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A Blended Approach: Persistence and Resiliency in Higher Ed

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Abstract: This study examines changes that have occurred recently in the distance education arena and the impact on higher education institutions. Data were gathered from 164 individual participants enrolled in education courses at a small, liberal arts institution during the spring 2013, fall 2013 and spring 2014 semesters. Using an end of course survey, ten questions were distributed to both undergraduate and graduate students focusing on the following areas: when students learn, why students learn and how students learn. Findings suggested; (1) increased enrollment in distance education courses, (2) courses allow for flexible schedules (3) better communication with instructor and (4) more meaningful learning overall for students.

Keywords: Adult learning, Constructivism, Internet-blended learning, Professional Learning Environment/ Community, Resiliency, Self-directed learning

1. INTRODUCTION

The latter part of the 20th century provided the fertile environment for change in educational institutions not particularly at the tertiary level of education, but especially in the K-12 environment. Various approaches to education were implemented, some of which included an open classroom concept, continuous education, grammar schools, schools for the gifted, alternative education, and distance education. It is this last approach to education that caught the attention of tertiary educators particularly at the undergraduate and graduate levels because of the way that economics and technology began intersecting in unforeseen ways. The cost of education all over the country along with the need to cater to a diverse population provided fertile ground for changing the traditional methods of education for the traditional students who enter college immediately after leaving high school.

The first decade of the 21st century has seen some dramatic changes in the way that institutions are able to reach out to diverse populations, and in the way education is being delivered. Institutions of higher education are facing increasing demands for providing alternative scheduling, multiple course offerings, and blended technology-based programs that would more closely service the needs of changing populations.

To illustrate what has happened in the field of Distance Education in the last decade, interesting findings have emerged from the most recent report to Congress from the U.S. Department of Education National Center for Education Statistics (Aud et al., 2011). In 2007-08, 20 percent of all undergraduates (4.3 million) took at least one distance education course and of these students, about 4 percent took their entire program through distance education. The percentage of undergraduates who took any distance education courses rose significantly from 16 percent in 2003 to 20 percent in 2007-08; over the same period, however, the percentage who took their entire program through distance education decreased from 5 to 4 percent. By contrast, the percentage of post-baccalaureate students who took their entire program through distance education (9 percent) was higher than the percentage at the undergraduate level (Aud et al., 2011).

As adult learners adjust their learning role to become more active and self-directed, a careful exploration of their preferences for learning environments can help instructors to plan, design and assess on-line and blended courses more efficiently and effectively (Markel, 1999; Huang, 2002; Lee & Tsai, 2005). Older undergraduates enrolled in distance education classes and degree programs at higher rates than did younger students. Fifteen percent of

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undergraduates age 23 or younger participated in a distance education course, compared with 26 percent of those between ages 24 and 29 and 30 percent of those age 30 or older (Aud et al., 2011). Students who had a dependent or were married also participated in distance education classes or degree programs more often than other students. Twenty-nine percent of students with one or more dependents and 32 percent of married students took a distance education class, in contrast to 18 percent of students without these characteristics.

As for distance education degree programs, 8 percent of students who had at least one dependent or were married participated, as compared with 2 percent and 3 percent of their respective counterparts. While 18 percent of all undergraduates in 2007-2008 were married, 40 percent of all undergraduates in a distance education program were married. In addition, though 25 percent of all undergraduates had one or more dependents, 55 percent of all undergraduates in a distance education degree program had at least one dependent.

Therefore, to understand the preferences of an adult in a constructivist internet-blended learning environment means not only providing adult learners with opportunities to experience a student –centered and more controllable learning setting, but also retaining and motivating for lifelong learning (Chu, 2001; Sabry & Baldwin, 2003).

2. BACKGROUND

In the past decade, the focus of constructivist Internet-blended learning environments has expanded from actual classrooms to virtual settings (Tenebaum *et al.*, 2001; Chuang & Tsai, 2005. Research results have indicated that constructivist-blended learning can increase support to students and help their critical thinking skills, (Ng'ambi & Johnston, 2006; Roschelle & Teasley,1995), promote meaningful learning, motivation, and change attitudes towards their learning (Fok & Watkins, 2007). Blended learning arose to overcome the disadvantages of traditional learning and our ever changing society and to obviate the failure of e-learning by providing a combination of various learning strategies or models. It mixes various event-based learning activities, including face-to-face classroom instruction; live e-learning, student centered learning and self-paced learning, which increases learning quality, social contents and learners' interactivity. According to Al-Huneidi and Schreurs (2013), blended learning is an evolution of e-learning; it provides the best mix of traditional learning and e-learning.

In blended learning environments, teachers should use a variety of management tools such as synchronous and asynchronous learning technologies to facilitate and encourage collaboration, interaction, communication, knowledge construction and sharing among students. However, research findings have also suggested that students have a lower awareness of constructivist learning, though their instructors and program designers assert that they design courses based on constructivist pedagogy (Tenebaum et al., 2001). Consequently, there is a need to develop a better understanding of constructivist Internet-blended learning environments (CILE) (Zualkernan, 2006). Therefore, the key elements to define a student- centered constructivist Internet-blended learning environment have become a concern for practitioners, designers and researchers.

Constructivist Internet-blended learning can help all types of learners overcome learning participation barriers and provide a self-paced, self-directed learning (SDL) environment. Additionally, Internet-blended learning is more cost effective and convenient than traditional educational environments (Richardson & Swan, 2003; Inoue, 2007; Caufield, 2011).

3. PURPOSE OF THE STUDY

In recent months, there has been an explosion of discussion surrounding the quality of instruction in fully on-line programs vs. blended courses. Institutions should begin to think of information as an institutional asset that must be handled and developed thoughtfully and with care. At the front end, individual faculty members have usually been incorporating all the responsibilities of a technologist with competency-based functions of the curriculum without constructivist learning embedded. Increased members of students and courses are now forging a "deliberate division of labor among the faculty, creating new kinds of instructional staff" (Paulson, 2002), thus "unbundling" and shifting the traditional roles of faculty. Effectiveness of interaction of distance or Internet-blended education personnel, especially on campus, is based on whether or not an individual can understand the concerns and problems being faced by faculty or students. Because of this, faculty support and training take on new importance if an institution is to be successful in the field of Internet- blended education (Green, 2002).

Social e-learning

It is relatively easy to create a social constructivist environment in a classroom. It is more difficult to do so in the context of distance learning, whether paper based (these still exist in developing countries) or electronic. Early distance education e-learning environments tended to be simple electronic versions of old paper based ones, where lecture notes was provided for students to read on screen. Communication was more or less limited to e-mail discussion with the course tutor. The attrition rate in distance education has always been high, one of the reasons being that the systems designed to deliver e-learning has tended to leave students feeling isolated (Flood, 2002). E-learning

designers have struggled to design systems which provide a social constructivist environment, largely because it is impossible with the technology available at this stage to recreate classrooms online. According to Valentine (2002) problems include "the quality of instruction, hidden costs, misuse of technology, and the attitudes of instructors, students, and administrators."

The kinds of applications used to 'deliver' online content have forced users down a narrow, highly directed path and are not particularly user friendly as a result. However, vast improvements have been made by open source developers, who are involved in ongoing work on more flexible applications like Moodle, which is more capable of supporting constructivist pedagogies (Downes, 2008). Moodle is not just a piece of software used for teaching and learning, it is also a community of educators and software developers who have incorporated the culture of the guild and apprenticeship into their work processes. The influence of educators is important when it comes to providing systems which match the needs of learners.

A. Attitudes toward distance learning

Despite problems with hardware that may or may not get worked out with new advances in technology, we must come back to instructors and their attitudes towards teaching in a distance-learning environment as a major potential roadblock to effective distance education. As in any educational situation, the instructor can set the tone for learning in the educational environment. This instructor must be properly trained and motivated to be effective, "guide on the side". An instructor must have technological skills and confidence to use all of the various electronic devices in order to be truly effective in the electronic classroom. Instructors must also change the manner in which information is delivered. While lecture does not work well, multimedia presentations are successful (Weber, 1996). Of course this means more preparation time for the instructor and the motivation must be there.

Helton (2005) stated that "to effectively bridge the gaps between classroom and distance teaching, faculty need to look at the distance teaching from the students' point of view". The faculty must also be aware of getting instructional materials, handouts, tests, and other class items to both sites simultaneously. It is important for the instructors to develop a sense of community between the sites, achieve maximum participation, and get the participants to buy in to the process. The idea of learning as a collaborative process is very important when students are separated by distance. According to research by Palloff and Pratt (2000), "collaborative learning processes assists students to achieve deeper levels of knowledge generation through the creation of shared goals, shared exploration, and a shared process of meaning making" (p 6). It is up to the instructor to be aware of this in the distance learning environment and to encourage collaborative learning and a sense of community among the students.

Hardy and Boaz (1997) found that "compared to most face-to-face learning environments, distance learning requires students to be more focused, better time managers, and to be able to work independently and with group members" (p.43). Many distance learners are different from traditional undergraduates in that they are already in professions.

Being involved in a collaborative learning process is an important part of forming the foundation of a learning community. When this is not encouraged, participation is generally low and dialog is absent (Palloff & Pratt, 2000). Students also need the attention of the instructors. This may be truer in a distance situation than in a traditional classroom. In a situation where eye contact and proximity are limited, students cannot be disciplined nor affirmed by eye contact and body language (McKnight, 2000).

Students may also have a difficult time reading the reactions of the remote location class members. This lack of interaction can cause problems when there is a dissenting opinion that cannot be picked up on with non-verbal cues, and is misperceived as a verbal attack. This type of miscommunication can cause the community problems as the class progresses. It is fair to say that compressed video can magnify the strengths and weaknesses of the instructor. Students are prone to pick up on a lack of organization and direction and respond with apathy and absenteeism (West, 1994).

B. A pilot study

The Constructivist Internet-Blended study (CIB) conducted by Penland 2013-2014, addressed attitudes and feelings of undergraduates and graduate students in campus-based blended courses in an attempt to discover ways of improving and structuring her courses and to determine if this type of instructional delivery significantly contributed to their educational resiliency and persistence in school. Though the CIB study is only a pilot, the initial findings are shown below:

- **Undergraduate students**: liked more hand-on approach and face to face interaction, enjoyed the flexible times on campus classes; instructor provided continuous communication; majority are traditional learners; somewhat stressed about deadlines

- **Graduate students**: able to work more independently; confidence building due to good communication with partner and instructor; working with a flexible schedule; enjoyed practical uses for technology in the classroom and for personal growth

- **Identified as a Traditional Learners**: 60 percent of graduate students; 68 percent of undergraduate students

- **Identified as a Non-Traditional Learner**: 20 percent of graduate students; 18 percent of undergraduate students

- **Identified as both T and NT Learner**: 20 percent of graduate students; 22 percent of undergraduate students

4. METHODOLOGY

This study used a qualitative method approach to examine attitudes of undergraduate and graduate education majors with equal representation of both traditional and non-traditional learners. The selected sample was given as an end of course questionnaire which focused on using a blended approach with technology for communication, documents, searches and field lessons during the semester. The following questions were used for data collection:

- When have I learned and under what circumstances?
- What difference has the learning made to me intellectually, personally, and ethically?
- In what ways is what I learned valuable to learn at all?
- Why did I learn?
- Highest moments in completing my assignments?
- Lowest moments in completing my assignments?
- What was the most significant thing that happened to me as a learner this semester?
- Was there quality communication?
- Do you consider yourself a traditional, non-traditional learner or both?
- Are you currently a graduate or undergraduate student?

5. SOLUTIONS AND RECOMMENDATIONS

Communication and collaboration proved to be an important part of the learning process. The key to making this a success was frequent and rapid feedback to each assignment submitted and the opportunity for both synchronous and asynchronous communications between students and the instructor. Instructional delivery and communication included face-to-face instruction and collaboration, emails, telephone, texts, on-line chats and discussion forums which were introduced early in the semester on the Sakai site. Sakai is the learning management system Shepherd University currently uses in conjunction with TK20 for CAPE assessment and accreditation. Diversity of assignments, and flexibility along with multiple means of content delivery were designed to meet the diverse needs of students by attempting to use their strengths to support areas of weakness. For example, students who considered themselves more non-traditional learners seemed to learn from class interaction and face-to-face presentations. By contrast, those who were considered themselves traditional learners requested more online components to class assignments and without class presentations. So, flexible options were provided for two specific class assignments in direct response from student feedback during the final semester of this study. Formative evaluation in the form of frequent learning assessments was developed to help students evaluate and guide their learning using weekly reflections posted on Sakai. It concurrently provided an opportunity for the instructor to modify and make adjustments when necessary for individual learning and success to occur. Summative evaluation was introduced in the form of a final comprehensive unit project using the ST-11 teaching evaluative tool.

This relates to the current trend in higher education that is shifting from course completion with the A+ achievement goal to more competency-based understanding thus, being dictated by what Callahan (2003) sees as what learners need to meet employer expectations rather than what has traditionally been done in satisfying institutional ideology. The Penland study questionnaire also gave students the opportunity to provide valuable, contextualized information that will be used to strengthen the course the next time it is offered. Instructors of distance/ blended learning courses are often asked as why students selected these courses. Data being collected to date indicate that these courses meet the needs of the ever-evolving 21st century students due to conflicting work schedules, conflicts with on-campus classes, geographic isolation and increased cost of travel and child care expenses. Most of these graduate students and a growing number of undergraduate students preferred on-line courses because it gave them greater control over their time and pace of learning. This is crucial for educators when preparing course assignments, class schedules and interactive class experiences.

Virtual Learning Environments (VLE), as we understand them today, are unlikely to be as powerful as blended learning environments for the simple reason that

it is impossible to mirror the classroom, with all its nuances, vocal and visual clues. However, e-learning providers have learned much in recent years, supported by more powerful computers, communications infrastructures, Internet technologies and applications enabled by the changing way in which we understand and use the web. What has become clear is that a high level of personalized support or "hand-holding" (Martinez, 2003) is important for distance learning students and that learning management packages need to come bundled with tools which enable students to communicate effectively with one another to make use of the potential of socially constructed learning.

Computer mediated communication plays an important part in this, providing the potential for supporting both personalized and social learning in terms of choice of tools and the means to communicate with one another to create effective learning networks. More and more communication tools are on offer – email, messaging, sms texting, discussion boards, video-conferencing, blogs, wikis, podcasts, microblogging applications like Twitter, Plurk and (until recently) Pownce. The number of choices grows almost daily. Downes (2008) has suggested that developments in conferencing applications "will make actual in-person meetings less necessary, and the 'blended' aspect of blended learning will come increasingly to reflect the in-person activities people undertake in their own workplaces or communities."

This last point elicits an important finding from the data obtained a U.S. Department of Education study (Sikora, 2000). Distance/ blended education courses offered nationally are breaking down the traditional concept of semesters and pace learning. Universities are structured by semesters, and financial aid has always fit into the concept of fall and spring semesters and maybe some courses during the summer. Financial aid is usually distributed for two semesters annually over a 4-year period. Distance/ blended courses do not lock students into this "learning metaphor". It is gradually breaking down these traditional barriers allowing students to complete work in shorter or longer periods.

There is a growing trend where even traditional, on-campus students are now selecting either the on-line and/or blended classes that fit their schedules and learning preferences, regardless of where the course emanates from, even if it is offered by the campus from which they expect to earn a degree. This new world of asynchronous, self-paced, distributed blended education calls into question the current academic accounting system and requires institutional leaders to envision new ways to measure student learning (Johnston, 2002).

6. FUTURE RESEARCH DIRECTIONS

Universities are struggling as they face the dilemma of reaching out to the diverse student who in former years would have fallen through the cracks in the system and were overlooked and classified as "at risk" of failing in our educational system. Solutions are not easy to come by, but if institutions are to survive in the 21st century, they must be willing to think "outside the box", bend when necessary and come up with viable, forward thinking solutions to meet the dynamic changes in education and learning. Some correlates affecting retention identified by one of the studies from the government report show that students who receive financial aid are more likely to remain in a program than students who do not receive assistance; women are more likely to be retained, while African-Americans are retained at a lower rate; pre-registered students have a higher rate of retention than those who register in the first week of a course; students who transfer in with 60 or more credits hours have a higher retention rate, while out-of-state students have lower retention rates (Walton, 2011).

The informational age is bringing about drastic change in the higher education landscape. It was Aslaian (2001) who said, "In the past, information doubled every ten years; now it doubles every four years." This is likely to take even less time in the near future, thus increasing pressure on institutions to come up with ways of spreading distant and blended resources. At the turn of the century Dunn (2000) predicted the "number of degree-granting institutions will continue to grow, while the number of traditional campuses will decline. By 2025, half of today's existing independent colleges will be closed, merged or significantly altered in mission".

Additionally, the line between public and private universities and non-profit and for-profit universities is blurring and will continue to do so. Universities that survive are faced with the dichotomy of instituting or maintaining a centralized versus a decentralized organizational structure (Hickman, 2003). There appears to be a shift towards decentralization, however, there are advantages and disadvantages of each structure depending on prevalent factors (Donaldson, 2003).

7. CONCLUSIONS

The paradigm shift in education at higher learning institutions is inevitable and challenging. It also presents many opportunities for educators, learners, facilitators and management staffs to work closely and improve learning outcomes and quality. An outgrowth of the increase in distant/ blended education is that instruction is becoming more learner-centered. It is non-linear in nature, and is seen as being more self-directed.

Feedback from the (CIB) Penland study has shown that the students like the idea of having control over when and where they learn, but at the same time they have problems shifting from the traditional teacher-controlled environment to one in which they assume responsibility for their learning. There is a shift from a transmission model to constructivist, sociocultural and metacognitive models (Miller, 2001; Rumble, 2001).

Educational learning is like a pendulum swinging back and forth. At one end, you have traditional face- to-face learning with lectures and demonstrations and on the other end is modern technological approaches, using computer-based and online learning full of promise and potential but not without limitations. Somewhere in the middle lies blended learning, a method that engages students and technology that presents the best of both worlds.

Educational institutions as we now know them are bound to change as we move into the next decade. We already see lectures being replaced by podcasts and a steady reduction in tutor-student face-to-face time as management types replace academics as leaders of universities and universities become more like businesses, trimming costs and urging faculty to 'work smarter' not 'harder'. New applications like *Second Life* are already attracting a good deal of interest in academic circles, raising the possibility of adding value to both distance education and replacing at least some part of current face-to-face blended learning. In the future, the brave new world of virtual reality will have an even larger impact on the way we communicate, learn and educate societies.

From a pedagogic perspective, the importance of Professional Learning Environments provide a high level of personal control as opposed to institutional control, providing a good fit with the constructivist paradigm. 'Digital natives', as Prensky (2001) calls them, are natural networkers, highly 'connected', social, collaborative, multi-taskers. They use information and communications technologies intuitively; even if they do not always understand the educational potential of all the applications they are familiar with (Trinder et al., 2008). The idea of 'connectivism' ties in well with social constructivism, demonstrating how this new generation of learners will use the power of our networked world (Drexler, 2008).

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