
Preparing school librarians in rural areas through distance education and communities of practice

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As distance education and online learning continue to redefine higher education, graduate programs in library and information science remain a popular course of study for this type of instructional delivery method. Programs that target the unique needs of adult students, focused on constructivist learning, can provide increased levels of access to higher education for students in rural communities. As a recipient of an Institute for Museum and Library Services (IMLS) grant, one institution is providing distributed, community-based instruction to rural areas and encouraging a community of practice to support pre-service school library candidates.

Introduction

Changes in the delivery of library and information science preparation programs have followed the pattern of other programs in higher education. Over the last decade, many public and private universities have moved courses and programs of study online to reach larger groups of students. In terms of philosophy, the desire to provide higher levels of access is consistent with the mission of libraries as places of learning and education for all. As distance education and online learning continue to redefine higher education, graduate programs in library and information science remain a popular course of study for this type of instructional delivery method.

At the graduate program level, decisions to move programs of study and courses online appeal to adult learners for a number of practical and intellectual reasons (Bunn, 2004; Park & Choi, 2003; Dow, 2008; Martinez-Witte & Wolf, 2003). The majority of adult learners returning to school for advanced degrees are employed full-time and many are balancing family and personal responsibilities. Whether the desire to obtain an additional degree is motivated by personal growth or career advancement, the addition of coursework and study often adds to the professional and personal demands on the individual. An online course or online program of study provides the adult learner to "attend" class and complete program requirements in a more flexible manner. Asynchronous lectures, discussions, and small group or independent projects allow the adult learner to progress at a manageable pace. Higher levels of discussion and project-based learning allow the adult learner to draw upon their years of personal and professional experience. [The university], located in [the southwest region of the United States], has followed this pattern and provides a number of courses in a blended/hybrid format, where students come to a campus very few times during the semester. Additional courses are offered in a completely online fashion. Students are typically full-time K-12 public school teachers, seeking certification or a master's degree to work as a school librarian.

Review of Literature

A specific challenge to areas of the United States lies in the students' ability to physically access institutions of higher education (Luna & Medina, 2007). Most universities are located in urban and suburban regions, and students residing in rural communities often have difficulty driving long distances to attend classes in person on a university campus. Students who are able to attend evening courses often leave work early to drive several hours to campus, attend class, and drive hours back to their home communities. Online education alleviates most of this travel challenge for students in rural areas of the country. However, rural areas often suffer from a lack of dependable internet service, with few households able to access high-speed services that are common in urban and suburban areas. Students who may wish to participate in online learning experiences often find themselves at the mercy of inconsistent or unreliable internet access. In [our state], this typifies the experiences of many students. While our students in the larger suburban and urban areas surrounding the main and satellite campus have easy access to the university and its resources, those in rural communities often struggle to attend class or participate in activities on campus and take advantage of opportunities through the university system.

In order to address the needs of these students who wish to pursue an advanced degree, who are place-bound and live in rural areas distant from the university community, [our institution] applied for a grant from the Institute of Museum and Library Services (IMLS) in order to prepare school librarians to serve in their rural school communities. The grant provides local hub-site instructional locations, distance education equipment, and technology and curricular resources and materials for the graduate students in this specialized cohort. Candidates enrolled are provided a laptop computer with an integrated web cam and specialized software, video camera, and e-reader devices. All books, tuition, fees, professional development opportunities and workshops are paid by the IMLS grant.

As candidates were identified for participation in the project, the selection of geographically convenient hubs became a necessary component of the overall plan. Because of the rural nature of the communities and the lack of widespread internet access in some areas, public school sites became the obvious choice for these remote instructional sites. District administrators and building principals were contacted to discuss the possibility of obtaining space in a remote classroom, utilizing the school space after-hours, and equipping the facility with the distance education equipment. Five hub sites were eventually selected and were strategically placed in these rural communities. Our candidates live and teach in these areas, and have the opportunity to utilize the equipment at other times during their teaching and school days. Each of the remote sites is equipped with computers, SmartBoards, video cameras and microphones. Upon completion of the grant, each of the schools will be allowed to retain the equipment and keep an area dedicated to distance education. The schools can continue to allow distance education opportunities, delivery of higher educational courses and programs, and professional development programming to the five sites.

By creating local instructional sites, not only do the schools receive additional distance education equipment, but the candidates are able to meet together in small groups and develop supportive networks and communities of practice. Wenger (1998) defines a community of practice as a group of individuals who meet together for the purpose of learning from one another, to share experiences, solutions to common or shared problems, and to find areas for coordination and cooperation. The small groups allow students to have face-to-face communication with their peers and avoid prolonged isolation of the individual members. The students in the cohort are a mix of practicing, experienced classroom teachers, current librarians (working on provisional credential certificates), and some who are not currently employed within the education sector. This combination of individuals gives each a valuable perspective on the readings, course work, field experiences, and whole group discussions to contribute to a larger and more complete understanding of the issues that face the rural communities in which they live and work, as well as the larger field of school librarianship. Yukawa (2010) reminds that within the context of a community of practice, "learning is not merely knowledge acquisition but more fundamentally a process of identity formation and empowerment through participation" (p.55). Luna and Medina (2007) stress that adult learners seek practical, pertinent learning experiences within a supportive environment. By sharing individual experiences, stories from classrooms, struggles in schools,

understandings of best teaching practices, and knowledge of students each member is able to contribute their part to a larger whole of understanding and deepen the learning experience of the small group that meets together. Small and Palling (cited in Dow, 2008) stress the evidence from their longitudinal research indicating students enrolled in distance education courses found greater satisfaction in the social learning aspect of their studies when there were opportunities to develop interpersonal relationships. These opportunities are central to the delivery of courses and the rationale behind the establishment of these hub site locations.

This type of learning community, one that is built on shared experience and group knowledge development, is a definitive example of constructivist learning. Constructivist theory posits that students' existing knowledge and life experiences are the components used to construct new knowledge structures as new information is provided. The students are active participants in the learning experience, and the teacher serves as a facilitator of the knowledge construction process (Leonard, 2002). Constructivist classrooms are beneficial to adult learners as they value the students' lived experience. Their contribution of those experiences and knowledge are essential to the group and the classroom dynamic (Ruey, 2010). However, while most researchers agree that constructivist learning is optimal for adult learners, many students returning to school for advanced degrees have little experience with facilitated classrooms. Students often express concern when their learning becomes more self-directed and individualized, and when the instructor recognizes and values the distributed knowledge and experience of the class members. Many struggle to understand why the instructor refuses to act as the source of all knowledge and information, relying instead on the comments, discussion and synergy of the group to assist in the ongoing development of curriculum and content.

Program Design and Delivery

Each semester, the cohort is enrolled in six hours of study, or two graduate level courses. During the first week of the semester, candidates are gathered as a large group to distribute course materials and textbooks, understand course expectations, review the syllabi and major assignments, and ask relevant questions. This large group meeting allows the smaller groups to meet with one another and gives the professors an opportunity to learn about them formally and informally. Because candidates who have a low sense of community and feel isolated are more apt to drop out (Rovai & Jordan, 2004), these opportunities for interaction and face-to-face contact allow all of the members to gain support from others and participate in the larger community of learners.

Once each month, the cohort students are required to meet at the local school sites, to meet in person with their small group and participate in a group video lecture and discussion with the other sites and the course professor. This once-a-month synchronous session typically lasts three to four hours. Aharony (2011) contends that the possibilities for collaboration that are built into the online course design can "expose [students] to other views, and enable them to learn from their peers" (p.315). The interim weeks allow the students to participate in class asynchronously from their individual schools or homes. Since Dow (2008) found that students preferred a mix of online and face-to-face meetings, these hub site meetings occur to give the students a chance to meet with other learners once each month while remaining independent during the other weeks. Palloff and Pratt (2007) praise hybrid courses for the flexibility to move course instruction and activities from one venue to another as needs arise. In the school-based hub sites, students are able to join together as a small group, utilizing the distance learning equipment at each site.

During the online weeks, students are able to use their grant-provided laptops and equipment for participation. Northeastern State University utilizes Blackboard Learn (version 9.1) and professors deliver content during the synchronous meetings through sessions created in *Blackboard Collaborate*. This virtual classroom experience allows students to view and hear the instructor in real-time through video and audio capabilities. It includes a shared whiteboard and allows the instructor to share presentations and websites during the individual course session. Presentation opportunities can be shared among students and standard videoconferencing tools such as a list of participants, smaller-group breakout sessions, and messaging features are also included. Each session can be recorded and archived throughout the semester for students to review. Additionally, students can use the features of *Collaborate* to easily create individual and small group presentations. Asynchronous sessions typically include a short video lecture, narrated

presentation, articles and web links to review, projects or assignments to complete, and threaded discussion forums for reflection and sharing. Due dates for discussion board postings and responses to others help to keep all of the members' comments timely and coherent during the week. All of the students also have access to Blackboard's instant messaging service. Through the integrated webcams and microphones on each of the students' laptop computers, video and audio chat capabilities allow for individual questions or advising assistance with the program professors. While some students still express a desire for personal meetings, the technology tools allow for easy access to the professors and a number of almost instant communication methods.

Because the learning sites are distributed throughout the northeast region of [our state], there is a need to make the learning opportunities and learning materials developed as a part of the courses relevant to the local schools and students. The program faculty members believe strongly in allowing projects, assignments, and new learning experiences to affect local schools in the candidates' communities. Following Kazmer's (2005) model of community embedded learning, the courses are designed to facilitate community-based instructional change, and students are encouraged to use local school curricula as a basis for inquiry projects and bridge the cultures of home, school, and university. Most (2011) found that the majority of students in her study were able to make strong connections from the course content and learning objectives to their local workplace.

However, there are both strengths and weaknesses inherent in the use of the community embedded learning model. While the student is able to "bring back" ideas, lessons, theories, and values gained from the university to the local community, there is often resistance to an "outsider" viewpoint (Kazmer, 2005). Other teachers, administrators, and community members may be resistant to changes suggested by the library candidates. Similarly, over-reliance on the local, individual school setting can prevent the student from recognizing and valuing the differences that occur in communities other than the familiar. In order to balance this, students participating in the IMLS grant cohort have been afforded opportunities to visit a number of larger school libraries in metropolitan communities. This perspective can allow students to observe and begin to understand the variation in school library programs and seek ways to negotiate the differences. Additionally, a culturally-responsive teaching component embedded within the IMLS grant seeks to encourage the student candidates to look beyond their immediate responses to situations and beyond easy answers to issues of diversity within classrooms. This component helps offer a broader world-view for the students, and recognize the powerful role that culture plays in classrooms, schools, and communities.

The program faculty members, both of whom have extensive experience as practicing school librarians at all grade levels in public schools, recognize the need to serve as mentors to their pre-service students. While the once-a-semester meetings allow for face-to-face contact, the dynamic of the teacher-student relationship situated in the classroom experience does little to allow a mentoring relationship to develop. In order to provide additional time together in other settings, candidates are frequently given opportunities to attend professional conferences and workshops alongside the program faculty. New discussions and spaces for conversations are opened outside of the traditional, or even online, classroom. Conferences and workshops allow the candidates to network with other students, practicing librarians, and a number of other professionals from across the state. As they begin their own professional careers, the knowledge gained at these conferences and workshops strengthen their practice. The network of specialists and experts provides support in a career field that can be isolating. By attending breakout sessions alongside candidates, the program faculty is able to demonstrate the characteristics of a lifelong learner. Engaging in group discussion and reflection on topics and sessions allow the faculty and students to develop deeper professional relationships with one another. Outside of the confines of the classroom environment, apart from the structure of assignments and grades, students are willing to ask deeper questions, reveal personalities and preferences, and engage with faculty in a more natural and relaxed manner.

Challenges

The two major challenges in course delivery and the execution of the IMLS grant center on technology issues and candidate attrition. Because of the distribution of the hub site locations, and the distance between each site and the university where the program faculty members are located, technology issues are cause for concern and frustration on the nights when synchronous sessions are scheduled. When school buildings or classrooms are locked, when wireless networks fail, and

when equipment stops working properly, students and faculty are not able to connect in the online classroom. Attempts to troubleshoot via cell phone or contact local support are not always successful. However, improved communication with school facilities directors has helped buildings and computer labs remain open and accessible for the class sessions. Additional visits to the various hub sites to test and maintain equipment, as well as candidates' increased level of comfort operating and utilizing the equipment have eliminated many of the technical issues that plagued the early sessions.

Twenty students were originally selected for participation in the grant cohort. However, the number of students enrolled dropped in each of the first three semesters. Some of the students were unable to keep up with the demands of the assignments and readings, and others left the group due to various family and health related issues. These behaviors are consistent with a number of research findings that both internal and external variables influence students' decisions to drop out or persist in the pursuit of a degree (Rovai, 2003; Bunn, 2004; Park & Choi, 2009; Park, Perry, & Edwards, 2011). Park and Choi (2009) found that students who were able to persist in distance education programs reported higher levels of perceived support from their families and the organization, and reported higher levels of satisfaction and relevance of their course work. Differences in individuals, such as age, gender, or experience did not have a "significant or direct effect" on the learners' levels of persistence in pursuit of their degree, concluding that "adult learners are more like to drop out of online courses when they do not receive support from their family...regardless of learners' academic preparation and aspiration" (Park & Choi, 2009; p.215). Additional candidates have been selected and included in the grant cohort as space becomes available. These additional students typically have accomplished some of the required coursework through the traditional channels of our masters' program, and join the cohort with a level of course experience and work experience that mirrors the existing group. As new members of the cohort, they receive the equipment and materials forfeited by those who have withdrawn, and their remaining courses (all tuition, fees, and books) are paid by the grant monies.

In every course, program faculty stress the practical nature of course activities and assignments to help students understand their relevance. Through application to national library and curricular standards, the value of the students' work is viewed in light of its usefulness in the local classrooms and its ability to offer a level of transformational learning for both the graduate student and the K-12 students.

Conclusion

The distance education grant program funded by the IMLS, in place at Northeastern State University continues to be successful in preparing school librarians to make a difference in rural communities. Because of the students' physical distance from the campus locations, the distributed hub sites, in local schools, have allowed students who are place-bound an opportunity for advanced education that may not otherwise be possible (Jones & Lau, 2010). Although managing a number of logistical factors was necessary in creating the distributed sites for the successful delivery of course content, and although significant technology and attrition challenges have threatened to derail the efforts, the program continues to deliver practical and timely instruction to educators who strive to make gains in their local communities. By combining the whole-group introductory sessions with synchronous, small-group class sessions and asynchronous independent sessions, the students have the opportunity to both progress independently and also interact with others to create networks of support within the cohort. Through their participation in these communities of practice, their knowledge of learners and learning is deepened as they translate their educational skill from classrooms to school libraries and establish their identities as school librarians. By encouraging and supporting attendance at professional meetings and workshops, the faculty is better able to serve in mentorship roles to the students, fostering their appreciation and understanding of the collegial support and extended learning opportunities that professional organizations can provide.

Access, equality, and community are all highly valued components of this program, as well as central tenets to the library profession. This unique delivery of distance education courses can demonstrate to other universities the opportunities that exist in partnerships with local schools and rural communities to bring higher education to groups outside of the traditional boundaries.

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