
Managing Large-Scale Online Graduate Programs

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Abstract

As with most states, Arkansas is experiencing substantial growth in the delivery of academic programs and courses by distance learning provided by institutions of higher education. At Arkansas State University faculty have adhered to the need of students and developed a completely online certification and master's program in Educational Leadership, Curriculum and Special Education (ELCSE). The authors outline the steps in the process of developing and managing such an online graduate distance learning program. Because distance learning coursework has evolved and expanded with the rapid growth of instructional technologies, this paper will also suggest best practices for implementing interactive online instruction for educators.

Introduction

Demographic shifts, societal changes and technological advances are rapidly altering the nature of the college student body. Many institutions of higher education are experiencing or considering change in response to the diverse needs of their adult learner. It is difficult, however, to restructure an institution when its curriculum, services, scheduling, physical facilities, budgets, and staff were developed for the traditional student. Consequently, there is often an awkward fit between the institution and those adult students who increasingly require access to continuing education (MacBrayne, 1995). These challenges have created an imperative for distance learning.

While technological advancements have always affected education in various ways, it could be argued that none have influenced the world to such an extent as computer technology. Computer technology has transformed the way students obtain information and communicate with one another. Its implementation in schools and universities has altered the way instructors teach and students learn. Certain technologies that once played their own role in transforming learning such as overhead projectors now look primitive when compared to the PowerPoint-capable laptops and Smart Boards instructors can utilize.

With the rapid growth of instructional technologies (IT), higher education looks much different now than it did even twenty years ago. Today's college students are expert users of these technologies and expect to find a university system that supports their use. When courses are offered via web-assisted or completely online, the bar is set high by tech savvy students for effective use of teaching technologies in the university (Marek, 2009). The current generation of students has always had computer technology at their

disposal. They not only know how to utilize laptops, smart phones and the Internet but they actually rely on this technology for daily use. Just as these students use computer technology nearly every hour of everyday outside the classroom, it is imperative for educators to implement computer-based technology into the classroom to keep this new generation actively engaged in the learning process. Thus, ongoing faculty development is needed in order for professors to effectively use IT in courses.

Marek (2009) looked at the role of faculty development in teaching and learning technologies as applied to online course design and development. Numerous universities have addressed the concern of training faculty by separating course design from the content experts. Speck (2000) noted the failure to prepare faculty to teach online courses weakens professional authority by putting them in situations where they are dependent on others to deliver subject matter content. When considering best practices in both online and traditional course formats, attention must be given to design, development of courses, students learning styles, as well as the personality and teaching style of the professor (Wickersham, 2007). These concerns are reflected as more literature emphasizes the critical need to train faculty to use teaching and learning technologies effectively. Often, faculty members have not received needed support from their IT department to successfully transition from traditional face-to-face courses to online programs. The digital shakeup of the university has happened so quickly and with such little discussion with the faculty that the 'transformation' of higher education is being conducted without due regard for faculty expertise (Speck, 2000). Speck recommends that administrators provide adequate training for faculty before they teach online, with respect to best practices. This paper describes the issues of managing online graduate programs and outlines some of the steps in the process of developing interactive online curricula for educators. It will demonstrate the planned and the emergent experiences that come along with implementing the best practices for online instruction in an attempt to promote learning online from the social cognitive perspective.

Theoretical Grounding: Social Construction of Knowledge

The approach to understanding phenomena in this research was inspired by social cognitive theory. Using social constructivism as a referent for their approach to designing and delivering courses online, the authors attempted to introduce interactive and collaborative learning in their online graduate programs. True to social constructivist theory, the instructors designed these courses so that they act as facilitators while their students actively engage with the course content, their peers, and the instructor to construct new knowledge or concepts based upon their current and/or prior experiences (Wickersham, Espinoza, & Davis, 2007).

Although the social constructivist approach is formulated almost in opposition to the traditional approach, the use of technology in online learning is characterized by focusing on providing conditions for the students' construction of knowledge, working with authentic task, and in collaboration with others (Jonassen, 1994). The goal is to provide learner-centered environments in which students can interact with others synchronously or asynchronously, collaboratively solve problems at their own pace, provide instant feedback to each other, clarify misunderstandings and construct their knowledge base. Students, therefore, can learn what they would like to learn in the constructive and collective manner. This approach regards individual cognition as occurring within a social context and suggests that collaboration between individuals in a social learning environment is an essential aspect of any educational experience. Berge and Collins (1995) emphasize that 'as an agent for socialization and collaboration, the networked computer has an even greater potential in education for providing an active environment for social learning' (p. 8). This leads to the creation of a student-centered approach where the instructors take on the role of facilitator and the students engage in peer-learning (Von Glasersfeld, 1990).

Finally, the utilization of technology-based practices for managing online learning is in accord with social learning theories as online collaboration promotes higher social engagement level among learners (Shen, Hiltz, & Bieber, 2006). Technology provides the opportunity for teachers to make learning interactive and collaborative by using a social constructivist approach to teaching and learning.

Background: Arkansas State University

Arkansas is experiencing substantial growth in the delivery of academic programs and courses by distance

learning provided by institutions of higher education, located both within and outside of the state. Clearly there is increasing demand by students in Arkansas for academic courses and programs offered by distance learning and for some students or prospective students (such as those with handicapping conditions, work and parental obligations, economic challenges, and other constraints) it is the only way in which they may pursue their education (Chancellor's First Friday, Arkansas State University, 2012). Data regarding providers of distance learning certified to operate in Arkansas by the Arkansas Higher Education Coordinating Board (AHECB) reveals that there are 24 certified proprietary providers of distance learning programs and 20 public/non-profit providers (Arkansas Department of Higher Education, 2012). All 44 providers have gone through an objective and rigorous application and review process by ADHE, have been approved to offer selected academic programs by AHECB, must make periodic reports to ADHE on an array of compliance parameters, are otherwise monitored by ADHE, and must continue to hold accreditation by an accrediting agency recognized by the U.S. Department of Education or the Council on Higher Education Accreditation (Chancellor's First Friday, Arkansas State University, 2012).

Arkansas State University (ASU) who recognized approximately four years ago the need to begin offering complete high-quality academic programs in selected areas online, went through a process of obtaining regulatory approval, and began to offer complete academic programs beginning with the Masters of Science in Education in Educational Theory and Practice in Fall 2008. Since ASU had limited experience in offering complete academic programs online, ASU sought out the expertise of a firm that specialized in such matters. Higher Education Holdings, LLC (HEH) emerged as the most qualified and was selected by the ASU system to help ASU develop and market some of its academic programs in a contemporary online delivery model using the EPIC learning management system. Accordingly, the ASU System entered into a contract with HEH to provide this expertise and ASU began its initial foray into offering academic programs online, with non-academic support from HEH (Chancellor's First Friday, Arkansas State University, 2012). The courses offered in these programs are comprised of intensive five-week time blocks with one to two weeks between courses. Given the intensive nature of the courses ASU made the decision to only allow students to take one course at a time. In order to provide support to faculty members who teach the courses properly credentialed teaching assistants are selected and employed by ASU. Students may enter this 30 semester-credit-hour-graduate program at the onset of any five-week course (except for the final capstone course, which must be taken last), and may conclude successfully in approximately 18 months (Chancellor's First Friday, Arkansas State University, 2012).

The next important aspect is finding a web-based system that can be used as a platform to build a good solid online program. As mentioned prior ASU initially contracted with a web based program called Academic Partnership to provide services to their students but will transition again to system that will be controlled internally by ASU's own IT Department. A Web-based learning management system provides the technical infrastructure for the online classes, features a variety of mechanisms to enable ongoing communication and interaction among peers, instructors, on-site colleagues and the learning environment itself.

Although distance learning programs are needed and are much more advanced they are still viewed with some disdain and trepidation by many in higher education. During the transition at ASU there were many individuals who were totally against this type of program being implemented at a respected four year institution like ASU. Therefore, the pressure to create online programs that kept the academic rigor and best practices that were in the traditional programs was felt immediately by the professors of the new online programs. The authors offer the following as best practices for managing their online graduate program for educators.

Development of Pedagogy

The development of pedagogy and a valid course curriculum was viewed as having utmost importance. The way to ensure academic rigor in these classes was to make them as close to traditional classes as possible. Some of the ways that instructors tried to accomplish this was by providing students with rich and relevant pedagogy and ensuring the use of best practices in their courses. For example, although the class was online the students were held to the same requirements as the students who took classes face to

face. There were required to purchase a textbook like the traditional students. In fact, the selection process for the textbook was more rigorous than in traditional classes. The need for a more complete textbook was identified because the professor would not be there to answer questions and wanted a textbook that was thorough.

When a university makes the decision to develop a distance learning program they are faced with a great deal of work and transition. The transition has taken many years and changes as ASU tried to provide a full scale academic program to a large scale demographic while continuing to provide quality course content. As technologies are increasingly integrated into curricula, there is a growing need for the development of strategies which mobilize ways to create collaborative, interactive and relevant applications specifically within the framework of experiential learning (Howell, Williams & Lindsay, 2003). Eyster, et al. (1996) found that for online education to be meaningful it must be continuous, connected, challenging and contextualized. The faculty at ASU, when designing their online education programs, used the Eyster principles to ensure that their online education programs were as rigorous as traditional education classes.

In such classrooms meaningful learning consists of cultivating a capacity for self-awareness through opportunities for structured reflection, developing collaborations to explore individualized awareness and perceptions, understanding complex theoretical concepts within a framework of cognitive processing, and applying reflective material resulting from both individual impressions and collaborative relationships in both academic and “real world” contexts. These pedagogies become even more significant when delivered as a means to connect geographically dispersed students in the development and achievement of shared learning outcomes (The Journal of Educators Online, 2010).

Creating a community of learners who values honesty, respectfulness, and support as well as challenge and confrontation is important in promoting the development of online classes that are productive and meaningful; modeling this level and style of instruction is critical to creating a constructive classroom environment. Implementing guidelines related to interaction and communication, for example, requiring honest and respectful responses between peers in online discussions, and framing reflection in the context of readings are two additional strategies that promote inquiry and self-discovery (The Journal of Educators Online, 2010).

Technologies of Practice

Course planning and teaching in higher education involves balancing multiple objectives. Through years of experience in face-to-face teaching, faculty members have generated a great deal of knowledge and skill, which is often characterized by automatic routines and tacit knowledge. The advent of the Internet and the growing online education course offerings is transforming this context. It requires new course design procedures to represent and teach content in new contexts. It requires the use of technology-based practices to manage instruction.

Emerging technologies are gaining momentum in higher education, and online instructors are finding new ways to integrate them for teaching and learning. Realizing the need to design and develop authentic courses for online learning, the authors utilize an array of technology-based tools and techniques to promote student engagement and interaction in the development of courses. Managing course content involves the use of technology to support online instruction using multiple formats designed around the concept of engaged, constructivist learning activities.

To achieve these socially constructed meaning across courses, instructors have chosen to use an array of tools to promote student engagement and interaction. Pearson and Young (2002) stated that “technological literacy – an understanding of the nature and history of technology, a basic hands-on capability related to technology, and an ability to think critically about technological development – is essential for people living in a modern nation . . .” (pp. 11-12). Such people have knowledge of technology and are capable of using it effectively to accomplish various tasks. They can think critically about technological issues and act accordingly. Technological literate people would possess knowledge, ways of thinking and acting, and capabilities that assist them as they interact with the technology found in their environments (Pearson & Young, 2002). The authors of this publication have worked diligently

since the program's inception to make technological literacy a general requirement for all students online.

Typically, the use of technology consist of strategies to design interactive learning experiences through the use of journaling, discussion forums, e-mailing, blogging, grouping, and reflective thinking in written, photographic, video, and/or audio formats. Technology in society during this decade has been moving at an unprecedented pace. Both asynchronous and synchronous technological tools discussed here have been proven or have the potential to increase interaction and enhance learning in the online environment. Technological tools themselves continue to evolve in terms of the features they include, and emerging technologies continue to be developed to sustain communities of practice. While the focus on student learning remains constant, online faculty will find that their instructional strategies must be flexible. Bender (2003) noted that it is critical for online instructors to develop a high level of comfort with technology to accompany subject matter expertise in response to the development of pedagogical knowledge.

Communication and Interaction

In both online and face-to-face formats, communication and interaction between students and their instructors and students-to-students are critical factors contributing to students' learning and to their satisfaction with courses (Peterson & Slotta, 2009). Studies examining the quality of interactions among students and between students and their professors in online courses have shown mixed results.

Success in online programs is tied to the type of communication and interaction that takes place between an instructor and learners. As shown in several studies (Fernandez, 2007; Hura, 2011; Marek, 2009), communication is seen as a key factor for quality distance education instruction. One way to increase and enhance communication between teachers and students is by providing appropriate and timely feedback. The lack of feedback could be an anxiety-provoking component that limits students' possibilities of success in online learning. In Ortiz-Rodriguez, Telg, Irani, Roberts, & Rhoades (2005) study on students perceptions of online courses, the researchers found one of the most important factors addressed by students, was the need for rich and diverse communication among faculty, technicians, facilitators, and administrators, and other students. Online learning has benefited from the development of technological communication tools available through the internet that allow for an increase in communication and, therefore, in feedback.

According to Peterson & Slotta (2009), the sense of anonymity provided in online courses provide students with greater confidence and more opportunities to participate in class discussions that they had experienced in face-to-face settings. Additionally, student to student interaction is desirable in distance education and especially important for providing students with access to ideas and issues they can learn from. A conscious effort may be required on the part of the instructor to help create the kind of learning environment in which participation is richer and potentially rewarding for student learning. In the face-to-face format, class discussions are a powerful and rewarding learning experience for students; these discussions also serve as an opportunity for faculty and students to gauge levels of learning (Hura, 2011). Similarly, online discussion formats provides students with numerous opportunities for student-instructor communication, reflection, critical discourse between students, and learning through quality engagement.

Best practices literature has emphasized the use of learner-instructor and learner-learner interaction and social networking in the online classroom for the purpose of fostering a strong online learning community. Research supports best practices that emphasize the use of student-instructor and student to student interaction and social networking in the online community (Rovai & Baker, 2005).

Hura (2011) notes discussion forums as more than one-way communications from instructor to student. These forums represent a conversation among a community of learners where students engage in deliberate cognitive and affective dialogue with each other and with the instructor. Some students view online discussions as more expressive than face-to-face discourse. The online format allows time for critical reflection; support written communication, diversity, constructive criticism, and strategy development (Havard & Olinzock, 2005). Further, studies investigating and comparing traditional and online classrooms found that when learners in distance learning courses felt connected to their online community, their participation in the exchange of ideas and their potential for learning increased

(Fernandez, 2007; Maurino, 2007).

When online discussions are combined with other activities such as collaborative group work, case studies, and problem and project based learning activities critical thinking skills development and deep learning are improved (Maurino, 2007). Instructors are encouraged to foster online communities by providing new, relevant, and timely discussion topics and redirecting conversations as necessary. An interactive teaching style is the best pedagogical approach to online discussion forums.

Peer Review of Program Delivery

As the need for online instruction continues to grow, the need for quality control of the course work to maintain course quality and credibility becomes an essential element of program delivery. Establishing a quality review process for online courses has therefore become essential. A formal review of online courses can measure the quality of the course and reveal changes needed for improvement in the application of the technology, the pedagogical processes, and overall clarity in the presentation of a course. The process of establishing and conducting a quality review based on a proposed framework or checklist is essential for examining aspects of best practices in managing the quality of an online course.

Once all the ELSCE courses were developed and offered online, the department in which the authors teach felt it important to make sure all courses maintained their authenticity and level of rigor. At this time the department chair began researching and organizing a process to help ensure that all courses and instructors were meeting the quality standards in a consistent manner in the form of a checklist.

Creating online courses and developing a plan for quality is really a collaborative effort. The process was begun by researching the resources that were readily available to us. To begin the process, our department chair provided us with SREB's (Southern Region Education Board) "Checklist for Evaluating Online Courses" November 2006 and "Quality Matters Rubric Standards," 2008-2009 editions. Following an initial review of these resources by the department chair, assistant department chair and assessment chair, quality indicators were added that were needed specific to our department's Online instructional plan and design. At this point, the checklist was then sent to the faculty at large for their review and recommendation of needed changes. There was considerable value involving the full department in the process. The team approach provided the opportunity for a fundamental level of ownership in the outcome and a level of synergy that ultimately ended in a better designed and more useful product.

This *Online Course Quality Checklist* is intended to be used by faculty in ELCSE to evaluate the quality of their online courses. The is a detailed list of quality indicators that addresses the course overview and introduction, learning objectives, assessment and measurement, resources and materials, learner engagement, learner support, accessibility, and course revision. The checklist contains many best practices that have been gathered from research and from exemplary online courses and faculty at ASU.

The Course Overview and Introduction section addresses university policies, library access, course objectives, syllabus, and student evaluations. The purpose if this section is to assist in making sure these items are up to date, the links are available to the students, and these links are accessible. The syllabus and course objectives indicators address NCATE format and the most recent objectives set forth by the standards.

Contained on the Online Course Quality Checklist is a section to review the learning objectives. Our purpose in reviewing the course objectives is to make sure the objectives are written clearly, in measurable terms and without ambiguity so that the learning outcomes are most clearly defined. As we evaluate the Assessment and Measurement sections of the courses, we specifically look to see if the assessments are consistent with stated course learning objectives and rubrics provided to students. Also we check to ensure the assessments are "real-world" activities; authentic experiences requiring students to apply course concepts to real world activities. In the Resources and Materials section of the course quality checklist, the professors evaluate the different types of instructional materials and techniques used throughout their course by addressing the variety of instructional materials and if these materials probe higher order thinking such as application, evaluation and synthesis.

The next couple areas of the course review are directed at Learner Engagement and Learner Support. These sections address areas such as student-to-student interaction and communication designed to promote learning and networking, student and professor interaction, activities designed to cause students to engage and interact with other professionals in field-based work, the navigation process throughout the course being logical and consistent, and ensuring that professors have posted virtual office hours to assist and promote interaction with students. Accessibility of the course is fast becoming an issue with respect to ADA standards and requirements. The checklist reviews the course for meeting ADA standards that conform to institutional policy and that appropriate auditory and visual content are available for handicapped students.

After the finalized form of the Online Quality Checklist instrument was agreed to, a decision had to be made as to how the department would implement the process within the department. We basically decided on a three-phase process to insure objectivity and credibility. The review for a particular course would be a self-review, then the course would have a peer review by another department faculty member and then finally in the third round the course would be reviewed by the department chair and assistant department chair.

When the three-stage review process is finally completed (self, peer and chair review) and issues have been determined for remediation, the course professor has to determine how to remediate the matter and make the necessary revisions and as we “close the loop of the review cycle.” The process is that the professor considers what their peer and the chair reviews have determined about their course, what needs to be added, deleted, or changed. Once the professor of the course makes the appropriate changes within their course he/she will then compile a list of the changes on the course revision section of the Online Quality Course Checklist and return the form back into the assistant chair to complete the file on that course. As the department continues to improve the course review process for our graduate online program, the authors posit the practice as a crucial component in support of best practices for managing an online program.

Conclusion

Online learning opportunities are expanding rapidly in the university setting to meet the changing needs of the higher education student. As emerging technologies continue to further the possibilities for more interactive course curricula, the delivery of instruction via distance learning is becoming an increasingly popular alternative in graduate education programs. The experiences of the instructors at Arkansas State University are not unique to this institution or program and may be beneficial to others managing an online graduate program for professional educators.

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