is important to create a common class schedule for courses that participate in the interdisciplinary project. The large number of students involved in the project was found to be challenging in terms of project coordination. Thus, limiting the number of students who participate in the project might be needed to insure active learning. Funding and legal support are the important elements in implementation of the project. It is essential to gain the support of upper leadership before the beginning of the project. Finding a funding source to accommodate the various aspects of the project such as field trips, materials for the products, and faculty development will be critical in successful implementation of the project. In addition, managing the implementation process for industry projects should allow instructors to add the course as additional course load or use a course release. Legal support is also vital to establish boundaries of intellectual property ownership and to develop appropriate contractual agreements for an industry-engaged project.

CONCLUSIONS

While traditional academic curriculum is disciplinary-based with an emphasis on specialization, industry works in the interdisciplinary way in which employees work collaboratively from design through engineering to commerce. As an effective way to enhance student learning, the industry-engaged interdisciplinary project provides students with real-world experience and opportunity to develop a set of skills such as communication skills, leadership skills, and critical, integrative, and adaptive thinking skills. The pedagogical approach described in this paper will provide educators with valuable information on logistics of implementation and industry engagement of interdisciplinary class projects that can be applied in many professional colleges and universities.

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Equipping Future Marketers to Meet the Emerging Demand for Video Communications

Dr. Katherine Taken Smith, Murray State University, KY

ABSTRACT

The use of video in commerce is on the rise. There is good reason to believe that today's students will encounter a task involving the application of an online video at some point in their career. Even though this Millennial generation is more technologically savvy, the average student does not have experience in creating a video that will engage the viewer while also conveying pertinent information. This paper describes a video assignment in which teams are required to create a 10-minute video that demonstrates the application of a concept from the course material. The video assignment can: (a) help equip students for using digital marketing strategies that require the use of video, and (b) provide an active learning exercise in which students can be creative while applying marketing concepts to business situations. Positive side effects of the assignment include enhanced learning and improved student engagement.

Keywords: Digital marketing communications, Information technology, Oral communication, Student video assignment, Active learning exercise.

EMERGING CONSUMER DEMAND FOR VIDEO

The use of video in ecommerce is on the rise. Nearly three-fourths of US retailers featured a video on their company websites in 2010 (Verna, 2011). Businesses are also posting videos on social media and sharing venues, such as Facebook and YouTube. Marketers find that videos enhance ecommerce and increase conversion rates (eMarketer, 2011a). Consumers who visit websites containing videos are more likely to take some form of desired action, such as purchasing a product or registering for membership. According to Craig Wax, CEO of an ecommerce video company, every retailer will eventually use video (eMarketer, 2011b).

In addition to increasing conversion rates, videos improve the customer's online experience. Customers respond positively to videos, whether they are on company websites, news sources, or YouTube. You could even say that consumers are demanding videos. Advertising dollars are being re-allocated, with online video expenditures growing faster than any other online advertising category (MarketWire, 2011). Video is becoming a standard tool in the ecommerce marketing mix.

There is good reason to believe that today's students will encounter a task involving the application of an online video at some point in their career. Even though this generation is more technologically savvy, the average student does not have experience in creating a video that will engage the consumer while also conveying product information. The assignment described in this paper involves student teams producing a video that revolves around a marketing concept. This video presentation assignment can help equip students to leverage the expanding use of videos in the marketplace.

RELEVANCE TO MARKETING COURSES

Learning about a tool that is increasingly being used in the field of digital marketing is relevant to marketing education objectives. Since videos can facilitate the exchange process, it is beneficial for future marketers to become adept at using this tool.

Video presentations are effective for most marketing courses because they are an active learning exercise. Academic knowledge should be presented in various forms, including non-journal sources. Knowledge develops well in an interactive process (Polonsky, 2007). In this assignment, students experience marketing concepts by applying them to practical business situations. Students who actively experience class material will have better recall of the information (Gremler et al., 2000). Active learning is conducive to deep learning in which the students are able to

apply the information to various situations (Vander Schee, 2011). Active learning also increases student attention, engagement, involvement, and motivation (Wooldridge, 2006).

Active learning has also been linked to students having a positive perception of the class (Karns, 2006). Millennials respond especially well to active learning. Due to their profuse usage of the Internet, social media, and mobile devices, this generation has new ways to communicate and process information. Research has shown that active learning exercises, which allow students to interact with each other, are conducive to significant improvements in learning (Yamarik, 2007). Learning is most effective when it takes place in a collaborative and social environment (Gremler et al., 2000).

The video presentation is also a team exercise. Most marketing educators would agree that teamwork, with its interpersonal dynamics and hands-on learning, provides multiple benefits to the students. Researchers have found that students view team assignments as effective and good learning exercises. Students feel positive about team dynamics and cohesion (Chapman et al., 2010). Teamwork provides practice in dealing with the challenges of group dynamics and conflicts. With teamwork skills being important in the workplace, recruiters are actively seeking students who have demonstrated their ability to work in teams (Vance, 2007).

This assignment also fosters creativity. Creativity is considered a vital ingredient in marketing. The success of American capitalism can partly be attributed to our aptitude for generating new and creative products, services, and customer experiences. Companies vie for resourceful employees who can infuse the firm with innovative ideas. Unfortunately, some research has found that a person's creativity decreases as he or she advances through the educational system (Anderson, 2006).

THE VIDEO ASSIGNMENT

Each team is required to create an 8 to 10 minute video that demonstrates the application of a concept from the course material. Specifically, teams must:

- Create and film a demonstration of how the concept works in relation to a product or brand. Teams must apply the concept to a business situation.
- Provide the definition of the concept and show how a real company applies the concept (commercials on YouTube can be helpful with this).

The instructor can either assign specific concepts or let students chose from any of the topics in the textbook. For example, a video may demonstrate product differentiation, glocalization, guerrilla marketing, or the consumer behavior traits of Millennials. This latter topic can be viewed in an actual student video on YouTube (http://www.youtube.com/watch?v=Dt-lm-J8i8g).

Unlike a typical student presentation, video enables the teams to go on location and utilize different scenes and people. Students have the opportunity to insert attention-getting tactics into their videos, such as high-energy activities and emotional displays of humor, surprise, or fear.

Examples of previous student videos help clarify what is expected from the assignment. This assignment is given twice during the semester. Giving students two opportunities to produce a video presentation is conducive to good teaching methods in that the student can receive feedback and make improvements for the second time around. The list of marketing concepts for each presentation will come from course material that is included on the upcoming exam. Video presentations are shown in class the week before the exam, thus providing a good review of the concepts.

The technical side of video editing is not discussed in class. There are free video editing programs available online, such as Windows Movie Maker, which are user friendly. If no one on the team has previous experience with editing videos, then they quickly learn and come away from the class with an additional skill. Most students are pleased at increasing their expertise in a technological area. In fact, team members are generally quite proud of themselves after making a video. Students are cautioned that videos should be "G" rated – no offensive content. Videos can be played in class by way of DVD, CD, flash drive, or YouTube.

GRADING THE ASSIGNMENT

Presentation grades are based upon their utilitarian and hedonic value to the class. To be considered utilitarian, the class should gain a better understanding of the marketing concept. The presentation is considered hedonic if the class enjoys the experience. Using both of these measures helps make presentations engaging for the class. Student video presentations are actually a highlight of the semester. Students enjoy coming to class and seeing the creativity and vitality of their classmates.

Presentations can be graded while the instructor watches them in class. A grade sheet for each team is used, on which the instructor writes the following comments.

- Good points: aspects of the presentation that provided utilitarian and hedonic value.
- Needs improvement: aspects of the presentation that can be improved upon for the next presentation.

Grade sheets provide the students with timely and constructive feedback that helps them improve their skills. On the day they present, students are required to submit a copy of their video or save it to the instructor's computer. Thus, the instructor has the option to view the video a second time if necessary.

Apart from receiving a grade from the instructor, the students vote on the best video of the day. Teams that win the competition are awarded wristbands that say "Marketing Presentation Winner." Many students wear their wristband the remainder of the semester.

TIME SCHEDULE

The video assignment is discussed in detail two or three weeks before its due date. Some class time can be allocated for teams to discuss their presentation ideas. Even though each video is 8 to 10 minutes long, it is wise to allocate 15 minutes for each presentation in order to allow for any technical difficulties. Videos can be shown consecutively in one week, or spread throughout the semester. For large classes of 100 students or more, it is better to require only one video presentation from each team and to space the videos throughout the semester.

ASSIGNING TEAMS

Team composition is a critical factor in the success of this assignment, as is the case with all team projects. Optimally, teams have three to five members. Students are allowed to specify people they would like on their team. However, the instructor still has the task of assigning numerous students to teams. To facilitate good team relations, a questionnaire is administered at the beginning of the semester. The questionnaire contains the following questions.

- Do you have any experience making or editing homemade videos?
- Do you prefer being in front of a camera or behind the scenes?
- In one sentence write a personal motto you try to live by. (Examples: be kind to others, work hard, live for the moment)

Teams are compiled with the goal of joining students who have a variety of skills, but similar personal mottos. For this assignment, the philosophy that has successfully reduced friction within teams is to put like-minded people together.

HOW THE VIDEO ASSIGNMENT EQUIPS STUDENTS

By constructing a video, students acquire knowledge of what makes a good or bad video. They also have a new awareness of the many elements that go into a video. Students experience everything from brainstorming to converting ideas into action to editing the video. A practical challenge is learning to convey information in an engaging manner through video. The video presentation develops the following skills:

- Expressing concepts in a visual and oral format.
- Applying information technology tools.
- Grabbing and maintaining consumer attention.
- Knowing good filming techniques, such as lighting, background, sound quality, and editing.
- Using and manipulating video clips from online sources.

Online videos are currently still an underutilized marketing tool; companies are on the brink of learning how to maximize the potential of this digital asset. Having experience with videos, no matter how small, may be the differentiator between prospective job candidates.

Another benefit of the video presentation is that it reinforces the material from the textbook. Students have a better understanding and recall of course material after the concepts have been explained and demonstrated in video format.

EFFECTIVENESS OF THE VIDEO ASSIGNMENT

Three classes, for a total of ninety students, were surveyed to determine student perceptions of the video assignment. A Likert scale was used, with 1 being strongly disagree and 5 being strongly agree. Students' qualitative assessments of the assignment suggest the following:

- Participating in video presentations is a good learning experience for students (mean 4.14).
- Students feel more confident working with online videos in the future as part of a marketing campaign (mean 4.22).
- Students agree that making videos improves their creative skills (mean 4.23).

All means were significantly different from neutral ("3").

Students enjoy making team videos. They have the opportunity to be innovative and resourceful, plus connect with their classmates. Students enjoy watching other class videos, which succeed in inspiring even further creativity. This form of active learning has definitely increased student engagement with the course.

Getting to know teammates outside of class during the making of a video, plus watching other classmates in their videos, has a positive side effect. Students feel a connection to people in class; this makes the class environment more friendly and comfortable for discussion. Students are engaged and responsive. The class takes on a personality of its own.

CHALLENGES FOR THE INSTRUCTOR

A common problem with teamwork is "slackers" who are chronically absent. Slackers have not been a notable problem with video presentations. There may be several reasons for this. The nature of the assignment bonds people; students have fun making the video and being creative. They spend a good bit of time together in this endeavor. They often go to each other's abodes or eat together in the process of filming. Comments are often made along the lines of "I don't want to let my teammates down."

There is also some accountability involved that wards off the inclination to be a slacker. Team members rate each other's participation in the preparation of the presentation. Points can be detracted from a student's presentation grade if he or she receives low ratings. Since the team has two video presentations for the class, a person knows there will be a double penalty for not pulling his or her share of the work. Team members also know that this isn't a one-time exercise; they will be interacting with each other the entire semester.

Due to this assignment's technical nature, difficulties can arise during the filming or presentation of the video. Some students may want to test out their video on the classroom computer prior to presenting, just to make sure it will play. For example, videos made on a Mac computer may not be compatible with the classroom computer. However, the solution is simple – upload the video to YouTube and play from it. Students are resourceful and will find a way to overcome technical difficulties.

ADAPTABILITY OF VIDEO ASSIGNMENT

Any marketing course is a candidate for a video presentation assignment. It can be used with undergraduates or graduates. Any size class may be used; simply adjust the size of the teams along with the number of videos required.

For Principles of Marketing, Consumer Behavior, Retailing, or Global Marketing, the instructor can assign concepts from the textbook, or use other topics such as current trends relating to the course. In a Consumer Behavior class, for example, students may be assigned a consumer behavior concept for which they would create a demonstration of a

marketer applying the concept or consumers practicing the concept in relation to a brand. The presentation can also include examples of real companies using the concept in their interaction with consumers. For instance, if the assigned concept were "total value concept," then the goal of the assignment would be to show the marketer communicating the various ways the consumer could derive value from a brand.

In Advertising, Promotions, or Integrated Marketing Communications classes, the assignment can be geared towards creating actual promotional videos. For example, if the assigned concept were "habituation," then the goal of the promotions would be to introduce a new stimulus to the consumer in order to regain his or her attention and solicit a response. As part of the video, students may film any promotional tool, such as sales promotions, social media, guerrilla marketing, event sponsorship, or point of purchase advertising.

Video presentations are compatible with the Millennial student's strengths. Inter-active technologies along with product websites and social media are facilitators for Millennials to naturally become more active in the promotion and advancement of products and brands. Videos are an ideal outlet for these students to leverage these technologies and hone their marketing skills in the classroom.

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AACSB Assurance of Learning: Lessons Learned in Ethics Module Development

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ABSTRACT

Student learning is the central activity of higher education. Widespread interest in educational accountability and pressure from accrediting bodies push instructors to document assurance of learning as well as their efforts at continuous improvement of learning outcomes. This article assists those associated with Association to Advance Collegiate Schools of Business accredited programs to achieve assurance of learning in a particularly challenging area to document: the teaching of ethical reasoning. It shares lessons learned concerning faculty involvement and coordination, learning goals, designing an assessment rubric, quantitative and qualitative measurement challenges, understanding students served, and the value of continuous feedback. These insights extend the literature while supporting others in satisfying learning goals more efficiently.

Keywords: AACSB, assurance of learning, ethics training, assessment measurement, continuous teaching improvement.

INTRODUCTION

Higher education wrestles with responsiveness to increasing accountability demands (Fitzpatrick and Miller-Stevens, 2009; Glenn, 2011; Powell, 2009; Weldy and Turnipseed, 2010; Westerfelt, 2011). This includes the federal government's concern with accrediting bodies producing evidence that students reach articulated learning goals (Suskie, 2004). As a consequence, widespread interest and pressure push instructors to document assurance of learning (AoL) as well as their efforts at continuous improvement of learning outcomes. AoL refers to a systematic process of collecting, evaluating, and employing information about educational programs to improve student learning and development (Palomba and Banta, 1999). Top teaching and learning issues include "establishing and supporting a culture of evidence, . . . demonstrating improvement of learning" and "translating learning research into practice" (Campbell and Oblinger, 2007, p. 15). As a consequence, AoL will receive increasing attention by accrediting bodies. Among those, the Association to Advance Collegiate Schools of Business (AACSB) functions as the foremost accrediting body for business programs. It cannot afford to be anything less than on the leading edge. After all, graduating business majors must leverage their skill set swiftly by contributing to a company's bottom line to justify their retention.

This article extends the literature by providing a case study on a common but particularly challenging learning goal: the teaching of ethical reasoning. It also provides an AACSB-specific example of demonstrating continuous AoL. The case study reviews the strategy used by one department to address a substantive learning outcome, how it did so, and what lessons the faculty learned as a result. We begin by describing the motivation for an allied but non-AACSB accredited department to contribute the anchoring module of an ethics component. Second, we discuss the AACSB's AoL perspective and review AoL literature generally. Third, we explain the departmental effort to develop, refine, install, assess, revise, and improve the module material to meet the AACSB AoL standard. Fourth, we share the valuable lessons learned while offering recommendations about how others can streamline their efforts in satisfying AoL goals more efficiently.

BACKGROUND

The College of Business and Public Administration (CBPA) at California State University, San Bernardino offers AACSB accredited business programs, both at the graduate and undergraduate levels. In the AY 2008-09 accreditation self-study, ethical reasoning was identified as one of the weaknesses among the five learning goals of

the CBPA.[1] The major deficiencies include: 1) lack of a clearly defined teaching goal and structured assessment mechanisms; 2) lack of faculty initiative and a coordinative effort in achieving the goal; and 3) lack of documentation of learning outcomes. As a result of the latest reaccreditation for the business curriculum, there is renewed interest in documenting associated curricula for AoL currency.

The Public Administration Department (PAD) supplies an upper-division undergraduate course called "government-business relations" for the CBPA's business majors. This core course serves as a foundational pillar to the overall business curriculum, which includes majors in accounting and finance, information decision sciences, management, and marketing. All undergraduate business majors must take the course and the average enrollment exceeds 700 annually.

The PAD faculty members value the close, strategic, and collegial affiliation with the business curriculum. They enthusiastically offered to design, develop, and deliver a substantive ethics module in the government-business relations course. While the PAD is the only non-business department in the CBPA, it historically addresses ethics in its curricula. This partnership demonstrates the CBPA's commitment to maintain and enhance the importance of ethics as a vital learning goal. Module development materially undergirds and contributes to the overall AoL strategy for the business majors. Moreover, the move also is an efficient win-win for the business curriculum and the PAD since its courses routinely address issues concerning ethics anyway.

A faculty sub-committee designed and vetted the new ethics module during the summer of 2009. The first class piloted the module with a written essay assessment. In the fall of the same year, two classes piloted the module with cross-group experimental testing for teaching effectiveness. In spring and summer 2010, another cross-group experiment of student surveys were conducted in three classes. The module was revised and improved based on analysis of the feedback from faculty and students. In fall 2010, all full-time faculty teaching the class implemented the ethics module. Adjunct faculty teaching the course incorporated the module into their government-business relations courses throughout the academic year. By fall 2011, all public administration faculty and adjuncts teaching the course covered the ethics module.

AACSB and the AoL Framework

The AACSB determines and communicates accreditation standards to aspiring business schools. The Eligibility Procedures and Accreditation Standards for Business Accreditation (AACSB International, 2011) declare student learning the fundamental concern of collegiate education. This shifts the spotlight from what instructors teach to what students learn (Martell, 2007; Stivers and Phillips, 2009). Accordingly, the intent of AACSB's AoL standards is to determine the relative success of business schools in meeting their particular learning goals. There are two reasons why this is important to a school's stakeholders (students, faculty, trustees, supporters, accreditors, and employers). First, measures of learning illustrate institutional accountability in documenting student learning outcomes. Second, measures of learning enable faculty evaluation of student learning outcomes from which (1) to make curricula improvements, and (2) to counsel students regarding their individual learning.

The AACSB recommends that AoL proceed from the development of learning goals (AACSB International, 2011). Learning goals should address "broad educational expectations for each degree program" (p. 61). They should arise from the institutional mission and link that mission to degree programs. Learning goals must convey to stakeholders the targeted educational outcomes. Sound learning goals encompass the intellectual and behavioral competencies encouraged. This includes student learning outcomes, or how students will be different as a result of the experience. Further, such clarity, or truth in advertising, permits informed choice by potential students seeking a business degree program.

AACSB focuses on program-level learning goals (AACSB International, 2007). For instance, a program goal may involve ethical reasoning. Goals state desirable student outcomes. They represent the most important competencies mastered through an educational program. For a business student majoring in marketing, there may be a variety of individual marketing course learning objectives. One of them is the use of professional standards (a type of applied ethics) in various marketing contexts. Curricula alignment arises from demonstrating that student course work leads

[1] The five teaching goals of the CBPA are communication skills (oral and written), problem solving skills, ethical reasoning skills, informational technology skills, and general and specific management knowledge and skills.

to learning goal achievement. "If learning goals are adopted but are not addressed in the curricula, the outcome assessment process will be worthless" (AACSB International, 2007, p. 8).

As learning outcomes emerge, the challenge turns to designing course learning experiences. These are covered through syllabi and consist of lectures, class discussions, exercises, projects, writing assignments, exams, and a wide range of supportive activities. Instructors carry the responsibility to monitor and to assess learning experiences routinely to assure that learning occurs. Assessment involves collecting, interpreting, and using information to inform decision making (McMillian, 2001). Such monitoring and assessing must be "regular, systematic, and sustained" (AACSB International, 2011, p. 62). Thus, learning experiences must be operationalized for valid and reliable measurement. Validity and reliability in assessment provides quality of assurance (Hoffman and Michel, 2010). The overriding question is, "How can it be demonstrated that the learning experiences accomplish the learning goals?"

AoL Assessment

Educational assessment, according to AACSB (AACSB International, 2007), entails distinctive yet complementary elements to enforce accountability. These include (1) delineation of learning goals and objectives, (2) curricula alignment, (3) assessment measures, (4) data collection and analysis, and (5) assessment documentation and use for continuous improvement. Ideally, the process results in credible information about changes in student abilities and skills. The data should drive the improvement of student learning and development (Palomba and Banta, 1999).

Assessment measures should follow, not dictate, learning goals and objectives (AACSB International, 2007). They should reflect what the faculty wants students to do to demonstrate competency (Martell, 2007). Assessment measures should be anchored by faculty determined program benchmarks. Yet, AACSB recommends that programs establish curricula intervention points as well. They should provide performance-based triggers to refine curricula in the quest for continuous improvement.

AACSB once required indirect measures of assessment (Pringle and Michel, 2007). These measures involved asking for stakeholder opinions regarding (1) how well students achieved program learning objectives, and (2) relative job performance in connection with their major, or concentration. Most frequently, surveys substantiate and aggregate these opinions. Now, AACSB calls for direct measures of student skills, knowledge, and abilities (AACSB International, 2011). Direct measures of learning mean course embedded assessments. Examples of such assessments include standardized assessment questions, case studies, and various exercises (Weldy and Turnipseed, 2010). Further, AACSB recognizes that AoL seldom is the result of a single tool embedded in the curriculum. Quite the contrary, it more likely reflects a mix of tools deployed throughout multiple courses (Bisoux, 2008; Weldy and Turnipseed, 2010).

AACSB accepts an array of direct measures for learning assessment (AACSB International, 2007). They may consist of a variety of strategies with appropriate rubrics (e.g., exams, group projects, class presentations, writing assignments, role playing, etc.) to support peer norming (Hoffman, 2006). These measures frequently perform double duty. They assess specific course learning used in the course as well as overall program learning goals, both with documentation.

Two sanctioned approaches describe process options used by instructors in connection with the ethical reasoning learning goal for all business majors. First, course-embedded measures refer to in-course activities where students' task performance also serves for assessment purposes. Such task appraisal serves the purpose of AoL through an instructor's measurement instrument to determine a course grade. Additionally, the tasks will be considered a second time based on a program's criteria. This micro-level assessment method is strongly recommended as the primary vehicle. It is perceived as the most likely to result in outcome measures specific enough to target improvement. However, this requires faculty "buy-in" since select data from their classes will be accessible to others with regard to course embedded measures. Second, "demonstration through stand-alone testing or performance" involves assessment of student performance related to the learning goal through standardized appraisal (AACSB International, 2007). Such assessments may be either internal or external from the program and may occur outside of the regular classroom. While this is often considered a more convenient method, the challenge is in providing outcomes that are concrete enough to result in tangible curricular changes. For example, a comprehensive essay exam at the end of a program of study is a useful tool for discriminating among the performance of students. However, it is not a robust tool for documenting specific learning outcomes and providing a clear path to improve

learning outcomes. Detailed comprehensive assessment tests have the challenges of being too large and difficult to design and administer. Whatever the methods chosen, the results of learning assessments must feed back into the curricula monitoring processes to steer tangible improvement (Allen, Fellows, and Harrison, 2009; LaFleur, Babin, and Lopez, 2009). This is referred to as "closing the loop" (Bisoux, 2008). AACSB also calls for the availability of documentation for accreditation inspections.

Student performance data requires dissemination to the program faculty for analysis. AACSB urges a standing AoL Committee to be on point. This committee's responsibility is to demonstrate how the assessment data informs the particular major and overall program educational effectiveness. Further, it closes the loop by recommending and implementing changes to advance student learning (Kelley, Tong, and Choi, 2010). Such changes should engage enhanced coordination among multi-section courses and pivotal efforts to enhance pedagogies.

THE CBPA ETHICS MODULE ASSESSMENT CYCLE

This section explains our assessment cycle design and implementation process under the AACSB's AoL guidelines. The cycle consists of multiple phases (Matthews, 2010). For our ethics module, we worked through five phases of the AACSB AoL process summarized in Table 1.

Table 1: AoL Assessment Cycle for the Public Administration Ethics Module

No.	Assessment Phase	Faculty Activity
1	Delineation of learning goals	The PAD subcommittee discusses and formulates learning goals with faculty from the business majors. Subcommittee reviews consensus with public administration faculty.
2	Curriculum alignment	The PAD subcommittee develops and aligns student course material and expected learning outcomes and reviews with public administration faculty and business majors' faculty. Subcommittee formulates student learning experiences and reviews them with faculty who will teach government-business relations.
3	Assessment measurement	The PAD subcommittee constructs pre and post module assessment instruments and reviews them with the faculty who will teach government-business relations.
4	Data collection and analysis	PAD faculty teaching government-business relations in a particular term administer the assessment instruments and reviews results with the CBPA's AoL committee.
5	Assessment documentation and use for continuous improvement	Faculty teaching government-business relations reviews results and determines what course materials need modification to improve learning.

Delineation of Learning Goals

Businesses across the spectrum have increased interest in individual morality and corporate social responsibility in the wake of scandals over the past two decades (Teasley and Hornyak, 2010). Business schools have followed business's lead and urgings for a more robust ethics curriculum. The AACSB in 2003 proposed new standards suggesting that business schools make teaching ethics a higher priority (Sims and Felton 2006). Consequently, many business schools have placed greater priority on ethics.

A variety of views abound concerning what the goals of teaching business ethics should be (see Alam, 1999; Carson and Burke, 1998; Gandz and Hayes, 1988; Kracher, 1999; LeClair, 1999; Loeb, 1988; McDonald and Donleavy, 1995; Nelson and Wittmer, 2001; Procario-Foley and McLaughlin, 2003; Sims, 2004; Sims and Brinkmann, 2003; Strong and Hoffman, 1990; Schwartz, Kassem, and Ludwig, 1991; Waples, Antes, Murphy, Connelly, and Mumford 2009). The rationales underpinning our ethical reasoning assessment cycle are that 1) the teaching goal should be in alignment with the overall college mission and values; 2) it should involve realistic operationalizations; and 3) it should be set and revised at a level that encourages continuous improvement (Felton and Sims, 2005).

The PAD subcommittee, based on a literature review, defined ethical reasoning as the skill of reasoning about right and wrong personal and business conduct. Students are required to understand their professional ethical roles, assess

their own ethical values and the social context of problems, recognize ethical issues in a business scenario, consider how different ethical perspectives might be applied to the ethical dilemmas, and evaluate the ramifications of alternative actions. The goal encompasses four performance dimensions: 1) identification of key stakeholders in specific situations, 2) comprehension of ethical dilemmas presented in case studies, 3) improvement in the quality of the moral reasoning to resolve the ethical problems, and 4) sensitizing student attitudes about the importance of reflecting on the ethical issues.

Curriculum alignment

Debates rage over whether ethics can or cannot be taught and which pedagogical methods are most effective in imparting a business ethics education (Felton and Sims, 2005). Surveys of business schools show a wide range of pedagogical approaches to teaching business ethics. Some rely on structured lectures, emphasizing western ethical thinking and principles. Others use approaches that lead students toward understanding ethical concepts and reasoning by themselves. Still others analyze management case studies, which allow for active dissection of ethical judgments in different contexts (Sims and Felton, 2006).

The CBPA is unable to hire specialized faculty for courses in ethics as some business schools have (Meinhardt, 2003) due to budget constraints. Instead of new faculty, the curriculum effort focused on redesigning of an existing core undergraduate course (government-business relations) to achieve and to assess the teaching goal. This core course curriculum assessment technique is recommended by the AACSB to business schools (AACSB, 2007).

The ethics teaching module is designed to fulfill the following purposes:

- To inform students of the importance of business ethics;
- To teach students about the concepts and principles undergirding ethics;
- To introduce a straightforward analytical framework that can be applied in a real ethical dilemma;
- To use business case studies to demonstrate the application of the analytical framework; and
- To assess data for AoL.

A faculty sub-committee designed and vetted the new ethics module during the summer of 2009. Instructors have the discretion to cover the module in either one or two sessions (over a twenty-session quarter course with each session lasting one hour and fifty minutes).The module consists of the following elements:

- A module guideline with introductions to the content, implementation approaches, and data collection and documentation methods for AoL;
- A pre-class required reading, introducing the importance of business ethics, major business ethics principles, and a framework for ethical reasoning;
- A PowerPoint presentation to support students in comprehending the reading;
- Two teaching cases with a study guide;
- Two assessment cases with a study guide; and
- A CBPA undergraduate ethical reasoning learning goal rubric.

Assessment Measurement

Educational assessment involves the "systematic collection, interpretation, and use of information about student characteristics, the educational environment, and learning outcomes to improve student learning and satisfaction" (Gainen and Locatelli, 1995). Course-embedded assignments, capstone seminars, and simulations supply an array of assessment options for business schools (Bisoux, 2008). Because the college has a capstone seminar for undergraduate programs in place, the ethics module uses a course-embedded test.

Tests are recognized in higher education as a reliable and relatively efficient strategy for obtaining valid data about those assessed. A test refers to a measuring device or procedure while assessment encompasses more (Cohen and Swerdlik, 2009). Testing is characterized as conducting, scoring, and interpreting results collected through some examination instrument (Farenga and Ness, 2005). Overall assessment of tests may involve some form of data collection within a distinct context.

In the ethics module, AoL is addressed through cross-group pretests and posttests consisting of written case analyses. Instructors have the option to adopt either the posttest alone or pretest and posttests with the two

comparable testing cases. This assessment design offers additional advantages besides providing assessment data for AoL: 1) individual instructors can review his/her teaching outcomes and improve teaching based on pretest and posttests; and 2) the cross-group comparison facilitates the consistency of assessments.

In addition to the written case analysis tests, we also conduct periodic student surveys to monitor student demography, cognitive level, and learning style. Information from surveys informs the contemplated modifications to teaching objectives, teaching styles, formatting of assessments, and the continuous improvement of AoL.

Data Collection and Analysis

Instructors collect the case assessment data for the CBPA AoL Committee. To facilitate efficient data storage and transmission, instructors use online teaching platforms (e.g., Blackboard) to collect the assessment data. They submit a hard copy of the material turned in by students, or an electronic copy downloaded from Blackboard to the department's representative to the AoL Committee. The AoL Committee analyzes the assessment data based on the scoring rubric (see Appendix 1). Results are reported to the CBPA's various stakeholders.

Assessment Documentation for Continuous Improvement

The instructor may keep the original copy of the test or survey submitted by the students. The CBPA AoL Committee documents and analyzes assessment records for continuous improvement. The committee periodically reviews the records and readjusts specific learning goals based on the college's overall AoL strategies. The assessment results drive change for continuous improvement.

AoL activity is not linear. It is iterative with backtracking (Wiggens and McTighe, 2005) and successive approximations. It invites and encourages faculty to take ownership of the curriculum. The PAD faculty invested in and created ownership (Maki, 2010) of the ethics module through customizing delivery and assessment to fit their individual styles. Through feedback, discussion, and alignment with the business program faculty, the CBPA assures collective responsibility for student ethics learning.

LESSONS LEARNED

Despite some early shortcomings with the ethics module, it proves to be a practical way to assess student learning. Several lessons we learned may help business programs elsewhere to improve their process.

Faculty Involvement and Coordination

The government-business relations course is taught by several different faculty members, both full-time and adjunct, in various formats. On the one hand, the ethics module requires faculty endorsement and commitment for consistent delivery of the teaching goal. On the other hand, module design permits a certain degree of flexibility for individual instructors to integrate it with their course theme(s) and structure. The whole design and implementation process should be an open process that constantly addresses faculty and student feedback sensitively. Additionally, it is critical to have a faculty member lead or coordinate the process. In our case, the faculty member who coordinates the process is also the department representative to the CBPA's AoL Committee. This arrangement creates an efficient linkage between the department's effort and the CBPA's overall AoL strategy. This connection fosters a nimble responsiveness to our continuous improvement strategy.

Understanding and Defining Learning Goals prior to Curriculum Design

The ethics module was conceived prior to the CBPA fully defining student learning goals. Retrospectively, we have learned that this is a disadvantage. As a consequence, modifications to the teaching module have been required to reach an evolving learning goal. Launching learning goals should be an early step in the AoL process and is a prerequisite to choosing methods or establishing performance standards (Martell 2007). The assessment cycle should follow faculty determination of what students will do to demonstrate learning achievement.

Design an Assessment Rubric and the Curriculum in Tandem with the Learning Goal

Our experience suggests the triangular alignment of three key strategies for AoL: learning goals, assessment rubrics, and curriculum design. The overriding learning goal should be realistic, taking in the constraints of the students' cognitive level, their socio-cultural background, and the overall learning environment. It should drive both the assessment rubrics and the curriculum design. Successful practices should balance carefully these three strategies and purposely design an assessment rubric and curriculum to complement the learning goal.

Qualitative and Quantitative Measurement Challenges

We find there are tradeoffs between quantitative and qualitative measurements in assessing learning outcomes. A quantitative approach allows for large-scale measurement of ideas, beliefs, and attitudes. It facilitates comparison and statistical aggregation of the data with a limited set of questions. When staff and the budget are constrained, it is generally more efficient for large samples. On the other hand, qualitative methods provide the opportunity to assess the individual student's learning more effectively. For example, could the student successfully identify stakeholders, ethical issues, and reason coherently about the competing values in an articulate fashion?

The quantitative approach, such as the student survey, has proved to be an efficient strategy to understand a student's socio-cultural background, cognitive level, and points of learning deficiencies. However, we found the quantitative method in our two piloted experiments was not effective in assessing a student's understanding of ethical dilemmas. Further, it was ineffectual in gauging a student's capability in applying ethical principles in business scenarios holistically. Faculty and students criticized its rigidity, pre-judgments, and superficiality. In contrast, the qualitative essay style case analysis proves to be more effective. It creates openness, simulates a student's individual experiences, and provides more depth and detail. Yet, it does require more grading time and a well-structured rubric for assessing the essays. Our experience suggests that each data strategy presents advantages depending on what is assessed. We find that a mix of quantitative and qualitative strategies enriches the evaluation of teaching outcomes.

Understanding Students' Socio-cultural Background, Cognitive Level, and Learning Style

Understanding students is the key to student-centered teaching. The content delivered as well as the way it is delivered should be appropriate for students and relevant to their lives. This is especially important for teaching business ethics. In our case, based on two student surveys, we found that the demography of our student group was mostly non-white (over 70%), relatively religious (68%), with an immigrant or international background (30%), and represented many first generation college students (37%). Students generally lacked exposure to the concepts related to corporate social responsibility and have an excessively negative impression of government regulation. Through comparing pre and post student surveys, we found that the teaching module was relatively effective in improving students' knowledge of facts related to business ethics and awareness of ethical issues and personal responsibilities. Disappointingly, this single module was relatively ineffective in changing students' fundamental behavior (e.g., no significant change in the percentage of students reporting that "I would lie and cheat for a million dollars, but I would not break the law even if I was unlikely to be caught" in pre and post surveys). Based on this information, we are reviewing how to adjust our teaching to increase the impact on students, but we realize the limitations of a single, introductory teaching module on student beliefs and behavior systems. There is the need, recognized by accrediting bodies such as AACSB, to ensure that critical curriculum goals are integrated across many courses. Curriculum goals should build on introductory sessions with increasingly more sophisticated and discipline specific treatments. We are just now launching that phase in terms of bringing representatives from all CBPA departments to discuss how the ethics curriculum unfolds in their upper division studies.

Continuous Feedback Supports Continuous Improvement

Feedback from an overall curricula perspective as well as individual course assessment supports continuous improvement (Marshall, 2007). Holistically, faculty driven curricula redesign is informed by summative evaluation on an overall program basis. At the course level unit of analysis, instructors teaching a particular course can act to fine tune future course elements. This closes the loop in achieving more exacting outcomes. Assessment data, both on an overall curriculum and on an individual course basis, informs a continuous dialog among the faculty teaching the course regarding effectiveness. The perennial questions are (1) whether we truly are delivering the learning outcomes we are targeting, and (2) if not, can the data pinpoint where we need to improve (Bisoux, 2008). This type of probing encourages and supports a continuous dialogue among faculty about learning outcomes. It reinforces and revitalizes teaching by supporting a continuous culture of change on an upwardly rising trajectory. This in turn stimulates more interest in assessment throughout the curriculum. It ignites imagination and energizes enriched experimentation.

CONCLUSION

As higher educational institutions worldwide strive to achieve their learning goals, this article provides practical lessons from our experience following the AACSB's AoL framework in the difficult area of teaching ethical

reasoning. We found our AoL journey rewarding despite some misteps. We learned from each other fortifying a collegiality through debating the learning goal formation and developing the assessment mechanisms. Through surveying students and listening to their feedback, we better understand our students and can build a stronger sense of community. Through conducting class experiments and benchmarking our progress, we improve our teaching effectiveness. In summary, our AoL journey is not simply an approach of getting the job done for students, taxpayers, and accrediting bodies. It also involves a process of building faculty relationships and creating a sense of faculty responsibility and ownership of the academic programs.

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Appendix 1: CBPA Core Course Outcomes Assessment Scoring Rubric—Ethical Reasoning Skills

Student Name: _____ Assignment: _____

Performance Criteria	Superior (3)	Acceptable (2)	Unacceptable (1)
Identification of key stakeholders in the situation involved	Identification of most key stakeholders in the situation involved	Identification of some key stakeholders in the situation involved	Failure to identify key stakeholders in the situation involved
Comprehension of the ethical dilemma presented in the case	Thorough understanding of the general ethical dilemma and the major tradeoff of competing values	Some understanding of the general ethical dilemma and the major tradeoff of competing values	Little or no understanding of the general ethical dilemma and the major tradeoff of competing values
Quality of the solution(s) presented to resolve the ethical problem	Recommends a course of action that would resolve the ethical problem in an effective manner under the circumstances	Recommends a course of action that is workable, but less effective than other options/solutions	Recommends a course of action that would not resolve the ethical problem
Student attitude about resolving the ethical problem presented in the case	Words and manner suggesting a view that meets (or exceeds) general social expectations of business professionals	Words and manner suggesting a view that does not significantly fall short or deviate from general social expectations of business professionals	Words and manner suggesting a view that significantly falls short or deviates from general social expectations of business professionals

Quarter: _____ Course _____ Section ____ Professor: _____

Superior _____ (10-12 points) Acceptable _____ (7-9 points) Unacceptable _____ (4-6 points)

The Rise, Fall, and Return of E-Marketing Curriculum: A Call for Integration

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ABSTRACT

In the late 1990s, a marketing department engaged in developing a market-based E-Marketing curriculum and launched a BSBA E-Marketing option in response to strong community interests in E-Commerce. The program failed to garner sufficient interest due to the bursting of the dot-com bubble in the early 2000s, shortly before the program launch. Students showed mixed interest in the E-Marketing option program and corresponding courses, evidenced by registering for individual courses yet few students enrolling in the option program as a whole. This trend continued long after the successful comeback of E-Commerce until 2008. The University eventually dropped E-Marketing from the list of options in the Undergraduate Business Major in 2009. This paper reflects on the lessons learned from experiencing the rise and fall of interest in the E-Marketing program in its early form and discusses the way ahead for E-Marketing programs in a changing marketing education environment.

Keywords: E-marketing curriculum, marketing education, integrated marketing curriculum

INTRODUCTION

The dot-com proliferation in the late 1990s was a wake-up call to educators as well as to industry practitioners. Many businesses in the community, reflecting on their E-commerce possibilities and interests, demanded an E-Marketing curriculum that addressed teaching operational knowledge of E-Commerce. In response to the strong community interests in the E-Commerce curriculum in the late 1990s, a Northern California state university's marketing department undertook a market-based curriculum development process. In 2001, the department launched an undergraduate degree (BSBA), embedding an E-Commerce Marketing program as an area of concentration. Upon introduction, the program was noted as the first undergraduate E-Commerce Marketing program anticipated in the San Francisco Bay Area (Goll 2001). Contrary to expectations of the department, however, students' responses to the E-Commerce Marketing curriculum were mixed. After seven years of low enrollment in the E-Commerce Marketing option program, the option was discontinued. The purpose of this paper is to review the experience of an E-Commerce Marketing Curriculum from its development to discontinuation between 2000 and 2008, and to impart the lessons learned from the E-Marketing program in its early form into a discussion of a future E-marketing curriculum. The following section describes the life of the program in detail from development, to implementation, and discontinuation.

THE PROGRESS OF AN E-MARKETING CURRICULUM

The Rise of an E-Marketing Program

The search for a market-based E-Marketing curriculum began with information-gathering exercises. In addition to consulting the widely accepted criteria for accreditation of business programs (AACSB, 1995), the department sought to understand employers' requirements for marketing jobs in the community. A study of marketing careers in the university's immediate service area was conducted in the fall quarter of 1998 (Lee and Ardoin, 1998). The exploratory study involved content analysis of marketing position requirements and qualifications noted in job announcements of selected companies of various sizes. By and large, the findings confirmed the previous understanding of employers' expectations of marketing graduates, such as the possession of strong communication, interpersonal, and team building skills. In addition, the study findings revealed several new key areas that needed to be incorporated into the curriculum. They included analytical and research skills, strategic and integrative skills, negotiation skills, an international/global perspective, and leadership skills. The summary of the study findings is presented in the Appendix A.

The aforementioned study of marketing career announcements identified a set of skills employers reportedly required. However, it did not uncover the emerging needs of E-marketing practitioners in the industry at the time. Due to the nature of discontinuous innovation (i.e., E-marketing practice as well as curriculum), it seemed critical to understand the needs of practitioners in developing the E-curriculum in 1998. Faculty participation in practitioners'

seminars and industry conferences were sought in order to gain insights into emerging interests of marketing practitioners. Participants of various Direct Marketing Seminars, for example, coming from a wide range of industries, desired to learn how to operate and benefit from E-marketing, use the media and technology to improve their marketing, understand and analyze customer behavior, design web pages and interactive communication programs such as email marketing, and understand the impact of the new development on their practice at the time.

Lessons learned from industry seminar participation indicated that the E-Marketing curriculum needed to incorporate the desired technical skill sets of database analysis and application of information gained from analysis using the technology of E-marketing. It was understood that the E-Marketing curriculum ought to include a set of hands-on courses to teach and learn about both front and back-end responsibilities and operations in addition to integrating strategic/theoretical content. Incorporating the marketing career position analysis and the understanding of marketing practitioners' needs, an E-Commerce Marketing Curriculum was developed as follows:

Table 1: E-Commerce Marketing Option program in 2000

Required Courses: 20 units (5 courses)
- Marketing Principles
- Marketing Research
- Database Marketing* OR Web Marketing*
- E-Commerce Marketing*
- Integrated Marketing Management

Elective Courses: choose 8 units (2 courses) from:

Advertising Management	Consumer Behavior
Product/Pricing	Promotion
Web Marketing OR	Database Marketing
International Marketing	Sales Management
Environmental Marketing	

*notes unique requirements for the E-commerce Marketing option. Note: the option requirement is added to the BSBA core course requirements (approx. 90 units)

The E-Commerce Marketing Management option in the BSBA program was designed to prepare students for marketing jobs in E-Business. The E-Commerce Marketing Management option required two more courses than other option choices in the BSBA major program. Specifically, the option required courses in Marketing Principles, Marketing Research, E-Commerce Marketing, Integrated Marketing Management, three courses in Marketing Electives including Database Marketing and Web Marketing. It was intended that the program would prepare graduates with either back-end operational tools or front-end presentation skills necessary to perform the E-Marketing functions in an organization.

The Fall of the E-Marketing Option Program

There was a substantial time lapse between the initial sensing of the need in 1998 and the officially-approved program start date in 2002 due to the required due diligence in the curriculum development process of the institution. The first E-content course, a Special topics course on Web-Marketing, was test-marketed in summer 1999, generating 200 percent of the course cap on the waitlist. The positive results from the test-offering of the E-content course brought accolades to the department during the preparation period from curriculum development to hiring new faculty. The program officially took effect in 2002 and the department was prepared to grow enrollment with the new E-Commerce Marketing program.

Contrary to the department's expectations, the substantial interest shown in the program was not realized in the actual enrollments in the program. It was anticipated that after the dot-com shakeout settled, the demand for the program would improve (Goll 2001). However, enrollment in the option did not improve after a grace period of several years and it was placed on the list of discontinuation in 2009. In the aftermath of the unsuccessful launch of the E-Commerce Marketing option program, it is speculated that there may have been several factors responsible for low enrollment in the option:

- Bad Timing: The dot-com bubble burst in 2001 may have contributed to the perception of reduced career opportunity in E-Marketing, and therefore to the lack of interest in a degree in E-Commerce Marketing.
- Wrong Price: It cost more to graduate with the option (i.e., requiring two more courses) than other options in BSBA, such as the traditional Marketing Management option.
- Promotion Neglect: There was a lack of visibility and attractiveness of the option due to lack of promotion. The department may have been discouraged by the reduced excitement in the industry shortly after the bubble burst.
- Benefit Deficient: There may have been a lack of differentiating value of the option. That is, students could take E-marketing content courses as electives for the Marketing Management option without increasing their overall course load.
- Lack of Relative Advantage compared to the regular marketing option.

It should be noted, however, that while very few students selected E-Commerce Marketing as their area of concentration, individual enrollments were strong in e-marketing content courses such as E-Commerce Marketing, Database Marketing, and Web Marketing. This mismatch between the course enrollment and the option demand may indicate that students are interested in learning the E-marketing concepts and tools in general but not as an area of specialization. It may also reflect the natural course of progress in the E-Marketing curriculum life cycle. At its inception, E-Marketing may have been a separate area to augment the traditional marketing practice. But as time passed, the new and innovative approach became a part of the regular process and normative behavior. In other words, there is no need to separate E-marketing process from the marketing practice and E-consumer behavior, from normative consumer behavior, because the E-Marketing as well as E-consumer behavior became an integral part of the regular marketing process and consumer behavior.

The Return of E-Marketing curriculum: a Call for Integration into the Marketing Program

As one of the first providers of the stand-alone undergraduate E-Commerce Marketing option degree program, the department experienced the rise and fall of an E-Marketing degree program interest in its early form. Though the department did not realize the anticipated response to the option program, it did experience the benefits of growing interest in courses that addressed marketing with new technology. The sustained student interest in E-marketing content courses seems to confirm the importance of teaching and learning marketing with new technology.

A decade-long progression in E-behaviors and marketing practices seems to note a strong call for an integrated marketing curriculum in which E-marketing contents are incorporated into all relevant marketing courses. Since the dot-com enthusiasm in late 1990s, there have been continuous innovations made in computing and communication technology that resulted in changes in marketing. Of those innovations that took place in the last decade, the social media phenomenon marks a significant change and is expected to bring about further substantial changes in business practices as well as the daily lives of individuals.

Marketing tools and technologies have and will continue to evolve in the future. Thanks to technological advances, E-shopping behavior has become the norm in the general public's life. The fast-paced changes in the last decade negate the need to recognize E-Marketing as a separate practice, as E-Marketing has become an integral part of the general practice of marketing. The concepts and methods used in E-Marketing should be included in all courses. It is, therefore, imperative that instructors of marketing reassess the validity of the scope and the relevance of the methods of their instruction in the context of the changing educational requirements of marketing.

A review of recent studies which investigated desirable qualities of marketing graduates reveal areas that marketing educators need to consider in preparing their students for marketing jobs. In an in-depth interview with marketing professionals, Lee (2006) identified a list of desirable qualities of marketing graduates as perceived by marketing professionals. The list confirmed previously identified skills such as communication, teamwork, analytical, and problem solving. The study also identified information skills, research skills, and technological fluency as important qualities that employers look for in their new marketing hires. In addition, the study notes that employers also view openness and flexibility (i.e., ability to learn/adapt as you go) as an important personal quality along with creativity and high energy.

In an in-depth interview of graduates and employers, Walker et al. (2011) investigated important skills that are necessary for a successful marketing career. The study indicated that employers view communication, sales knowledge, analytical skills and tools, market research, and application skills as important for a successful marketing career. The study further identified two types of communication as important. They included

communication specific to marketing roles and generic communication skills and communication software. Both types of communications skills were viewed as important. The sales knowledge refers to the understanding of the customer and the sales process, which seems to indicate the importance of customer orientation and focus in persuasive communication process.

A study of UK employers (Heffernan et al., 2010) found eight employability attributes in marketing graduates. The eight attributes included communication, teamwork, problem solving, work ethic, desirable persona, customer focus, core skills, and leadership. The study attributed work ethic to flexibility and willingness to learn, the desirable persona to self awareness and confidence, and the core skills, to numeric, verbal, and IT skills. The study also indicated that employers valued 'application skills' as well as 'customer orientation' in their new hires.

In a broader study of top ten marketing managers' competency, Montoya et al. (2010) posited marketing managers as a firm's key resource and investigated their distinctive core competencies through the Delphi technique. The study found that half of the top ten competencies were classified as attitudes such as open-mindedness, anticipation, flexibility, developing others, and leadership. Other competencies included formulating a marketing plan, identifying the source of a competitive advantage, aligning marketing and sales plans, communication (personal) and communication of company image and reputation.

It appears that recent studies indicate attitudinal qualities to be as important as knowledge and skills that have been identified as important in previous studies. It is interesting to note that the desirable attitudinal qualities of 'open-mindedness, flexibility, willingness to learn, and confidence' tend to reflect the necessary qualities in coping with changing business environments. Incorporating desirable qualities of marketing graduates found in recent studies, a list of learning goals is developed and presented in the Appendix B. The appendix shows a list of goals that need to be reflected in a new marketing curriculum. The list indicates that a marketing curriculum needs to offer strong customer focus training, to equip them with enabling tools and technologies, and to teach them how to learn and adapt to changing business contexts in addition to developing communication, teamwork, problem solving, and leadership skills. The list suggests a few required courses for students interested in a marketing career. The required courses may include marketing strategy and planning, market research, international marketing, advertising and marketing communications, and one or more courses in marketing information systems including marketing research, database development and analysis, web marketing and research. The growing importance of attitudinal qualities in marketing hires indicates that marketing educators should be alert to the need to bring out innate qualities of creativity, open-mindedness, flexibility and confidence from students and be mindful of instructional methods that may foster the desired outcomes. The challenge to educators is not only to develop a curriculum that would train students with the current tools and techniques but also to prepare them to be adaptive to future changes. Therefore, the scope of a marketing education should not be limited to the realities of today but rather extend to the possibilities of tomorrow. Furthermore, students should be encouraged to go beyond the classroom and to get involved in internships and extracurricular activities that offer further confidence building opportunities. The tasks are to equip students with a solid foundation of principles, to practice new tools and methods in the class, and to foster an engaging learning environment in which students will learn to adapt and grow in confidence.

Educators also need to incorporate new technology into their mode of instruction to improve the overall pedagogical effectiveness. Today's students grew up with computers and cell phones in everyday life. Not only is new technology an important business tool to teach but also, it is a student lifestyle that may be used as another tool to improve instructional effectiveness. Students need to learn how to utilize the communication tools in everyday life and build confidence in learning new technology. Regular use of new technology in classes may contribute to the development of 'technological fluency' desired by employers. There is a need, therefore, to incorporate new technology in pedagogy as an instructional tool.

Today's marketing educators face the challenge of preparing students for future marketing jobs in which digital connectivity is not only prevalent in the work environment but is also expected to progress in sophistication and importance. The E-Marketing curriculum interest has remained steady and it will continue to grow. This growth ought to be reflected not in the form of a separate program but of an integrated curriculum in which E-marketing issues are blended into every marketing course. Therefore, the E-marketing curriculum needs to be incorporated into the core marketing discipline as an integral part rather than a division of the discipline. This continuing evolution of marketing technology and the demand for an integrative perspective call for a reform of the curriculum, in which

every course incorporates E-marketing contents, tools, and technology. Reflecting this view, an alternative curriculum is proposed in Table 2.

Table 2: An Integrated Marketing Curriculum

Required Courses: (20-28 units)

1. Marketing Principles: Incorporate Electronic & Mobile-Commerce models, tools and techniques
2. Marketing Research and Analytics: Possibly a two-part course addressing the complete cycle of marketing information process. The major contents may include quantitative and qualitative research methods; database and customer base analysis; online behavior analysis and web analytics; marketing performance measurements: hands-on, project based
3. Buyer Behavior: Incorporate e-buyer behaviors and customer journey; the role of digital media (e.g., Web, YouTube, Facebook and Twitter) in information search and buyer decision making; cases and projects
4. Advertising/Integrated Marketing Communication (IMC): Possibly a two-part course; incorporate social media in advertising media analysis and planning; train students in professionally using social media such as Facebook, Twitter, LinkedIn, and mobile communication channels; require an Integrated Marketing Communication (IMC) campaign project that utilizes various media channels including social media
5. Integrated Marketing Management: A capstone project; require development of an integrated marketing plan which includes an Integrated Marketing Communication (IMC) plan.

Elective Courses: (4-8 units)

Marketing Channels	B2B Marketing
International Marketing	Product and Price

Table 2 proposes an integrated marketing curriculum in which existing courses are revised to reflect the changes in marketing. The table lists current marketing management option courses, which incorporate new marketing concepts and tools as appropriate and relevant to the subject. In addition, each course is identified with areas to be incorporated as well as suggestions for structure and exercises. As the table shows, the concepts and tools of E-marketing are incorporated in all required marketing courses in the form of relevant course contents and exercises.

CONCLUSION AND RECOMMENDATIONS

This paper presents the learning experience of a marketing department with an E-marketing curriculum in its early form. Although the E-Marketing option enrollment was disappointing, there has been continuing interest in individual E-marketing content courses. A reflection on the E-Marketing curriculum journey offers a direction for the future development of a marketing curriculum. As the vast majority of today's consumers engage electronically in some or all parts of their consumer decision making process, E-buyer behavior should be regarded as an integral part of their overall buyer behaviors. Consumers may start their shopping journey online, for example, but they may complete their purchasing off-line in a brick and mortar operation, or vice versa. This is a different environment from the late 1990s when there was a clear distinction between commerce and E-commerce, and the E-commerce operation was considered a separate division of the business. Today, there is no longer a divide between commerce and E-commerce.

Over the course of the last decade, the boundaries of E-Marketing have disappeared and E-marketing practices have permeated all aspects of marketing operations. The state of market reality calls for an integrated marketing curriculum in which relevant E-marketing concepts, tools, techniques, and strategies are incorporated into regular marketing courses. On the surface, there may not be any change reflected in a new course title or a new program. However, the changes ought to be made internally in every marketing course. Marketing courses need revision and retooling to maintain relevancy in ever-changing marketing conditions and the ubiquitous presence of technology. It is inconceivable to introduce new courses every time new marketing methods arrive. Inasmuch as new methods can be incorporated into existing courses, it is desirable to reinvent and retool the existing courses.

In addition to the need for an integrated marketing curriculum, marketing educators today face challenges that result from multi-faceted changes. They include technological advances, globalized operations, buyer characteristics and behaviors, industry norms and practices, employer expectations and preferences, and student characteristics and

learning styles. For instance, marketing educators are challenged by technological gaps between the old instructional methods that instructors are accustomed to and the new instructional methods that the new generation of students responds to. Today's students, often known as Generation Y or Millennials, learn differently. They were born and raised in a multi-media environment and they reflect multi-media usage in their communication. They tend to respond better to more dynamic and participatory experiences (Odell, 2004). This implies that they need to be engaged in and outside of the classroom. It is noted that students learn better by doing (Lee, 2006) and that a dynamic and engaging teaching method prepares students for the workplace, where employers require marketing graduates who can apply their marketing knowledge (Walker, Tsarenko, Wagstaff, Powell, Steel and Brace-Gavan, 2011). Students need to be challenged with real life projects and internships to practice application and to build confidence. Educators should think beyond the traditional classroom lecture and exercises in order to provide an engaging learning environment. Furthermore, new teaching methods need to be developed to entice the technology savvy lifestyle of the new generation of students (Athaide 2005; Kaplan, Piskin, and Bol, 2010). Educators may need to augment lectures and discussions by incorporating technology-enhanced responsive mechanisms such as i>Clicker in order to engage students in the classroom.

In anticipation of continuing changes in the marketing environment, one can relate to the adage, "The only thing that is constant is change." While we take this statement for granted, it does offer significant challenges to educators in marketing as they must teach students how to stay relevant in a constantly changing environment. The notion of constant changes poses a challenge to marketing educators with the question of how to prepare their students for this fast-paced, ever-changing, dynamic environment. What we teach in the class may soon become yesterday's reality. The industry practice is always a step ahead of the faculty's preparedness with the newest marketing technology. It is imperative for academia to continue to strengthen its ties with practitioners (Doria, Rozanski, and Cohen, 2003) in order to reflect business reality in the classroom and to prepare students for their future careers (Mirbach, 2010). Practitioners need to be included as partners in the continuous revision of curriculum (Kelly, 2005; Lee, 2006).

To put the educational challenge of 'constant change' in a long term perspective, it is important for educators to prepare students for changes in the future. Marketing inherently deals with changes. It is the rate and the scope of changes that need further emphasis in teaching students to anticipate and learn to navigate the forthcoming changes. In reflecting upon the journey of an E-Marketing curriculum in the context of a changing environment, a few points emerge as critical to preparing students as learning individuals: teaching timeless principles of marketing (focus on the customer as the moving target), developing continuous learning/research skills, building confidence through applications, and promoting positive attitudes and high energy.

In conclusion, marketing education today requires a balance of instructing the unchanging principles and incorporating new tools and technologies in the classroom in order to prepare agile professionals for tomorrow. The best of the old methods need to be strengthened in the relevant context. Clearly, the traditional approach to curriculum (i.e. a collection of individual courses taught in the classroom, independent of one another) cannot prepare students to perform effectively in the next wave of change that may require continuous transformation of the discipline and careers in Marketing.

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Appendix A: Desired Skill Sets for Marketing Major from 1998 Marketing Job Analysis

Communication Skills
- Organizational communication skills, written, spoken, and listening
- Interpersonal communication skills
- Presentation skills

Information Competency
- Knowledge of databases and statistics
- Ability to generate, analyze, report, and apply information for business problems
- Ability to ask critical questions

Problem Solving Skills
- Ability to define problems, collect data, establish facts and define strategy
- Creative and analytical skills: sound creative judgment as well as analytical capabilities
- Critical thinking skills
- Information based problem solving capabilities

Process Management Skills
- Ability to manage multiple assignments
- Ability to manage project from conceptual development to completion
- Organization skills
- Time management skills

Team Building Skills
- Motivated team player
- Flexible, team oriented attitude and skills
- Effective partnering skills

Technology Proficiency
- Proficiency in relevant PC Software
- Proficient in the use of the Internet
- Proficiency in Web-based research method

Other Qualities:
- Business integrity and ethics
- Service to community
- Leadership capacity
- International (Global) understanding

APPENDIX B: Desired Qualities of Marketing Graduates in 2006 and Beyond: What Employers Look For in Their New Marketing Hires

Communication Skills
- Written, Verbal, and Listening
- Cross-cultural communication skills
- Presentation skills
- Communication software

Teamwork and Collaboration
- Flexible, team oriented attitude and skills
- Effective partnering skills

Problem Solving Skills
- Ability to define problems, collect data, establish facts and define strategy
- Creative and analytical skills: sound creative judgment, analytical capabilities
- Information based problem solving capabilities

Information/Research Skills
- Ability to generate, analyze, report, and apply information for business problems
- Ability to ask critical questions

Technological Fluency
- Online research
- Database analysis
- Software and process
- Experience in data-to-information process

Application Skills
- Apply theory to practice
- Apply information to problem solving
- Hans-on analysis and business problem solving

Customer orientation
- Knowledge of customer process
- Knowledge of sales process
- Customer focus

Other Qualities:
- Cross-cultural training, international exposure
- Openness and flexibility, ability to learn and grow
- High energy, creativity, intelligence, enthusiasm

Assisting Students in Gaining Employable Skills: Valuing and Encouraging Extracurricular Activities

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ABSTRACT

Discussions regarding the preparation of undergraduate students for employment often stop at the class level with specific content to be delivered or skills to be sharpened through assignments, projects and tests. While knowledge and skills learned in the classroom are important, students may not have enough opportunities to apply what they have learned or the time to develop leadership skills they need to be more confident and to compete in the job market. This research looked at the importance of extracurricular activities, including internships and a study abroad, as a key part of preparing students for employment.

Keywords: Extra-curricular activities, undergraduate students, learning outcomes

INTRODUCTION

It is becoming increasing important for undergraduate students to approach their education differently. In the past, students could concentrate on getting a high GPA and be fairly confident it would lead to multiple job offers. However, in this economic environment, it is important for students to develop a broader view of their education and the impact that extracurricular activities (ECAs) can have on their overall experience and job prospects. In this context, extracurricular activities include part-time jobs (on and off campus), internships, athletics, study abroad, academic and professional clubs, volunteer activities, multicultural activities, the arts, student government, fraternities and sororities, and honorary organizations. In our research, we found that while a significant number of business students did participate in service and volunteer activities (59%) and many held a position of leadership on campus (33%), only 9% is students had participated in a study abroad and 33% of students had done an internship. For the purposes of this paper, out-of-class and extracurricular are used interchangeably. Again, while GPA is still a factor in the job selection process, students should be aware that employers are seeking candidates who have a wide breadth of experiences. It may benefit students to plan their extracurricular involvement in the same manner they plan the academic portion of their time at a university.

PREVIOUS RESEARCH

Universities often have a set of learning outcomes for their students with specific courses tasked with achieving specific outcomes. While these learning outcomes can be achieved in courses, it is important to recognize out-of-class experiences as an important predictor of personal development and to the development of cultural dispositions. "Today's college students may gain access to valuable forms of social and cultural capital by "building their resume" – by becoming involved in activities like Greek life, athletics, community service, and other groups and organizations on campus" (Stuber, 2009, p.880).

In the research done by Kuh (1995) students who engaged in out-of-class experiences noted changes in specific outcomes including practical competence, social competence, reflective thought and altruism. In addition, dispositions such as increased self-awareness and confidence along with a sense of altruism were also reported by students. "…Leadership experiences (for example, student government or fraternity officer, peer advisor) accounted for 45.1 percent of all gains in Interpersonal Competence and for almost one quarter of all gains in Practical Competence" (Kuh, 1995, p. 131). One particular student body president "learned how to plan budgets and manage resources (Practical Competence) and communicate to different groups of people (Interpersonal Competence)" (p. 131). In another example, a student who was serving as a peer advisor reported increased Interpersonal Competence, Humanitarianism and Cognitive Complexity as her role provided "... insights into, and appreciation for, the issues with which many students from historically underrepresented racial and ethnic groups must contend on predominately white campuses" (p. 134). This is not to take away from the importance of active learning in the

classroom but it is an additional opportunity to synthesize information and further develop characteristics valued by employers while engaged in these out-of-class experiences.

Astin's (1993) study showed other types of academic involvement were generally beneficial to student learning and personal development. This included participating in cultural workshops, internships, independent research projects but also making class presentations. Internships in particular, Stuber (2009) noted, especially interacting with a boss and co-workers during an internship, students' can gain in areas like social capital and cultural know-how. They can also observe how people in their field "interact with clients and co-workers on the job and outside of work" (p.881). Knouse, S. B., Tanner, J. T., & Harris, E. W. (1999) believe "College internships offer a variety of benefits to students both for improving performance while in college and for increasing opportunities for finding a job upon graduation (P. 2). The internships were a way to separate the student from their peers and a national recruiter for a large financial company agreed when she commented "Schools that focus in on accommodating internships as part of their course curriculum position their students very well for future employment" (quoted in Burnside, 2010, p. 52). Employers interviewed in a study by Muldoon (2009) cited communication skills, including customer service, and organizational skill along with personal attributes such as responsibility and motivation were best learned through part-time work and increases employability. Stuart, Lido, Morgan, Solomon and May (2011) study asked successfully employed alumni to reflect on the effect of participating in extracurricular activities had on their academic performance and career. Alumni emphasized the social aspect of engaging in extracurricular activities but also how these activities helped to develop their sense of identity and build self-confidence. "… all alumni" Stuart, et al reported, "described how the social networks they make in ECAs helped them to find jobs or to progress within their chosen career, some directly, others indirectly via their social contact helping them with job placement" (p. 209). In addition to surveying alumni, Stuart, et al (2011) asked employers the relative importance extracurricular activities played in their selection and hiring practices. Ultimately employers want a person with relevant work experience but they did recognize that all students may not be able to acquire the experience. Therefore, "… ECAs became a way for applicants to illustrate the skills and experiences they had developed through other means" (p. 210).

The scaffolding theory applies well to these situations as it "… involves performing parts of the task that the students cannot perform and gradually reducing the amount of guidance and shifting the control to the student" (Merrill, 2002, p. 50). This technique allows the student to adjust to the new task with only some prior knowledge and develop multiple alternatives in low risk situations. Many times these opportunities occur in extracurricular activities. The key to providing many of these experiences is to encourage student as early as their freshmen year to seek out opportunities to get involved in clubs, service, internships, and other extracurricular activities.

RESEARCH

Much of the authors' research up to this point has been connecting the engagement of students to external content knowledge, specifically the National Survey of Student Engagement to the ETS Business Major Field Test. Several questions on the survey did gather information on extracurricular activities. These included whether the students participated in community service or volunteer work; the type of co-curricular activities they participates in (this was a check all that applied); number of hours per week spent on extracurricular activities; if they had done an internship or study abroad; and if they had held a position of leadership (student government, resident assistant, club officer, etc.) on campus. A total of 81 students have taken the survey. All of the students have some sort of business related major. The results can be seen in Table 1.

Table 1: Student Participation in Extracurricular Activities

Extracurricular activity	Percent of students
Community Service or Volunteer Work	59%
Internship	36%
Study Abroad	9%
Held a Position of Leadership on Campus	33%

As indicated above, the number of hours the students spent participating each week in these activities along with the types of activities they participated in was also collected. Most of the students spent 1-3 hours (53%) but other students spent more time with 10% spending 4-7 hours per week and 14% spent 8 hours and over participating in

extracurricular activities. It is important to note that these hours excluded intercollegiate sports. In addition, the students participating in the following activities: School-based clubs or groups (excluding fraternity and sorority) – 68%, intercollegiate sports – 37%, on campus work (student assistant, etc.) – 30%, community based clubs or groups (Habitat Rotaract, etc.) – 17%, creative or performing arts – 7%, orientation or admissions ambassador – 5%, fraternity or sorority – 4%, campus publication – 4%, and resident assistant – 2%. It is important to point out that students could check all that applied to them and it is not uncommon for students to be involved in multiple clubs or participate in athletics as well as be involved in other extracurricular activities. Typical leadership positions for business students included Marketing Club, Accounting Club, Investment Club, Students in Free Enterprise (SIFE), Student Government Association, Black or Korean Student Association, Law Society, Colleges Against Cancer, and Public Relations Student Society of America (PRSSA).

While we are pleased with the participation rate in community service or volunteer work and leadership positions, the numbers for internships and particularly study abroad experiences are a bit disappointing. Although motivation, noted Knouse, et al (1999), may be a factor in some students seeking out internships, more recognition of those individuals doing internships as well as broad communication of internship positions through websites, brochures, and even directing information to incoming freshmen brings a higher degree of awareness to the importance of doing internships as well as motivate students to begin preparing themselves for an internship early in their academic career. While motivation could play a part, students may not participate in a study abroad simply because they do not have the financial means. The same philosophy applies to internships, especially for the low paying or unpaid internships. This is particularly difficult for situation for everyone. Career services and professors would like students to have the internship experience and are sympathetic to the organization that maybe unsure of the value a student could add to their organization. However, we also know that many students simply do not have 10-15 hours a week to spare or are likely working in a job, like a waitress, where they have the potential to make more money in a shorter number of hours. A possible message to encourage students to get involved in extra-curricular activities and to do internships was an "increased self-efficacy on the job market which could lead students to increase their estimated value to employers" (Sallop & Kirby, 2007, p. 134). Employers want to know what the student did in college beyond going to classes and that the student is going to provide value to the organization quickly. Students who can communicate that in a resume and then in an interview will more than likely be in a better position to be chosen for a job than those students who have not accrued those skills. Brunsed (2010) felt smaller schools were in a better position to provide internships as they could form partnerships with local companies as well as work one-on-one with the students to prepare and assist them in the pursuit for an internship.

DISCUSSION

Multiple areas of universities can assist students in developing the necessary leadership capacities, social and human capital and personal responsibility. Career Services, Alumni Office, Development Office, club and organizational advisers, and faculty should communicate often and work to provide the network, experiences, and support so students have the best possible opportunity to develop into responsible citizens. "Companies", noted Knouse, et al (1999) involved in partnering efforts with the college, such as philanthropy, contracts and special projects, should be encouraged to use internships as a means of giving to the college and at the same time receiving a qualified pool of former interns in return" (Implications for College Internship Programs, P. 2). In addition, Stuber (2009) suggested internships be a requisite part of a student's major, just like taking a course, and suggested that universities create financial pathways, better communicate opportunities to study abroad and make "work-study dollars available to students for internships and other professional work experiences" (p. 897). We know, and the research like Burnsed (2010) agrees, that "University officials and employers almost universally maintain that partaking in an internship – or several – before graduation is integral to finding meaningful employment in today's seemingly impenetrable job market" (p. 52). If these are strategic priorities, then policies such as the ones mentioned above should be developed and financially supported. The end result will be students who are better prepared to compete and lead in a global marketplace.

FUTURE RESEARCH

Our future research will be to survey alumni to determine the value they found in participating in extracurricular activities and examine the types of students (majors, gender, etc.) who participate most frequently in extracurricular activities. We would also like to determine why students do not participate in study abroad opportunities or apply for internships and find institutional models which might be adopted at our own institution.

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Using Tinkertoys to Teach Networking and Telecommunications to Business Students

"Tinker Toys" is a registered trademark of Hasbro

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ABSTRACT

Tinkertoys are a popular building toy that has been around for almost a century. Industry and education have found a variety of uses for Tinkertoys. Tinkertoys can be used to create models of business situations and telecommunication models. The author presents a framework for using Tinkertoys to teach networking concepts to business students.

Keywords: Tinkertoys, networking, modeling, simulation

INTRODUCTION

Tinkertoys are a popular building toy that has a multitude of uses. Children use Tinkertoys for play purposes, while businesses and engineers have used them to create physical models or simulations of a variety of processes and objects. Tinkertoys are easy to use and are available at almost every department and toy store. Tinkertoys are not indestructible but are relatively durable and have become a fixture in many schools and homes.

Tinkertoys have two basic components; hubs and spokes. The hubs are round wood disks with holes drilled into the edge of the disk and through the middle of the disk. The spokes are wooden dowels of varying lengths and colors that can be inserted into the holes drilled in the disks. Tinkertoys can be plugged together to form two and three dimensional models.

TINKERTOY MODELING

Tinkertoys have been used in real world situations to model problems and stimulate creativity. In 1990, the Hubble space telescope had an antenna snag that put the entire $2.1 billion telescope at risk. Engineers used Tinkertoys to model the problem and come up with a solution (Boston Globe, 1990). The engineers constructed a model out of a lamp cord and a set of Tinkertoys.

The idea of using Tinkertoys to illustrate construction components was used by Ken Thompson of Lucent's Bell labs when discussing operating system construction (Cooke, Urban, & Hamilton, 1999). Thompson's point was that sophisticated models and constructions can be visualized with very simple objects. Tinkertoys were also used in the development of the first cartoon character control software. A data collecting "suit" was developed that used Tinkertoys connected to potentiometers that enabled a human actor to control a cartoon character (Sturman, 1998).

Tinkertoys have been used by business to create three dimensional models of economic situations. Amoco Oil Company created an analytical model of their product lines, marketing channels, and marketing outlets. To help their senior executives understand the model, three sets of Tinkertoys were used to build a three dimensional model. The Tinkertoys enabled the executives to view the data as a cube where each vertical slice represented a product and horizontal slices represented a distribution channels. Differences in the Tinkertoy model showed how different distribution outlets (service stations and retail stores) carried different product lines.

Business schools have used Tinkertoys to illustrate the first mover advantage principle to business students (Coff & Hatfield, 2003). Students are randomly assigned to groups and asked to build the tallest possible structure with a given set of Tinkertoys. The students are given 15 minutes to plan the construction and 45 minutes to construct their tower. The groups that are allowed to observe the construction efforts of other groups typically do better than the first or second construction group. The builders are debriefed after all teams have built their towers and asked if their group learned from the efforts of preceding groups.

The students are supposed to learn about the resource-based concepts of rarity, instability, substitutability, and the pros and cons of the first mover advantage. Tinkertoys provide a finite set of resources that can be combined in a wide variety of ways to construct the tower. Strategy and problem solving are learned while students determine how to build their tower. This business lesson is extended by asking students if the early builders could "patent" any of their design elements and what resources might have offset the disadvantage of going first. Students are then given illustrations of these concepts from the business world. This lesson has even be used in online courses by placing videos of the Tinkertoy construction efforts in the school's Learning Management System (LMS) . Tinkertoys have been used to teach a variety of subjects in business education. One school uses an exercise where teams of students are challenged to build the tallest tower possible with Tinkertoys is a short period of time. According to Peterson (1977), Tinkertoys are the perfect tool for modeling social systems.

One of the drawbacks to designing and modeling networks on paper or a software graphics program is that networks are three dimensional. Most networks go into buildings with more than one floor. Two dimensional media and tools do not capture the reality of a three dimensional network. When modeling with Tinkertoys, it is possible to build a three dimensional model that reflects the physical reality of common networks. Using a software program does not provide the same tactile feedback as a set of modeling toys (Eng, Camarata, Yi-Luen, & Gross, 2006). Removing the tactile stimulus may reduce the feeling of satisfaction associated with creating a physical model.
Voice and data networking can be modeled with the use of Tinkertoys. The hubs can represent network nodes and the connecting rods can represent the various types of network connections.

TEACHING NETWORKING WITH TINKERTOYS

Illustrate the heterogeneous makeup of network equipment in the typical corporate network by using inexpensive paint to color code the components of your Tinkertoys. The connecting rods that come with some sets are already painted but you may want to paint the hubs Color coding the connecters can resent fiber-optic versus copper connections. Different speeds and type of connection can be modeled with different colored connectors. Different brands or sizes of hubs, switches and routers can be modeled using different colors of hubs. It is always a good idea to post the color scheme so it is easily accessible to the students. Some suggestions would be to post it in your Learning Management System (LMS), include it in the modeling assignment, post it on the classroom wall, or include it in a PowerPoint slide that is shown during the modeling time.

Table 1: Color coding network connections

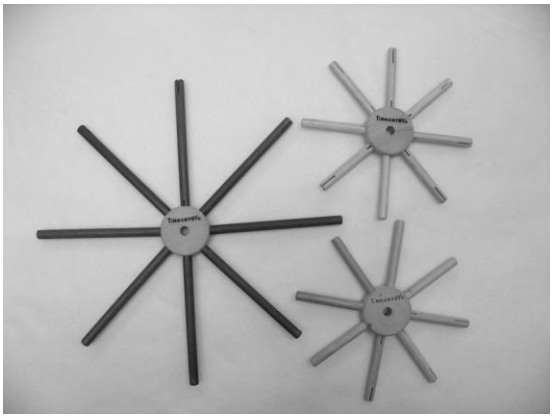
Color	Connection
Yellow	Fiber optic (six pair)
Red	Gigabit Ethernet
Blue	T-1 or fractional T-1
Green	Microwave (line of sight)
Black	Structural support only – non networking supports used to support the model

Tinkertoys are an effective tool for teaching business students the economics of networking. The faculty member can assign a dollar value to each type of device and connector being modeled and have the students estimate the cost of their model. To further complicate a network modeling assignment, a faculty member can place a dollar cap on the models which will force the students to decide between different technologies and strategies.

Tinkertoy modeling can be done at the macro and micro levels. The individual pieces can be used to represent: routers and fiber links for local area networks (LAN), office buildings and plants for metropolitan area networks (MAN), and cities or even countries for wide area networks (WAN). The only limit to what the pieces can represent is the instructor's imagination.

Tinkertoys can be used to teach the basic concepts of cell phone networks. This can be done by spreading out a county or regional map on a table and then handing out a pre-constructed Tinkertoy hub and spoke that provide a circular coverage area. The students can understand the problems of selecting and acquiring and cell phone tower locations. This can be done in a lecture format by displaying a satellite image on a screen with an LCD projector and holding up a hub and spoke construction. Depending on the height and equipment used for a tower, different length spokes can be attached to the hubs to model different signal ranges. Examples of different size hubs can be seen in Figure 1.

Figure 1: Hub and spoke simulators



Tinker Toy network modeling is very helpful when teaching information assurance and risk management. The importance of firewall placements and subnet control is easily illustrated in a three dimensional model. The use and location of intrusion detection devices can also be modeled with Tinker Toys. The use of a three dimensional models enables a faculty member to demonstrate the impact of moving the location of these key networking devices around a network.

A home-crafted variation of tactile modeling is gluing strong magnets to the back of Tinkertoy hubs. This enables the hubs to magnetically "adhere" to many whiteboards, file cabinets, and other classroom fixtures to facilitate network modeling. It can be challenging to get the connecting rods to remain in place but it enables the model to be elevated and visible to a larger group of people.

Many business programs have three or four hour class sessions held early in the morning or in the evening for working students. Keeping the attention of students can be extremely challenging. Breaking the students into small groups and having them work around tables building models is an excellent technique to break up long lecture sessions.

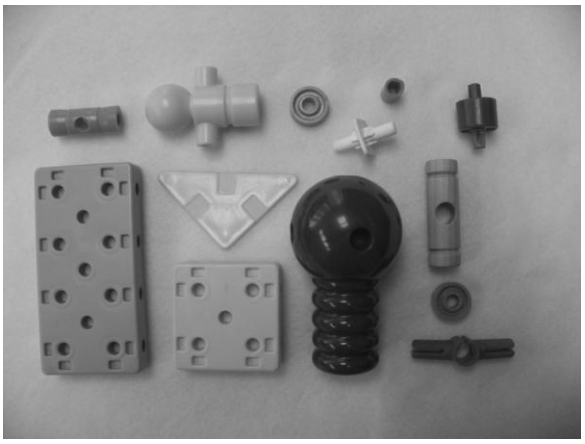
On a practical note, there are some challenges to teaching with Tinker Toys or any other prop that students handle. Tinkertoys can be damaged. Pieces will be broken or lost and the size of your modeling collection will shrink with time. The best solution to this challenge is to visit garage sales and rummage sales to purchase replacement pieces at the lowest prices. The author has found that building a collection this way has also led to the acquisition of many unique and discontinued pieces.

Tinkertoys has produced a variety of unusually shaped building pieces over the years. The author has 'shopped" for Tinkertoy sets at garage sales over the years to build of these pieces. Unique building pieces can be used to represent unique networking devices such as packet sniffers, SNORT monitors, and packet shaping appliances. Figure 2 illustrates some of the pieces that can represent unique network devices.

If you feel that you absolutely need to have custom sized or shaped toys, it is a simple matter to construct them. Anyone with basic carpentry skills and a drill can convert blocks of wood or plastic into modeling devices. Match your drill bit selection to the size of your Tinker Toys and start drilling. Figure 2 illustrates some of the different "stock" pieces that can be used to simulate different network devices.

Tinkertoys have come in different sizes over the years. Being handy with a drill enables you to create hubs that enable you to connect different sized pipes to. This is an effective method of visualizing the different sized "pipes" that we connect our networks with.

Figure 2: Specialty pieces



CONCLUSION

Tinkertoys are an inexpensive method of modeling networks and network technology. Using a building toy enables students and practitioners to build and rapidly modify a network model using an inexpensive set of tools. Tinkertoy modeling can be adapted to a variety of networking topics and used interactively with small groups of students or as a static tool to a larger audience.

The utility of Tinkertoys in modeling social, business, data or voice networking is limited only by the imagination and creativity of faculty. Tinkertoy modeling can be done inexpensively with garage sale toys and extended with paint, glue, and a hand drill.

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A Comparison of the Readability of Advanced Accounting Textbooks

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ABSTRACT

Choosing an advanced accounting textbook for use in an undergraduate or graduate curriculum can be a challenging task for faculty. Advanced accounting textbooks, in general, cover a variety of topical areas, including accounting for business combinations, international accounting, segment reporting, government and not-for-profit accounting, partnerships, and reorganizations and liquidations. Publishers offer a variety of ancillary materials including online lectures, homework, and study tools; vignettes and case studies; and entire course management systems. While topical coverage and associated supplements are important features, instructors should also consider a textbook's readability. This study analyzes the predicted readability of six current advanced accounting texts utilizing the Flesch-Kincaid Grade Level index. T-tests are performed to determine whether significant differences in readability exist among the textbooks chosen for the study. No significant differences among the texts in terms of overall readability are found; however, some variation in readability level was discovered within topic coverage. These findings can be useful to adopters, authors, editors, and publishers of advanced accounting textbooks. Results also point to a need for a study of the types and uses of ancillary materials offered with textbooks, and the relative importance of the text in the learning process.

Keywords: readability, advanced accounting, textbook, Flesch, Flesch-Kincaid

INTRODUCTION

Selecting a textbook for use in an advanced accounting course is a challenging decision for faculty. Since advanced accounting courses are generally required in the upper-level curriculum and offered as either undergraduate or graduate level courses, most accounting majors are affected by their decision. As for any text selection, the process is complicated by multiple text attributes for faculty to consider. Attributes include a text's pedagogical approach, topical coverage, type and number of exhibits and examples, vignettes, end-of-chapter materials, and availability of student and instructor supplements. The authors' reputations, as well as instructors' past experiences with the text and/or authors also factor into the decision. In addition to all of these, a faculty member may wish to consider a text's readability in order to maximize the likelihood that a student will understand what is read.

Readability may be defined as the degree to which a class of people finds certain reading matter compelling and comprehensible (McLaughlin, 1969). Readability, in this context, refers to the qualities of writing which are related to reader comprehension, rather than legibility or formatting. A variety of techniques have been used to predict readability, including several readability formulas (or indexes) which have been used widely since the 1950s. Examples of readability indexes include SMOG (developed by McLaughlin), Flesch Reading Ease, Flesch-Kincaid Grade Level, Gunning-Fog, and Fry.

An index of readability can be helpful to faculty when making textbook adoption decisions. It has been found that one of the criteria to which faculty attach the most significance in those decisions is textbook comprehensibility (Smith & DeRidder, 1997), which can be predicted, at least in part, using a readability index. Evidence also suggests that the higher the readability (difficulty) level of textbooks, the lower the grade averages in those courses (Spinks & Wells, 1993).

LITERATURE REVIEW

An increasing, though still limited, amount of research on the readability of accounting textbooks has been conducted in the recent past. Most previous research, similar to this study, focuses on a certain level or course of study in accounting. For example, a recognized area of research concerns the readability of introductory accounting texts, those used in the first or second courses in accounting required of many business and accounting curricula (Chiang, Englebrecht, Phillips, Jr., & Wang, 2008; Plucinski, Olsavsky, & Hall, 2009; Sullivan & Benke, 1997;

Traugh, Powers, & Adedokun, 1987). It is at this ground level that understanding the basic principles of accounting is deemed critical to future student success, and therefore, deserves this attention (Phillips & Phillips, 2007). Many of these studies' results are prescriptive in nature, with results pointing to best practices in choosing an introductory text.

Several studies have focused (at least in part) on intermediate and cost accounting texts (Adelberg & Razek, 1984; Davidson, 2005; Flory, Phillips Jr., & Tassin, 1992; Plucinski, 2010; Plucinski, 2011; Razek, Hosch, & Pearl, 1982). The results of these inquiries are helpful to accounting faculty as the associated courses are required in most accounting programs. Davidson (2005) considered the long-term trends of the readability of accounting textbooks, including that of 25 intermediate and 30 advanced books published over five decades. The results showed that among intermediate and advanced texts, sentence complexity increased, while word complexity decreased over the period studied. The Davidson (2005) study investigated trends over many years; however it did not compare the readability of individual texts.

Razek, et al. (1982) examined the readability of six advanced accounting textbooks. They found that all of the texts measured at a graduate reading level or higher, and that significant differences at the .01 and .05 level existed between many of the texts. These results, although dated, also pointed out that reliance on the textbook may increase at the advanced accounting level, not only because of the depth of the coverage of content areas, but also because of the breadth of content areas addressed. Instructor class time is limited and therefore students are forced to rely on the text as a source of information and knowledge in order to be successful. Of the texts included in that study, only three of the authors (contributing to two editions of texts) are included in the current investigation. Since the most recent readability study of individual advanced accounting textbooks (Razek, et al., 1982) is over 30 years old, and the textbook offerings have changed appreciably since the 1982 study, this study is an update of the readability of advanced accounting texts.

METHODS

Choice of Readability Index

Only one of the many accounting textbook readability studies completed in the last 30 years used the Cloze Procedure (Adelberg & Razek, 1984), a procedure that gauges readability by deleting every fifth word from passages, then measuring the reader's ability to restore the passages to their original form. The remaining and more recent studies use readability indexes, specifically the Fog Index, Flesch-Kincaid Grade Level, or Flesch Reading Ease. These indexes use a formula based upon characteristics of text passages, such as average word length, number of syllables per word, average sentence length, and word complexity, to generate a readability score. The Razek, et al. (1982) study on advanced accounting textbooks utilized the Flesch Reading Ease Score. The current study uses the Flesch-Kincaid Grade Level, which is an extension of that method. The Flesch-Kincaid Grade Level index was widely used in previously published studies of readability. It can be easily generated using word processing software, thereby permitting analysis of a large amount of text with results that are objective and easily replicated.

Flesch-Kincaid Grade Level

The Flesch-Kincaid Grade Level has its roots in the Flesch Reading Ease formula developed in 1948 by Rudolf Flesch. In 1975, J. Peter Kincaid tested over 500 enlisted United States (U.S.) Navy personnel on a reading-comprehension test and also on passages from Navy training manuals. This enabled him to derive a version of the Flesch Reading Ease formula which yielded reading grade-level scores. The resulting Flesch-Kincaid Grade Level has since been adopted by the U.S. military services as the basis for deciding whether technical manuals from suppliers meet their readability requirements (Pearson, 2002). The Flesch-Kincaid index is now one of the leading readability indexes, used extensively by the U.S. government, lawyers, and professional writers (Stockmeyer, 2009).

The Flesch-Kincaid Grade Level formula is based upon sentence length and word length. The index translates to a U.S. grade level, and can also be interpreted as the number of years of education generally required to understand text, which may be more relevant at higher education (college) levels. For example, a score of 11.0 indicates that an eleventh grader can understand the document. The index is best used to compare the relative readability (difficulty) of text, as is the case in this research. It can be accessed through the spelling and grammar-checking feature in the word processing software, Microsoft Word (MS-Word). Similar features are available in other word processing software.

The formula is:

(0.39 x ASL) + (11.8 x ASW) – 15.59
where:
ASL = average sentence length (the number of words divided by the number of sentences)
ASW = average number of syllables per word (the number of syllables divided by the number of words)
(Pearson, 2002)

This study uses MS-Word to calculate the Flesch-Kincaid Grade Level of select passages. The formula used by MS-Word is confirmed by agreeing the formula above to that specified in the MS-Word help file. The MS-Word calculation is then validated by manually applying the formula above to a 200-word passage and agreeing the result to that provided by the grammar-checking function in MS-Word.

Selection and Adaptation of Text Passages
An exhaustive search of advanced accounting textbooks currently being printed in English by major publishers yields six such books. Five of the texts are full-length, "traditional" advanced texts, averaging 20 chapters and 986 pages. The sixth text is a shorter, "abridged" text, with 12 chapters and 488 pages. The texts are listed in Table 1, along with each textbook's particulars. Six chapters covering the same topical areas are selected for analysis from throughout those texts.

Table 1: Advanced Accounting Textbooks Tested

Authors	Hoyle, Schaefer, Doupnik	Jeter, Chaney	Baker, Christensen, Cottrell	Fischer, Taylor, Cheng	Beams, Anthony, Clement, Lowenshohn	Halsey, Hopkins
Title	Advanced Accounting	Advanced Accounting	Advanced Financial Accounting	Advanced Accounting	Advanced Accounting	Advanced Accounting
Edition	10th	4th	9th	10th	10th	1st
Year	2011	2010	2011	2009	2009	2012
Publisher	McGraw-Hill Irwin	John Wiley & Sons, Inc.	McGraw-Hill Irwin	South-Western Cengage Learning	Prentice Hall	Cambridge Business Publishers
ISBN 978-	0078136627	0470506981	0078110924	0324379051	0136033974	1934319291
Number of Pages	860	1005	1082	1152	831	488
Chapters Tested:						
Consolidations	1	2	1	1	1	1
Intercompany Transfers	5	7	7	4	6	4
Foreign Currency Transactions	9	12	11	10	12	6
Segment & Interim Reporting	8	14	13	12	14	11
Partnership Accounting	14	15	15	13	15	12
Governmental Accounting	16	17	17	15	18	8

The chapters (topics) targeted are those covering: consolidations, intercompany transfers, foreign currency transactions, segment and interim reporting, partnership accounting, and governmental accounting. This approach provides passages for analysis from throughout the texts, covering about 30 percent of each traditional text (50 percent of the abridged text). The amount of text material thereby analyzed far exceeds that of the previous study of advanced accounting textbook readability. Digital (computer) files of each of the six target chapters of each textbook are obtained by manually scanning the relevant pages in the textbook with optical character recognition (OCR) software. All files are then converted and imported into MS-Word for analysis.

Only the sentences in the body of the chapters are subjected to analysis. Appendices are excluded. Since the Flesch-Kincaid formula analyzes only sentences, all material in figures, exhibits, and headings is omitted from analysis. Since material in graphics and vignettes cannot be readily converted to plain text by word-processing software, it is also omitted. End-of-chapter material (e.g., vocabulary, review, problems) is omitted as well, since it is largely quantitative/tabular in appearance and does not match the textual nature of the Flesch-Kincaid index.

When a colon appears at the end of a sentence, it is replaced with a period when the sentence is originally followed by a calculation, list, figure, or journal entry. This is necessary because, in the Flesch-Kincaid calculation, MS-Word does not recognize a colon as the end of a sentence. Since calculations, lists, figures, and journal entries are removed from the text, a sentence with a colon preceding an entry, for example, would have been combined with the one following the entry, thereby inflating the length of the sentence. In that case, replacing the colon with a period "ends" the sentence before the entry. Colons appearing in sentences that eventually ended in a period are unchanged.

After converting, importing and pruning all files, the spelling and grammar function in MS-Word is applied to all files to correct occasional errors that arise and then to obtain the Flesch-Kincaid Grade Level. The text matter in the target chapters is not just sampled; the entire text matter of each of the six target chapters of each textbook is subjected to the Flesch-Kincaid calculation.

RESULTS

Comparison of Textbooks by Chapter

Table 2 shows the Flesch-Kincaid Grade Levels for the six target chapters in each of the textbooks. Mean grade levels for the six target chapters are also shown. Since the grade level indicates the U.S. school grade level required to understand a text passage, the lower the grade level the more readable the chapter.

An examination of Table 2 shows no clear pattern in the overall readability levels of the texts. The Fischer text has the lowest grade level (is most readable) for two of the six chapters. It also has the lowest mean grade level (MGL), 14.4. The Hoyle, Baker, Beams and Halsey texts each have one of the lowest grade levels in the four remaining chapters. Only the Jeter text holds no sample chapter with the most-readable designation.

Table 2: Computed Flesch-Kincaid Grade Levels of Textbook Chapters

	Textbook Author, et al.					
Chapter Content	Hoyle	Jeter	Baker	Fischer	Beams	Halsey
Consolidations	15.4	15.2	15.9	12.9	14.7	15.4
Intercompany Transfers	15.3	17.7	16.1	14.2	17.0	17.1
Foreign Currency	13.7	13.8	14.9	14.0	13.2	14.6
Segment Reporting	15.2	16.1	15.5	16.1	16.0	15.8
Partnership Accounting	14.2	14.0	13.9	14.9	15.0	15.8
Governmental Accounting	14.5	15.4	14.4	14.5	15.9	14.3
Mean Grade Level (MGL)	14.7	15.4	15.1	14.4	15.3	15.5

The Halsey text has the highest grade level (is least readable) for only one of its chapters; however, it has the highest MGL at 15.5. The Jeter, Baker, Fischer and Beams texts each have either one or two of the highest grade levels in the five remaining chapters. The Jeter text has the least readable of all sample chapters from all the texts, at 17.7. Jeter is tied with Fischer for the highest grade level in segment and interim reporting at 16.1. Only the Hoyle text has no sample chapter with the least-readable designation.

Overall Comparison of Textbooks

While some texts are more readable than others for select chapters, no one text is more readable (nor less readable) than the other texts for all six chapters. In addition many of the grade levels for each chapter, while different between texts, are very close to each other. Clearly, statistical tests are required to determine if significant differences exist between the texts overall (i.e., mean grade levels).

While the entire text of each target chapter is analyzed, those results constitute sample passages relative to the text overall. Therefore, t-tests are performed to determine whether significant differences exist between the textbooks overall. Independent-samples t-tests are performed on the sample means, without assuming equality of variances. Table 3 shows the p-values of differences between the grade level means of each textbook.

Table 3: P-Values of Differences Between Mean Grade Levels (MGLs)

Textbook Author, et al. (MGL)	Hoyle (14.7)	Jeter (15.4)	Baker (15.1)	Fischer (14.4)	Beams (15.3)	Halsey (15.5)
Hoyle (14.7)						
Jeter (15.4)	.351					
Baker (15.1)	.399	.725				
Fischer (14.4)	.597	.232	.250			
Beams (15.3)	.365	.935	.782	.238		
Halsey (15.5)	.149	.856	.495	.103	.773	
	Textbook Author, et al. (MGL)					

Note: No statistically significant differences at the .01, .05, or .10 levels.

No significant differences exist between the mean grade levels of the texts at the .01, .05, or .10 levels. These results are inconsistent with the Razek, et al. (1982) study, which found significant differences between many of its texts. The results of this study provide a necessary update to the literature in this area and can provide faculty, authors and publishers with a baseline from which to continuously improve their choices and offerings.

CONCLUSIONS

If faculty place substantial emphasis on readability in selecting an advanced accounting textbook, they should strongly consider the results of this study. In terms of overall readability, there is no compelling evidence to choose any one of the texts over any other. Faculty might therefore base their text adoption decision entirely on other factors, such as a text's pedagogical approach, coverage of material, exhibits, and supplements. However, faculty may want to consider the variation in the indexes among the individual content areas when choosing a text. That is, they may wish to base their choice on the relative readability of the content areas that they find to be particularly challenging for their students. Textbook authors should also examine these variations in an effort to synchronize their individual writing styles and continuously improve the cohesiveness of the text.

Editors of advanced accounting texts can also use these findings. There is more to comprehensibility of a subject than the readability of text matter. The diagrams, charts, demonstrations, calculations, and figures included in textbooks are intended to aid in the student's comprehension of the subject matter. Nonetheless, long, complicated

sentences, while sometimes necessary, may hinder a student's comprehension when used extensively. Textbook editors may use these findings to set their expectations of authors of future advanced accounting textbooks.

LIMITATIONS

One limitation in this study concerns readability formulas in general. They assume that the lower the readability level the better; but an unrealistically low readability level may lead to lower transferability of the content. In addition, readability formulas predict readability; they do not measure it. More costly and time-consuming techniques such as the Cloze Procedure are necessary to actually measure readability. While there have been many critics that questioned the validity and value of readability formulas, there is ample research to suggest that formulas, despite their faults, can predict whether one piece of text will be easier to read than another (Pearson, 2002).

Secondly, the results of this study should not be the sole basis for judging the appropriateness of a particular advanced accounting textbook. Only the main body of each target chapter was analyzed in this study. The calculations, vignettes, journal entries, charts, exhibits, graphics, figures, and end-of-chapter material are excluded from analysis. Ancillaries such as instructor and student supplements are also not considered. It is likely that faculty will subjectively evaluate the effectiveness of this material separately from the main body of the textbook.

Finally, as Smith and DeRidder (1997) indicated, business faculty, when making a textbook selection, attach the most significance to comprehensibility to students, timeliness of text material, compatibility between text material and homework problems, and exposition quality of text, respectively. The first of those criteria, comprehensibility, is addressed (at least in part) by this study. However, one of the underlying assumptions of this study may well be its greatest weakness; that is, we assume that students rely heavily on the textbook as a major source of information for a course (Razek, et al., 1982), and therefore, read it in order to comprehend the material better. Future studies might include primary research on students' perceived importance of the text relative to other course tools in the learning process. Students' motivations to read the text should be investigated, and in a manner similar to the studies conducted by Phillips & Phillips (2007) and Maksy & Zheng (2010), the motivating factors associated with both reading and utilization of alternate learning tools should be studied. In addition, a comparison of texts in terms of the type and amount of ancillary materials would broaden the resources available to faculty when facing the complex decision of adopting a textbook.

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Incorporating Sustainability into the Business Curricula: Ecological Footprint Analysis

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ABSTRACT

This study describes an ecological footprint analysis (EFA) project designed to help business students understand the significant environmental and social impacts of their lifestyles, and to encourage them to reduce these impacts over the course of the quarter through changes in consumption practices. Employing assessment methods developed specifically to measure the effectiveness of the project given its objectives, data were collected over a three year period from 225 undergraduate marketing majors enrolled in a 400-level sustainable marketing elective. Findings indicate that students willingly make significant reductions to their ecological footprint during the course and that most commit to continuing their reduction efforts over the long term. The results of this study demonstrate that an EFA exercise such as this, appropriate for use in any business course, makes students aware of the connection between business strategies and sustainable consumption and can effect significant changes in pro-environmental values and behavior over a short time period.

Keywords: sustainability, ecological footprint, business education, blogging

INTRODUCTION

While firms have been moving aggressively to adopt sustainable business practices (e.g., Esty and Winston, 2006; Lovins and Cohen, 2011; Senge, 2008), business coursework has been slow to follow suit (Beyond Grey Pinstripes, 2011; Wilhelm, 2009). Attention to sustainability [2] issues in business curricula is limited, and many educators are not aware of the fact that in 2005 the United Nations Environment Program (UNEP) called for a *Decade of Education for Sustainable Development* (2005-2014*;* UNESCO, 2004). With this impetus, Deans from business schools across the globe have joined with AACSB and the United Nations Global Compact, a network of over 375 business associations devoted to pursuing sustainable practices in their organizations, to develop *Principles for Responsible Business* and *Principles for Responsible Management Education* (UN Global Compact, 2008a, 2008b). These agreements provide a framework for integrating sustainability education across all business curricula, including Principles such as: *"we will develop the capabilities of students to be future generators of sustainable value for business and society at large and to work for an inclusive and sustainable global economy"* (Principle 1; http://www.unpreme.org).

This paper describes one project assigned to undergraduate marketing students in a 400-level *Sustainable Marketing* elective. The objective of the ecological footprint analysis (EFA) assignment is to develop the above-mentioned capabilities by demonstrating to students that their lifestyles have significant environmental and social impacts, and that they can reduce these impacts over the course of the quarter through changes in consumption practices. Our business students cannot be change agents, i.e., leaders in promoting sustainable business practices and sustainable consumption, unless they first believe that change is possible. Equally important, this project introduces sustainability metrics, helping students to understand how firms and individuals can measure and reduce their environmental impact. This knowledge will allow students to be advocates for such metrics within their place of employment and among their colleagues and friends.

The next section of the paper describes the project in detail, so that any who wish to incorporate this EFA assignment into their business courses may do so. This is followed by a discussion of the assessment methods used

[1] Sustainability can be defined as meeting the needs of the present without compromising the ability of future generations to meet their needs; ensuring the long-term viability and well-being of our ecosystem, community and society. This requires a focus on the "triple bottom line" of (1) environmental stewardship, (2) social equity, community health and well-being, and (3) economic viability/continuity (Agenda 21, 1993; Blackburn, 2007; Elkington, 1998).

to determine whether the project objectives are being achieved, and an analysis of the findings based on these assessment measures. The final section of the paper considers the challenges and concerns associated with implementing and assessing the effectiveness of the EFA exercise and why it is of value to business educators.

ECOLOGICAL FOOTPRINT ANALYSIS

Definition of the Ecological Footprint Metric

Ecological footprint analysis (EFA) allows an individual to evaluate the environmental impact of his/her consumption behavior by calculating the amount of earth's resources required to support a particular lifestyle (Wackernagel and Rees, 1996). Most EFA operationalize environmental impact by measuring how many tons of carbon dioxide an individual produces each year, i.e., his/her "carbon footprint." The carbon footprint is calculated to be 54% of humanity's overall ecological footprint and its most rapidly-growing component; in fact, humanity's carbon footprint now exceeds global bio-capacity by more than 20% (www.footprintnetwork.org). EFA translates the amount of carbon dioxide produced into the amount of productive land and sea area required to sequester carbon dioxide emissions and accommodate waste. Most ecological footprint calculators assess the total amount of land required for the consumption categories of food, housing, transport, consumer goods, and services (e.g., health care, infrastructure).

Selection of Footprint Calculators

There are many WEB-based footprint calculators, but two were selected for the present project: (1) www.footprintnetwork.org/en/index.php/GFN/page/personal_footprint/, developed by the Global Footprint Network, and (2) www.StepGreen.org , developed by researchers at Cornell, Carnegie-Mellon and MIT (Mankoff et al., 2010). Both calculators were selected based on research in environmental psychology and social marketing regarding the most effective means of persuading individuals to change their environmental behavior (e.g., Abrahamse et al., 2005; Andreason, 2005; McCalley and Midden, 2002; Stern, 2000). Calculators that can provide frequent feedback, allow for footprint sharing and public commitment, include visualization tools, and provide information about the cost savings associated with footprint reduction actions – these are some of the important characteristics of a successful pro-environmental behavior change intervention. Just providing information is not enough – numerous studies have reported a weak relationship between environmental knowledge and pro-environmental behavior (Abrahamse et al., 2005).

The *Global Footprint Network Calculator* calculates an individual's footprint for each of the consumption categories noted above based on specific input data that often requires research (e.g. electricity bill/month), and visually depicts the number of planets that would be needed if everyone consumed at the same overall level for a year (see Figure 1). Footprint re-calculations with new consumption data can be run anytime and results are stored for easy access. Recommendations for reducing one's footprint are also provided.

The *StepGreen Calculator* calculates the projected per-year carbon-dioxide savings and projected per-year dollar savings for each action committed to (e.g., walk to school instead of drive, restrict meat consumption to one day a week, switch to green power) (see Figure 2). Recurring actions require updates each week (for example, if you commit to walking to school, each week you would report how many times you did so). Each time a member logs onto the site, *StepGreen* reports total CO_2 and dollar savings to date for all actions combined; students download the *StepGreen* applet to their blog so that they can see each other's savings for the week.

Figure 1: Global Footprint Network: Example of Output from EF Calculations

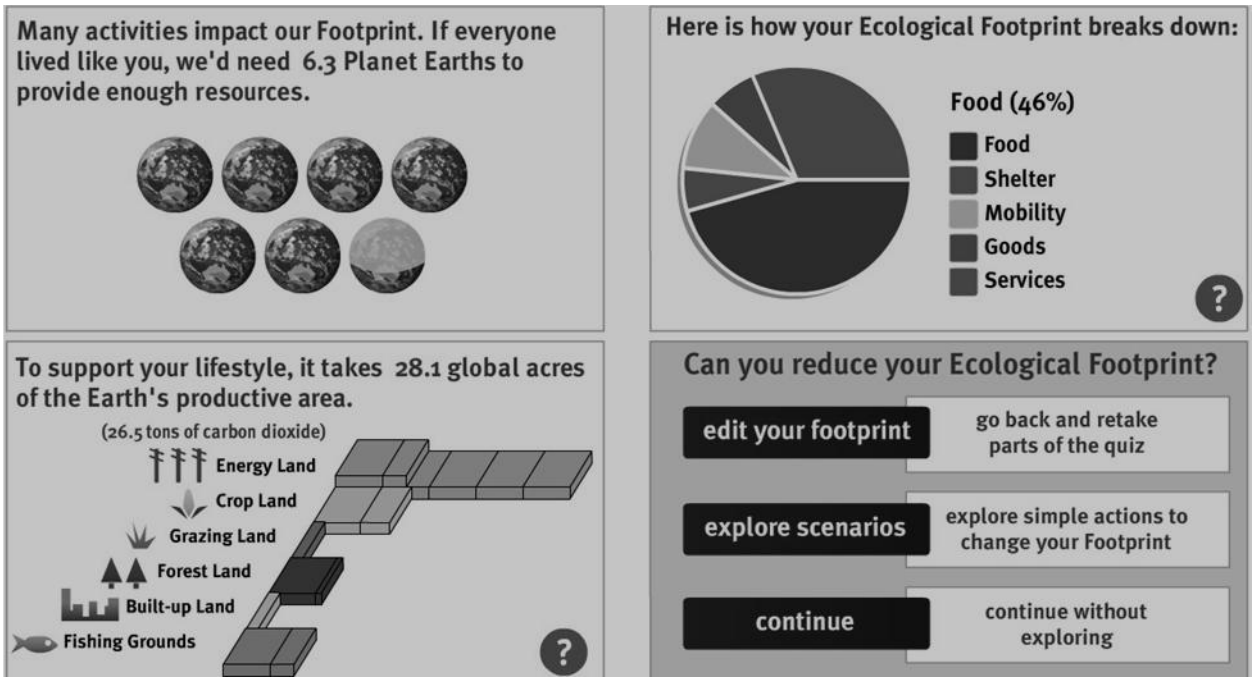
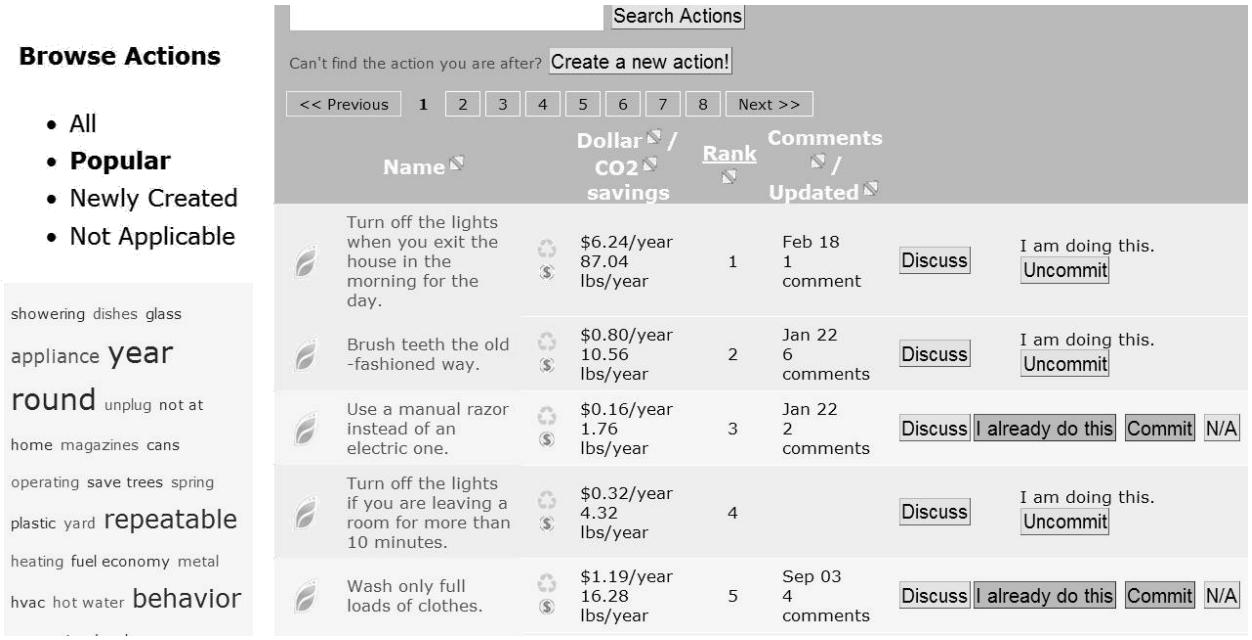


Figure 2: StepGreen.org: Possible Footprint Reduction Actions



Description of EFA Project

The verbatim instructions given to students are provided in Figure 3. Prior to calculating their personal EF, students read about what a carbon footprint is at: http://www.footprintnetwork.org/en/index.php/GFN/page/carbon_footprint/ (source: Global Footprint Network). Class discussion focuses on how calculation of their EF will enable students to understand and reduce their own ecological impact while also improving their understanding of how footprint metrics are used by corporations to develop and assess their sustainable business practices. We also watch *A Story of*

Stuff (www.storyofstuff.org), a short film produced by Annie Leonard that examines the product life cycle and how the production and consumption of consumer goods is impacting the environment and society. This film gets students thinking about the products they buy and how they dispose of them. We then move on to a discussion of specific firms and products and what constitutes a "sustainable product/firm;" I also encourage them to consult the *Better World Shopping Guide* (www.betterworldshopper.com) prior to their next shopping trip (some students subsequently decide to boycott certain products/firms as one of their footprint reduction actions). One two hour class period typically suffices to cover this material.

Figure 3: EFA Project Instructions Given to Students

Ecological Footprint Calculation (beginning of quarter): Calculate your personal carbon footprint at www.footprintnetwork.org/en/index.php/GFN/page/personal_footprint/ . Get as close an estimate of the correct answer as you can. Which consumption category contributes the most to your Footprint? Next, visit www.StepGreen.org and commit to at least 3 recurring actions and 2 non-recurring, one-time actions you will take to reduce your carbon footprint during the quarter (you may create your own actions). Download the *StepGreen* applet to your blog so that all can view your commitments and your weekly report on your progress. Finally, post the visual print-out of your EF calculations from the *Footprint Network*, your reduction plans from *StepGreen.org*, and a short reflection on them to your blog.**Progress vis a vis Reduction Commitments:** Each student will keep a weekly blog. Use the blog to record progress toward your goals. Think of it as a diary – how difficult is it to stick to your commitments? What are some of the challenges? Students will give periodic updates in class on how these efforts are proceeding. Halfway through the quarter, you will re-evaluate your EF reduction actions/commitments and either add new ones or determine to more religiously comply with your existing ones. I expect, at the very least, to see one blog posting per week. Please use www.google.com/blogger to host your blog; blog analytics can be accessed from the "stats" link. **Ecological Footprint Re-calculation (end of quarter):** You will re-calculate your EF at the end of the quarter, posting on your blog your (1) re-calculated EF, (2) original EF, (3) total CO_2 and dollars saved from your commitments at StepGreen.org, and (4) a reflection on your efforts. You will also be asked to share with the class if and how you plan to continue your commitments once the course is over.

Students are given a week to calculate their footprint, decide on their EF reduction goals and commit to them on *StepGreen.org*, and set up their blog with the first posting. At the beginning of each class session 2-3 students are asked to share information from their blogs with classmates; Blackboard's blog function is used to enable easy access. Student blogs and the sharing of student postings are an important part of this project because, as noted above, public commitment to environmental goals improves goal achievement. As the quarter progresses, students report on their progress (and receive helpful suggestions from classmates) and also share relevant videos, events, articles, websites, etc. about businesses that are adopting sustainable business practices (this is another required assignment). The last blog posting of the quarter must include the original and re-calculated footprints, the total CO_2 and dollars saved from actions carried out at *StepGreen.org*, a discussion of successes/failures, and plans to honor their commitments once the course is over. Students also hand in a hard copy of their blog analytics report for the quarter.

ASSESSMENT METHODOLOGY AND SAMPLE

Consistent with the project objectives stated at the beginning of this paper, the project would be considered effective if it (1) demonstrates to students that their lifestyles have significant environmental and social impacts, and that they can reduce these impacts over the course of the quarter through changes in consumption behavior, (2) helps students to understand how firms can measure and reduce their environmental impact using one particular sustainability metric, and (3) persuades students that they can be effective change agents for sustainability within their families, peer group and place of employment – "if I can reduce my EF, so can my roommate/employer."

Key Measures of Effectiveness

A summary of the measures used to assess project effectiveness can be found in Table 1. Three of the key measures are described below.

Table 1: Measures Used to Assess Project Effectiveness

Objective	Measure
Awareness: lifestyle choices have significant social/environmental impacts	• Objective test • Calculation of personal EF • Reflective essay (blog)
Behavior Change: impact reduction is possible w/moderate changes over time	• Objective test • Reduction in size of EF • Reflective essay (blog)
Learning: meaning of ecological footprint, how it is calculated, and possible reduction strategies	• Objective test • Calculation of personal EF • Analysis of relative size of U.S. footprint versus another country (blog)
Persuasion: "I can be an effective change agent for sustainability"	• Public sharing of EF reduction efforts (3 times) • Visiting classmates' blogs and offering encouragement and advice (blog analytics report) • Presentation on how they will continue lifestyle changes after course is over (also on blog) • Course evaluation questions

Objective test of EF awareness and knowledge. A 100 point multiple choice test of basic ecological footprint concepts is administered at the beginning and end of the course. Students are tested on EF concepts and metrics, marketing strategies that can reduce the size of consumers' footprint, the relationship between consumption and environmental/social impacts, and the meaning of sustainable consumption. Demographic data are collected to explore possible individual difference influences on awareness and knowledge levels. Students are also required to use the *Global Footprint* calculator to compare the per person footprint of the U.S. with that of a second country of their choice, an assignment that shows students how large our footprint is relative to other countries.

Reduction in EF size. A comparison of each student's footprint size (number of planets needed to support his/her lifestyle) before and after each commits to and carries out his/her footprint reduction actions is used to measure behavior change. In addition to the quantitative measure of footprint change over time, student blogs are also reviewed for evidence of a thoughtful, insightful self-examination of the successes and challenges associated with reaching footprint reduction goals. It is important to assist each student in selecting specific, measurable actions unique to that individual, actions that are somewhat ambitious and not too easily achieved so that each student ends the quarter with a sense of accomplishment and a belief that he/she can effect change in the larger world. To further strengthen this belief, each student makes a short presentation at the end of the course that includes steps he/she will make to maintain the lifestyle changes implemented during the quarter (their Power Point slides are also posted to their blog). The requirement that each student visit the blogs of at least two classmates to offer encouragement and advice regarding their EF reduction efforts serves to reinforce the belief that they can use the knowledge gained in the course to persuade others in their sphere of influence to adopt more sustainable practices.

Course evaluations. A third measure used to determine whether this project effectively changes behavior is a set of two questions on a customized course evaluation instrument administered at the end of the quarter: (1) "How successful were you in implementing your EF reduction commitments?" (0-100% scale), and (2) "How likely are you to continue the lifestyle changes you made during the course?" (1-7, not at all likely-very likely). The anonymity of the measure is helpful for determining if, in fact, students are making the lifestyle changes they have committed to and how strong the commitment is to continue them.

Sample

The sample consisted of 225 undergraduate marketing students who were enrolled in a senior level elective on sustainable marketing over a three year period at a medium sized public university on the west coast. The course is taught two times a year, with 35-40 students per section. A profile of the sample can be found in Table 2. Ages

ranged from 18-23 and respondents were split evenly between males and females. Most lived in urban areas within 200 miles of the university and came from Caucasian, middle class backgrounds. The sample is fairly representative of marketing majors at this university.

Table 2: Sample Characteristics

Characteristic	**Sample (2008-2011; n= 225)**	**Marketing Majors at the University (2009-2010)**
Median Age (yrs.)	21.5 (range 18-23)	20
Gender	51% female	54% female
Year in School	30% Juniors; 70% Seniors	45% Juniors; 55% Seniors
Ethnicity	90% Caucasian	90% Caucasian
Average HH Income	$101,000	$98,000

RESULTS

The results for the three primary assessment tools used to determine whether the EFA exercise is meeting the stated objectives are summarized in Table 3. As might be expected, scores on the first knowledge test were typically below 50% (most students have never heard of the term, *ecological footprint*). Test scores on the same test administered ten weeks later, over the six sections assessed in this study, averaged 83%, representing a significant improvement in awareness as measured by a paired t-test ($t = 12.94$, $p < .05$). No significant differences in test scores as a function of demographic variables were found.

Table 3: Assessment Results for Three Primary Measures (n= 225)

Measure	**Pre-Post Results**	**Statistical Significance**
Objective Test (multiple choice)	Pre: average score = 46/100 pts. Post: average score = 83/100 pts.	Paired t-test: $t = 12.94$, $p < .05$
Reduction in Size of Ecological Footprint (number of earths needed to support lifestyle)	Pre: average of 4.7 earths Post: average of 3.1 earths	Paired t-test: $t= 8.21$, $p < .05$
Course Evaluation questions: (1) How successful were you in implementing your EF reduction commitments? (0-100% scale)	Overall 73% success rate (range = 50% - 95%)	No statistically significant demographic differences
(2) How likely are you to continue the lifestyle changes you made during the course? (1-7, not at all likely-very likely).	Overall mean = 6.1	Women significantly more likely than men to continue their efforts (women= 6.5, men = 5.2, $t=7.63$, $p < .05$)

The average EF size calculated during the first week of class was 4.7 earths. Over the course of the ten week quarter, students made significant reductions in their footprints, to an average of 3.1 earths, as measured by a paired t-test ($t= 8.21$, $p < .05$). Once again, demographic differences did not significantly influence footprint size. The few students that reported no change in the size of their footprint were those who did not take this exercise seriously; they also performed poorly on other assignments and exams. It should be noted that it is not possible for an individual living

in the United States to reduce their footprint to one planet, because a person's footprint also includes societal impacts or "services," such as government assistance, roads and infrastructure, public services, and the military of the country they live in. All citizens of a country are allocated their share of these societal impacts. The footprint of these societal impacts does not vary, and therefore in developed countries like the U.S. it is not possible to reduce one's personal footprint to below one planet. Once students understand the footprint methodology, they are less discouraged about the fact that their sustained efforts typically reduce their footprint by "only" 1.6 earths.

Students reported that they were able to successfully carry out their reduction commitments (overall success rate of 73%) and that they would continue their EF reduction efforts (overall mean = 6.1). These commitments are typically significant: buying only organic produce, unplugging all electronics after use/before leaving home, using their own cloth bags when shopping, switching to all green electricity ($10 more/month), and/or walking to school instead of driving. T-tests to determine whether there were any gender, year in school, ethnicity or age differences in success rates or continued commitment levels revealed only one significant difference: women are more likely to continue their commitments than men (mean for women = 6.5, mean for men = 5.2, $p < .05$). Follow up interviews after the course was over indicated that female respondents are more concerned about ensuring the viability of our planet's ecosystem over the long term, for future generations (i.e., their children).

CONCLUSIONS

The findings indicate that the EFA project described here is an effective means of teaching students about the concepts and metrics related to ecological footprint analysis, and persuading them to change their consumption behaviors in a pro-environmental direction. Women, in particular, take the need to live in a more sustainable manner to heart (see footnote 1). Several issues related to project implementation and outcomes assessment warrant further discussion, however.

Challenges and Concerns

One component of the project that requires a significant amount of instructor time and effort is assisting students in the identification of the 3+ actions they plan to take to reduce their footprint. As noted earlier, the goals must be specific, measurable and realistic, but should also be somewhat challenging if students are to end the quarter with a sense of success about what they have achieved. The definition of "challenging" varies depending on the individual. For some, remembering to unplug all appliances before going to bed or leaving the house is difficult, while others may already be in the habit of doing this to save electricity. While students report that they are able to successfully meet 70% of their commitments, it's possible that this success rate could be improved by a more careful selection of actions/goals. This aspect of the project requires further development.

Another concern is the question of whether students are actually carrying out the EF reduction actions they commit to at the beginning of the course. While students report that, for the most part, they were able to honor their commitments, there is no good means of determining whether this is actually true since the data consist of self-reported behaviors. It should be noted, however, that most students become excited about the idea of reducing their footprint ("we should be learning about this stuff in elementary school!") and roommates or other professors often speak about the impact the project is having on student behavior. The development of longitudinal measures to determine whether students do actually continue their efforts to reduce their footprint once the course is over is an important next step. It's vital to examine behavior change since knowledge alone is typically insufficient to effect changes in pro-environmental behavior. Post-course behavioral data would still be based on self-reports, however, since it is difficult to conceive of how actual behaviors could be observed. In-depth interviews with a small number of individuals (perhaps in their homes) might improve the data quality somewhat.

Last, the considerable amount of grading involved can be challenging. Since most of the assignments are posted on students' blogs, grading requires a substantial amount of time reading and posting comments on them, a taxing undertaking if one is accustomed to hard copy grading. Instructors may decide to include only one or two of the assessment methods discussed here, especially if the course is a general business course rather than a sustainable marketing elective.

Incorporating the EFA Project into Other Business Courses

Because this project focuses on how personal consumption impacts the environment/society and thus economic performance, it is relevant to all business courses, particularly when one considers the role business plays in

encouraging consumption (Peattie 2009; Sheth et al. 2011). The project has been successfully assigned in 400-level and MBA-level elective courses on *Sustainable Marketing*, in undergraduate capstone marketing strategy courses, and in 300-level *Principles of Marketing* courses. The relative weight given to the project, the amount of time spent discussing EFA, and the particular methods of assessment vary depending on the subject and level of the course.

Contribution to Business Education

The results of this study are of value to business educators because they demonstrate that an EFA exercise such as this can effect significant changes in pro-environmental values and behavior within a single ten week quarter. At a time when many marketing educators are (or should be) striving to include sustainability concepts in their courses (Bridges and Wilhelm, 2008; Wilhelm, 2009), this paper describes an experiential learning tool in sufficient detail to enable ready adoption in any business course. Overall, the benefits of the project far outweigh the challenges noted above. The enthusiasm with which students commit to reducing their footprint and the creative approaches they take in doing so indicate that students who successfully complete an EFA project such as the one described here are more likely to become sustainability advocates in their future places of employment and leaders in the global movement toward a sustainable economy.

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Effective Accounting Lectures in a Cohort Business Program

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ABSTRACT

Educators in Western universities face challenges in teaching international students in fast-growing cohort programs. This descriptive paper identifies effective teaching strategies based on a survey of American and Chinese students in undergraduate and graduate introductory accounting classes at an American university, and the personal experiences of the authors. The strategies emphasize an educator orientation towards a *difference* model rather than a *deficit* model when working with international students (Fox, 1994; Kennedy, 2002; Ward, 2001).

Keywords: teaching strategies, accounting classes, international students

INTRODUCTION

Higher education in Western universities has seen increasing numbers of more culturally and socially diverse students than ever before due to supply and demand changes. On the supply side, more international students have access to study abroad opportunities. In the past, government and scholarship providers selected the elite few to study in Western universities. However, the current hurdles are limited to university entrance exam requirements, and the desires and resources of students (Carroll and Ryan, 2005). On the demand side, recent changes in the funding and expansion of Western higher education have increasingly encouraged institutions to look towards overseas students both as a source of revenue and as a way of diversifying the university community (Humfrey, 1999). International students in Western universities have grown in numbers as well as the range of countries of origin.

According to the Open Doors report published annually by the Institute of International Education, the number of international students at colleges and universities in the USA increased by 3% to 691,000 during the 2009/10 academic year, which represents a record high number of international students in the United States. This year's growth was primarily driven by a 30% increase in Chinese student enrollment in the United States to a total of nearly 130,000 students, or more than 18% of the total international student population, making People's Republic of China the number one sending country. Chinese students enroll in American universities as individual international students or through partnerships between American and Chinese universities in the form of cohort programs.

Often cohort programs integrate American and Chinese students into the same classroom which presents challenges for instructors. The challenges include separate ethnic learning groups, limited classroom interactions between instructors and Chinese students, and between Chinese students and American students; English language barriers and different cultural and academic environment facing Chinese students. Many instructors faced with unfamiliar student characteristics, are unsure how to respond while meeting perceived expectations for new program development and income generation from their institutions (Carroll and Ryan, 2005).

The purpose of this paper is to identify effective teaching strategies in introductory accounting classes for Chinese and American students. These strategies are based on two factors. A convenience survey of students enrolled in the authors' accounting classes. These classes included managerial accounting, intermediate accounting, and introductory MBA accounting class at an American university, and the experiences of the authors overseeing and teaching a cohort business program at the university.

RESEARCH QUESTION

This descriptive study sought to answer the question, what are American and Chinese students' perceptions of good accounting teaching in introductory accounting classes? The purpose is to stimulate discussions on effective teaching in cohort programs through sharing the experiences of the authors and students with American and Chinese cultural backgrounds. An interest in developing an emic understanding was prevalent throughout the study as authors often discussed how to create an optimal learning environment for students. Pike and McKinney (1996) used the term "emic" to describe how researchers often only see the particles and not the waves of culture that can

lead to misunderstanding in cross-cultural studies. The authors' discussions were also influenced by their outsider status that helped to identify differences unrecognized by researchers who belong only to the culture under investigation (Watkins and Biggs, 2001).

However, the task of making generalizable conclusions about effective teaching strategies is limited because we did not engage in an experimental study, nor did we attempt to draw correlation between effective teaching strategies and academic performance. In addition, the primary learning outcome of these accounting classes was the application of materials and not a higher level objective, such as evaluation, that is often cited from Bloom's 1956 Taxonomy.

LITERATURE REVIEW

Several researchers have noted differences in Western and Chinese education. Western education is generally described as Socratic where knowledge is generated through questioning and the evaluation of beliefs. Critical thinking and problem solving skills are considered important (Greenholz, 2003; Pratt, 1992). Many Western educators have adopted a constructivist view of learning that places the individual at the center of the learning process where learning is not passively received through others sharing information but actively constructed by the learner through mental schemas that are used to organize knowledge, and sum up what is already known from previous experiences, interactions, and beliefs. In order for learning to occur new information has to "hook" into existing knowledge. The role of educators is to create the context for learners to connect new information to existing knowledge, thereby developing further understanding (Carroll & Ryan, 2005). Biggs (1996) described this type of learning as *deep* learning. On the contrary, contemporary Chinese education is often characterized by memorization, rote learning, and repetition and influenced by a dialectic or traditional model of learning which tends to be linear, competition-oriented, and authority-centered (Hammond and Gao, 2002), Biggs (1996) described this method as *surface* learning.

The role of culture plays a significant role in perceptions. Researchers examining the influence of societal culture on learning approaches have found Asian students may be reluctant to take part actively in class due to their shyness, lack of confidence in language skills, and uncertainty about social conventions for classroom participation (James et al., 2002). Many Chinese students, including those with a good command of the English language, encounter significant difficulties in Western universities due to lack of discipline-specific vocabularies, different social and cultural customs, different teaching and learning methods. Many Western educators fail to recognize the premise that Chinese students arrived with the skills and experiences that have proven to be valuable for their achievement in the past but may not be fully useful in their new setting (Carroll and Ryan, 2005). A deficit view of Chinese students is often used by Western educators who see Chinese students as "lacking in independent, critical thinking skills; as plagiarizers or rote learners, speaking broken English and having awkward ways of participating in class." Many of the earlier studies have focused on the need for Chinese students to adapt as quickly as possible to Western traditions and become "ideal students" (Carroll and Ryan, 2005). Although increasingly challenged in recent years, there is still a common perception among Western educators of the stereotypical Chinese rote learners. However this perception appears to be incompatible with the paradox that Chinese learners nevertheless often perform better in comparison with their Western counterparts (Cooper, 2004).

A widely-used instrument to measure approaches to learning is the Study Process Questionnaire (SPQ) (Biggs, 1987) which contains main scales for three learning approaches: deep, surface and achieving. The concept of the surface approach is often related to rote learning, while the deep approach is equated with understanding (Cooper, 2004). However, subsequent researches in this area argue that these categories are oversimplified. For example, the surface learning of memorization can be the first step towards a deep learning outcome. This may be a reason why students from a Confucian heritage tend to adopt a surface approach to learning but still outperform fellow students from other cultures (Abeysekera, 2008). Furthermore, Chinese teaching methods have indeed been recognized as promoting deep learning. Various studies have used SPQ to explain the apparent dichotomy between perceived rote learning and high achievement of Asian students. Researchers have documented that memorization occurs in conjunction with attempts to reach understanding, suggesting that the assumption that Asian students were rote-learning could well be false (Kember, 2000).

RESEARCH DESIGN

This study gathered data by a specifically designed questionnaire distributed to students in the authors' accounting classes during a traditional lecture one week prior to the final exams. Students were asked to evaluate the effectiveness of various teaching strategies that were used by the authors over the course of semester. The students were either American students or Chinese students who were enrolled in a cohort business program between the American university and its partner institution in China and who were completing residency requirement at the American university.

The 58 respondents were students representing a convenience sample from the authors' managerial accounting (two sections), intermediate accounting, and introductory MBA accounting classes. The MBA class was included to have a statistically significant sample size. The questionnaire was pilot-tested for its clarity to the satisfaction of two additional faculty members. Prior to administering the questionnaire, students were presented with an overview of the teaching methods used during the semester.

The goal of the survey was to identify whether there were differences between the two groups' perceptions of effective teaching in accounting based on teaching methods employed during the semester. The questionnaire asked students to rank pedagogical practices used in the class, types of exams, and publishers' support material on a five-point Lickert scale as being not effective (1) to very effective (5). Students were asked to describe whether English was a foreign language, and this provided the basis for an analysis of the two groups.

One factor that influenced the results was the way in which student learning was assessed. Each class was given three exams over the course of the semester. These exams were primarily application questions that required students to apply an understanding of the materials that were covered in classes through a review of exercises and problems. If students performed well on applied accounting problems, it is logical that they rated the teaching methods used in the class higher. If students did not perform well on the exams, the opposite would likely occur.

The statistical results were analyzed through the lens of the authors' experiences of teaching in a cohort program. Students' perceptions of effective strategies may be influenced and shaped by different factors. However, in order to make sense of students' perceptions, it is necessary to identify the factors that students consider effective.

The following teaching strategies were evaluated in the questionnaire.

1. Required readings of the text before lectures
2. Required readings of the text after lectures
3. Instructor describing real life examples to explain concepts
4. Instructor engaging students with thought-provoking questions
5. Instructor providing publisher's study guide
6. Instructor presenting publisher's *PowerPoint* slides during lectures
7. Instructor illustrating solution to key problems step-by-step
8. Instructor posting solution to key problems on-line
9. Instructor preparing practice exams
10. Instructor assigning group projects
11. Instructor assigning individual homework
12. Multiple-choice questions on exams
13. Essay questions on exams

DATA AND ANALYSIS

Table 1 summarizes the student data from the three accounting classes.

The results were evaluated based on two sample t-tests based on a post hoc analysis with the teaching methods as factors of interest (dependent variables). The independent variable was the nationality of the students. Using inferential statistics based on a p-value of .05, the study supported the existence of students' perceptions of effective teaching as reported in Table 2. The authors arbitrarily considered a teaching strategy to be effective when the average score was 4.0 or above.

Table 1: Student Enrollment and Participation Data from Three Accounting Classes

Accounting Classes	Total Students Enrolled	Total Students Responded	American Students Responded	Chinese Students Responded
Managerial (two sections)	53	36	12	24
Intermediate	20	14	6	8
Introductory MBA	12	8	7	1
Total Number of Students	85	58	25	33

Table 2: Students' Ranking of Teaching Methods Listed in the Questionnaire

Teaching Methods Evaluated	American students	Chinese students	Difference	Statistically significant?
1. Instructor illustrating solution to key problems step-by-step	4.6	4.5	0.1	No
2. Instructor posting solution to key problems on-line	4.4	4.4	0	No
3. Instructor preparing practice exams	4.1	4.5	-0.4	No
4. Multiple-choice questions on exams	4.0	4.5	-0.5	No
5. Instructor assigning individual homework	4.0	4.1	-0.1	No
6. Instructor describing real life examples to explain concepts	4.2	3.9	0.3	Yes
7. Instructor engaging students with thought-provoking questions	3.8	4.1	-0.3	Yes
8. Instructor providing publisher's study guide	3.3	4.0	-0.7	Yes
9. Instructor providing publisher's *PowerPoint* slides for lectures	3.5	3.9	-0.4	Yes
10. Instructor requiring readings of text after lecture	3.4	3.6	-0.2	No
11. Instructor requiring readings of text before lecture	3.2	3.5	-0.3	No
12. Instructor assigning group project	2.7	3.5	-0.8	Yes
13. Essay questions on exams	2.8	3.0	-0.2	No

DISCUSSION AND CONCLUSION

Based on the survey result we have found effective teaching was consistent among American and Chinese students in many areas.

1. There were many strategies that both groups statistically rated as being equivalent in helping them to learn. Most importantly, both groups of students valued highly the ability and willingness of the instructor to lead students through step-by-step examples of problems. In addition, certain teaching methods were considered statistically equivalent by both groups - such as posting solutions on-line, preparing practice exams, multiple-choice type of questions on the exams, and individual assignments. The minor differences in results were considered statistically insignificant based on a p-value of .05.

2. The statistically significant differences between the two groups related to four areas. American students rated the method of the instructor describing real life examples to explain materials higher (p-value =.006). The following measures were rated statistically higher by Chinese students, group projects (p-value = .018), *PowerPoint* presentations (p-value =.039), and the publisher's study guide (p-value =.004).

The American students reported that they found the instructor explaining material using real life examples to be effective. However, Chinese students did not rank this teaching strategy as very effective. The author's stories were not as helpful to Chinese students as to American students. As Carroll and Ryan (2005) indicated, real life examples and metaphors may have little meaning without explanation to international students. Chinese students often get lost when examples are not taken from the textbook or are not international in nature because they lack the background knowledge. Additionally, through experience we know that Chinese students have identified instructors speaking too fast or using slang language as being one of the most significant challenges to understanding lectures.

This study indicated that Chinese students ranked *PowerPoint* slides and study guide as more effective than American students. Instructors should recognize that most Chinese students prefer a well-structured academic environment where learning objectives and instructors' expectations are clearly defined, and visual support for lectures is utilized. Chinese students appreciate the efforts the instructor has made in posting the text-book publisher's *PowerPoint* handout and study guide online in advance, sticking to lecture schedule outlined in course syllabus, providing a framework for each lecture, writing down important terminologies and illustrating calculations on the board, summarizing key concepts at the end of each lecture, and trying to speak clearly and use standard English. We also find that referring to global and multi-cultural examples engaged and encouraged Chinese students in class participation.

We also recognize that learning is enhanced by interactions between instructors and learners, and between learners and learners - especially for Chinese students. Chinese students ranked group project much higher. We believe group work provides Chinese students with the opportunities to discuss assignment in a more comfortable language and setting. As Carroll and Ryan (2005) commented, international students may need the safety of working within familiar behaviors and rules. This is reflected on our survey result, and it is also consistent with our observation that generally Chinese students are hesitant to speak up in class but will ask many questions afterwards or during instructors' office hours. We recognized the potential benefit for students to work in cross-cultural groups. However we also realize that the projects assigned in these accounting classes are discipline-specific and application in nature, in which case self-selected groups work better to achieve learning outcome for most students.
The results of students' performance in these accounting classes indicate that Chinese students outperformed American students on application level tests. There are a number of reasons for this including the majority of the Chinese students in the cohort program were stronger in quantitative subjects than American students and had more pressures to perform well. However as stated previously this descriptive study did not attempt to draw correlations between effective teaching methods and academic performance of the students.

ADDITIONAL CONSIDERATIONS

We found other helpful tips for cross-cultural classrooms from our literature review and our experiences in the classroom. Instructors should recognize that reading in English is often challenging for non-native learners and complicated by the amount of reading assigned. Many international students believe they are expected to read every word of every chapter. Providing guideline on the relative importance of each chapter, adding a list of key questions for students to think about with reading assignment, and modeling effective reading by going over several short chapters and evaluating them through an instructor's argument, opinion and supporting information (Carroll & Ryan, 2005) are very helpful.

A unique contribution of this study to the existing literature, despite its limitations, is its emphasis for educators in Western higher education to create a context of inclusion without a focus on remediation of perceived weaknesses of international students. Chinese students have shown initiatives in trying to succeed in a foreign environment in a foreign and inherently difficult language (Carroll and Ryan, 2005), and these efforts and attributes should be recognized. To maximize international students' learning, institutions and their teaching faculty in Western universities should become more sensitive to international students' learning style preferences, and difference that may exist (Ramburuth and McCormick, 2001). A better understanding of international students, indentifying and adopting more supportive and inclusive teaching methods can enhance the experiences for educators, international students as well as domestic students in Western higher education institutions.

FURTHER RESEARCH OPPORTUNITIES/LIMITATIONS

This study targeted students taking introductory accounting classes where the focus of exams was on application type questions. Students were graded on three exams that were derived from the text-book publisher's test bank. Exam questions were primarily focused on accounting application based on Bloom's 1956 Taxonomy. However, the Accounting Education Change Commission (1990) advocated changes in the basic accounting curriculum to encourage students to "learn how to learn" and develop their "critical thinking skills". Critical thinking is deemed to occur when students are required to perform in the Analysis, Synthesis and Evaluation levels of Bloom's Taxonomy (Flinn and Crumbley, 2009). Consequently, the most effective teaching strategies may be considerably different for more advanced accounting courses that require a higher level of critical thinking skills.

Cunningham (1996) illustrated examples of how to improve students' critical thinking while learning accounting. Cunningham advocated discussions involving unresolved issues and identifying assumptions, less lectures and more debates, fewer recall questions and more compare/contrast on exams among other recommendations. These strategies were used in limited settings for the introductory classes assessed in this study. Consequently, the results of this study and the teaching strategies evaluated may change if this study were extended to advanced accounting courses.

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Enlightened Teaching Strategies in an Enlightened Era: Applying Humor in Business Education

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ABSTRACT

This article discusses the use of humor in higher education. Advantages of using humor in the classroom are presented, such as stress and anxiety reduction, increased engagement, and improved interpersonal relations, while points of caution, such as appropriateness, effectiveness, and audience readiness, are also addressed. The use of humor in business performance and education is specifically reviewed, addressing some significant points such as conveying messages better, enhancing effectiveness, and increasing a sense of unity, while points of caution when using humor in professional settings are also presented. A figure presents the reciprocity between health, education and professional performance through humor.

Keywords: Higher Education, Humor, Business education, Anxiety, Stress reduction, Engagement, Interpersonal relations, Student Perceptions, Educators

MOVING TOWARD PRAGMATIC APPROACHES

With the emergence of the previous "soft skills" such as empathy, emotional intelligence, compassion, and listening as important leadership qualities in the 21st century, we also see a need to cultivate qualities that have been suppressed for too long now. Humor is one of them. Humor is not just pleasant for interpersonal relations, but it is usually absorbed with more eagerness, and has a healthy effect as well. Humor instigates laughter, which has been researched on its health effects for quite some time now. Singer (2011) describes the emergence of scientific interest in the health effects of laughter since 1976, resulting from the amazing recovery of journalist Norman Cousins, who managed to turn around a grim health forecast on a painful autoimmune illness by taking large doses of Vitamin C and watching funny movies. Singer reports that laughter causes astounding biochemical transformations that improve our immune system. It also decreases three destructive stress hormones: Cortisol, epinephrine (adrenaline), and dopac. These are the hormones that usually emerge when we are stressed or scared. A Japanese study established that laughter is one of the two simple acts (the other is music), which can reduce blood pressure with as much as six to seven points, due to the fact that both activities lower our levels of the stress hormone Cortisol (Healthy Tune-Up, 2011). Donaldson (2011) reviews the use of humor by doctors and lists a number of health effects that laughter is now known for: stress reduction, healthy blood vessels, managing diabetes, warding off heart attacks, and aiding fertility. Of course the aspect of a good mood should not be underestimated.

Education and Humor: Match or Clash?

When incorporating the subject of humor in education, specifically higher education, there are a few perspectives that have been observed over time. Ramsey, Knight, Knight, and Verdon (2011) and Vuorela (2005) remind us of the three main theoretical perspectives, which humor scholars have established: 1. Superiority – a perspective that is based on things we generally consider foolish, leading to teasing, mocking, or putting down through laughter. This type of humor stems, according to the scholars, from a sense of superiority or aggression. 2. Relief – a perspective that focuses on the laughter after a situation that could have been painful. This sense of humor mostly occurs after tension has elevated significantly, after which it is relieved and the laughter occurs. The basis for this theory is, hence, psychological. 3) Incongruity – a perspective that explains humor as a consequence of surprises, violations of norms, or inconsistencies. This type of humor is very much based on one's notions of language.

Martin, Puhlik-Doris, Larsen, Gray and Weir (2003) distinguish four different styles of interpersonal humor: 1) Affiliative, self-enhancing, aggressive, and self-defeating humor. This style involves non-hostile joking, aimed at building relationships; 2) Self-enhancing humor. This style aims at elevating other's esteem by reducing the effects of stressful situations. Self-enhancing humor is often used by people who are fairly comfortable with ambiguous circumstances; 3) Aggressive humor. This style involves the more piquant types of humor, among which racist, sexist, sarcastic, teasing, and satiric expressions. It is not always received well and may offend or intimidate others;

and 4) Self-disparaging jokes, in which the joker puts the joke on him or herself with the aim to win recognition and acceptance from others.

In a 2008 review on pedagogy, race and humor, Mayo asserts, "Humor is fundamentally about rethinking and re-embodying one's relationship to the topics raised: one's body, identity, gestures are all open to critique, and one responds via bodily acts -laughter, blushing - and thoughtful engagement" (p. 55). While Mayo's main reasons for his above mentioned article are to demonstrate how humor can effectively be used in anti-racist performance art, his notion is generally applicable, as humor can be applied to all areas of life, and hence, education.

Punch Line inclusion for a Quickly Distracted Student Population

The idea of a new millennium demanding a different direction than the one we were used to in the past has now fully settled, and with that, the awareness has risen that many of the abstract formats in which education was transferred in the past decade don't find broad and lasting appeal anymore among current generations of learners. People are too busy, too restless, too stressed, and too driven, to focus on models that are already obsolete before they graduate. The learner of today is seeking an appealing message that preferably serves multiple purposes, inspires him or her to think, and elevates his or her understanding. This is not a time where people need, or even want, to learn superficially. The time when we could simply learn by heart for a few hours and then disregard the lessons learned is history. Learning without questioning is known as single loop learning, and does not suffice as a learning mode for the challenging millennial generation. Even double-loop learning, which entails learning to learn, is now insufficient. Given the greater demands on our performance in the 21st century, the rapid change, the need for broader orientation and understanding, and the vast amount of developments of all kinds, there is a greater need for ecumenical learning (Marques, 2007), which includes all dimensions that guarantee in-depth retention: the what, how, and why of anything to be taught, and its relationship to anything else. Longenecker and Ariss (2002) are convinced that "effective learning environments are created when instructors create a balance between seriousness, light-heartedness and humor as a vehicle to stimulate learning and to promote alertness on the part of the learner" (p. 648). Focusing on the link between the learning environment and the students' post-educational performance, they continue, "It is important to note that without all of these characteristics being part of our management education program the program's ability to create competitive advantage is greatly diminished" (p. 648).

Humor, as an educational strategy, fits perfectly in the trend of enhanced interaction in higher education. It blends in seamlessly with the concept of andragogy, which entails more ownership and greater reciprocity based on the fact that students in higher education are adult learners, albeit to various degrees of adulthood. In a setting where interaction needs to be enhanced, ice breakers are important, and humor is one of the greatest ice breakers human beings have at their disposal, but it is far more than that.

A good example to demonstrate the strong advent of humor in higher education is the existence of the International Society for Humor Studies. This society comprises of professors from a wide variety of study directions with a common goal: exploring the advantages and use of humor to enhance the educational experience. The organization publishes a journal and conferences on humor in higher education. Yet, while we are still testing the waters on the possibility of structurally applying humor in higher education courses, studies have long proven its merit.

ADVANTAGES AND POINTS OF CAUTION WHEN APPLYING HUMOR IN EDUCATION

Reasons to Consider Humor in Education

Emphasizing appropriateness as the main prerequisite to its use, Torok, McMorris, and Lin (2004) assert, "humor has the potential to humanize, illustrate, diffuse, encourage, reduce anxiety and keep people thinking" (p. 14). With this enumeration, they also capture the most important and effective reasons for using humor in education. On the website from the office of the Provost at Michigan State University, the following statement is posted:

> "Humor can do much to enhance the classroom environment, reduce stress, increase student interest and attentiveness, and even promote long-term recall. The articles and websites below offer research, guidelines, and examples of humor in the college classroom, online courses, and "dread courses" such as statistics. The final two sites provide information on a society for humor studies and a source for college humor" (Rosen, 2011, par. 1).

Torok, McMorris and Lin (2004) conducted a survey among 124 students and their instructors, and found that the use of humor was very positively perceived by both groups. Eighty percent of the students responded positively to the learning that happens in humor driven lectures. Of this percentage, half stated that they learned and understood better most of the time, and half felt that it worked for them all of the time. A majority of students (79 percent) responded that their professors used the humor constructively in the classes. The types of humor students mostly appreciated were: funny stories, funny comments, jokes, and professional humor. Sarcasm was considered useful, but was also seen as a point of caution, as it was potentially harmful. Overall, the students that participated in Torok, McMorris and Lin's (2004) study did not feel that the use of humor confused them during class sessions, but conveyed that it might not be a very good idea on exams and tests. The latter is challenged by Berk (2000) who avows that the use of humor in exams can help students reduce their anxiety levels. The attribute of humor that he considers helpful in these cases is its ability to reduce anxiety, tension, and stress. Berk claims that there have not been many studies on the effects of humor in exams to be able to draw a conclusion in either direction. Berk (2000) posits that the use of humor in tests should be encouraged when the following criteria are in place: 1) the instructor has used humor in the course as well. 2) there is no specific - or a very mild - limit to the duration of taking the test, 3) the nature of the humor is a positive one, 4) the humor fits in the topic and student group, 5) there are no cultural differences between test writer and test takers, and 6) humor is an area with which the test taker is comfortable. Berk subsequently presents findings from his own study about this topic for which he used 695 students from undergraduate and graduate programs. The study showed that students generally prefer humor during their tests, but agree that there should be a well-considered approach in place when doing so. Berk finally reveals four major techniques that could be used when taking tests: incongruous descriptors under the title of the test, jocular inserts in the directions, humorous notes on the last page, and humor in the test items.

Garner (2005) underscores that when we use proper humor, analogy, and metaphor in our college classes, we ensure better attention from our students, greater retention in our courses, better understanding of what we teach, and overall a more pleasant environment. Martin (2007) points out that humor reduces anxiety and helps students understand the discussed material much better, because they are more relaxed and motivated, as opposed to students who feel anxious and threatened. Zambor (2006) discusses an example of a professor who uses humor in his statistics classes, thus getting even the most math-averse student to become of fan of his course topic and losing all anxiety for math.

McCarron and Savin-Baden (2008), two educators from different disciplines, feel that course facilitators should adopt some of the techniques of stand up comedians. What they perceive as the commonality between a teacher and a stand-up comedian is the continuous interaction between them and their audience. McCarron and Savin-Baden also feel that humor has now become more important than before due to the gravitation of higher education from a precious few members of the elite to larger, more diverse, and differently situated communities, which has led educators to believe that they should be nurtured instead of challenged. However, they suggest instructors to deviate from that erroneous mindset and engage in "infotainment," which is the hybrid of information and entertainment. Their four suggestions to instructors are: 1) to improvise more and prepare less; 2) to remain detached in a way that students are less inhibited to perform. While relationships are good, they can also become impediments to openness when too intense. 3) Challenge, rather than support. This does not mean that students should not be supported, but the aspect of triggering their will to show what they can, should be considered here. 4) No names, rather than most names. This pertains mainly to large seminar sized courses with more than 60 students, where professors spend too much time worrying about knowing names. McCarron and Savin-Baden consider it best to reallocate the energy invested in this time consuming task into the quality of the interaction during the course sessions. Evans-Palmer (2010) confirms that teachers who include humor in their practices, along with those who strongly believe in their self-efficacy, are divergent thinkers with the ability to establish advantageous social connections.

> Both are innovative, flexible, resilient, and able to motivate students. They possess heightened emotional, cognitive, and affective capabilities. They face their problems with optimism, working hard to seek solutions. Their teaching methods engage and motivate students and clarify content. Not only do students learn more from humorous teachers; they also remember more easily when teachers use humor devices (Evans-Palmer, 2010, p. 81).

Points of Caution in using Humor in Education

It should be noted that humor, like everything else, requires proper use, which in this case, ultimately lies in the responsibility area of the course facilitator. Dickmeyer (1993) warns for misuses of humor in the classroom, because

these may be more devastating than the advantages gained by creating an open environment. Teachers therefore need to consider their own presentation skills as well as their audience when choosing the type of humor they present.

Summerfelt, Lippman, and Hyman (2010), who did extensive research on the psychology of humor in the classroom, found that while humor is consistently regarded a popular tool, and can make a strong difference in students' perceptions of their professors and the topic of the course at hand, there is no guarantee that the use of humor also increases learning. For that to happen, educators have to be aware of close integration of the humor with the information to be remembered. The reason for this is simple: recalling the humor will then also lead to recalling the information that is considered relevant. Furthermore, as previously indicated by Torok, McMorris and Lin (2004), humor should be appropriate: it should relate to the topic and be constructive rather than harmful. While, therefore, any type of humor could be used properly, Torok, McMorris and Lin feel that particularly the use of sarcasm should be done in a highly cautious manner, especially when dealing with diverse audiences.

Romal (2008) brings another point of caution to the surface: students' various backgrounds, learning styles, and personalities. She warns that a particular style of humor could work on one level (for instance freshmen), but not on another (for instance seniors), and that teachers should therefore try to identify the proper way for each level of students: "humor that is 'above their heads' or beyond their experience is simply confusing" (Romal, 2008, p. 93). Finding out what works for which audience is therefore, according to Romal, a gradual process that requires research, rehearsing, and then frequent application.

Almost two decades ago, Edwards and Gibboney (1992) compiled a list in which they captured most of the advantages and points of caution mentioned above regarding the use of humor in the college classroom: 1) it enhances a sense of unity in the class; 2) It helps students understand and retain the course material better; 3) It works best when it pertains to the situation and has something that resembles the instructor or students; 4) It should be used responsibly, and should be left out of tests; 5) It should not target the students or the professor; 6) It should be free from sexist notions; 7) It can help increase professors' evaluation ratings; 8) Instructors should select the type of humor that fits their style and personality; 9) Some humor styles fit better with male and others better with female instructors; 10) Humor combines very well with storytelling.

HUMOR IN BUSINESS EDUCATION

Business education has always been taken seriously, mainly because the focus has been for a long time to maximize profits and ensure the greatest efficiency at the same time. However, having seen where that led us in the past years of repeated scandals based on dishonesty and greed, we now see a redefining process of business unfolding, in which a hard look is taken at people, purpose, and profit, and their respective roles in the managerial scene.

Using humor in business is nothing new: many corporate leaders and managers have used humor in various forms and to different degrees to ensure greater advantages. However, there is one major problem with humor in business: its effect cannot be measured. It is one of those things that you see and just know that it's good, but you cannot measure its effects in numbers, which means that there is never a real guarantee whether and how it will work out.

As for the reactions of business students on the use of humor in their classes, there has not been extensive research posted on this. One of the early scholars to study humor in business education are Lundgren and Graves (1994), who sought responses from 97 business faculty, and found that 72 of them (74%) presented humorous incidents in business education. These authors concluded that all these instructors, while not considering themselves humorous, use humor in class. Slocombe, Miller, and Hite (2011) conducted a survey among 163 business students at an AACSB accredited university and found that students reported giving higher evaluations to professors who used humor in their classes. The business students also believed they learned more in classes where they liked their professor. The survey actually revealed that students considered liking their professor an important aspect of their educational experience. Slocombe, Miller, and Hite made the interesting comment that this qualitative evaluation of professors by students is in stark contrast with the increasingly quantitative preferences of accrediting bodies! They also expressed their concern about the fact that students' preference for humorous professors may not be a helpful guidance toward improvement for educators, because being humorous is not a trait that can easily be acquired. While the comment from Slocombe et. al. about humor makes perfect sense, it should not be disregarded right away, because even instructors with little sense of humor can find ways to lighten the atmosphere in their classes, either by

inviting guest lecturers with a sense of humor, by showing clips or sharing readings that are humorous, or simply inviting students to select and share some humorous materials that pertain to the course topics. It may be appropriate here to reiterate a previously made recommendation from McCarron and Savin-Baden (2008) that educators should behave a little bit more like standup comedians: not every person has an equal sense of humor or an equal ability to be funny in the classroom. But the growing number of materials that shine a humoristic light on almost every topic without making it preposterous or confusing, should be considered. There are always helpful tools available for those who understand their importance, and educators are well aware of the importance of their students' evaluations about their teaching.

Reviewing the role of humor in accounting education, Romal (2008) finds that this phenomenon is nowadays considered more effective than it was in the early eighties, and that, like other educators, accounting professors may also benefit from it. More importantly, Romal directly addresses an earlier raised concern by Slocombe et al by believing that the inclusion of humor in one's educational package is possible. She provides some strategies and illustrations related to the use of humor that may enable interested accounting teachers to develop humor consistent with their personal styles and the needs of their students. Romal first asserts that some educators still believe that using humor in their classes is unprofessional, risky, politically incorrect or inappropriate. As a result, their courses are often considered boring by students, regardless of their brightness or their ability to explain the material well. Romal further states that humor has the potential to increase a presenter's effectiveness because it builds rapport between him or her and the audience. "Humor helps the presenter draw the listeners' attention to the material to make it more salient" (Romal, 2008, p. 84). Romal engages in a meta-analysis of existing literature on the use of humor in business and educational settings and cites various authors who have stated that in the business world as well as in the college classroom humor can help convey messages better, enhance effectiveness, a sense of unity, and improves interpersonal relationships.

Humor in Business Performance

As Romal's above mentioned study already revealed, humor is considered a useful tool in business performance. Holmes (1998) concurs with this notion and, referring to its use in business negotiations, asserts, "The power of humor lies in its flexibility for all these purposes - it can function as a bouquet, a shield, and a cloak, as well as an incisive weapon in the armory of the oppressed" (par. 37). Holmes discusses four ways in which humor is often used in the workplace: 1) as a positive politeness strategy (to build solidarity); 2) as a negative politeness strategy (to downplay the impact of an order that could be considered unwelcome or unpleasant by the addressee); 3) repressive humor (to subtly control the behavior of others – often used by superiors to exert their power positions), and 4) contestive humor (to challenge power relations – often by subordinates to challenge their superiors).

Studying two distinctive business negotiations, one organizational-internal, and one between organizational representatives and a potential customer, Vuorela (2005) found that in both cases, humor was a major factor for success. The first interesting fact he noted was the difference in use of humor: there was more humor in the internal meeting than in the one with an external stakeholder. A second finding Vuorela noted was that humor was used more cautiously when dealing with an external stakeholder than when communicating with colleagues amongst one another. Furthermore, Vuorela found that the type of humor used in both cases was different: while the internal meeting was interspersed with irony and incongruence based jokes, the one with the external stakeholder was of a more cautionary sort, with irony used to a more limited degree. In general, however, Vuorela asserted that "humor seems to have strategic potential for negotiations: it can be used to diffuse tension, mitigate a possible offense, introduce a difficult issue, and thus to pursue one's own goals (p. 105).

The element of caution manifests itself in multiple dimensions when humor is being used in business dealings. Vuorela explains that joking seems to be linked to power: the most powerful person in a team seems to have the right to begin and end a joke, and also seems to determine whose joke is laughed at. In that light, Gkorezis, Hatzithomas, and Petridou (2011) stress that leaders should be aware of how they use humor toward subordinates. Their study on humor and job related attitudes found that humor is directly related to its effects on workers' empowerment: positive humor exerts a positive effect, while negative humor has a negative effect on employees' psychological empowerment.

> "Positive humor, such as affiliative and moderate self-defeating humor, can facilitate interpersonal interactions, reducing social distance between supervisors and their subordinates. On the other hand, negative humor is an aggressive way to establish hierarchical relations, teasing and belittling the lower

status employees […]. Aggressive humor can be detrimental to the well-being of employees since it induces hostility and anger, while at the same time is negatively related to relationship satisfaction" (Gkorezis et al, 2011, p. 87).

In addition to the above, Vecchio, Justin, and Pearce (2009) explain that the effect of humor from a leader is also determined by subordinates' perceptions of the leader's integrity, and perceived fairness, especially in educational and non-profit settings.

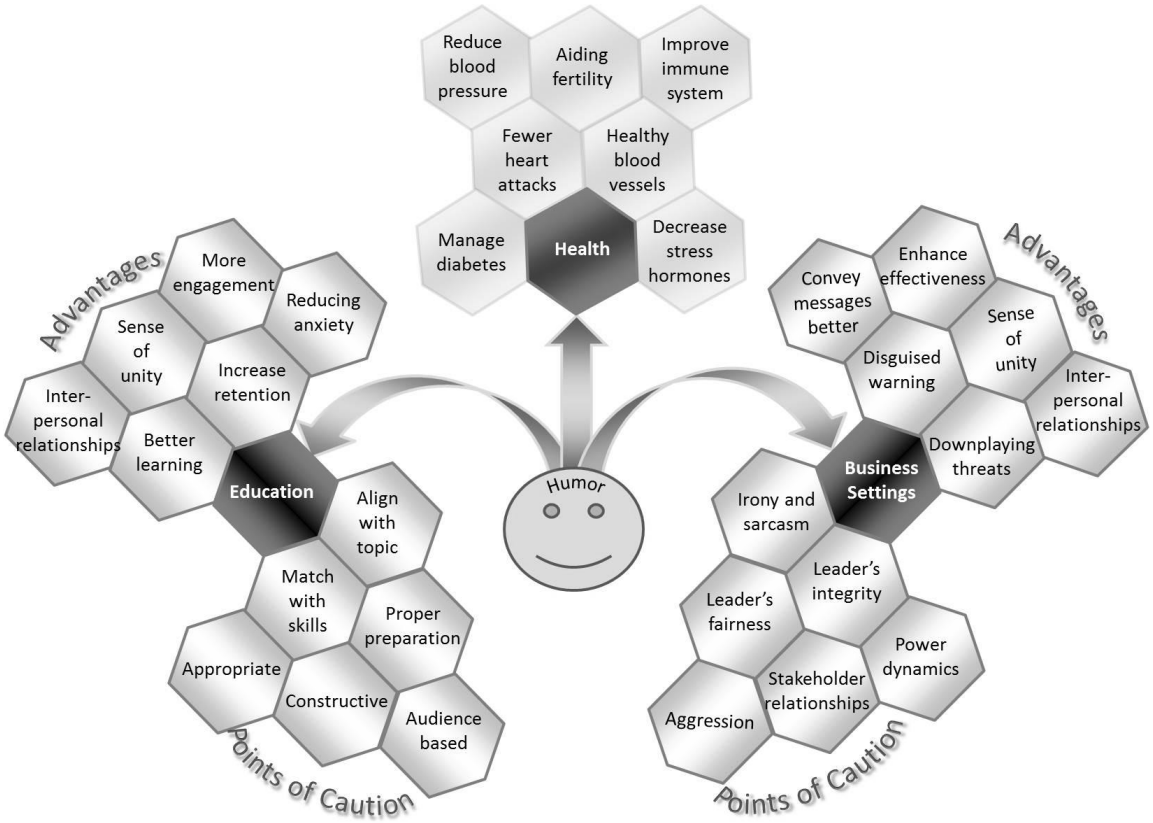
CONCLUSION

While this article profiled humor as a very positive strategy in education and business settings, as well as a valuable attribute for better personal health of those who laugh often, some important prerequisites and points of caution were presented as well. Yet, if the points of caution are considered well, there is very little to bring up against this natural human aspect. Humor is a positive emotion, and it creates constructive learning and working climates: two environments that we need as we move forward into this millennium and away from obsolete, tedious educational structures, and negative motives in business dealings.

One advantage to the use of humor in education that was not earlier presented in this article because it is a rather subliminal one, is the fact that attentive business students who are exposed to responsibly applied humor in the classroom, may realize its value and decide to apply it in their work settings as well, even if they are not strictly aware of the research and findings about using humor in business settings.

Figure 1 below represents a one-glance view of the points discussed in this paper, and may serve as a roadmap for those who want to explore the option of humor in education, particularly business education, while remaining aware of potential pitfalls as well as all the positive health contributions they make when responsibly implementing humor in their courses.

Figure 1: Humor in Business Education



Aside from summarizing the message conveyed in this article, Figure 1 also illustrates an important purpose of this article: the synergistic connection between health, education, and professional performance, through humor. While several articles highlighted each area separately, there has not been any attempt to consider the reciprocal association in all three fields when it regards the use of humor.

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Assessing Learning Outcomes Beyond Knowledge Attainment

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ABSTRACT

Both accrediting bodies and employers are challenging schools of business to improve content relevancy and become more accountable to market needs. Because teaching typically follows assessment, designing a competency model based on advanced cognitive and behavioral domain characteristics will inevitably foster higher-level teaching. While none of the accrediting bodies suggest assessment be based on any particular theory of learning, they do expect assessment to be direct, based on the ability to perform, and to include "higher" teaching activities and assessment methods. A closer look at the AACSB's trend in assurance of learning supports the foreseeable need for colleges of business to develop and assess behavioral, complex cognitive and affective competencies. Industry demand further supports this presumption. This research discusses the current trends in accreditation, delineates higher-level performance competencies, and outlines a methodology for designing assessments (and pedagogies) aimed at assuring higher levels of student learning and engagement.

Keywords: Competency models, accreditation, assessment, assurance of learning, outcomes data, AACSB

INTRODUCTION

Schools of Business have been assessing their programs, services and students for decades. Traditionally these assessments were aimed at assuring acceptable level of inputs were available to meet the presumed needs of the students. Outcome measures such as an adequate number of academically qualified faculty members, high faculty to student ratio, small class sizes, and available financial resources were considered acceptable, and even commendable. More recently, accrediting agencies have changed the assessment focus from inputs to outputs; specifically the output of competency-based learning. The requirements of accrediting body standards have led to the development of competency assessment for guiding curriculum planning across a number of academic disciplines (Calhoun, Vincent, Calhoun & Brandsen, 2008; Garman & Johnson, 2006; Gardiner, Corbitt & Adams, 2010). Specifically, agencies such as the Association to Advance Collegiate Schools of Business (AACSB) and Commission on Accreditation of Healthcare Management Education (CAHME) are focused on encouraging schools to have a defined competency model for student learning. Developing a competency model provides an opportunity for faculty to collectively re-think their academic teachings and outcome expectations, as well as, to identify weaknesses and implement improvements.

Establishing a culture of continuous improvement of learning has been identified as a top issue facing academic professionals (Campbell, Olinger, & Colleagues, 2007). Many critiques have challenged schools of business to improve content relevancy and become more accountable to market needs (Keys & Wolfe, 1988; Rubin & Dierdorff, 2009). Rubin and Dierdorff (2009) have shown a misalignment between the outcomes thought critical by practicing managers and MBA programs. Belasen and Fortunato (2000) suggested that the split between theory and practice is too great in business schools, with curriculum emphasizing theory and cognitive skills rather than application skills. Wren, Halbesleben, and Buckley (2007), using recent survey data compared to earlier surveys, conclude that there is an increasing emphasis towards teaching theory in business schools. Despite these criticisms, business schools have done little to respond to these criticisms and have continued to focus more on cognitive learning outcomes (Stokes, King, & Rosetti, 2010). Consequently, current critics suggest business education leaves students with little practice to become competent in the action skills necessary for good management (Bennis & O'Toole, 2005; Belasen & Rufer, 2007). The misalignment between required career skills and academic teachings needs to be addressed and competency-based assessment provides a platform for this necessary task.

Competency-based assessment has been widely adopted and has been investigated across the health and business professions during the past decade (Bishop, Ferran, & Bishop, 2001; Griffith, 2000; Calhoun, et al., 2009; Kelly, Tong & Choi, 2010). Management and leadership are enormously complex; competencies required are more relational and multidimensional than ordered and sequential, and more intuitive than intellectual (Belasen &

Huppertz, 2009). However, business educators and curriculum planners find it challenging to shift their pedagogical emphasis from knowledge acquisition to skill development (Mintzsberg, 2004; Chia & Holt, 2008). It is the intent of this manuscript to discuss the current trends in accreditation, to explore higher-level performance competencies (beyond retention of knowledge) and to delineate pedagogy and assessment techniques aimed at these higher-level competencies.

CURRENT TRENDS IN ACCREDITATION

Business Education

The AACSB, in accrediting colleges of business, revised its standards in 1992 to emphasize continuous improvement and outcome-based assessment (AACSB International, 2009). In 2005, AACSB incorporated the assurance of learning (AoL) standards that include defining outcome goals and designing assessment methods for student learning (Shaftel & Shaftel, 2007). The AoL standards require the use of direct measures of student learning, but indirect measures may be used to supplement the data collected with direct measures. Examples of indirect measures include asking students their perceptions of their learning and collecting employer feedback on graduates' job performance (Stivers & Phillips, 2009). In making decisions regarding the selection of direct measures, AACSB focuses on three areas: tracking performance on professional licensing exams, commercially available standardized testing, and course-embedded testing with common exams and capstone course project activities. Course-embedded measures, because of their ease and usefulness, are ranked very high among department chairs with respect to usefulness (Miles, Hazeldine & Munilla, 2004) and are also one of the top knowledge acquisition assessments reported being used by colleges of business (Pringle & Michel, 2007) and marketing departments (Nicholson, Barnett & Dascher, 2005). However, some schools favor a standardized test as a direct measure of student learning to meet the AoL standards. For example, the Major Field Test (MFT) offered by the Educational Testing Service (2008) is a standardized objective test that assesses knowledge of graduating seniors and MBAs (Shaftel & Shaftel, 2007). Standardized tests typically result in measurements at the cognitive, and often, the lower cognitive levels of learning outcomes (Kilpatrick, Dean & Kilpatrick, 2008), while course-embedded measures enhance the potential to assess high-level performance competencies.

Healthcare Management

Calhoun, et al. (2009) discuss the history of the National Center for Healthcare Leadership (NCHL) which was created to develop a comprehensive strategy for improving health management education. Central to NCHL's vision was the identification of healthcare leadership competencies and the assessment of outcomes using uniform methods and measures. Specific objectives include elevating the level of course learning objectives to higher-levels (i.e. from knowledge/comprehension to analysis, synthesis, and behavioral measurement). These researchers indicate that, in healthcare administration education, like business, there has been a predominant emphasis on the lower-level retention through faculty-driven learning activities such as lecture and less time mapped for career-like activities. Of specific note was the predominance of knowledge learning objectives as compared to the behavioral, advanced cognitive or affective domain characteristics (Bloom, Englehart, Furst, Hill & Krathwohl, 1956) widely acknowledged as key discriminators in future leadership roles (McClelland 1973, 1988; McClelland, Clark, & Lowell, 1976; Spencer & Spencer, 1993). The NHCL provides academics with examples of lower and higher teaching and learning levels in an effort to support learning activities (Table 1).

CAHME is an accrediting body whose standards for healthcare administration graduate education also demonstrate the trend towards higher-level learning outcomes. CAHME's 2009 and 2012 standards require team-based instruction and integrative experiences, as well as, assurance of critical thinking. In 2009, the standards include, "The Program will structure its curriculum so that students achieve levels of competency appropriate to graduate education." In 2012 the standards will expand to: "The Program will incorporate a range of teaching, and learning methods driven by adult learning principles. The methods will be based on higher education taxonomic levels appropriate to graduate education" (CAMHE 2011). Also, programs will be required to track the percentages of lower and higher level teaching activities. Clearly, healthcare administration accreditation requires competency-based assessment aimed at the higher cognitive, affective, and behavioral levels.

TABLE 1: Examples of Lower & Higher Teaching and Learning Methods

Lower	
Readings	Students complete assigned readings in textbook , articles, websites, etc.
Lecture no media -	Professor does most of the talking, without any media support
Lecture with media	Professor does most of the talking, with some sort of media support (e.g. PowerPoint, overheads, video, whiteboards, etc.). Students participate via discussion that is primarily characterized by students asking clarifying questions, etc.
Guest Speakers	Individual/panel of experts from the field present to student
Online Discussion	Students actively engage in an online discussion, either synchronous or asynchronous, with the professor and with each other. Students can stimulate or respond to discussion.
Class Discussions	Students actively engage in open discussion with the professor and with each other. Students can stimulate or respond to discussion.
Web-based Modules	Interactive learning via CD/DVD/Internet that is more than searching for information or reading websites.
Higher	
In-class Presentations	Students formally deliver information to the rest of the class in a well-prepared format that required analysis and preparation.
Cases	Students actively engage in analyzing a case study to determine causes, implications, strategies etc. Case analysis is either shared with the class through open and interactive discussion or debate, or students prepare a written case analysis for review and feedback.
Team activities	Three or more students collaborate as a group to complete one deliverable
Simulation exercises	Interactive learning is that in which students' actions significantly affect how the learning unfolds and the subsequent outcomes of the learning. Simulations may or may not be computer based (e.g. tabletop simulations).
External Field Experiences	Students are placed in non-academic applied or real-world work settings and allowed to learn from the work experience, including externships and internships. Learning outcomes are shared in the academic environment and evaluated.
Strategic/Consulting Projects	Students actively engage in completing an actual consulting project for a health organization. Alternatively, students complete an assignment that stimulates a realistic project in a health organization.
Reflective Learning	Students complete structured process (e.g. journaling, one minute response, assessment instruments, weekly reports) to review, understand, analyze, and evaluate their own learning and/or performance. The evaluation should be based on pre-selected criteria. In addition, the assessment could include a comparison of their performance assessment with their peers and/or experts in the field

Adapted from NCHL (2006): Competency Integration in Health Management Education: A Resource Series for Program Directors and Faculty.

Professional Degrees

The accrediting bodies of professional schools, such as engineering and medicine, have a long history of including standards that measure learning outcomes at complex levels (Volkwein, Lattuca, Harper, & Domingo, 2007).The National Architectural Accrediting Board's criteria (NAAB, 2010) encompass two levels of student accomplishment: 1)*Understanding*—The capacity to classify, compare, summarize, explain and/or interpret information; and 2) *Ability*—Proficiency in using specific information to accomplish a task, correctly selecting the appropriate information, and accurately applying it to the solution of a specific problem, while also distinguishing the effects of its implementation. The American Association of Colleges of Pharmacy requires performance-based assessment including demonstration of the ability rather than response to proxy measures of the ability. This requires students to actually perform, demonstrate, construct, and/or develop a product or a solution under defined conditions and standards (Garavalia, Marken & Sommi, 2003). It seems these accrediting organizations have paved the way, and perhaps set the bar for others such as AACSB.

With the increased emphasis on competency-based assessment and the need to meet the market and industry demands, colleges of business have an opportunity to build competency models aimed at higher-level learning. Because teaching typically follows assessment (Hand, O'Neil, & Sanderson, 1996), designing a competency model that includes knowledge learning objectives, but is also focused on the behavioral, advanced cognitive or affective domain characteristics, will inevitably foster higher-level teaching. For business faculty to develop such models requires a thorough understanding of these higher-level competencies and a pedagogical approach to assuring the competencies are attained

HIGHER-LEVEL PERFORMANCE COMPETENCIES

Bloom's Taxonomy

There is more than one type of learning. Bloom (1956), identified three domains of educational activities: **Cognitive**: ranging from retention of factual material to complex cognitive skills such as decision making and evaluation. **Affective**: growth in feelings or emotional areas. And, **Psychomotor**: manual or physical skills, Bloom identified six levels within the cognitive domain, from the simple recall or recognition of facts, as the lowest level, through increasingly more complex and abstract mental levels, to the highest order which is classified as evaluation. The categories can be thought of as degrees of difficulty. That is, the first one must be mastered before the next one can take place. The affective domain (Krathwohl, Bloom, & Masia, 1973) includes the manner in which we deal with things emotionally, such as feelings, values, appreciation, enthusiasms, motivations, and attitudes. There are five major categories in the affective domain. The psychomotor domain (Harrow, 1972) includes physical movement, coordination, and use of the motor-skill areas. Development of these skills requires practice and is measured in terms of speed, precision, distance, procedures, or techniques in execution. Seven major categories are listed from the simplest behavior to the most complex.

Bloom (1956) found that over 95 % of what students encounter in educational classroom assessment requires them to think only at the lowest possible level - the recall of information or declarative knowledge. This has not changed much in the decades since his initial research (Chia & Holt, 2008; Calhoun, et. al., 2009). A goal of Bloom's Taxonomy was to motivate educators to focus on all three domains, creating a more holistic form of education. The work of Dominguez et al. (2009); and Pringle et al. (2010) suggest that the key discriminators in future leadership roles depend upon much more than just declarative knowledge (Anderson, 1976).

Industry-defined Competencies

Rubin & Dierdorff (2009) found that six behavioral competencies underlie all managerial work and that practicing managers deemed two of these competencies to be significantly more important than the others: *managing human capital* and *managing decision making*. When Rubin & Dierdorff (2009) cross-referenced these competencies to MBA curriculum, they found the curriculums of most schools underemphasized these two competencies. They suggest that curricular design should integrate leadership, teamwork, and human communication skills in the teaching program. Assessment of student learning should also include traits and observable behaviors. It has become clear that business and management education programs have not done enough to include the leadership development, communication, teamwork, and interpersonal skills which are essential for successful management in their core curricula (Jones, 2002a; Richards-Wilson, 2002).

A September 2003 *Wall Street Journal*/Harris Interactive survey rated student and program attributes most desired by recruiters *(Wall Street Journal*, 2003). Of the 26 attributes identified by recruiters, the top three are examples of desirable executive skills; communication, teamwork, and problem-solving. Percentages of recruiters rating these attributes as "very important" were (1) communication and interpersonal skills (89%); (2) ability to work well within a team (87%); and, (3) analytical and problem-solving skills (85%). Furthermore, Boyatzis et al. (2002) found that MBA students could acquire cognitive and emotional intelligence competencies, but not as part of a typical MBA curriculum. Navarro (2008) surveyed business schools and found a lack of emphasis on multidisciplinary integration, experiential learning, and teaching of soft skills such as leadership, negotiation, team building, etc. These themes have been echoed by researchers and practitioners in healthcare management, who noted that the same limitations apply to master's degree programs designed to produce a new generation of healthcare leaders (Shewchuk, O'Connor & Fine, 2006; Friedman & Frogner, 2010). Much more has to be done to assist with an understanding of the development of curriculum that teaches behavioral skills; and one of the drivers will be assessment of behavior and affective outcomes (Calhoun, et. al., 2009).

PEDAGOGY AND ASSESSMENT TECHNIQUES FOR HIGHER-LEVEL COMPETENCIES

Business faculty are exploring many innovative pedagogical methods such as class projects (Weldy & Turnipseed, 2010), role-playing (Libin et. al., 2010), action research (Raelin, 2006), business games (Anderson & Lawton, 2008; Salas, Wildman, & Piccolo, 2009), and service projects and internships (Narayanan, Fukami & Olk, 2010) to enhance higher-order learning. All of these methods incorporate behavioral skills as well as affective and higher cognitive skills in the activity. Research indicates that class projects (Goretsky, 1984; Thomas, 2002), role-play (Alden, 1999; Baglione, 2006), and service learning (Eyler, 2001;McIntyre, Webb, & Hite, 2005) are more effective for higher-levels of learning and engagement (Gujarathi & McQuade, 2002; Umbach & Wawrzynski, 2005; Young, 2002) and have a stronger connection to the real world (Cannon & Newble, 2000). The benefits increase when the project involves researching a real-world business problem or opportunity (Broderick, 2007; Goretsky, 1984). Allen & Hartman (2008) surveyed business leaders to determine their perspectives on the effectiveness and efficiency of 27 approaches to leader development. They found that the respondents deemed 10 approaches the most useful – all included behavioral performance. Other researchers have shown that skills such as self-efficacy, optimism, and resiliency (Luthans, Avey & Patera, 2008), as well as, reflective leadership skills (Roglio & Light, 2009) can be successfully and efficiently taught in business school classrooms. Clearly, business schools have the ability to teach soft skills and provide complex higher-level pedagogy which is learner-focused (Forrest & Peterson, 2006). What seems to be lacking is a clearly defined competency-based model which can influence pedagogy and inform assessment.

Defining a Competency-based Model for Higher-level Learning

Garavalia et al. (2003) suggest that the selection of an assessment technique depends on the nature of the learning or knowledge being assessed. They describe three distinct types of knowledge - declarative, procedural, and conditional. Declarative knowledge is "knowing that" something is so and is typically assessed using multiple-choice, fill in the blank or other types of tests. Procedural knowledge is "knowing how" to execute a skill or apply concepts and principles to specific situations and is assessed through performance. If a student merely explains how to do these activities, it is declarative in nature. Conditional knowledge is "knowing when and why" to utilize declarative or procedural knowledge. Gardner (1993) states that "most individuals involved in education do not have a clear sense of the nature of understanding and they do not know how to document that it has (or has not) been achieved"(p. 187). He advocates that faculty should assess students in terms of relevant performance; for example, students should be able to fill out their tax returns. He also suggests that these skills can only be "apprehended and appreciated if they are performed by a student"(p. 190).

Many educators use learning cycles and styles as a way to break down complex tasks for developing assessment (Harper & Harder, 2009). Several researchers have suggested a number of theories of learning styles that are involved in experiential learning. The most popular seems to be that of Kolb (1984) who proposes that experiential learning has several characteristics. He suggests learning is best conceived as a process; learning is continuous and grounded in experience; learning is, by its very nature, full of tension and learners need reflection; and learning is a holistic process of adaptation to the world. Kolb's learning theory sets out four distinct learning styles, which are based on a cycle, and he has developed a survey to measure these (Kolb, 1999). However, it should be noted that the empirical evidence underlying learning styles has been severely criticized; a recent review commissioned by the Association for Psychological Science was unable to uncover any evidence that tailoring instruction to these preferences actually produces any better learning outcomes (Pashler, McDaniel, Rohrer, & Bjork, 2009).

Guilkers et al. (2010) argue for the inclusion of all stakeholders (i.e., teachers, students, and employers) in evaluation; however, student self-assessment does not predict cognitive or performance learning (Sitzmann, Ely, Brown & Baur, 2010). Self-assessments of knowledge refer to the evaluations learners make about their current knowledge levels or increases in their knowledge levels. Their meta-analysis revealed self-assessments are strongly related to reactions and motivation and moderately related to self-efficacy. Consequently, self-assessment is a better indicator of how learners feel about a course than how much they learned from it. Sitzmann et al. (2010) suggest that self-assessments of knowledge have a critical role in the learning process as formative evaluation and that learners benefit from having an accurate understanding of their knowledge levels. They suggest courses should be designed to develop learners' self-assessment skills. Learners should be provided with periodic feedback on their performance in a course, should have the opportunity to practice self-assessing, and be given feedback on the accuracy of their self-assessments. That being said, many accrediting agencies such as the AACSB, conclude that self-assessments are only moderately related to actual knowledge levels, thus basing learning needs and subsequent

course-related decisions on these ratings may lead organizations to overlook areas of knowledge deficiency. While none of the professional accrediting bodies require assessment be based on any particular theory of learning, they do seem to suggest a growing movement toward "higher" teaching activities and assessment methods.

Developing an Assessment Strategy

While AACSB schools of business are developing learning outcomes and direct assessment, we believe it is important to move beyond knowledge retention outcomes and incorporate learning outcomes at the behavioral, affective, and higher-level cognitive domains. This will further drive business school pedagogy to higher learning levels. Garavalia et al. (2003) propose a three question approach to developing an assessment strategy. These questions and their purpose are:

> ***1) What is the task?*** *Instructors need to map the task to understand the types of knowledge the student is expected to use (declarative, procedural, & conditional) in accomplishing the task. Most business tasks require all three levels of knowledge in some order.*
>
> ***2) At what level of cognitive processing should students demonstrate learning?*** *This question involves the level at which students should be able to think about the material. If the learning outcome is to identify, then a case with multiple-choice questions might be appropriate. If the students must actually solve problems, then assessment might be performance-based. This is often delineated by verbs in the objective, such as "Understand," "Identify," or "Do."*
>
> ***3) What is the appropriate context for the assessment?*** *Context has to do with determining the format of the assessment. Format can generally be divided into two types: selected and constructed response. Performance is almost always constructed response. And consideration must be given to the time feasibility of such assessments.*

For most classroom business tasks, if the level of processing was delineated and the learning objectives stated, it would be clear that most tasks are, or should be, performance-based. Developing appropriate assessments would be easier for some tasks – financial or statistical problem solving; but many would be very difficult for others – visioning or developing a positive communication culture in leadership. That being said, these challenges should not be barriers in determining desired student-learning outcomes, or developing innovative assessment methodologies. Assessment methodologies will be based on the outcomes desired and in the sense of "quality improvement," the assessment results will drive new curriculum and engaging pedagogy.

DISCUSSION

Colleges of business are in the business of producing students who can be leaders and managers, who are desired by employers, and who can immediately provide value to the organization. Faculty should be in the business of developing pedagogy to achieve these results; pedagogy that cuts across behavioral, affective, and higher level cognitive skills. However, more research on how to effectively teach management and leadership competencies at the behavioral, affective, and higher-order cognitive levels is needed. Faculty are often unfamiliar or uncomfortable with teaching methods and evaluation tools regarding behavioral and affective learning domains, including student behaviors, ethics, values, predispositions, and other personal attributes. Instructors often believe that performance assessments can only carried out in real-life contexts. This creates the concerns that they are time consuming to construct and use; they may require trained, or expert, assessors; and may require elaborate equipment, or situations, to be performed. Furthermore, it can be time-consuming to implement these assessment which leads to frustration and disillusionment with the process. Nevertheless, students are going to need additional instruction and mentoring in these domains in order to be successful across their career progression (Rubin & Dierdorff, 2009).

While none of the accrediting bodies suggest assessment be based on any particular theory of learning, they do seem to have several things in common: 1) they wish assessment to be direct, 2) that it be based on the ability to perform, and 3) that the tasks be mapped in some way to differentiate "lower and higher" teaching activities and assessment methods. For example, a closer look at the AACSB's trend in assurance of learning supports the foreseeable need for colleges of business to develop and assess behavioral, complex cognitive and affective competencies. In the first self-study cycle for the current AACSB standards, the emphasis was on defining outcome goals and assessment systems, while the second cycle has emphasized "closing the loop" through the improvement of curriculum. The natural evolution will be for the third cycle to focus on higher order behavioral and affective competencies, rather than lower level cognitive skills such as knowledge retention. A cursory review of the industry demands further support of this presumption. The industry pressure on MBA programs to be more relevant is a direct indication of the forthcoming migration of accrediting standards. The widening of the concept of competence from learning

outcomes to having the ability "to do the job" is another. Finally, it is the reality in other professional education accreditation standards. These bodies seem to have paved the way for schools of business. Couple the probable AACSB trends with the continued industry emphasis on relevancy and the focus of professional accreditation organizations, and it is apparent that the future of assessment lies in higher-level competency-based assessments. And, that future begins now.

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LEGO® Demonstrations for Understanding the Implications of Changing Work Practices on Human Resource Management

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ABSTRACT

This paper discusses an interactive approach using LEGO ® models in experiential exercises to help students learn the interrelationship between production methods and human resource (HR) management. By enhancing student involvement, these demonstrations provide tangible illustrations of the impact of modern, modular production systems on HR issues, which deepen the students' theoretical understanding of HR management. Implications for education are discussed, and handouts and suggested questions are provided.

Keywords: Demonstration, active learning, human resource management, lean production, mass production, LEGO®

INTRODUCTION

As manufacturing companies have introduced a number of innovative practices into the workplace (Delbridge, 2007; Ichniowski, Kochan, Levine, Olson, & Strauss, 1996; Vastag & Montagon, 2001), a relevant question is how to best portray the implications of workplace changes to new and prospective managers. All of these innovations may potentially improve productivity, reduce costs, and increase employee satisfaction. However, these practices are often difficult for college students to comprehend because they have had little experience in manufacturing settings or professional work environments.

In an attempt to increase student engagement, and to increase the perceived relevance of classroom activities, increasing numbers of faculty have advanced a variety of active learning methods to illustrate key learning points (Cyrs, 1994). Active learning provides a broad range of benefits including providing a bridge between theory and practice, increased motivation to learn, increased retention of concepts, and developing empathy (Meyers & Jones, 1993). Experiential learning activities can facilitate learning about operations management concepts and processes (Ashenbaum, 2008, 2010; Dhumal, 2008; Piercy, 2010; & Elbadawi, 2010) and marketing practices (Frontczak, 2000; Greene, 2011; and Minch, 2007).

Demonstrations place students in artificially-constructed environments that are sufficiently realistic to promote learning and retention of that learning (Meyers & Jones, 1993). Many educators use LEGO® building materials in business demonstrations to help students learn abstract concepts or complex processes. Demonstrations using LEGOs help students understand accounting (Burns, 1997; Mastilak, 2012; Roth, 2005), operations management and manufacturing processes (Burns, 1997; Fish, 2005, 2006; Freeman, 2003; Lindsey, 2010; Paxton, 2003; Roth, 2005; Snider, 2009), organization behavior (Coye, 2009), and economics (Ariely, 2008). These demonstrations provide concrete learning experiences for students to understand abstract business concepts and can be adapted so that students can be better prepared to discuss the impact of these practices on employees and the company.

The purpose of this paper is to describe demonstrations as experiential in-class exercises that can be used to illustrate the changing nature of work and highlight potential improvements to existing human resource (HR) management techniques. We are not aware of any LEGO demonstrations that have been used to teach human resource management. The goal is to help students look at work practices and business processes and identify implications (and perhaps changes to) human resource management practices. Specifically, after the demonstrations, students should be better able to discuss the following types of issues:

1. Will the change in a business technology (in the broadest sense) or process make some jobs unnecessary? Why? Does the change necessitate any additional job positions or will new

responsibilities be assumed by existing positions? What changes in training or compensation will be necessary?
2. Can staff be used more flexibly to provide incentives that will move business strategy forward?
3. What performance benchmarks should be used as a basis for rewards or compensation?
4. What kinds of data will show the how, why, and where that allow employees to guide their own continuous improvement initiatives?

The paper is organized as follows. First, we discuss the evolution of management principles and their impact on human resource management. Second, we illustrate two demonstrations that jointly provide the context for learning about the workplace and the impact of changes in the workplace on employees and human resource management. We offer instructions and handouts to assist instructors in the implementation of this innovation. We conclude with a discussion of the role of demonstrations as an active learning technique to help students learn about HR issues in business.

HUMAN RESOURCE MANAGEMENT AND CHANGES IN THE WORKPLACE

The shift to lean manufacturing has had a variety of implications for management in general and HR and operations management in particular. In an increasingly global economy, advanced economies are under pressure for highly productive work methods, as this is the only way to compete with those nations that have extremely low labor costs (see Delbridge, 2007).

What has emerged from these pressures is a system best known as "lean production," a set of practices that are often traced to the efforts of Toyota in automobile manufacturing (Womack, Jones & Roos, 2007). Essentially, such manufacturing models emphasize team-based work, empowerment of employees within those teams, and the necessary workplace changes to support those changes. When such changes are made, HR managers often "bundle" human resource management practices to align those practices with operations to maximize efficiencies. Such practices are often referred to as "high performance work systems" (HPWS), and have been demonstrated in numerous contexts. Early examples of this approach can be found in the seminal work of Ichniowsi, et al. (1995, 1997), as well as the work of Arthur (1994), Becker & Gerhart (1996), and MacDuffie (1995).

Such practices have been demonstrated to work in various settings and cultures. While much of the premise of HPWS can be traced to the Hawthorne Studies, and to the seminal work of the Tavistock Institute, after substantial development in Japan the practices have moved from Toyota to land squarely in the USA (Danford, 2003). Still, the practices have also been shown to have international relevance, such as the study by Vastag & Montabon (2001) which shows the relevance of such practices to the USA, and both Western and Eastern Europe.

Essentially, these practices result in systems of manufacturing that break from traditional Tayloristic or Fordist approaches to reflect mechanistic models of work organization (Morgan, 1997). Morgan notes that one powerful view of organizations in the early years of industrialization was the mechanical view; this model of organization is directly tied to traditional manufacturing methods and the resultant HR practices which must be replaced in lean production systems. Thus, such changes in manufacturing methods cannot be expected to take form in an organization without a serious change in the way the HR management function is managed and developed. A team-based model requires much more emphasis on issues such as cross-training (and the skill-based pay systems that result), autonomy of the group or team (and the decision making skills and ability to resolve conflicts that ensue), and other such functions. In short, a change of this magnitude requires a shift in the basic operations of the organization, including all aspects of management.

We suggest in this paper that certain experiential exercises can be used to demonstrate the need for new models of HR management. These exercises can be used with college students, with practicing managers, with production workers, or with other interested groups. Our purpose here is to outline the use of such active learning demonstrations.

DEMONSTRATING HR IMPLICATIONS OF INNOVATIVE WORKPLACE PRACTICES

The demonstrations presented in this section are active learning experiences that help students personally experience workplace practices in a production environment. The learning outcome for the HR demonstration is that students

describe the changes in human resource management necessitated by changes in a method, technology, or practice. Students work in a team, playing various roles, including assembly, materials handling, inventory control, and quality control. Operating in a predefined workplace setting, students build a predetermined number of vehicles within a certain time. While the demonstration is set in a manufacturing setting, instructors can help students extend their learning from the demonstration to a service application such as processing mortgages or insurance claims. A debriefing session follows in which students discuss the strengths and weaknesses of the workplace setting and consider how management could improve the processes.

The design and preparation for the demonstration are important. The instructor must select a LEGO vehicle and design the manufacturing context. Exhibit 1 lists the materials needed and the tasks necessary to complete this phase, while the picture in Exhibit 7 illustrates clustering the pictorial instructions as a way to create the assembly departments and raw materials needed by each department during the production process.

Mass production demonstration

Our demonstration of the traditional, mass production method, which operates in a bureaucratic and classical management style, uses a linear batch process work method in which batches of three vehicles move through three sequential subassembly departments to build the vehicle. Each department has tightly defined tasks and must wait to receive materials or partially completed vehicles from the previous department. The supervisor is responsible for overseeing the manufacturing process. Workers are hired based on the skills defined from job descriptions for the position held. Workers are trained to do their job and are rewarded on a piece rate basis. Positions for materials inventory control, materials handler, assembly worker, assembly supervisor, and finished goods inventory control also exist in the demonstration.

Before the demonstration class begins, the instructor will arrange tables and set up the inventory and assembly department workstations. Exhibit 1 provides a list of materials and tasks performed by the instructor before the demonstration begins. Exhibit 3 and 4 present job descriptions for the roles of student participants in the mass and lean production cycles, respectively. Exhibit 5 is an observation sheet that is completed by students observing the demonstration.

A portion of the students in the class participate in the demonstration, while the other students become the audience that observes and makes comments about the process. The best way for the audience to observe the process would be look down on the demonstration from tiered rows of seats. Alternatively, the class could be divided into teams and each team could complete the learning activities, fill out the observation sheet, and then discuss the process.

As shown in Exhibit 8, the production line is created at a table placed closer to the audience. Assembly workers, representing each assembly departments, sit next to each other in sequential order. Pictorial instructions for the assembly of the parts and requisition forms to acquire materials are placed at each station.

At the beginning of class, the instructor places students in their roles and spends about 5 minutes explaining the assembly process and the various roles and responsibilities of the participants. The instructor also includes a review the HR aspects of the mass production process as summarized in Exhibit 5. The instructor may highlight information about HR management and changes in the workplace as presented earlier in this paper, as well as in Exhibit 2.

The instructor, as assembly supervisor, starts the production process by tasking student participants to complete ten perfect vehicles in ten minutes. Materials handlers move the cups of parts in batches of three from the materials inventory control person to the production floor afterthe assembly worker for the respective department gives the material handler a completed materials' requisition form. Each department assembly worker completes the department's subassembly, attaches it to the partially completed vehicle and then moves the batch to the next department. The assembly worker in the last department sends the completed vehicles, via the materials handler, to quality control. Quality control inspects for quality and prepares a report for the debriefing session. The assembly supervisor oversees the process and will be contacted by any assembly worker when a problem with parts occurs.

A 20-minute debriefing session follows in which the supervisor (instructor) oversees the presentation of the performance results (cycle time, productivity, and yield) and the quality control report. The instructor reinforces some of the human resource factors and then asks students to work in small groups to identify issues that might arise if the workers were cross trained to work with a team to build the vehicles.

Lean production demonstration

While the students are meeting in groups, the sequential production line is transformed into a manufacturing work cell. A cellular work method allows for concurrent production by a team of cross-trained workers. Once again, the instructor will replace some of the good parts in the cups with bad parts in order to create problems in the production process that will be addressed by assembly workers during production and discussed during the debriefing session. Alternatively, all parts for each department can be clustered together in sections of a pre-segmented Styrofoam plate to represent a complete parts vehicle kit. Each department only completes their work and then moves the kit to the next department. The Styrofoam kits can act as a kanban signal and limit the amount of work-in-process inventory to the single kit. This is helpful when there are production problems and can reduce the cost of rework.

The instructor begins the second demonstration by discussing the changes in technology and organizational structure (Exhibit 2). Observation sheets (Exhibit 5) allow the students in the audience to take notes during the simulation about the impact of workplace changes on the workers. Half of the workers are now in the audience rather than on the production line and new roles exist for the remaining production workers. Students are told that the workers are in a team and empowered to complete the work without supervision. A kanban system provides signals that materials are needed. Participants are instructed to complete 10 vehicles in 10 minutes.

When the instructor signals the production process to begin, workers collectively complete one vehicle at a time and are responsible for inspecting for quality throughout the process. As problems arise during the production process, the workers stop to discuss the problem and plan a solution. As the completed vehicle moves out of the manufacturing cell, materials for a new vehicle are delivered from the suppliers. After the demonstration, students work in small groups to finish recording their observations. A debriefing session follows in which the instructor oversees the presentation of the performance results (cycle time, productivity, and yield), the quality control report, and facilitates a discussion about the impact of technology changes on HR management.

HR Demonstration Discussion Points

As the lean production demonstration unfolds, students will begin to see a number of HR factors affected by the changes in technology. The most obvious change is the drastic reduction in the number of workers and the resulting performance expectations on the remaining workers. During the debriefing session, the following points should be made: (a) Workers must be multi-skilled and team-oriented because the workers are reciprocally interdependent rather than sequentially independent; (b) workers must be more adaptable and flexible; (c) workers are hired based on broad competencies rather than specific skills; (d) rewards will be based on team performance rather than individual performance so there is less emphasis on a limited job task or duty; and (5) career progression is the result of broad individual expertise, positive team interactions, and high quality production. Exhibit 6 provides additional questions for in class discussions, exam questions, and homework assignments.

Instructors may direct discussions to deepen or expand student awareness of other HR issues. For example, Lawler (2000) pointed out that pay for team performance is in part a function of the nature of the type of team involved. When production methods are changed to a team-centered approach as described above, the resulting team is a "work team" in Lawler's terminology. These teams are best rewarded on the basis of learning and development, often involving cross training so that all aspects of the work can be performed efficiently within the group (Lawler, 2000). While various kinds of teams exist, and different reward structures may be appropriate to each, some traditional methods (e.g., rewards for individual suggestions, Lawler 2000, p. 205) are not appropriate in modern production settings**.** This applies to service sector operations as well as manufacturing sector operations. For example, the Scanlon plan is a reward system that has been traditionally associated with unionized manufacturing settings, but this method of gainsharing has been recently shown to apply in a service sector organization, specifically a large retail organization (Scott, Floyd, Benson, & Bishop, 2002).

One aspect of HRM that we have not specifically investigated with this experiential activity is to explore the nature of organizational reward systems. When work systems are changed in significant ways, changes in reward structures need to follow to ensure organizational functioning (see Heneman, Ledford, & Gresham, 2002). One could easily set up reward structures using M&M candy or similar rewards, and base the payout on differential aspects of performance. While individual rewards work in traditional manufacturing, students would quickly realize that group-based incentives are the only feasible incentives in team-based lean production systems. As a note, one reason

we have not yet looked at this aspect of management is because students tend to be intrinsically motivated in this exercise; however, this does not preclude the use of reward systems.

As a possible extension, instructors may address the issue that many middle-management employees are being replaced by work teams operating on a self-managing basis to empower workers and decrease supervisory overhead costs. Members of these work teams must then confront questions such as: What form of pay system and selection systems to use? Will rewards be based on the competency of its team members or on specific tasks they perform? What broad competencies or specific skills are needed in future workers? Who, or how many individuals, play the role of "expert" on the team? What happens to displaced middle management employees? Suddenly, every business student may potentially face these decisions, and an understanding of the HR issues become quite relevant.

Assessment of Lego Demonstrations as an Active Learning Experience

To evaluate students understanding of the implications of changing work practices on HR management, students submitted answers to the handout shown in Exhibit 5 at the end of the demonstration and answered questions over the content material on the next exam. To assess the value of the learning activity, students answered the following feedback question: "What did you learn from today's class?" at the end of class. In a recent class of 35 students, 48% realized that HR managers need to understand how changes in technology affect the tasks performed by assembly workers. Fifteen percent commented on the need to change training activities and reward structures to adapt to the changes in technology, while about 10% saw the need to see the job tasks in order to better design formal job descriptions.

Then, at the end of the semester students completed a course survey that included questions regarding the usefulness of various materials, activities and assignments in the learning process. In a recent semester with 35 students, the mean scores of students' responses (using a Likert scale: 1 = very low level of usefulness and 7 = very high level of usefulness) were textbooks materials (5.35), course lectures (6.0) and LEGO demonstration (6.35). Students recognized the importance of course lectures and the LEGO demonstrations, as these were tied more closely to course examinations.

CONCLUSION

This paper has discussed how demonstrations using LEGO® building materials can be manipulated to achieve desired HR learning outcomes. For example, job descriptions, work scheduling, downsizing, the role of supervision, and alternative pay for performance strategies are some of the HR learning outcomes that can result from the use of demonstrations. Planning the demonstration and focusing the debriefing sessions on key learning objectives are the responsibilities of the instructor.

Students who have experienced these LEGO® demonstrations can identify the lessons learned from the manufacturing production line and can discuss the relevance of those lessons in the settings of universities, health care organizations, and other service businesses. Although LEGO® demonstrations have been used in a variety of business contexts, this paper suggests how LEGO® demonstrations could be used to accomplish learning goals in a human resource management course. Students also benefit from a team-teaching environment where various cross-functional faculty experts share how their learning goals are demonstrated in the participative LEGO® experiences.

Even students with limited or no work experience leave the class with a powerful shared experience that anchors theoretical text material in an active, participative student experience. In our experience, achievement of desired learning outcomes and retention of that learning surpasses what we can typically generate from lectures. In the same way that organizations need new HR practices to mirror new production and service environments, academe needs to create active learning experiences that will more greatly benefit our students and the firms who eventually hire them.

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Exhibit 1: Instruction to Design, Prepare, Setup the Demonstration

Design/preparation phase:

Materials needed: LEGO® vehicle with less than 75 parts to simplify the demonstration, additional LEGO® parts, instructions for each department, paper cups, Styrofoam trays, quart-size plastic bags

Tasks:

1. Create assembly departments by using the instruction sheet that comes with the LEGO®s. Cluster the pictures to create an assembly department. The demonstration works best using three to five assembly departments.
2. Place into small paper cups the Lego pieces that will be added in the respective assembly department for the mass production demonstration. For the lean production demonstration, place the Lego pieces onto Styrofoam trays.
3. Create materials requisitions forms for each department in the mass production demonstration. For example, if ten vehicles will be manufactured through three departments in the demonstration, then each department requires ten 2" by 2" cards with the department number, which will signal the need for materials.
4. Select additional LEGO® pieces to act as "bad" parts. These pieces can simply be the same part in a different color (represents a defective part) or a different part completely (represents problems pulling parts from parts inventory)
5. Place filled cups and trays, instructions, requisition forms, quart-size plastic bags, and application tools in a storage box to facilitate movement to the classroom.

Setup phase for the classroom demonstration:

Materials needed: All items collected in the design/preparation phase, handouts for students

Tasks:

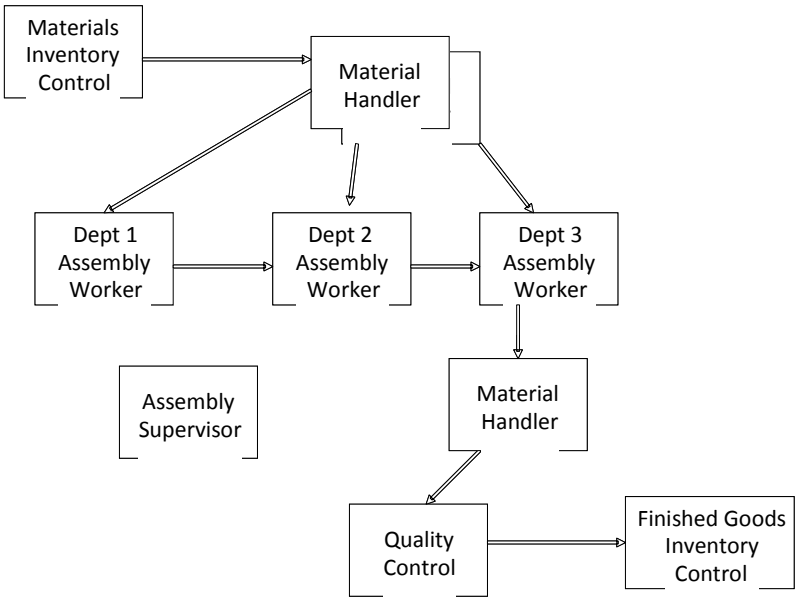
1. Create a production area and an inventory storage area by creating two rows of tables. Inventory table will be behind production line tables.
2. Place inventory cups on the inventory table.
3. Replace some of the good parts in the cups with bad parts in order to create problems in the production process that can be discussed during the debriefing session (optional).
4. Place LEGO® instructions, a prototype of the vehicle after completion in that department, indirect materials application tool, if required, and instructions for student participation (Exhibits 2 and 3) at each assembly department station.
5. Distribute handout on HR and Work Methods: Mass and Lean Production to all students (Exhibit 2).

Exhibit 2: Student Handout: HR and Work Methods: Mass and Lean Production

The Woodlands Factory is a typical mass production assembly operation for dune buggies sold to enthusiasts throughout the United States. Recently, an increased number of customers have complained about the quality of the vehicles. An analysis of the production process shows that the traditional (mass) production approach is not appropriate. Management wants you to view the new, lean production process and consider the impact of this change on the human resources involved in the production process.

Mass production

Product is completed in batches of three in a sequential manufacturing process (see diagram below). Specific tasks have been designed and workers have been hired based on matching their qualifications to the job descriptions. When necessary, workers are trained to develop skills for their job. Workers are rewarded by piece rate and are paid based on individual performance. Workers report directly to supervisor and are restricted to performing only the tasks assigned. A bureaucratic organizational structure exists in that all workers report to the assembly supervisor.



Lean production

The workers are in a team and empowered to complete the work without supervision. A kanban system provides signals that materials are needed. Workers collectively complete one vehicle at a time and are responsible for inspecting for quality throughout the process. As the completed vehicle moves out of the manufacturing cell, materials or a new vehicle are delivered from the suppliers.

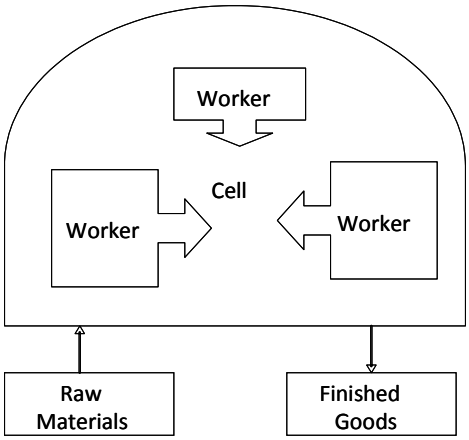


Exhibit 3: Instructions for Student Participation: HR and Work Methods (Mass Production)

Listed below are the different roles you may be asked to play in the Woodlands Factory mass production cycle. Please locate your role and follow the instructions that are associated with your role.

Inventory Control Person (1 person)

1. You sit behind a table located behind the production area. Your job is to issue parts in batches of three to a material handler.
2. You need to check that the parts' requisition forms are filled out correctly for batches of three because this information is used in six different inventory reports that are created each month by the accounting department for plant management.

Quality Control Person (1 person)

1. You sit next to inventory control and wait for material handler to bring you completed production from the final assembly department.
2. You need to carefully check the completed product against the pictorial assembly instructions because it is a well-known fact that the assembly workers work too quickly to create quality production.
3. At the completion of the production cycle, you will make an oral report to the group about how many perfect products were created during the completed the allotted period. To the extent possible, explain any imperfections with the completed products.

Assembly Workers (3 people)

1. You will be briefly trained by the supervisor on how to complete one sub-assembly task and attach it to the partially completed assembly from the previous department (except the first department that begins production).
2. You need to work very quickly because you are paid on a piece-rate basis.
3. When you need parts, call for the material handler and give the handler your purchase requisition. When you complete a batch of three assemblies, pass the batch to the next department.
4. You are not allowed to collaborate with other workers. If you complete all the work in your department, you sit and rest.

Material Handling (3 people)

1. You stand and wait for your assigned assembly worker to call you and give you a parts' requisition form.
2. You deliver the parts' requisition form, one at a time, to the inventory control person who will give you the appropriate number of parts' cups to take back to the assembly worker.
3. When you are not busy, you stand and wait for the next call.

Assembly Supervisor (1 person)

1. You make sure everyone is acting out their roles properly.
2. If an assembly worker needs a spare part, you locate the part and deliver it to the assembly worker.
3. If the equipment breaks down, you locate a maintenance worker to fix equipment or fix it yourself.
4. If you have time, you check the completed parts' requisition forms to ensure accuracy.

Exhibit 4: Instructions for Student Participation: HR and Work Methods (Lean production)

Listed below are the different roles you may be asked to play in the Woodlands Factory lean production cycle. Please locate your role and follow the instructions that are associated with your role.

Inventory Control Person (1 person)

1. You sit at a table placed next to the manufacturing cell table. Your job is to distribute parts to the manufacturing cell when the completed vehicle is moved to quality control.
2. You need to inspect the parts for poor quality, incorrect quantities, or incorrect parts for the vehicle.

Quality Control Person (1 person)

1. You sit next to the manufacturing cell table to receive the completed vehicle and wait for one of the assembly workers in the manufacturing cell to bring you completed production.
2. You need to carefully check the completed vehicle against the pictorial assembly instructions to ensure that the team of assembly workers identified and corrected all quality problems.
3. At the completion of the production cycle, you will make an oral report to the group about how many perfect products were created during the completed the allotted period. To the extent possible, explain any imperfections with the completed products.

Assembly Workers (3 people)

1. You will work in a team of three in a manufacturing cell exclusively dedicated to the vehicle. You have been cross trained to perform all tasks required to build the vehicle, but you will be primarily responsible for the assembly tasks performed in the first demonstration.
2. You need to work very quickly because you are paid on a piece-rate basis.
3. As your teams complete a vehicle and prepares to move it to quality control, you signal the suppliers with a card to request parts for the next vehicle. You will begin the next vehicle once the completed vehicle is removed from the manufacturing cell.
4. You collaborate with other workers. You are empowered to request, build, and inspect parts and vehicles. If you find any defective parts or incorrectly assembled parts you will notify your team mates to stop production. You will discuss the problem with your team mates and decide on the corrections. Once corrections are made, production will resume. If you have completed your tasks and another teammate needs help, you will help.

Exhibit 5: Observation Handout: HR and Mass and Lean Production Methods

Structure Differences between Mass and Lean Production		
	Mass Production	**Lean Production**
Type of Equipment	Inflexible, single purpose	Flexible, multi-use
Setup Time for Equipment	High – long production runs	Low – shorter production runs
Task Complexity	Simple	Complex
Labor Skill Level	Low-skilled – single task	Skilled – multi-task

Process Differences between Mass and Lean Production		
	Mass Production	**Lean Production**
Nature of product and process design	Linear, sequential batch processing	Concurrent, team involvement; cellular single unit process
Technological interdependence	Sequential interdependence	Reciprocal interdependence
Responsibility	Top down control of employees	Empowered workers
Organizational structure	Bureaucratic and classical management; mechanistic	Multiple organizational structures possible; organic
Performance measurement	Individually based	Team based. Greater potential role for contextual factors influence performance
Quality Control	"Doer" separated from "checker" roles	"Doers" are also "checkers"

REQUIRED: Observe the two demonstrations. In the spaces below, suggest changes in the human resources management of the workers in a lean manufacturing environment.

	Mass Production	**Lean Production**
Job analysis	Emphasis on tightly defined tasks and duties as a basis for other personnel decisions	
Staffing	Hire people with skills defined from job descriptions	
Training	Emphasis on job-related skills	
Rewards	Individually based, whether hourly or piece rate.	
Pay structure	Longevity pay, individual performance based pay	
Career development	Progress through logically sequenced jobs in career ladders	
Outsourcing the HR function	Minimal amount of outsourcing HR function. Emphasis placed on long-term match of employee skills and organizational needs	

Performance measurements:	**Mass**	**Lean**
Cycle Time (From Dept. 1 to Quality Control)	_____	_____
Yield (# of Good / # of Total Needed)	_____	_____
Productivity (# of Good / # of workers)	_____	_____

Exhibit 6: Sample HR questions for a Debriefing Session/Quiz/Exam/Research Paper

1. Do you believe that workers experience more stress in the mass or lean production system? What management practices could be put in place to reduce employee stress and turnover?
2. How should HR go about hiring workers for the mass and lean production systems? What do you believe would be the retention of workers in each system? What training costs would be incurred for each system?
3. Describe how you would set up a pay-for-performance system for the mass and lean production systems?
4. Would the transformation from a mass to a lean production system delay the need to outsource production to offshore locations? What justification would you use to support a decision to NOT outsource production offshore?
5. The demonstration focuses on a production organization. Describe similarities between the mass and lean production demonstrations you witnessed and an experience you have had in a service organization such as this university, health care, or a restaurant.
6. What is the role of a formal job description in the mass production system? In the lean production system? How easy would it be to terminate an employee for cause in the mass production vs. lean production systems? In what system are unproductive employees more easily detected?
7. Read about how traditional HR practices were used in a historical business environment (e.g., the railroads, textile mills, munitions plants, or auto factories). What environmental forces made the use of more modern HR practices not feasible in the late 19th and the early 20th centuries? Compare the historical HR practices in two of these industries. How were the HR practices similar or dissimilar? Were the HR practices interchangeable?
8. If you are the supervisor in an organization that uses lean production, how would you structure a performance evaluation session with your employees?

Read about the innovative HR practices that are being used in lean production systems in other countries (e.g., Asia). Can these practices be used in lean production systems in the United States? What types of HR practices are being used in US production plants that are owned by Toyota, Honda and Nissan? What HR practices are being used in the maquiladoras (U.S.A. company subsidiaries located in Mexico)? What types of HR practices are being used today in garment manufacturing factories in Vietnam, Cambodia, and Africa? What are some examples of non-governmental organizations that are promoting global manufacturing standards and acceptable global HR practices?

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.

Manuscript review

- 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.

If your paper is accepted

- Minor revision suggestions will be transmitted back to you.
- Revise and send back as quickly as possible to meet printer deadlines.
- Upon final acceptance, we will bill you publication fees. See www.beijournal.com for latest per page fees. Sole author fees are discounted.
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- Delivery to locations outside the continental US will cost an additional $10 per author for 5 day delivery.
- Faster delivery methods are available for US and international delivery. Contact the editor for a specific pricing.
- All publication fees should be remitted within 10 business days of acceptance, if possible.
- If you decide not to publish your paper with BEI Journal after submitting payment, we will refund publication fees less $200 to cover costs of review and processing.
- Cancellation cannot occur after the paper has been formatted into the final printer's file.

Manuscript Style Guide and Example

An example is providing following these instructions.
This style guide represents new style guidelines in effect for future issues.
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: 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.
- Avoid footnotes unless absolutely necessary.
- 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

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…

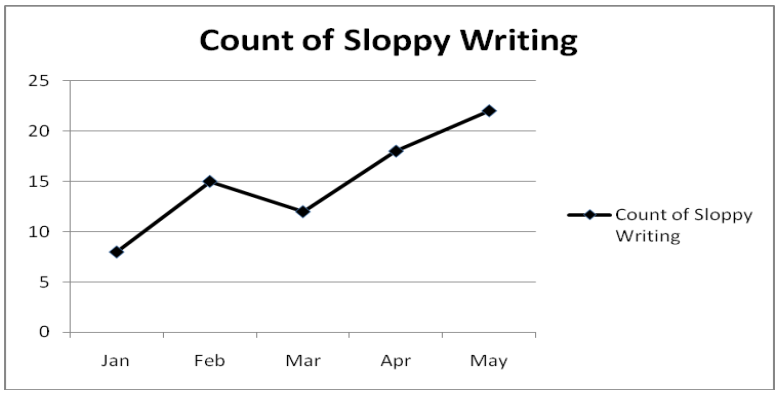
Data Collection (Sub-heading, bold but not all caps, 10 point, aligned left, bold, no line after to paragraph)
The two hundred students were asked to write 2 short papers during the semester…

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.

Devad, S. and Flotz, J. Evaluation of Factors Influencing Student Class Writing and Performance. *American Journal of Farming Economics*. V. 78, Issue 3, pp 499-502.

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 span from lean six sigma to innovative education.

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