On Line Education – Our Future or a Fad? A Short Case Study

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This case study examines the implementation of a multi-disciplinary course to prepare students for living overseas. The same instructor taught this course to over 1000 students over a period of four years. Teaching evaluations and written comments were used discovering that a traditional course was preferred over an online course. Findings suggest that colleges carefully consider the target markets and curriculum before deciding whether the curriculum should be Internet-based.

INTRODUCTION

Several years ago, I was preparing to teach an on-line lecture on management and heard a conversation among several lecturers that led to a lively exchange of ideas about on-line education in general and more specifically the value, or lack thereof, in on-line business education. There were a few disparaging comments about business administration students who earn 100% on-line degrees within 12 to 18 months. In addition, one lecturer humorously postulated a theory whereby George Orwell's Big Brother would replace all face-to-face instruction with a talking head emanating from Washington, D.C. Several lecturers replied that Washington D.C. could never accomplish such an objective since apparently no one in the nation's capital knows anything about balance sheets, income statements, or a balanced budget. Predictably, everyone laughed at the Federal Government's lack of business acumen!

As lunch progressed, the group discussed with a genuine level of concern that on-line management and business education might be producing a generation of graduates who knew how to read slides, look up references and take multiple choice quizzes resulting in graduates who never progress beyond the knowledge-level of Bloom's taxonomy. Yet the success of businesses depends on graduates who can comprehend, apply and analyze based upon changing situations in a complex work place. The consensus opinion was that business schools should provide the customer with what they want, despite of our own concerns or possible prejudices about the efficacy of on-line education. This discussion, as well as my on-line teaching experience, prompted this case study which simply asks, "What does the customer want?" This longitudinal case study is merely one point in the development on on-line teaching theory.

LITERATURE REVIEW

Prior to commercial development of the internet, traditional correspondence schools were once the only alternative for students who could not travel to a campus (Gunasekaran et.al., 2002). Today, Computer-Based Training (CBT), Online Learning Systems (OLS), and Web-Based Education (WBE) are all variations of asynchronous training that are supported by information and communications

technologies (Hernandez, et.al., 2010). Asynchronous education and training advocates define e-Learning wherein instructional content is delivered through use of computer networked technology, primarily over an intranet or internet system, where and when required (Zhang, et.al., 2003; Zhang, et.al, 2004; Welsh et.al., 2003; Bondarouk, et.al., 2010). Many students have heard and sometimes hum the marketing jingle from National American University's radio and television ads that emphasize anyplace, any time: "One day, one night, Saturday's all right, On-line is just fine, night time, anytime, Get your degree, set yourself free!"

One can easily understand the need for flexible space and time. But, what else are practitioners seeking from business or management educators? Bates (1997), Alexander (2001), Bondarouk, et.al. (2010) and Gunasekaran et.al. (2002) reported that e-Learning is pursued to improve the quality of learning, improve access to training, reduce training costs, and improve the cost effectiveness of training. The e-Learning market covers the academic, corporate and consumer fields (Gunasekaran et.al., 2002); and each of these entities may have different goals: academic goal may be increasing knowledge or learning more; a corporate goal may be an employee that can perform better; and the consumer field may only aim for an informed shopper. All three segments may only use students' enjoyment as an indicator of success (Alexander, 2001).

In concert with these goals, competition among business schools for higher enrollment has by default focused upon student satisfaction (Overbaugh & Lin, 2006). So, at this point a researcher must ask, "Are our students the product, or are they the customer?" One can easily deduce: both! If a corporation sends managers to business school, the corporation could be envisioned as the customer, wherein the student may be envisioned as the end-product. In either instance, student satisfaction is a critical success factor. Hence, this longitudinal case study is primarily focused upon student satisfaction.

STUDENT SATISFACTION

Alexander and McKenzie (1998) conducted a comprehensive two-year study in Australia that aimed to determine the outcomes of 104 E-Learning projects. They determined that the use of information technology does not of itself improve learning! Instead, a range of issues contributed to success or lack thereof. Alexander (2001) reported on common factors as significant determinants of student satisfaction:

- Students rate communication and support from faculty and other students as having the major influence and more specifically, prompt and informative feedback on their work as well as clarity of faculty expectations.
- Time or lack thereof available to devote to the course
- Communication technology and technical support

Alexander also reported that in the evaluation of teacher's strategies, 43% of E-Learning projects were based on collections of multiple media or of information; and that most projects have not been successful. And while there were some projects that were somewhat successful, "some of the projects failed to deliver an outcome at all, while others failed to achieve any evidence of learning outcomes" (Alexander, 2001, p.247).

Hernandez, Gorjup, and Cascon (2010) highlighted the importance of an instructor's role in improving the students' learning experience. They found benefits in face-to-face contact due to higher communication potential of body language, the opportunity to pick up on other people's feelings and higher degree of control exerted by the instructor. Although lower rated, the efforts of an instructor were also appreciated by on-line groups. Bondarouk and Ruel (2010) determined that learners who receive face to face instruction see the instructor's role as more relevant than did on-line learners.

Mintu-Wimsatt, Ingram, Milward, & Russ (2006) provided empirical evidence that learning environments impact student perceptions of their instructor; instructors are rated more favorably in a face-to-face classroom setting. Chia-Wen Tsai (2010) identified that e-Learning is a solitary process without on-the-spot assistance, and recommended appropriate channels to interact with students learning, and correct students' learning behaviors. Hsiu-Fen Lin (2007) conducted research on system quality,

information quality, and service quality related to online learning systems (OLS); student satisfaction levels were enhanced by prompt and complete responsiveness to requests.

Hwang and Francesco (2010) explored the potential influence of collectivism and power distance on use of feedback channels in a blended environment. They determined that students have been shown to enjoy the richness of the face-to-face environment compared to the online environment; however, the advantages of a virtual medium have also been well documented. Overbaugh and Shin Yi Lin (2006) approached customer (student) satisfaction by conducting a type of audience analysis. They looked at the learning orientation of students for transforming, performing, conforming, and resistant learners:

- Transforming learners were motivated, passionate and committed.
- Performing learners were self-motivated in situations that interest them.
- Conforming learners accept, store and reproduce knowledge.
- Resistant learners do not believe academics will help achieve personal goals

Overbaugh and Shin Yi Lin (2006) determined that students' learning orientation quotient and determined students do indeed change in reaction to online/hybrid/in-class learning situations (some up and others down). They determined nearly equivalent instruction can be achieved (face-to face or online); however, the web-based sections take far more time. Aggarwal, Adlakha & Mersha (2006) also cited increased workload involved in teaching on the web and potentially higher costs based upon smaller class sizes compared to face-to-face instruction. They stated that it is well known that teaching online is a more labor-intensive process.

Yourstone, Kraye, & Albaum, (2010) conducted research for online quantitative-based assignments; they determined that students who were given two attempts to do assignments outperformed those who had four attempts. Hence, they recommended use on online grading systems with no more than two attempts at each quantitative-based assignment. Hamon and Lambrinos (2008) looked at cheating online. They determined that there is a higher potential for cheating online than in face-to-face courses that were proctored.

A SHORT CASE STUDY

This case study focused on participants from a Community College that caters to military members (the school and professor in this study have asked to remain anonymous). The course was designed to prepare Department of Defense (DOD) civilians and military members for overseas assignments. It is a multidisciplinary course that focused upon International Business, Business Communication, Organizational Behavior, Organizational Effectiveness, Negotiations, Intercultural Competencies, as well as Comparative Religion to increase student proficiency in working with host-populations overseas.

The course was taught for 36 hours for one work-week primarily to members of the DOD, who were deploying to an overseas location. All classes were taught in a traditional face-to-face environment; then after each lecture, key learning objectives were reinforced using practical exercises. The capstone event included a meal with foreign nationals and adaptation to cultural norms of an overseas location. When the course was taught to senior officials (such as general officers), participants from foreign nations would have lunch with the students, so that the generals could practice their new skill set. When taught to other airmen, soldiers, sailors and marines the school faculty was used as role players in an overseas context. To enhance the feeling of being in an unfamiliar culture, all students received rice dishes for lunch and were required to eat while sitting on the floor and using their hands, without utensils, while interacting with the other role players. Student satisfaction was extremely high as shown in the chart below!

Total of 1192 students were taught by the same instructor with data collected over a period of four years. All students had previous experience with Computer-Based Training (CBT), Online Learning Systems (OLS), and Web-Based Education (WBE). In addition, half of all students had previously been deployed to overseas locations. At the end of the instruction, course evaluations were solicited from students using a standard format. The following data was compiled from the course critiques which used a 5-point Likert scale.

TABLE 1
END OF COURSE STUDENT FEEDBACK

Survey Questions	Agree
The content of this course was what I expected or better	99%
The course was well organized and presented	100%
The objectives as indicated on the syllabus were covered adequately	100%
The length of this course was appropriate	95%
Information provided should prove useful to me in my job	100%
I would recommend this course to others	100%
I would take this course as Computer Based Training (CBT) On-line	1.5%

The instructor added the last question: "Should this course be taught as Computer Based Training on-line?" Surveys revealed that only 16 students agreed, with 98.6% of the 1192 respondents saying the course should never be considered for online instruction. Several representative students' quotes follow so that the reader can better understand the student perspectives:

A senior government executive wrote: "Outstanding course! Every person involved in Building Partnerships and representing the US Government in the international arena should be required to take this course. This is not a course that would lend itself to computer-based training (CBT). The class interaction and case study exercises were invaluable. The professor is an encyclopedia of information in this arena!! He combines both book knowledge & experience to perfectly present the material. His ability to adapt to his audience reflects his flexibility & keen insights to education and mission adaptability. This course is one of the best uses of time and resources directly related to the Building Partnerships mission that I have seen in my 36 years of government service (military and civilian)."

"I would have to say that the instructor and his personal knowledge of other cultures greatly enhanced the learning atmosphere. In addition, with the inclusion of the practical exercises this course was an amazingly informative experience that I could not have received by taking a CBT."

"Enjoyed course very much. Personal experience of the professor and his ability to draw other class members to share their experience was important – practical versus textbook. Class results could not be duplicated in a CBT – keep as a live class."

"The course was very valuable to me as I am on as an Iraqi program (manager). Doing the scenarios in class with the interaction of others acting as other culture was very beneficial. I am glad this class was taught with an instructor as opposed to CBT training (that I) received in the past through the military when I was active duty!!"

"Outstanding course! Every person involved in Building Partnerships and representing the US Government in the international arena should be required to take this course. This is not a course that would lend itself to CBT. The class interaction and case study exercises were invaluable."

"This was a very useful and informational class. Also, I'm happy that this class was instructor based, and not computer based."

"Everything was awesome – could not turn this into CBT. You can't do hands-on stuff on the computer."

"I enjoyed this class – Don't turn it in to CBT! (It) would lose course value!"

"The interaction between the presenter and the class is essential to the learning environment of the course. Please do not make this a CBT."

"I really enjoyed observing the interaction (practical exercises) with other students. CBT would not give this same experience. The videos and YouTube clips 'speak a thousand words' … those are excellent ways to put the message across."

"This has been one of the best courses I have ever taken! This class is not only inspiring … inspiring in the sense that our younger generation has the chance to take this class. I am grateful to be able to take this class as an Airman. I feel that they chose the greatest Professor for this because he has experience:

not just the "brains." This made me want to listen to (the professor), because he actually served in our military. I have been in many different classes that teach military "stuff" but they didn't have first-hand experience and they just taught from what they have read or studied. I have deployed but it was a very simple deployment to Qatar and I didn't get any culture training; and now looking back I wished I could have taken this course. This course isn't something you can learn from a computer-based training (CBT). This training is something that they should really focus upon and have more Professors like this. Thank you!"

None of the 16 students who indicated in the survey that they would like to take an online version of the course provided any narrative comments.

DISCUSSION & CONCLUSION

Based upon the student feedback forms and the student comments above, the course, which focused upon the impact of political, social and economic systems upon one's values and beliefs was a real success (Figure 1).

FIGURE 1
INTERNATIONAL BUSINESS AND CULTURE
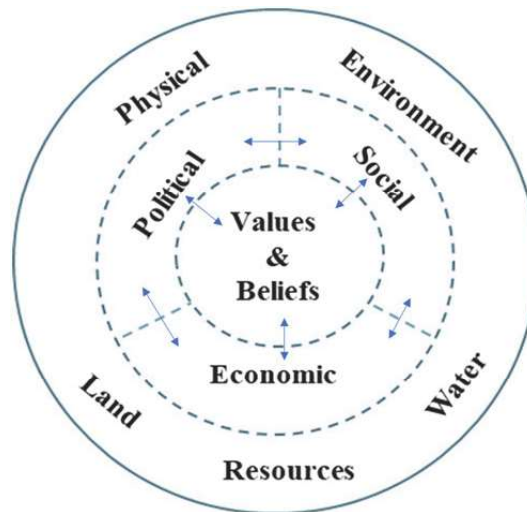
Deming's Plan-Do-Check-Act model (PDCA) is a continuous improvement model that teaches that organizations should plan an action, do it, check to see how it conforms to plan and expectations, and act on what has been learned (Baker, 2004; Scherkenbach, 1986). Empirical analysis also determined that customer satisfaction should drive the effort to improve quality (Shetty, 1993; Baker, 2004); and organizations with a quality management focus seek to shift power from the producer to the customer, who in this case study is the student (Scarbrough, 1998). Per Deming's PDCA Model (Figure 2), student feedback was the mechanism used to inform the school administration of students' satisfaction with the course; and included the desire to maintain the course in a traditional setting. However, the student feedback was largely ignored by the school administrators, who pushed forward with new government contract for an online course. Ironically, they also placed the course design in the hands of a field-grade officer who had almost no time posted overseas, and therefore could not understand the nuances needed in international collaboration.

FIGURE 2
DEMING'S PLAN, DO, CHECK, ACT MODEL
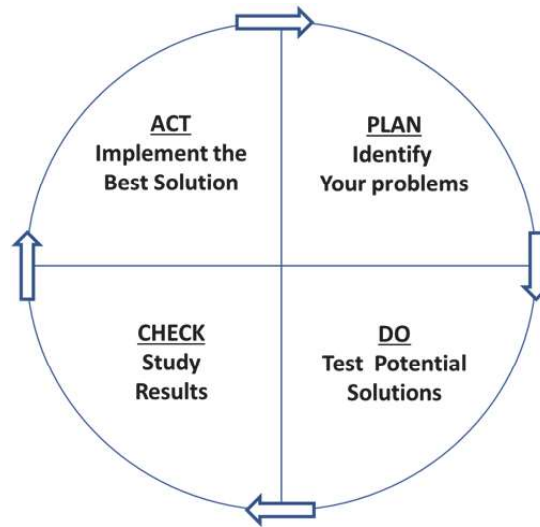
Customer (or student) satisfaction is the goal (Anderson et.al., 1994; Black et.al., 1996; Forza et.al., 1998; Rungthusanatham et.al., 1998; Terziovski et.al., 1999; Dayton, 2001); and use of customer surveys and feedback process, as well as the tracking of other key measures to assess customer satisfaction (Thiagarajan et.al., 1998) is essential, because customer surveys and continuous improvement concepts have a significant effect on organizational performance (Terziovski, Sohal and Moss, 1999). This includes the comprehensive identification of customers and customer needs and alignment of processes to satisfy these needs (Thiagarajan et.al., 1998; Baker, 2004).

Although 98.6% of the 1192 students wanted to retain this multi-disciplinary course in a traditional, face-to-face format, the Dean of this school initiated a government contract to create an online version of the program of instruction. The Dean's rationale was that the school could reach more students without regard to place and time. However, from the students' perspective, the allure of the course was a face-to-face format that provided a practical exercise during every 2 to 4 hours of instruction. This is an international cultural experience that cannot be duplicated on-line.

CONCLUSION: IS E-LEARNING A FAD?

Management fads, or transitory collective beliefs are criticized because of a lack of empirical data to support the claims of improved productivity (Abrahamson, 1996; Gibson et.al., 2001; Miller and Hartwick, 2002; Wartenberg, 1996). Does the on-line approach to education have a track record for performance and measurable outcomes comparable to the traditional face-to-face setting? The answer is not empirically conclusive, thereby categorizing on-line learning as a fad. Unfortunately, many colleges' organizational structures for online education have not necessarily supported and promoted their learning outcomes (Gayton, 2009). After a decade of e-Learning implementation, higher education has not thoroughly investigated and empirically proven the efficacy of on-line instruction. Despite many empirical studies on E-Learning praxis and theory, much of the published research does not answer the most basic questions of the students themselves!

It has been 20 years since completion of the monumental study by Alexander and McKenzie (1998) in Australia, and today technology is used even more widely. So, future research should continue to focus on empirical data to validate the efficacy of E-Learning. Intuitively, different disciplines and different courses may have different results. The major limitation of this case study is the focus upon a single-

course, single-instructor, and single-college findings. Therefore, a meta-analysis of multiple universities' on-line programs is essential to enhance on-line management education theory development.

Finally, as unpopular as it may seem in today's cost-conscious learning environment, researchers should not only ask "How to improve e-Learning?" but based upon the type of course or topic, we must also ask our students and other stakeholders, "Should we be doing e-Learning at all?"

IMPLICATIONS FOR HIGHER EDUCATION THEORY AND PRACTICE

In the past 20-years, practitioners and educators have moved forward with e-Learning for both training and educational goals. However, e-Learning theory has lagged praxis. The first question that should be resolved jointly by academics and practitioners is whether success can be measured by student satisfaction alone, or whether different measures should exist. After attending a course, most colleges and many private training providers will ask students to fill out a survey and student satisfaction with the course is the measure of success. Yet, other measures may be more relevant, for example, a student who has attended a university for four years with a business degree focused upon project management, quality management, human resources management, or accounting should be able to pass the applicable certification exam(s). Empirical data on the number of students passing a certification exam would be a more significant measure of success than student surveys. Future researchers must compare students that attend hybrid, blended, or on-line education for efficacy, using traditional face-to-face education as the control group.

The difficulty of shifting from 'success as defined by student surveys' to success as defined by former student performance is finding graduates who would be willing to do surveys and self-report before training or education, after training or education was completed, and then after a year (or more) on the job. If a corporation is funding the student tuition then this may have potential; however, once students leave a university, self-reporting is less likely. A meta-analysis of multiple empirical studies would be needed to unify e-Learning theory and close the current rift between advocates and skeptics. This study used student satisfaction surveys to investigate different perspectives to on-line education and training – the students preferred the in-class instruction and practical exercises over e-Learning. However, the true measure of the course is not scoring 95 to 100% in student satisfaction; it is instead based upon how each student succeeds in their interactions with host nationals at a foreign destination. Although students were predominantly military or other government employees in this study, the same concepts and subsequent measures would apply to ex patriot employees of multi-national corporations.

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