A COMPARISON OF UNDERGRADUATE FACULTY AND MILLENNIAL STUDENTS REGARDING THE UTILIZATION OF WEBLOG AND PODCAST TECHNOLOGY IN A TEACHER EDUCATION DEPARTMENT

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ABSTRACT

The main objective of the study was to compare the utilization of weblog and podcast technology by undergraduate university faculty and Millennial college students. The study was conducted to test the hypothesis, formed from existing literature, that there might be a difference in the utilization of weblog and podcast technology between faculty and Millennial students in a Teacher Education Department. Analysis of the data using descriptive statistics revealed that the mean of both populations was similar in their technological utilization.A technology survey was distributed to Millennial college students and undergraduate university faculty in a Teacher Education Department. One hundred surveys were utilized based upon the number of students currently enrolled in Teacher Education classes at the time of the study. Fifty-nine students and five undergraduate faculties participated in the survey.

The average age of the student population was twenty-one, with a faculty average of forty-nine. Data were collected and analyzed using descriptive statistics regarding the utilization of weblog and podcast technology by faculty and students.

The study refuted the hypothesis that there is a difference in weblog and podcast utilization between faculty and Millennial students. There was no significant difference in the utilization of weblogs and podcasts in the two populations. The results indicate that the perceived technological gap between Millennial students and university faculty is not as prevalent as theorized by the existing literature.

Keywords: **Faculty, Millennial, Podcast, University, Undergraduate, Weblog**

STATEMENT OF THE PROBLEM

Twenty-five years ago, having a computer in the classroom was a mark of distinction, whereas classrooms today fail to be complete without a full complement of computers and other new forms of technology.

Two-thirds of schools had Internet access in 1996, compared to 2003 where the vast majority of schools utilized online resources. The ratio of students to computers, from 1999 to 2002, dropped from 5.7:1 to 3.8:1 during that period ("Technology in Education," 2004). Fundamental to the socialization of the Millennial Generation, born 1980 to 2005, is the incorporation of advanced technologies.

Technological interaction for the population includes DVDs, PDAs, iPods, video games, MP3s, the Internet, cable television, cell phones, and e-mail which have become standard (Kundanis, 2003). Millennials utilize state of the art technologies, such as cell phones and e-mails, in the classroom and workplace to communicate with each other.

The Millennial Generation also uses the Internet as a tool to provide research for class projects and to remain current in world events. Millennials are able to complete multiple tasks simultaneously due to interaction with technology at a young age. Researchers express concern that over reliance by the Millennial Generation on communication technology may interfere with meaningful interpersonal skills (Elam, *et al.*, 2007).

The generational diversity of technological utilization represents a need for universities and faculties to prepare for the expansion of instructional methodologies. The inclusion of advanced technology will enhance the connection with Millennials, advance the learning experience, as well as bridge the generational gap between faculty and students. The Department of Education at Muskingum College in 2007 surveyed 800 undergraduate students which revealed that 92.5 percent of the students surveyed were very proficient in the personal utilization of technologies such as the Internet (Keengwe, 2007).

The Department of Education at Alabama State University in 2007, in comparison, surveyed 42 faculty members which revealed that 47.6 percent of the faculty surveyed was highly experienced in the personal utilization of technologies (Alabama State University, 2007).

The repercussions of the generational gap of technological utilization regarding faculty and students are numerous. The short-term consequences include the inability of faculty and students to cohesively learn and function together, as well as student boredom with course material. The long-term consequences include students' inability to prepare for their career and the reputation of the school in which the degree was obtained.

A comparison of faculty and Millennial students regarding the utilization of technology is instrumental to gain insight of the generational gap in the classroom and prepare students for the future.

A study of the use of weblog and podcast utilization will provide a necessary link for the enhancement of the connection with Millennial students and faculty. The comparison also will provide a strategic plan for the future integration of technology utilization in the classroom to improve the educational experience.

SIGNIFICANCE OF THE PROBLEM

Studies conducted demonstrate the increased use of technology in everyday life as well as classroom utilization. Expanding upon the earlier referenced comparison study, a 2007 survey administered to 155 students enrolled in education courses at Alabama State University was conducted to show students' utilization of technology and the importance of technology in education.

The responses to the survey, revealed in Chart One, detail the importance for faculty and staff to advise students on how to use technology in teaching in a K-12 setting.

The results revealed that 11 percent of students felt technological advising was very unimportant, 0 percent felt it was unimportant, 4.8 percent were neutral, 30.3 percent felt it was important, and 53.8 percent felt it was very important.

How important is it to you to have faculty and staff who can advise you on how to use technology in your teaching in a K-12 setting?

Table: 1
Survey of Alabama State University's students' technology importance

Students' Response	Percentage
Very unimportant	11.0%
Unimportant	0.0%
Neutral	4.8%
Important	30.3%
Very important	53.8%

The data depicted in Chart Two, in which the Department of Education at Alabama State University surveyed 42 faculty members, revealed that of the faculty surveyed, 17.1 percent used technology sometimes, 24.4 percent used technology frequently, and 58.5 percent used technology all the time (Alabama State University, 2007). Despite the need for faculty to use technology all the time to advise students in teaching practices, little more than half of the faculty utilized technology in that way.

Do you use technology?

Table: 2
Survey of Alabama State University's faculty's technology utilization

Faculty's Response	Percentage
No, not at all	0%
Yes, sometimes	17.1%
Yes, frequently	24.4%
Yes, all the time	58.5%

The previous data demonstrates that, currently, technology seems to have a vast impact on all activities within an educational institution. There is evidence that educational researchers are beginning to recognize that weblogs and podcasts are new forms of technology that can be utilized for educational purposes. Despite the increase of technology in higher education, existing studies indicate that there remains a gap in the utilization of technology between faculty and Millennial students.

DEFINITIONS

- **The following terms provided a conceptual framework for the study.**
- **Faculty–The teaching and administrative staff and those members of the administration having academic rank in an educational institution.**
- **Millennial–A person born 1980 to 2005.**
- **Podcast–A program (as of music or talk) made available in digital format for automatic download over the Internet.**

- **Survey–To query (someone) in order to collect data for the analysis of some aspect of a group or area.**
- **Technology–A manner of accomplishing a task especially using technical processes, methods, or knowledge.**
- **Undergraduate–A student at a college or university who has not received a bachelor's degree.**
- **Weblog–A Web site that contains an online personal journal with reflections, comments, and often hyperlinks provided by the writer.**

ASSUMPTIONS

It was assumed that faculty and students would understand the concept of weblogs and podcasts. An assumption was made that students would want to be more actively engaged in class when weblogs and podcasts were utilized. Also assumed, was that faculty who chose not to use weblogs and podcasts in the classroom would be reluctant to do so in the future due to feeling uncomfortable with the utilization of technology.

LIMITATIONS

The study might be limited by the fact that there may be reluctance by faculty to participate in the survey due to their minimum use and knowledge of current technologies. Also, limitations might include that some students may be unable to participate in the survey due to faculty unwillingness to cooperate. Such unwillingness being due to apprehension by the faculty member that he or she is not current in relation to classroom technological utilization trends. Lastly, a limitation might occur due to scheduling conflicts that could interfere with some undergraduate students and faculty completing the survey during the scheduled period.

REVIEW OF RELATED LITERATURE

A review of academic literature revealed that few studies have been conducted on the utilization of technology in higher education by faculty and students. The 2007 Alabama State University survey, in addition to its focus on utilization, also indicated that 58.5 percent of faculty used technology all the time with *e-mail* and *PowerPoint* as the most common technology tools used. In comparison, the Alabama State study also revealed that 56.1 percent of students surveyed used technology all the time, with *e-mail* and the *Internet* as the main technology tools utilized (Alabama State University, 2007). In addition to technological tools such as the Internet, e-mail, and PowerPoint, another emerging technological trend is that of podcasts. Podcasting has demonstrated unparalleled growth in today's society, as well as higher education (Campbell, 2005). Selected courses at Georgia College & State University were *iPod-enhanced* in 2005 to include a range of audio material that included lectures, audio books, language study material and music.

Duke University distributed 20-gigabyte iPods pre-loaded with orientation information in August 2004 to 1,650 commencing students. Administrative and academic materials were also made available for students to download from the Duke Web server and via Apple iTunes (Chan & Lee, 2007). Hundreds of educators at numerous colleges and universities have adopted podcasts in an attempt to integrate the technology into their teaching practice in creative ways (Beyond Distance Research Alliance, 2006).

Educational applications for podcasting have been incorporated which focus on the use of technology to deliver instructional content including recorded lectures to students. The argument has been proposed that podcasting offers an opportunity to enhance personal as well as virtual classroom learning through active engagement with the material (Carson, 2006).

The literature, however, regarding podcasting in higher education demonstrates that few studies have been reported which address student utilization, with fewer that address faculty utilization (Preuss, 2008). A published report on student performance in higher education courses utilizing instructional podcasts showed a ten percent increase in grades for students surveyed (McCloskey, 2007). Additional literature provides summation of student and faculty reports regarding instructional podcasting rather than statistical data (Preuss, 2008).

Weblogs are another recent technology trend that has been introduced in higher education. Empirical research regarding weblog use to support different types of thinking and activities in higher education is insufficient (Sharma & Xie, 2004). Some areas of research regarding weblogs deal with student perceptions of sharing their online journaling practices. The research demonstrates that weblogs can be applied to encourage sharing of students' journals and can be utilized as a *team journal* whereby a group of students collaboratively write a common journal for the team. Further studies suggest that team journals contribute to students' validation of self as well as the world through a *cooperative shared venture* (Andrusyszyn & Davie, 1997). These types of effects achieved from the sharing of journal entries by graduate students with their instructors indicate that the use of weblogs serves to improve the *warmth of an academic environment* (Grennan, 1989).

Researchers have also asserted that the sharing of journal entries through the use of weblogs serves to narrow the age gap between students and teachers and offers security to both groups (Andrusyszyn & Davie, 1997).

Survey responses to forty-five questionnaires distributed to students at National Formosa University revealed that 60 percent of the students felt posting online discussions increased confidence in their writing ability, and 64 percent believed that blogs were helpful to increase confidence in their learning and writing (Fang & Wang, 2005).

HYPOTHESIS

The researcher initially proposed that there would be a significant difference in the utilization of weblog and podcast technology by undergraduate university faculty and Millennial college students in a Teacher Education Department. The study was conducted to test this hypothesis.

METHODS

Utilization of weblog and podcast technology by the faculty and students for school and personal use was assessed and analyzed through the use of a survey. The survey also addressed technology as an additional component in the classroom. The independent variables were undergraduate faculty and Millennial students, and the survey served as the dependent variable.

Participants

The current student enrollment in the undergraduate Teacher Education Program consisted of 232 students, with an undergraduate faculty of ten. One hundred surveys were distributed due to the number of students currently enrolled in teacher education classes at the time of the study. Fifty-nine students and five undergraduate faculties ultimately participated in the survey. The average age of the student population was twenty-one, with a faculty average of forty-nine.

Materials

A technology survey was distributed to faculty and undergraduate Teacher Education students registered for the spring term 2010. The survey was composed of questions related to faculty and student perceptions of weblog and podcast technology using a ranking system. The multiple choice survey consisted of two sections, one for faculty and students and one for students only.

Procedure

The survey was the dependent variable used to determine the use of weblog and podcast technology. Each faculty member received a packet of surveys with instructions for them to read to their class. The survey was distributed by the faculty to undergraduate Teacher Education students and the faculty and students filled out the survey. Faculty and students were given three weeks to complete the surveys and return to the researcher. The survey allowed students and faculty to identify their utilization of weblog and podcast technology for school and recreational purposes by using a multiple choice ranking system. A similar multiple choice ranking system was applied to determine the student perception of technology in education.

RESULTS

The study was conducted to test the hypothesis that there is a difference in the utilization of weblog and podcast technology between faculty and Millennial students in a selected Teacher Education Department. Analysis of the data using descriptive statistics revealed that the mean of both populations was similar in their technological utilization. The first four survey questions invited a response from faculty and students of *No, not at all; Yes, sometimes; Yes, frequently;* or *Yes, all the time*. The corresponding questions were:

- **I use weblogs (blogs) for recreational activities.**
- **I use weblogs (blogs) for school related purposes.**
- **I use podcasts for recreational purposes.**
- **I use podcasts for school related purposes.**

The latter two questions invited a response from students only of *Strongly Agree, Agree, No Opinion, Disagree, or Strongly Disagree*. The questions were:

- **I would like to use weblogs and podcasts for school related purposes.**
- **I believe that the use of weblogs and podcasts in the classroom will enhance my learning experience.**

The statistical means are represented in tables one and two.

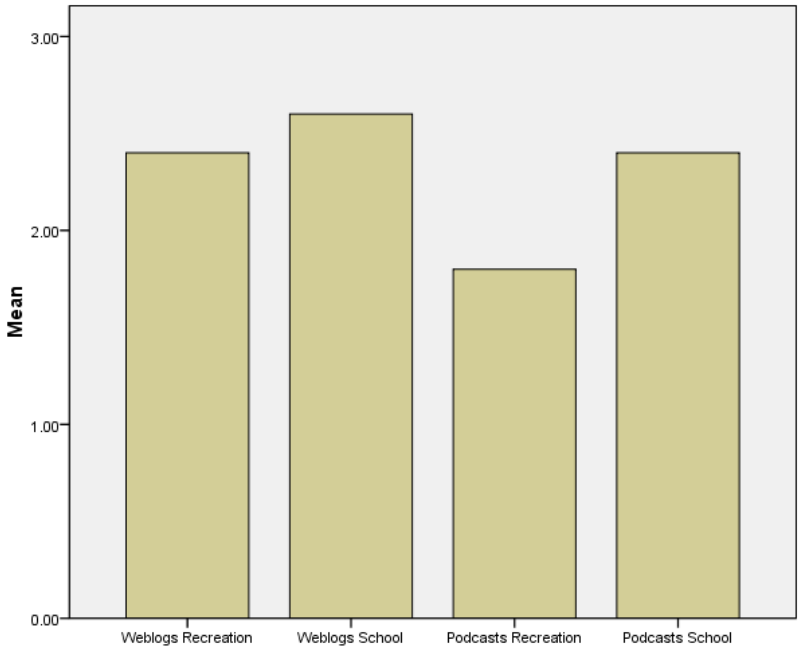

Figure: 1
Faculty Utilization of Weblog and Podcast Technology

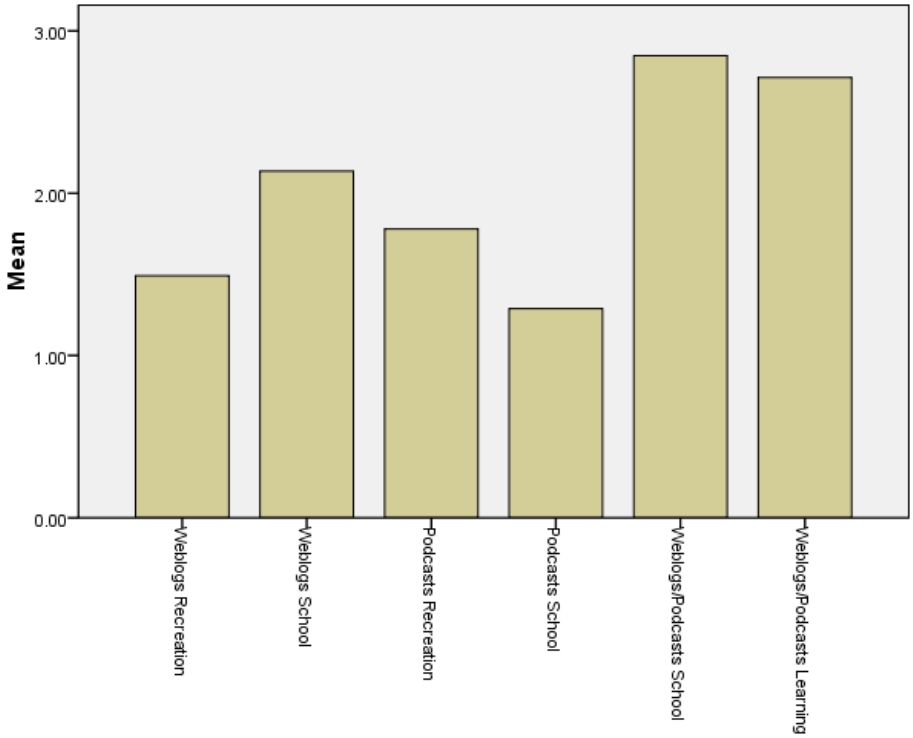

Figure: 2
Student Utilization of Weblog and Podcast Technology

The data represented in the tables demonstrates that there was little difference between faculty and student utilization of weblogs and podcasts for recreation and school. However, when students were asked if they wanted to use weblogs and podcasts for school related purposes, the majority of students agreed. The students also agreed with the statement that weblogs and podcasts would enhance their learning experience. The study refuted the hypothesis that there would be a difference in the utilization of weblog and podcast technology between faculty and Millennial students. There was no significant difference in the utilization of weblogs and podcasts in the two populations. The conclusion could be drawn that a select Teacher Education Department might not need certain types of technology in their curriculum.It is the belief of the researchers that further investigation into technology utilization be conducted on a broader level within Teacher Education Departments, and perhaps in other disciplines, as evidenced by this study based upon expressed student preference for even greater infusion of technology into the curriculum. It can be also plausibly proposed by the researchers that the prior assertion might be equally applicable to faculty desire for enhanced inclusion of technology.

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