Perceptions of Community of Practice Development in Online Graduate Education

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Implementing Communities of Practice (CoP) in online learning is well documented (Gray, 2004; Wenger & Snyder, 2000), and is of particular interest to the LIS profession (Yukawa, 2010). Most of the students in school library programs are practicing teachers seeking to add the library science endorsement to their existing license. They are adults with busy lives, full-time jobs, and family and home commitments who welcome the opportunity provided by part-time distance learning options. This study found that students perceived CoP development to be possible in online part-time graduate coursework, although the barriers of time, commitment to CoP development, and technology issues persisted to defray the effectiveness of the CoP.

Keywords: Communities of practice, distance learning, part-time students, qualitative methods

Introduction

The purpose of this study is to investigate the use of a Community of Practice (CoP) framework for part-time students taking online graduate coursework. Online programs have made it possible for students with full-time jobs and with established family structures to engage in LIS programs without leaving the home environment (Barron, 1993). LIS education is an addition to their busy lives and the way that they engage in graduate study may differ from that of face-to-face students (Rowland & Rubbert, 2001). Previous research has also focused on the emotional aspects of learning online or how students perceive the learning experience (Boling, Hough, Krinsky, Saleem & Stevens, 2012; Tallman & Benson, 2000). Other studies have focused on the design of specific learning experiences (Miller, O'Donnell, Pomea, Rawson, & Shepard, 2010; Most, 2011), This study differs from previous work in that it initiates COP learning at the beginning of the endorsement programs, specifically in a gateway course that is the required first course for all newly enrolled students. This study focused on content-rich coursework with students at the beginning of the program who are new to LIS education, new to master's level coursework, and new to online learning.

Previous studies in CoP at the graduate level have focused mainly on full-time students with few outside distractions, or at the very least, did not specify characteristics of students. We believe that the characteristics of LIS students are an important element in research on that population. The need for CoP in the practice of librarianship is well-established in the literature; for mentoring in academic librarianship (Heinrich & Attebury, 2010), single topic problem-solving (Van Beynen & Fleury, 2010), special libraries (Bandy, Condon, & Graves, 2008; Bow-

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man, 2008) and in K–12 schools (Yukawa & Harada, 2009).

The literature outside of librarianship is also rich in CoP studies. Although Merriam, Courtenay, and Baumgartner's (2003) article on the marginalized communities of practice that are witches' covens may be an extreme example, one tenet of their findings that is pertinent to LIS is the development of a shared identity. One enters a change process to become a witch rather than just learning the knowledge and skills of witchcraft. The researchers concluded that the learning process encourages learners to ". . . assume a craft-related identity that reflects who they are and who they would like to become" (p. 183). The same can be said of the identity process in becoming a librarian.

The class we examined is considered the gateway course to the school library program. For online cohorts, this course is the first that they take in the program; it is for many their first graduate level course and also their first online course. Understandably, they log on to the course with a degree of trepidation based on their fear of the unknown. The course is project-based, with projects situated in functioning school libraries. The assigned tasks, with detailed rubrics, allow students the experience of "legitimate peripheral participation" (Lave & Wenger, 1991) as they perform the actual tasks performed by librarians while mentored by the course instructor.

Conceptual Frame

The conceptual framework for this research study is three-fold, based on Dewey's *Experience and Education* (1938), Giddens's structuration theory (1979), and Wenger's community of practice (1984). Although Wenger's work on COP, along with Wenger and Lave on the apprenticeship aspect of COP (Lave &Wenger, 1991) is the most common basis for COP studies, we believe that the writings of John Dewey set the stage for this type of learning, and that the organizational management work of Anthony Giddens builds on Dewey to create a solid foundation for COP studies. Although it is possible to implement a COP framework in graduate education based solely on Wenger and Lave's various works, a deeper level of understanding of COP theories is helpful. This course was built on the Deweyan concept of experience, the Wenger foundation for sharing that experience, and the Giddens structuration which constantly functions to change the experience and make it more meaningful.

John Dewey is widely considered to be one of the first thinkers in the progressive education movement. His work underscores much of the current research in information literacy (Dickinson, 2006) and constructivism. Dewey's belief that education comes through experiences is tempered by his definition of what constitutes a sound educational experience (Dewey, 1938, p. 16). Dewey's writing on the continuity of experience contains three elements important to the study of CoP. First, he believed that experience must lead to growth; second, that it should stimulate creativity or the motivation to learn more; and third, that it must be genuine and situated in the community (Dewey, 1938, p. 28–39). Dewey also noted the effect of experience on the structure of learning, noting "Every genuine experience has an active side which changes in some degree the objective conditions under which experiences are had" (Dewey, 1938, p. 34).

One of the few studies using Dewey as a framework for CoP research is Schneider and Garrison (2008) and their look at the use of emotion, among other Deweyan principles, in K–12 education. Giles and Eyler (1994) focus on service learning and include many of the principles of CoP, including learning from a shared reflective experience. They too use Dewey as a theoretical framework.

Anthony Giddens' (1979) work on structuration looked at the ways in which interaction changes structure. Giddens is

less well-known than Dewey or Wenger, but he adds an important element to CoP research. Giddens defines structuration as having three distinct but interrelated pieces. Structure and interaction are the first and last pieces. First is structure, which he defines as the system of rules and regulations that guide social life. The middle piece Giddens calls the duality of structure, ". . . structural properties of social systems are *both* the medium *and* the outcome of the practices that constitute those systems" (p. 69; emphasis added). Cohen's interpretation of Giddens' theory is widely used, especially his definition of structuration that ". . . refers to the reproduction of social relations across time and space as transacted in the duality of structure" (Cohen, 1989, p. 41). Giddens furthers the Deweyan philosophy of the move from interaction as social routine to a focus on the social actors.

Rosenbaum and Shachaf (2010) used Giddens as the conceptual framework for their study investigating CoP as the basis of Q&A communities, and one of their stated findings was to validate Giddens as a theoretical framework for such studies. Earlier, Sligo and Massey (2007) looked at New Zealand farmers and their information seeking and sharing through their personal social networks. Sligo and Massey found a complex structuration of personal and professional networks developed by farmers who work individually yet develop communal social networks.

Various "Communities of . . ."

It is worth pausing here and contrasting CoPs with other community frameworks such as Communities of Inquiry (CoIs) or Communities of Learning (CoLs). Few researchers have specifically contrasted these various frameworks, concentrating instead on exploring one or another. We feel, however, that there is value in making the distinctions explicit.

In the case of these frameworks, language serves well; the labels of the frameworks are honest guides to the differences. CoPs concentrate on enabling effective *practice*. CoIs have as a goal the investigation or examination of a topic of shared concern. CoLs tend to be defined as cohorts or classes in a formal academic institution with learning (usually academic content) as the goal. CoLs derive directly from the foundational work on CoPs (Lave, 1988; Lave & Wenger, 1991), with the distinction being that the "practice" in question is that of learning. Roth and Lee (2006) posit that the defining characteristic of the various flavors of community is a shared object of activity (Engeström, 1987), and that absent a shared object, claiming any sort of "community" is problematic.

The research on CoLs is mixed. Taylor, Moore, MacGregor & Lindblad (2003) examined thirty two studies on learning communities and assessment. Contrary to what may be expected given the label, many of the studies which have examined CoLs have *not* examined learning outcomes, instead focusing on "increasing student engagement, retention, and academic success" (p. 7). In addition, many of the studies relied on student self-report of academic achievement or self-perception of academic success. There is stronger, though still not universal, support for the idea that CoLs increase retention and student satisfaction (Taylor, et al., 2003).

The research on Communities of Inquiry shows a similar pattern. Certainly there is no evidence that CoIs impede learning, but, contrary to the hopes and expectations of some, they have not consistently resulted in measurable gains either (Rourke & Kanuka, 2009). There may be important reasons to engage in or support CoIs, but we acknowledge that a causal relationship between CoIs and improved student learning has not been established.

Rationale for this Research

In the research reported here, we do not claim or expect an increase in student achievement. The school library prepara-

tion program in place at this institution, with its content and instructors, is nationally recognized through the American Association of School Librarians/National Council for Accreditation of Teacher Education (AASL/NCATE) and data indicate that student learning outcomes are routinely met at the target level. We have great confidence in its ability to enable students to master the content. Rather, we seek to develop this community for the purpose of retention and motivation, and while this study will not address those directly, what we do intend to contribute to the literature is a qualitative look at early community formation. Thus, we utilize a CoP framework in a context where our goal is to enhance the conditions that lead to better retention, engagement, and motivation in an academic setting for future librarians who will very likely find themselves in their schools and districts to be geographically isolated from their professional peers. We believe that having this look at the initial steps on the journey to a CoP can help practitioners perform the early nurturing and care necessary to get a CoP off the ground, and help researchers understand some of the dynamics at play in community formation. We further submit that the lessons here are relevant across the different community frameworks, though we will concentrate on the CoP.

Methodology and Data Sources

LIBS 675 *Administration, Management, and Evaluation of Libraries* course is designed as an introduction to management practices in the school library and is the gateway course to the school library preparation program. This research study is based on the Spring 2011 entering cohort. The course originally had 13 members. One dropped the course within a few weeks of the opening semester, and another finished with an Incomplete. This resulted in a final enrollment of 11 students. The first task in the course was for the students to introduce themselves to the class via an online posting. A review of these introductory postings revealed that all of the students were female, and all were classroom teachers licensed in the Commonwealth of Virginia, although three had stopped teaching and were currently stay-at-home mothers. All but one of the students had children, and the ages of the children were overwhelming preschool; only one student had children in the high school/college age group. One student identified herself as a single parent. Almost all of the students expressed some level of tension at starting graduate study, and about taking a course that was fully online.

As to undergraduate fields of study, one student taught biology, and one Special Education, while the rest were evenly split between humanities (art, English, Social Studies) and Elementary Education. One student had a previous career in educational publishing. Geographically the class was evenly dispersed. The university, for registration purposes, divides in-state students into three categories; local to the university, regional students outside of the local area but still geographically close to the university, and students outside of the region but still in the state. The number of students in each geographic category was 6, 2, and 3 respectively. None of the students had met before the course started, and the only information that they knew about each other was the informational postings on the Blackboard system. Although there was no face-to-face meeting, students were required to attend one of the seven regional conferences of the Virginia Educational Media Association. These conferences, although at different times, were near the end of the semester. Students did not formally meet as a class, but some students were able to meet each other at the conferences, and even posted pictures to the class. Another bonding experience was the assignment to do a group presentation using webinar software. This allowed the students to see each other, and have conversations in a freer environment than the Blackboard threaded discussion system.

The course is designed around a Community of Practice framework. The work is project-based and most of the projects are based on a functioning school library of the student's choosing. This enables snapshots of a variety of school libraries. The COP framework ensures that learning is shared, so that students will understand how different school library management practices can differ when applied to different libraries. Grading was based on student mastery of content as defined by grading rubrics. Although not all projects required discussion thread postings, students were encouraged to post drafts of their assignments for critiques, and most did so. A Faculty Office forum and a Hallway Chatter forum encouraged the students to post questions or to engage in conversation beyond class topics.

The course consisted of ten modules. Module 1 introduced the students to CoP. Students watched an instructor lecture Power Point on the topic of CoP, watched a YouTube video of an interview with Etienne Wenger, and read one article on CoP in LIS education. Students were then instructed to search the library literature for an additional article on CoP, summarize that article, and then articulate what their responsibilities were to ensure that the class functioned as a CoP. This assignment was due in the first month of class.

Subsequent modules focused on content knowledge of management practices in school libraries, including redesigning a library according to the learning commons concept, writing a grant for resources, and developing an annual budget and evaluation reports. Other modules focused on critical issues in the field of school librarianship. The last assignment in the class, Module 10, required students to re-read their Module 1 posting, and then reflect on the degree to which the class functioned as a CoP, and to also evaluate their role. Module 10 was to be emailed to the professor rather than being posted on Blackboard in the hope that students would be more forthcoming about both their role and that of their classmates. Students had only a brief description of the requirements for Module 10 when they did Module 1, thereby ensuring that their initial reactions to COP would not be tempered by the demands of the Module 10 assignment.

The instructor for the course is one of the researchers for this project. Due to the constant interaction with students and the resulting insight into student personalities and writing styles, she was not involved in the direct analysis of the evidence. The other researcher is not an instructor in the library science program. IRB approval was granted for this research study on the basis of the fact that the course instructor would prepare data for analysis by pairing individual student's Module 1 and Module 10 responses, then anonymizing the responses by coding them as Student A, Student B, etc. The identities of the individual data pairs were kept on the instructor's hard drive and not shared with the analyzing researcher. Information regarding the analysis of the paired responses was kept on the other researcher's drive, thereby ensuring student privacy.

Research Questions

The students' anonymized paired responses were read by the analyzing researcher, who combed their responses with an eye to answering the following three questions:

1. What are the student perceptions of a community of practice? (Module 1)
2. How well did the students perceive that the class functioned as a CoP?
3. What similarities exist in the students' perceptions of their roles and responsibilities in the development of a CoP?

Findings

We present our research questions (above) in the order that we conceived them, but in reading the students' writing it became clear that much of the discourse

that was relevant to one question was also relevant to the other. Thus the first and third questions will be addressed together.

As might be expected, in the beginning the students had a somewhat naïve view of communities of practice, especially as regards their role in helping bring one about. Indeed, two of the students arguably didn't answer the question at all, turning in nebulous answers about the value they saw in having a community of practice, but neither defining them nor discussing their role in them.

Among the remaining nine students, however, there was strong agreement around one factor: active participation. All nine discussed some variation on the theme of active participation being a key part of a community of practice, and declared that it would be an important factor in their own contribution to building the community of practice of the class. Specifically, the students defined active participation as posting in a timely manner, responding to others' posts, doing the assignments, staying informed, and other similar actions. If nothing else, the students seemed to sense that a community of practice requires both effort and engagement.

Related to the above, but discussed here in its own right, is the concept of collaboration. Five of the nine students who did answer the question from Module 1 discussed the importance of collaboration. Collaboration was discussed both positively (". . . understand each others' goals and perspectives . . . ," ". . . build relationships with my fellow classmates . . .") and negatively (". . . not competing with one another . . . ," ". . . not lead any of my fellow community members astray . . .").

Beyond that, there were few concrete suggestions. Some mention of the importance of keeping up with technology was made by two of the students, and one student offered that having a positive attitude and being patient would be important for the class community of practice.

There was more similarity at the end of the class, when students answered the Module 10 question. In discussing what made the community of practice successful, opinion coalesced around two factors: active participation (mentioned in some form by 10/11) and collaboration (6/11). One person said that meeting others face-to-face at a conference was what brought the class together as a CoP.

In answer to the second question, with but one exception, the students in the class felt that the class functioned as a community of practice, and even that one student's skepticism was tentatively expressed: "We are not necessarily illustrating a CoP," she wrote. Two others were also tentative, but positive: "I believe that there is evidence of . . ." and ". . . we did fairly well." Most of the students were unequivocally positive. The class was an ". . . exemplary model of a CoP . . . ," it was a ". . . tremendous success . . . ," it was "phenomenal," "excellent," "great."

Despite the praise, the students also identified several factors that functioned as barriers to the formation of a community of practice. Four stood out: time, inadequate participation, problems with the technology, and the lack of face-to-face interaction. Incompatible personalities was listed as a barrier by two of the students, while one shared that she felt that her own lack of confidence prevented her from participating as much as she felt she should.

Time was mentioned as a barrier by six of the students, typically in discussing how difficult it was to get everyone together for group assignments. Inadequate participation was listed as a barrier by five of the students, one of whom directed the complaint to herself; the others all indicated that lack of participation by others caused problems for the group. Technological issues and lack of face-to-face interaction were each listed by four students. Some students had problems with the Blackboard system, and some felt that without the face-to-face interaction, it was more difficult to come together as a community.

Conclusions

The importance of the Community of Practice for both graduate study and professional learning communities (PLCs) once in practice is well documented. In the library field, where similar job tasks are sometimes spread geographically, the CoP or PLC will most likely be online, disconnected from face-to-face interaction. Kules and McDaniel's (2010) survey of expected knowledge and skills of incoming LIS students found that most of the prerequisite knowledge and skills centered on technology. Few if any of the expectations focused on the type of dispositions or behavior required of a CoP. It is imperative that LIS students are taught in a way that they will be able to function in a professional CoP.

It is not known if students communicated regularly outside the course structure for LIBS 675. In at least one ensuing course, students were required to join a Facebook page, and at that time a student Facebook group was formed, with the stated purpose to continue and strengthen their COP. Other LIS students, not in their cohort, were invited to join and contribute to the group.

This study has added to the literature of the pre-service LIS CoP. There is little research reported in the literature on the skills that adult part-time graduate students need in order to function successfully in graduate school. In schools with large numbers of full-time students, the part-time students need to not only compete with conflicting demands of personal and work lives with school work; their class work is also compared with full-time students who may not have those other demands on their time.

Our research is consistent with others in this area. Smith et al. (2011), for instance, found in their study comparing student opinions of required group work that students in online sections were more resistant to group work than students in f2f sections. They surmised that the characteristics of the successful online students (i.e. ability to work independently, flexibility of time, and self-confidence in posting work) made them predisposed to dislike working in groups where they had to wait for other students, and where differences in approach to problem-solving were less likely to be resolved easily online than in a face-to-face setting.

These findings are pertinent to the development of online coursework using COP as a basis for class interaction, but more importantly, we believe this study lays the groundwork for studies in the retention of online students. We do not know if students who participate more fully in COP activities are more likely to be persistent in their studies, nor have we explored the effect of spontaneous COP activities such as Facebook groups that do not have instructor input. Regardless, the picture we present here gives an important snapshot of early CoP formation in online graduate education.

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