Perceptions of Community College Students and Instructors on Traditional and Technology-Based Learning in a Hybrid Learning Environment

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ABSTRACT

A community college had been attempting to integrate technology into instruction. For example, as a part of the school's attempt to integrate technology, a computer lab was added to all literacy classes in order to create a hybrid model. However, evidence indicated the laboratories were not being used effectively. There was too little exposure to technology and what exposure there was inconsistent. The purpose of this study was to investigate the attitudes of faculty toward integration of technology into classroom instruction and the perceptions of students toward technology as a part of their learning. Data collection for this qualitative study was based on semistructured interviews from 6 students and 6 instructors from the community college under study. Data were transcribed, coded, and analyzed. This process resulted in 3 major themes (technology integration, barriers, and traditional learning) and 5 subthemes (trends in higher education, continuing learner, unlimited access, limited access and support and technology adoption and its potential). The findings revealed that instructors were primarily at ease with technology but failed to integrate technology sufficiently to create an effective hybrid instruction model. Students wanted more exposure to learning technology, believing that experience with emerging technology was needed to acquire jobs now and in the future. Our recommendations called for increased professional development for faculty and greater organizational support for the college's change initiative.

Keywords: community college, technology, hybrid learning, qualitative case study, change management, professional development

INTRODUCTION

Although technology is not a complete solution for learning, the debate regarding its best use has shaped the conversations regarding higher education in recent years (Prensky, 2014). The fast and continual pace of change in technology has generated many opportunities as well as challenges for schools (Keengwe & Agamba, 2015). Certainly, the integration of technology has the potential to enrich teaching lessons, patterns, upgrade class organization, and fertilize students' attention, while building their overall communication and growth (Mustafina, 2016).

However, instructors' choices on how to implement technology practices are often driven by experiences instead of data that would indicate how their teaching would be improved from the student perspective (Abdelmalak, 2015). According to Allen (2014), there is a great need for changes in teachers' perceptions, enthusiasm, and readiness to incorporate technological resources in their instructional techniques.

Like many community colleges around the nation, the community college under study had been attempting to integrate technology into instruction. For example, as a part of the school's attempt to integrate technology, a computer lab was added to all literacy classes in order to create a hybrid model. The computer labs were supported by the Blackboard learning management system. However, according to the coordinator of the literacy department, the laboratories are not being used effectively. There was too little exposure to technology and what exposure there was inconsistent, depending on the instructor (school coordinator, personal communication, May 17, 2016). This circumstance was not unique to the college under study; research has shown that educators in schools have not been proactive in using technology as an academic resource to diversify learning (Morgan, Humphries, & Goette, 2015). Moreover, there are limited studies that have evaluated students' perceptions regarding technology in their learning environment (Ragupupathi & Hubbell, 2015).

REVIEW OF LITERATURE

Technology constructs a bridge whereby students can participate in their learning practices, an engagement which allows them to develop in a post-industrial civilization as professionals (Ayaz & Şekerci, 2015). With the advances of the Internet, technology is a very important component in education; educators can access and develop authentic opportunities by implementing real world experiences into the curriculum (Keengwe & Maxfield, 2015). Moreover, technology can be designed for traditional and nontraditional students as a tool of support to those with individual needs (U.S. Department of Education, 2017).

Technology has the power to change instructional practices if it is integrated appropriately (Ruggiero & Mong, 2015). Successful technology integration calls for both content and pedagogical knowledge (Ozdemir & Dikilitaş, 2017; Rao, Edelen-Smith, & Wailehua, 2015). Technological pedagogical knowledge can be understood as the capacity to integrate technology into instruction of any academic area (Koehler, Mishra, Kereluik, Shin & Graham, 2014). When a learning environment is completely blended using the technological, pedagogical, and content knowledge, the outcome can be powerful (Ozdemir & Dikilitaş, 2017).

Research has shown that when educators were acquainted with technology, they were more likely than not to include it in their instruction (Keengwe, 2015). However, while teachers often display positive attitudes toward technology, pinpointing a specific reason as to what motivates actual integration is unclear (Ruggiero & Mong, 2015). Faculty members have

expressed concerns with regard to role changes for them in higher education; many are wary of becoming facilitators rather than providers of direct instruction (Zehra & Bilwani, 2016). In addition, they are concerned about increases in skill expectations and the need to maintain technology skills in addition to subject matter and teaching expertise.

Students have identified how technology integration in higher education has allowed them to be comfortable and organized when accessing information (Keengwe & Agamba, 2015). Advantages for both academic and social engagement were reported through a study on tracking the perceptions over a 1-year period (Keengwe & Agamba, 2015). Unfortunately, negative issues have been shown to be as prevalent as positive views. (Jie, Fallon, & Russo, 2014). Students who were completely engaged academically performed better as opposed to students that did not fully engage.

PURPOSE OF THE STUDY

Previous research showed that instructors' attitudes, perceived hurdles, and perceptions about implementing technology had a great impact on the degree of technology integration within the college classroom (Keengwe & Agamba, 2015). In addition, there are few studies that have examined students' perceptions regarding technology in their learning environment (Ragupupathi & Hubbell, 2015). Therefore, the overall purpose of this qualitative study was to investigate the perceptions of instructors and students regarding the integration of technology in a hybrid literacy classroom environment in a community college setting.

RESEARCH QUESTIONS

Two research questions guided this qualitative study. The research questions were designed with the intent to understand student's perceptions and instructor's attitudes regarding technology integration:
- RQ1: What were students' perceptions of their technology-based versus traditional learning experiences in a hybrid literacy class?
- RQ2: What were instructors' perceptions regarding their technology-based versus traditional teaching approaches in a hybrid literacy class?

RESEARCH DESIGN AND APPROACH

The qualitative paradigm was chosen for this study in order to provide a better understanding of personal perceptions (see Creswell, 2014). The case study approach was selected for the qualitative inquiry because it provided tools to support study of a complex phenomenon within its bounded context (see Creswell, 2014; Glesne, 2011; Stake, 1995; Yin, 2014). The qualitative case study approach allowed us to highlight students and instructors' perceptions toward technological integration in a hybrid literacy classroom.

Setting, Population, and Participants

Purposive selection was used to choose samples of faculty members and students as participants. The criteria for selecting faculty members called for instructors who were full-time faculty members in the literacy department teaching a traditional or online academic literacy class with a lab attached, or those who had taught an online course within the last 2 years. The

second participant population included degree-seeking students between the ages of 18 to 23 who were currently or previously enrolled in the hybrid literacy course and willing to participate in a 45- to 60-minute interview session. There were six instructors and six students who participated and provided their perspectives in this case study. In general, a sample of 8 to 12 interviewees is considered sufficient for data saturation in a qualitative case study (Goenewald, 2004; Guest, Bunce, & Johnson, 2006; van Manen, 1990). Demographics of the participants are provided in Tables 1 and 2 (Appendices A and B).

Participation in the study was voluntary, and participants were provided an informed consent briefing. Participants did not receive compensation. Review of the study's ethical procedures was completed by the Institutional Review Board (IRB) for Walden University.

Data Collection, Coding, and Analysis

Interviews were used as the data collection method. Interviews were personal and semistructured, choices which allowed us to collect data on participants' perceptions regarding their technology-based versus their traditional teaching approaches or learning experiences in a hybrid literacy classroom with an attached computer lab class. The interview process lasted approximately 45 minutes and were audio-recorded. Participants were asked 12 open-ended questions which were developed to gather data pertaining to the two research questions.

All interviews were transcribed within 48 hours. Data analysis was completed concurrently with data collection. The interview guide ensured that similar information was collected during each interview to establish sufficient data. For a coding process, we used open coding. Corbin and Strauss (1990) defined open coding as an "interpretive process by which data are broken down analytically. Its purpose is to give the analyst new insights by breaking through standard ways of thinking or interpreting phenomena reflected in the data" (p. 12). We openly coded the interview data until themes and subthemes emerged. The theme and subthemes addressed described the perspectives of the participants on technology integration at the college under study.

RESULTS

The first research question that guided this study asked: What are students' perceptions of their technology-based verses traditional learning experiences in a hybrid literacy class? In answering this question, we wanted to understand how students perceived a hybrid course that integrated technology versus prior experiences in courses that offered more traditional styles of content delivery. As data were collected, one major theme that emerged was technology integration. In addition, two subthemes emerged: trends in higher education and the continuing learner.

The second research question that guided this study asked: What are instructors' perceptions regarding technology-based versus traditional teaching approaches to a literacy class? In answering this question, the goal was to understand how instructors perceived their courses that integrated technology. Based on the collected data, the first emergent theme was barriers, with a subtheme of limited access and support. The second theme that emerged was traditional learning with the subtheme of technology adoption and its potential.

Themes

The themes and subthemes that emerged from the data analysis are shown in Tables 3 and 4 (Appendices C and D). Theme 1 emerged from analysis of the students' interviews, and it addresses Research Question 1. Themes 2 and 3 emerged from analysis of the instructors' interviews, and it addresses Research Question 2.

Theme 1: Technology integration. Analysis of the students' interviews revealed technology integration as a major theme. Participants believed that experience with emerging technology was needed to acquire jobs now and in the future. Five participants shared the perception that the technology associated with learning management systems was a critically important supplement to traditional learners and should be integrated in the classroom alongside more traditional approaches to content delivery. The participants believed that integrating technology was valuable in the classroom because it allowed students to engage and become active participants in the learning process.

Subtheme: Trends in higher education. Students experience constant changes in education and must adapt in education to maintain accessibility to new technology and popular educational practices. The students were concerned with technology use at future learning institutions or the workplace and wanted to be sure they would be prepared. They reported that the college under study did not make it easy to access technology and that other institutions were doing a better job. Access to the college's learning management application was not universally available, and computer lab hours were limited. Several participants pointed out that completing universities provided laptops to students, loaded with software and with access to online tools built in.

Subtheme: Continuing learners. Based upon the interview data collected, current technology integration practices were crucial to participants as they learned**.** For example, one participant stated:

> I am a student who loves using technology in my everyday life. I can stay abreast with the current trends through technology because it allowed for easy access to assignments, which were hard to keep up with if a class assignment was not accessible via technology.

As student data were analyzed, the results showed that most student participants had positive perceptions toward using technology in their overall learning experience within a community college setting. In addition, there were strong preferences for technology integration, and the use of hybrid instruction was preferred to traditional delivery methods for academic courses. All six participants shared positive perceptions and experiences towards technology being a part of their learning experiences.

Subtheme: Unlimited access. The need for technology extends beyond the school and work environment. During the collection of data, students gave personal testimonials about how much they were required to rely on technology. Four student participants reported that they were managing work and school, while two were managing families and school. Many students used the adoption of technology because it allowed them to go to school from their living room, complete class assignments on their lunch break and access library resources using their school's login. For example, one student stated, "being able to complete classes online was the best upgrade to the lectures and the old style of learning." Another pointed out that "Blackboard "was

a great tool because it allowed for flexibility in learning." A third shared that Blackboard "allows one to work full time and earn a degree online."

Theme 2: Barriers. Themes 2 and 3 emerged from the interviews with instructors. A prominent theme in the instructors' comments was that of barriers to implementation. For instructors to integrate technology effectively into their classrooms, availability and accessibility were musts. Limited training opportunities, lack of support and time for students to use computers were great barriers. In addition, the lack of professional development and support was identified by participants as a barrier preventing the effective use of technology

Subtheme: Limited access and support. The instructors reported that only limited technology training opportunities were available. According to participants, training that offered a variety of approaches to teach or learn technology integration and collaborate with colleagues was not an option. The data revealed the educators with the greatest job experience were least likely to participate in technology training, while instructors with the least amount of experience were likely to believe that their training would be beneficial.

One instructor stated, "I am an educator in my profession; however, learning and staying up-to-date with technology must be done on my time because the school offered very few professional development sessions." Another discussed how not receiving training on effective use of all components of Blackboard hindered technology usage.

Theme 3: Traditional learning. Instructors emphasized the value of traditional approaches to teaching in a higher education setting. They were concerned that these values not be lost in the rush to adopt technology-based instruction. Benefits of traditional methods that were mentioned included diversity in social interaction along with specialized instruction. expressed the importance of teacher-to-student and teacher-to-teacher communication.

Subtheme: Technology adoption and its potential. Participants conveyed that technology was beneficial to the growth of students both academically and socially. One participant stated, "students' learning and staying informed were the main reasons for integration." However, despite these positive sentiments, instructors were generally hesitant in demonstrating technology to students due to their comfort levels. All six instructor participants mentioned that training for both students and teachers was needed to maximize or promote technology integration and to increase its potential as it related to academics.

CONCLUSIONS AND RECOMMENDATIONS

The findings from this study represent the perceptions of instructors and students with regard to technology integration in a hybrid literacy class at a community college. The study's purpose was to understand what instructors needed in order to successfully integrate technology into literacy instruction and to appreciate how the students experienced that integration. The findings identified an inconsistent plan on the part of the college to integrate technology into literacy classrooms. There was great need to assist instructors with ongoing training to ensure that the use of technology in the hybrid courses was meaningful. Training could improve accountability and create an ongoing increase of learning management system usage among literacy instructors as well as implementation of effective pedagogical approaches. Instructors

shared a growing interest in implementing technology into their instruction, but the college and its instructors lacked the consistent support and encouragement necessary to implement technology as a universal tool.

A second key finding of the study was that community college students, who have to juggle work and family responsibilities in addition to their academic work, benefit from flexible modes of learning delivery that they can engage with from any location and on their own schedules. Indeed, a recent report funded by the Gates Foundation found that the major reason for early departure from college is that students have to work and go to school at the same time, and few receive financial help from their family or college (Johnson & Rochkind, 2019). Innovative programs that offer flexible learning models drawing on the portability and flexibility of technology-based learning could have a major impact on community college retention and completion. So could innovative financial aid programs that pair financial aid with student success support and learning accountability (Pluhta & Penny, 2013).

Recommendations for practice and future research include a professional development session for instructors of hybrid courses and a more in-depth program evaluation that would assess the hybrid courses and the extent of integration. Hargis (2014) suggested that focusing specifically on staff training regarding technology integration would increase and extend knowledge for instructors to increase student learning. A professional development project could promote technology integration among instructors at the college under study (see Cook, 2015). Following the professional development session, the department chairs, coordinators, and instructors could guide an overall change management program and identify how to best develop technology within the literacy program.

The most powerful way to raise student achievement is through professional development for the faculty. More than ever before, students need effective teaching if they were going to develop the higher order thinking skills they needed to be career and college ready in the 21st Century (U.S. Department of Education, 2017). Research has shown that intensive ongoing professional development for administrators and teachers leads to an increase in student achievement (West & Borup, 2014).

However, a one-time training alone can't be expected to create organizational change (see for example Kotter, 1995). Indeed, as Bullough (2007) stated, "Powerful teacher education is more than a matter of learning about and practicing promising teaching techniques; it involves engagement in exploring, with others, pressing personal and professional problems and issues" (p. 178). Colleges that desire real difference in learning outcomes as a result of technology integration would be well advised to invest the time, training, monitoring, feedback and support necessary to support a thorough change management process (Desimone & Garet, 2015; Kotter, 1995; Sims & Penny, 2015).

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APPENDIX A

Table 1
Demographics of Student Participants.

Participants (Pseudonyms used)	Enrollment Status	Semesters at college	Degree Attainment Yes/no
S.1.	Full-time	2	NO
S.2.	Full-time	2	NO
S.3.	Full-time	2	NO
S.4.	Full-time	2	NO
S.5.	Full-time	1	NO
S.6.	Full-time	2	NO

Appendix B

Table 2
Demographics of the instructor participants.

Participants letter-system Used	Employment Status	Years Employed in Higher Education	Frequency of Technology Integration Preferred	Degree Attainment
I.A.	Full-time	5	Every class	Ph.D.
I.B.	Full-time	17	Often	M.A.
I.C.	Full-time	21	Rarely	Ph.D.
I.D	Full-time	2	Every class	Ph.D.
I.E.	Full-time	12	Often	Ph.D.
I.F.	Full-time	7	Every class	M.A.

Appendix C

Table 3
Theme 1 and subthemes

Theme	Subthemes
Technology Integration	Trends in Higher Education
	Continuing Learner
	Unlimited Access

Appendix D

Table 4
Themes 2, 3, and subthemes

Themes	Subthemes
Barriers	Limited Access and Support
Traditional Learning	Technology Adoption and its Potential