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Abstract

The evolution of online teaching has evolved as quickly and vivaciously as the adoption of the World Wide Web. While there were and are skeptics, research shows that not only is online learning more convenient and makes educational available anytime and anywhere, it has the potential, in some cases, to be an improved tool for educating. To ensure maximized learning outcomes, and to experience the blessing and not the curse of online coursework, it is critical that universities embrace it wholeheartedly and follow online pedagogical best practices in developing and executing online courses. In addition, there are some courses where special forethought should be made to ensure online learning is effective. Courses that are more computational necessitate this consideration. This document serves to provide strategies and best practices on how to obtain excellence and maximized outcomes from online education. It examines research to date and outlines: the benefits and challenges of online learning, strategies and best practices for online educating, and considerations for online accounting coursework.

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The evolution of online teaching has evolved as quickly and vivaciously as the adoption of the World Wide Web. While there were and are skeptics, research shows that not only is online learning more convenient and makes educational available anytime and anywhere, it has the potential, in some cases, to be an improved tool for educating. To ensure maximized learning outcomes, and to experience the blessing and not the curse of online coursework, it is critical that universities embrace it wholeheartedly and follow online pedagogical best practices in developing and executing online courses. In addition, there are some courses where special forethought should be made to ensure online learning is effective. Courses that are more computational necessitate this consideration. This document serves to provide strategies and best practices on how to obtain excellence and maximized outcomes from online education. It examines research to date and outlines: the benefits and challenges of online learning, strategies and best practices for online educating, and considerations for online accounting coursework.

Background

Potential benefits of incorporating online coursework include: (a) increased revenues as, more students are able to access classes, (b) improved quality of learning, (c) increased critical thinking skills of students, (d) development of autonomous, lifelong learners and (e) students who are better prepared for a 21st century, information age (Appana, 2008; Dobrovolny, 2006; Donaghy, 2005). Limitations or barriers to successful implementation include: (a) the initial cost to launch, (b) organizations placing classes online prematurely or without redesigning them to reap the benefits of the online

educational model, (c) faculty resisting changing their mindset from faculty centered learning to student centered learning and (d) the cost of educating students, faculty and institutions on optimizing strategies for this popular learning method (Appana, 2008).

Seeing is Believing

Individuals who have not experienced pedagogically rich and well developed on-line courses often find it difficult to understand or fathom its benefits and potential for developing accomplished and empowered learners. A recent PhD student who apprehensively enrolled in a part residential/part online PhD program was convinced the online portion would be less satisfying, more difficult and alienating. The student had completed both an MBA and MA in a traditional classroom setting and thrived on the interaction with peers and faculty. Carr (2008) explained, to the student's surprise, the on-line environment provided far more faculty to student and student to student interaction than the traditional courses may have. The flexibility afforded the student far more time to read, research and write. The on-line dialogue encouraged more in-depth research of relevant topics and was more interactive and inspiring than a traditional classroom discussion. The most significant difference was that the learning was active learning, as opposed to the traditional passive learning of instructor led classes. Students had to complete the readings, discuss them online and outline the critical material. This process inspired motivated students to dig deeper into the relevant subject matter. Course deliverables also resulted in greater interaction with professors, as compared to traditional classes. Research writing assignments could be submitted in a draft form, reviewed by the professor and revised by the student before the final submission. In some cases multiple revisions were allowed. Carr argued that the outcome was that final assignments

were generally far superior to those that resulted from a traditional setting and the face to face or (email to email/ phone to phone) learning time far exceeded what a student would receive in a faculty centered, traditional course. It is important to note however, that this blended/online program was carefully constructed by faculty members who were knowledgeable on pedagogically sound and diverse online curriculum. The faculty also fully revamps their program every five years to ensure that maximum outcomes are achieved. This blended residential/online program is ranked second in the country for online study.

Benefits of On-Line Learning

While many traditional professors, universities and practitioners are still apprehensive about online learning, many are observing some mounting benefits. Some of these are as follows.

Education is More Accessible and Affordable. Online learning has enabled more students to access coursework and attend university classes. Student peers are now often more professionally, culturally, ethnically and geographically diverse. Faculty and students can work anytime and anywhere and the cost of education is reduced as classroom facilities are not required. For the student however, this sometimes results in hidden costs of high speed internet access, long distance phone charges and travel and lodging costs to residential portions of their program (Hiltz, 1995; Smith, Ferguson, & Caris, 2002).

Increased Active Learning and Critical Thinking Skills. Efficiency, convenience and accessibility have traditionally been the benefits cited of online coursework. Research however, shows that online coursework's potentially greatest attribute, if

architected correctly, is the increased learning outcomes that occur through the improvement of students' critical thinking skills (DeLoach and Greenlaw, 2007; Greenlaw and DeLoach, 2003; Wojnar, 2002). Researchers (Bloom, 1956; Kauchak & Eggen, 1998) outline that student learning outcomes directly correlate to levels of thinking, inquiry and active learning. Wojnar notes that online coursework, if pedagogically developed, provides greater opportunities to incorporate these beneficial learning strategies.

One active learning strategy incorporated in some online coursework is online dialogue. Dialogue is a term for threaded discussions held in virtual classrooms included in online or traditional curriculum to assist students in developing and communicating their understanding of various topics. Online messaging systems allow students to have discussions with one another through posting threads and having others later reply to their writings. This process allows for back-and-forth exchanges between colleagues and professors. These online forums legislate that students: (a) communicate frequently with teachers and peers, (b) read, synthesize, process, outline and discuss course readings, and (c) actively engage in the learning process.

Research outlines that the use of dialogue in online curriculum both improves the development of a student's critical thinking skills and increases overall learning outcomes achieved (Hrastinski, 2008; Wojnar, 2002). Greenlaw and DeLoach (2003) and DeLoach and Greenlaw (2005) outline that the inclusion of dialogue in coursework improves the development of critical thinking skills by developing autonomous and self directed learners and facilitating active and collaborative learning. A separate section is

devoted to online dialogue, as it has been cited as one of the most significant contributors to a students increased learning in online coursework.

Developing Autonomous and Self Directed Learners. Ponton and Carr (2000) argue that educators must seek to transform individuals from being passive consumers of the educational process to individuals who strive and thirst for continual learning. Carr (2008) noted that online learning facilitates the development of autonomous, self directed learners. Carr posits that as students read, consider and articulate assigned readings in dialogue and online course work, they are challenged to use their initiative, insightfulness and research skills which in turn provides additional enthusiasm for the learning process and inspires and exposes students to the fulfilling world of autonomous, self directed learning. Boyer and Mayer (2005) report that as students move from *spoon fed* and toward *student led* coursework, students and facilitators find the coursework more rewarding.

Self Paced Learning. Online learning also facilitates self-paced instruction and has been found to improve student performance as they master their learning objectives in less time than those who receive instruction in a group-paced setting (Dobrovolny, 2006). Interactive dialogue and instantaneous and continuous interaction that occurs in online learning serves as an impetus that infects students with an enthusiasm for learning as they are empowered and encouraged through the learning process, further developing learner autonomy and self directed learning (Ponton and Carr, 2000; Ponton & Confessore; 1998).

Facilitating Active and Collaborative Learning. Educators (Clark-Ibáñez and Scott, 2008) argue that online discussions can be the life blood and greatest attribute of

online coursework. Scholars (Clark-Ibáñez and Scott; Benbunan-Fich & Hiltz; 1999) note that greater learning and critical thinking occurs when peers engage in the process of active learning and the collaboration with colleagues when engaging online dialogue. Schank (2002) provides an example of active learning by comparing memorization to application. When one memorizes, according to Schank, learning has not occurred, however, if a student processes the information, applies it to their own experience, and transcribes the information into their long term memory, active learning and improved critical thinking has occurred. Wang and Gearhart (2006) translate how active and collaborative learning occurs in dialogue as students are required to "defend, clarify, elaborate and reform" their position (p. 64). Wang and Gearhart note that in a traditional lecture classrooms, students retained a mere 5% of the material delivered, but in courses where students were learning by doing and teaching others through their discussions, the highest level of retention of knowledge is observed. While dialogue is one of many forms of active, online learning, it has been cited as one of the most effective in achieving the benefits of active and collaborative learning (Wang and Gearhart).

Reduction in Isolation and Inclusion of Introverted Students. An unexpected outcome of online coursework is its ability to provide additional psychological support to students (Ayodele, 2010). Ayodele noted that the interactive nature of properly designed online coursework can reduce feelings of isolation and leads to a reduction in drop out rates. Brookfield and Preskill (2005) noted that less vocal students are often intimidated from initiating or partaking in a conversation in traditional coursework when talkative students monopolize the conversation. Collaborative discussion forums allow students, with this type of personality to participate more freely, without feeling the anxiety of

having to break in or initiate a conversation. In addition, in e-learning discussions, the amount of participation is often monitored and students are penalized for not participating enough. This accountability, combined with removal of anxiety barriers increases the participation of students who in F2F discussion would be prone to talk too little.

Brookfield and Preskill (2005) outline that good, healthy student discussion necessities keeping the right balance between students not talking too much or too little. E-learning parameters and structure helps eliminate difficulties often found in face to face discussion.

Challenges, Concerns and Pitfalls of Online Learning

While widespread support is growing for online or blended coursework, challenges still remain. Research outlines the following should be considered when embarking on online or blended coursework.

Failure to properly design or revamp traditional coursework. Online coursework should not be seen as an alternative delivery method for traditional coursework. To be effective, online coursework must be completely rewritten to be pedagogically diverse and to take advantage of online tools and tactics that foster higher critical thinking skills and promote autonomous, self directed learning. Failure to incorporate collaborative and cooperative learning opportunities compromises outcomes (Prince, 2004). Part of the reason why online learning has received a bad reputation, in some cases, is that many online courses are poorly constructed and not pedagogically sound (Wojnar, 2002). Schweizer (1999) reviewed a variety of online courses and concluded that many were “poorly designed, pedagogically unsound, and amount to not much more than the lecture notes or textbooks cut and pasted onto a Website” (p. 1).

While much progress has been made in the last decade and several review boards have been established for online coursework. It is still a weakness, however that few accreditation bodies or academic institutions have significant oversight or evaluative criteria for online coursework.

Barriers to Learning. Ogunleye (2010) reported that both age and sex impacted a student's ability to be successful online, while their occupation was not a factor. The study reiterated that students with stronger computer, research and information gathering skills were more successful with classes online than their counterparts that lacked these strengths.

Sufficient student/faculty and student/student interaction. For online learning, student/faculty and student/student interaction is more important than the delivery system. Student/faculty and student/student interaction must be built into the coursework, if it is to be effective (Cyrus, 1997).

Professors who fail to transform/develop their teaching skills. The skills necessary to be effective in a traditional classroom are not the same as those needed for an online setting. Faculty that fail to transform or develop the necessary online teaching skills could produce less optimal results. Organizations should become knowledgeable on effective online teaching strategies and provide training and professional development to faculty that are moving from traditional courses to online teaching.

Pre-established Curriculum Seldom Available or Appropriate. Effective online curriculum takes innovation, time, testing and revision. Online curriculum is far less prevalent and available as compared to traditional coursework. Faculty often must rely on

curriculum written for traditional coursework or invest extensive time to developing online appropriate materials.

Technical assistance. Effective online coursework is impossible without sufficient technical support and expertise. Colleges and universities need to make certain software and infrastructure needs are sufficient prior to rolling out online coursework.

Failing to have courses completed before executing. Experienced faculty may be able to begin a traditional course without having the entire course planned and developed. This is not advised for online coursework, as the majority of the coursework must be put in place in advance. On the fly works poorly online.

Make sure you have planned down time. One benefit and strategy of online coursework is that professors and students can work anytime and anywhere. Conceptually, faculty members cover fewer classroom hours which frees them up to be available for greater interaction with students online. Caution should be taken however to ensure that faculty or students are not working 24/7. Some online programs legislate mandatory quiet periods to ensure a balanced workload.

Not all Courses are a Fit for Online Deployment. Courses that include theory, research, reading, synthesizing, and discussion are strong candidates for online deployment. Courses where visual observation is required (art, physical education) or extensive computational problem solving (mathematics, engineering, certain accounting and finance courses) may not be a good fit for a 100% online curriculum. In these cases, a blended curriculum (partially online and traditional) may be warranted. Advancement has also been made in online computational tools to teach and test in these more computational driven courses. Caution should still be taken and faculty must ensure that

students are properly and sufficiently learning the material. An adjunct finance professor comments on this concern. The educator has taught finance in the traditional setting and also online. Early (2008) notes that “in the online setting much of the computational work must be eliminated, as there is simply not time to teach, test and evaluate the computational piece in this setting” (p.1).

Strategies and Best Practices for Online Course Development

The following strategies and best practices are cited in recent literature and noted from top ranked online coursework. These strategies include the following.

Teaching and Learning Best Practices. Courses should be designed and redesigned to be student centered, experimental, holistic, authentic, reflective, social, collaborative, democratic, cognitive, developmental, constructivist, challenging (Zemelman, Daniels, & Hyde, 1998).

Blooms Level of Cognitive Activity. Coursework should be designed to structure course objectives with a progression through Bloom's taxonomy which include increasing a student's knowledge, comprehension, application, analysis, synthesis and evaluation skills (Bloom, 1956; Huitt, 2000).

The best practices outlined below attempt to incorporate or maximize the above two typologies. Online learning should seek to incorporate the same excellence in teaching aspired to in traditional learning.

Developed pedagogy. The same excellence and science of effective teaching required in traditional classrooms must be applied to online courses (Deubel, (2003; Wojnar, 2002).

Innovation and Excellence. Online classes must be developed from the ground up, not simply a traditional class accessed via the web. Teachers must embrace the benefits of online courses and design their coursework to be augmented by the available technology. Consider an e-learning environment as an opportunity to improve learning outcomes.

Develop student interest and enthusiasm. Online courses can be of equal or higher quality if faculty take advantage of innovative approaches that compensate for the limitations of technology and with focus on creating and developing attentiveness and enthusiasm of their students.

Become proficient at the art of online teaching. Read the literature. Extensive research and literature is available documenting findings and outcomes of online education. Learning about best practices and recommendations for the online learning environment is a first step in becoming an effective online teacher.

Develop courses that are student or learning centered. The online environment shifts away from a faculty-centered learning model to a more effective student-centered philosophy, where research shows, if done correctly, a greater level of learning transpires (Deubel, 2003; Wojnar, 2002).

Understand the Dimensions of Student Success in Online Learning. Schrum (1998) outlined seven dimensions that lead to increased students success in an online environment. Faculty should understand these and work to ensure that barriers are removed that may impede positive outcomes. According to Schrum, these dimensions include: access to tools, technology experience, learning preferences, study habits and skills, goals and purposes, lifestyle factors, and personal traits and characteristics.

Academic maturity. Faculty selected to teach online courses must have a passion for developing innovative coursework and critical thinking skills among their students.

A teacher's electronic teaching personality must emerge. Instructors need to be mindful that they can't rely on classroom theatrics to relay concepts, but must convey information using the remote tools available (email, dialogue, phone, webcasts) to communicate concepts and encourage and motivate students. Developing an online personality by engaging in inspiring discussion with students is essential.

High interaction with teachers and peers. Online coursework with sufficient student/student or student/faculty interaction improves learning outcomes (Deubel, 2003; Wojnar, 2002; Hrastinski, 2008). When designing coursework, ensure that there are elements of the course that promote these interactions. For courses that are primary online, consider an upfront meeting or onsite residency to facilitate more in-depth and genuine communication when online coursework begins.

Create coursework that includes dialogue and student/student and student/faculty interaction and learning. As noted previously, research has shown that dialogue/online discussion boards leads to improved learning outcomes. Include online dialogue in your coursework, as it: (a) enhances critical thinking skills (DeLoach & Greenlaw, 2005), (b) challenges students to participate (Hrastinski, 2008), (c) promotes self directed and autonomous learning (Carr, 2008) and (d) if proper guidelines are established can help avoid the pitfalls of traditional classroom discussions (Brookfield & Preskill, 2005).

Incorporate collaborative and cooperative learning opportunities. Prince (2004) states self-paced instruction that fails to include collaborative and cooperative group learning is not preferred. Adding collaboration and cooperative group learning can

improve learning outcomes, student performance, the quality of interpersonal interactions, a student's self-esteem, and lead to students feeling more supported and included (Prince).

Written Communication Skills. Extensive online work is done by e-mail. A teacher must be able to write clearly and concisely (Deubel, 2003). Professors should be highly proficient and efficient with email, MS Office, evaluation and internet tools, internet research, document transfer options, etc.

Syllabus. A well developed syllabus is critical. It should clearly outline learning objectives, the instructor's intent and student expectations.

Distributed learning represents a major institutional commitment. Online learning must be consistent with the strategic initiatives of the institution. Institutional goals, commitment and resource allocations must all be aligned for online work to succeed. Entities should avoid implementing online coursework simply because other institutions are offering, but include only if it aligns with university initiatives, preparedness and commitment.

Sufficient Faculty Training. Instructors must to be trained to use distance learning and online technology (Southern Regional Education Board, 2001; Valentine, 2002).

Dispel the Rumor. Online courses are not easier than traditional courses, but can be more efficient and produce higher learning outcomes (Deubel, 2003; Wojnar, 2002; Hiltz and Goldman, 2005).

Commit to Pedagogical Richness. Pedagogical depth requires that the course address: different learning styles, effective use of media, balanced level of interaction with peers; interactivity with content, testing and feedback, appropriate collaboration,

strong content quality, pedagogically driven instructional design, well-defined objectives, ease of use of a web site (Deubel, 2003; Hiltz, 1994, 1995; Hiltz and Goldman, 2005).

Active/experimental Learning. Active learning approaches, such as Gagné's conditions of learning, outline how to design coursework to promote active/experiential learning. Consider the strong merits of incorporating these activities into your coursework (Gagné, Briggs, & Wager, 1992).

Plan Sufficient Time. Be forewarned, academics warn that online coursework consumes considerably more time than a traditional class.

Peer review. Course content should be reviewed by other faculty or curriculum specialty for accuracy.

Student evaluations and revisions. Phipps and Merisotis (2000) recommend quality assurance benchmarks for distance education. They recommend that students participate in course analysis and evaluation as part of the course requirements.

Considerations, Strategies and Tools for Online Accounting Coursework

There can be advantages and concerns over placing accounting and other computationally driven coursework online. Twigg (2003) reports that after the evaluation of a substantial amount of research, there appears to be no significant difference between the success outcomes in a traditional or online course. Phillips (2005) argues the importance of active learning strategies in both the traditional and online classroom but notes that consideration of multiple learning styles of participants in each environment needs to be considered.

Paetzold and Melby (2008) provide a strong list of active learning strategies for more technical online coursework. Strategies are as follows.

Discussions. Increased learning outcomes can be achieved through interactive discussion and increased development of critical thinking skills as noted in previous sections. Accounting courses that may be more conducive to 100% online deployment are those more theoretical in nature (Becker & Watts, 1996) or those benefiting from case study or discussion and interaction (Rollag, 2010). Auditing, Accounting Information Systems, Accounting Theory and Introduction to Accounting may be courses where using online pedagogically diverse tools have advantages. Virtual chat sessions and discussion boards require online learners to carefully consider and synthesize readings and formulate discussion topics and responses to colleagues. This process facilitates higher-order thinking and improved critical thinking skills (Meyer, 2003).

Online Assessments. Online exams and quizzes can enable students to test their knowledge and receive immediate feedback on their progress and understanding (Austin & Mescia, 2001).

Virtual Teamwork and Projects. Online coursework provides an excellent forum for collaborative teamwork. For students, professional employment will necessitate working remotely with peers and collaborating on projects electronically. The successes they experience and challenges they overcome in online project coursework will help them to develop skills and be more successful in their professions (Anne, Gabriele, & Blake, 2004).

Webinars, Podcasts, Computational and Visual Instruction. If computational instruction is placed online, instructors should consider including well constructed webinars where students can visually observe problem solving and computations. Online problem solving and additional self-testing material can also be beneficial. Interactive

streaming videos and other multimedia can enhance the online learning experience. These tools can simulate the hands on portion of traditional coursework (Dongsong, Zhao, Lina, & Nunamaker, 2004). Podcasts and other recordings enable students to hear the instructor's voice and repeat sections that are unclear or require additional consideration (Stephen, 2005).

Resources and tools for accounting online coursework are continually expanding. Industry websites, such as public accounting sites and the AICPA web site often include helpful instructional materials that can be placed online. DeFelice (2010) outlines the recently revamped AICPA website; aicpa.org includes materials that are helpful in the online classroom. The site includes: (a) videos on various topics in the accounting profession, (b) updated daily news from the CPA Letter Daily, the JofA and other AICPA resources, (c) subscription options to more than 20 RSS feeds that provide "daily news updates, alerts on new standards, and articles from publications such as the JofA and newsletters" (p. 14) and (d) online CPE coursework.

Twigg (2003) argues that there is not significant differences between success rates for online as compared to traditional coursework. Special attention and careful construction however, must occur for coursework that is computationally driven, if it is to be effective. The challenge to create all online courses so that they maximize student learning must be echoed and reiterated to accounting faculty who seek to utilize online deployment of accounting coursework.

Conclusion

Extensive disparity exists between advocates and opponents of online learning.

The dichotomy exists in part because of the failure of traditional faculty, students and institutions to understand the learning outcomes that may be achieved if online courses are viewed as opportunities for increased learning, as opposed to merely an alternative deployment method for the traditional teacher centered course (Hiltz, 1995). Poorly designed and executed online coursework is a second reason why acceptance of online instruction is sometimes called to question. Research outlines that online learning can improve critical thinking skills and has the potential to produce students who more successful later in their professions (Buraphadeja & Dawson, 2008; Scheffer & Rubenfeld, 2000; Ponton and Carr, 1999, 2000). This study reiterates that for online coursework to be advantageous it must be pedagogically developed, sound and diverse. Active learning through the use of dialogue and other student centered learning activities is paramount. Lastly, faculty that is innovative and motivated is also critical to the success of students and online coursework.

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