

**Something Different from the Same-oh, Same-oh
A Survey of Community College Students'
Competence in and Use of Technology
in Public Speaking Classes**

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ABSTRACT

In a survey of 93 community college students, 18% of participants reported being uneasy around technology. Unease was primarily attributed to a lack of knowledge on how to operate such technology. Students tended to self-rank themselves as being more competent users in their personal lives than their academic lives. Eighty-five percent of participants had high or moderate interest in using technology to supplement class room lectures and activities. Uses of the cell phone and the Internet tied and ranked highest in personal use frequency. Use of the Internet followed by the personal computer ranked highest in academic use frequency. The lack-of-interest factors identified as most influential were equipment failures and a lack knowledge of how to use such technology. The interest-factor identified as most influential was “technology is a good career preparation.”

Introduction

The *Pew Internet and American Life Project* reported that 30% of Internet users do so just for fun (Fallows, 2006). Other *Life Project* reports indicated that 85% of Internet users were between the ages of 18-29 years (Demographics, 2005) and have identified the categories of entertainment, society and community web sites as “where unusually large proportions of college students make up the traffic” (Rainie, 2002, ¶2). However, student Internet usage is not limited to entertainment; students used five metaphors to explain how the Internet assisted them with school work: the Internet is (1) a virtual textbook and reference library, (2) a virtual tutor and study shortcut, (3) a virtual study group, (4) a virtual guidance counselor, and (5) a virtual locker, backpack and notebook (Levin & Arafeh, 2002).

But despite students’ high regard for the Internet, a *Life Project* report described how schools and teachers do not encourage utilization of the Internet as a resource resulting in a disconnection between student personal and student academic use (Levin & Arafeh, 2002). Although out of class communication between faculty and students is limited, and even less is known about faculty-student electronic communication (Nadler & Nadler, 2000), college students have reported that outside of the WebCT or Blackboard virtual classrooms professors preferred email over instant messaging or Internet chat and discussion boards (Jones, 2002). But then again, one professor, in an attempt to accommodate current technology, reported a very unsatisfactory experience in using instant messaging to communicate with students (Wymer, 2006).

Nonetheless, mass media sources have reported that technology is being used to supplement classroom lectures and activities. These media reports stated that the advantages attributed to academic technology use included increased class attendance and improved topic

review post class with the most current trend being that of students downloading academic lectures from the Internet onto iPod®-type devices (Fuson, 2006; Hansen, 2006; Young, 2006).

Indeed, the technology itself has changed the material characteristics of the class room: physical classrooms are designed around computers, projectors and screens, and virtual classrooms around the software parameters of WebCT or Blackboard (Overland & Mindt, 2002). Digital cameras have replaced overhead projectors. Besides the previously mentioned equipment, the Internet, software such as Word and PowerPoint, a multimedia presenter, DVD and VHS videos, CD and Media Player music, and the textbook related CD-ROM interactive quizzes and speech examples are used during class lectures and by students during speeches. The only equipment without an on-off switch is the speaking stand; it adjusts with two wing nuts. Thus, given this progressive nature of academic technology the examination of such technology in the communication basic course, public speaking, is warranted.

Literature Review

Vest and Tajchman (1993) explored the use of computer assisted instruction in the basic course. Their rationale was that multimedia technology permitted students to see written speech components relationships, see non-verbal aspects of deliveries, hear the variety of voice characteristics used in verbal deliveries, and process class information at their own rate. While Vest and Tajchman did not find a relationship between students' speech grades and use of the technology they did find students enjoyed using the multimedia and thought they learned from use of it.

A similar finding, that learning had taken place after media usage, was reported by Atkins-Sayre, Hopkins, Mohundro, and Sayre (1998). These authors examined the "rewards and liabilities" of PowerPoint as a supplementary classroom tool concluding that the use of this

technology in the classroom influenced students to use the software themselves and favor more use of it by teaching faculty.

Acknowledging the increasing prevalence of technology in the academic setting Overland and Mindt (2002) asked students about their perceptions of ancillary textbook technology and the role of technology in the classroom, their comfort level with technology, and their use of technology. Survey results indicated that 52% of males and 13% of females were comfortable with technology and all students reported making daily use of the Internet. Because 97% of students never used the CD-ROM that accompanied the text, students recommended that instructors make student use of any ancillary technology materials mandatory assignments. Overland and Mindt concluded that generally students had a positive opinion of technology.

Sellnow, Child, and Ahlfeldt (2005) continued the investigation of textbook supplements and reported that students found technology supplements less helpful than anticipated, with female students reporting more usefulness than male students. Equipment malfunction was the most reported source of frustration when using technology supplements. Similar to other studies (Khan, 2005; Overland & Mindt, 2002) requiring the use of text book supplements increased the perceived helpfulness.

Thus as technology use continues to increase amongst the age group most likely to be within a college classroom and as technology becomes more embedded within the basic course classroom it behooves the basic course instructor to ask:

1. With what technology are students familiar?
2. What do students consider to be their competency level with such technology?
3. What level of interest do students have in incorporating use of technology into the public speaking class room?

Participants

Ninety-three students enrolled in the oral communication classes of public speaking and business and professional speaking at a mid-west community college were given extra credit for completing a survey¹ that asked these research questions. The survey was completed in week eight of a ten week quarter. The survey ($\alpha = .87$) included general demographics, a list of thirty-four technologies in which students identified both personal and academic competency levels and corresponding frequency of use, a list of reasons to which students attribute their interest or lack of interest in technology, and a list of technologies used in the current public speaking class in which students rated the helpfulness of the technology. Students responded to both open and closed questions and selected closed answers from pre-listed responses using Likert-style rankings. Thirty-six students offered more insights in discussions post-survey.

The generic-label list of technologies was compiled from known technologies in use at the college and area store advertisements as this would be the most convenient purchase source for the majority of students. All data was entered into an Excel spreadsheet and exported into SPSS 8.0 to calculate chi-square, frequencies, percentages, means, and reliability alpha.

The definition of “academic use” was: The technology could be used individually by the student or facilitated by the instructor for student group use in the class room and should include the technology used in the classroom, used for outside of class contact with the instructor to ask questions, etc., or used in independent studying by the student.

Two limitations of the survey became evident during the post-survey discussion. Students indicated they were more familiar with technology brand names than generic labels. The other limitation was the time required to complete the questionnaire, the choice of two one of five and two one of four self-rankings on both academic and personal use of thirty-four technologies

seemed to be too many. Given the results of this survey, that most students are comfortable and interested in using technology in the classroom, a shorter list of questions would be in order for future investigations.

Results

Responses were evenly distributed between the sexes: 53% females and 47% males. The average age was 23 (range 17-50). Nine of the ten majors the college offers were represented: Academic Education (general education studies for transfer), Agriculture, Business, Construction, Electronic/Computer, Family and Consumer Science, Health, Manufacturing, and Mass Media/Communication, at an average of 14 quarter credits per student (range 4.5 to 35). Sixty-eight percent reported they were employed in either full or part time jobs with an average of 21 hours worked per week (range 0 to 50).

Eighty-eight percent of the students surveyed owned a computer. This percentage is comparable to the 85% ownership reported in the *Pew Internet and American Life Project* (Jones, 2002). A total of 82% reported being comfortable with technology of which 78% were females and 86% were males. This ratio was higher than Overland and Mindt's (2002) results of 52% of males and 13% of females being comfortable with technology. A chi-square test of independence was calculated comparing the variables uneasy around technology and sex. No significant relationship was found ($X^2(1) = 1.205, p = .272$).

Unease with technology was primarily attributed to a lack of knowledge on how to operate such technology. Specific responses were:

- "I do not know some things."
- "It always messes up when I touch it."
- "Not sure how to do everything."
- "Lack of knowledge." (reported four times)

- “I’m afraid I will break the computer.”
- “Not educated with computers.”
- “I don’t know how to use it very good.”
- “Lack of understanding.”
- “Hard to learn how to use.”
- “Not computer savvy.”
- “Lack of use—not being around it—not growing up with it.”
- “IDK!” (text message abbreviation for “I don’t know”).

Students tended to self-rank themselves as being more competent users in their personal lives than their academic lives. The five technologies with the highest competency ratings were in high to low rank percentage order (1) audio cassette tape player (2) CD music, (3) cell phone, (4) paper printer and (5) calculator. The five technologies with which students self-rated the least level of competency were in high to low rank order (1) blog, (2) PDA or personal digital assistant (3) listserv or mailing list, (4) pager, and (5) electronic book.

Several students asked if PDA stood for the text message abbreviation “public displays of affection.” One inquired if discussions in online classes are the same as chat rooms. Others indicated that it would be easier to self-rate on technology identified by brand name rather than generic description. For example, one student, who identified herself as uneasy around technology and does not own a computer, did not complete the individual competency and frequency list, instead listing “CD player, DVD, MP3, cell phone, calculator, computer and On Star” indicating “weekly use” and “knowing enough to get by.” Another student wrote that “VHS-C is old and outdated” and replaced the choice with MDV, DVD followed by CD-RW. He also wanted to know what was meant by “same-oh, same-oh.”

A male student with a high interest in adding technology to the classroom wrote “I wish” beside the example “the text book can be listened to in CD audio format.” He added a long note

at the end of the survey, “I personally feel teachers hate technology in the classroom, especially (two-year school name). One reason for this thinking is generally teachers frown upon laptop use and there is no wireless campus wide like there is at (four-year school name).”

During the post-survey discussion about two thirds of the thirty-six students involved expressed the opinion there was no difference between personal and academic competency. One on-line student wrote, “The only thing I questioned is on the chart I could easily distinguish my school life from personal life, but on my knowledge I put the same on both sides. I do have knowledge on some of the items, but don’t use it in school.” The minority disagreed strongly but could not articulate a specific example of the difference between personal and academic competency. General comments indicated that personal technology competency is learned because it is what a student wants to learn whereas in academic technology competency the student is trained but not forced to use the skill. All agreed for competency to be achieved the student has to want to learn how to use the technology and once it is learned it can be used in other situations. One complaint was that instructors go too fast when teaching technology, that it needs to be more of a step-by-step process in order for students to learn it.

Eighty-five percent of participants had high or moderate interest in using technology to supplement class room lectures and activities. Fifteen percent indicated low to no interest.

Students attributed their interest or lack of interest in rank order by highest percentage of responses to:

1. 77%—Technology is a good career preparation
2. 72%—Using technology is fun
3. 71%—I can apply technology knowledge from my personal life to my academic life
4. 70%—I like the opportunity or challenge to learn new technology

5. 70%—I like the entertainment
6. 68%—Technology helps me to take charge of my own learning
7. 65%—Technology choices could improve my ability to raise my grade
8. 63%—Equipment failures are frustrating
9. 51%—Technology is something different from same-oh, same-oh
10. 45%—Using technology improves my listening
11. 44%—Using technology improves my writing
12. 32%—Using technology improves my reading
13. 26%—I have difficulties with listening
14. 22%—I lack knowledge of how to use such technology
15. 14%—Technology takes too much time to do
16. 11%—I have difficulties with writing
17. 9%—I have difficulties with reading
18. 4%—Technology is a waste of time
19. 5%—Other:
 - “Technology needs to be taught.”
 - “More homework to make up for lecture time (online classes).”
 - I’m paying the teacher to teach me in person, not a monitor or fellow students.”
 - “Easy.”
 - “I never had a class that challenged me enough to have to fully use the available technology.”

Similar to Sellnow et al.'s (2005) findings, the lack-of-interest factors identified as most influential were (1) “Equipment failures are frustrating,” 8%, and (2) “I lack knowledge of how to use such technology,” 8%. The interest-factor identified as most influential by 91 students

was (1) “Technology is a good career preparation,” 23%, followed by (2) “I can apply technology knowledge from my personal life to my academic life,” 11%, (3) “I like the opportunity or challenge to learn new technology,” 8%, and (4) “Technology choices could improve my ability to raise my grade,” 5%, and “Technology is something different from same-oh, same-oh,” 5%.

Students identified which factors were most “Helpful to my learning” in rank order by highest percentage of responses to:

1. 88%—The Internet
2. 83%—Software used by student — Word, PowerPoint
3. 71%—Equipment used in speeches: Computer, Digital camera, Overhead, multimedia presenter, laser pointer
4. 66%—CD-ROM video speech examples
5. 60%—PowerPoint lectures by the instructor
6. 50%—Databases in the Learning Resource Center (campus library)
7. 44%—Digital camera
8. 43%—Network file storage of class materials
9. 37%—VHS-C recordings of my own speeches
10. 30%—DVD mini lectures and examples
11. 24%—CD-ROM interactive quizzes
12. 19%—VHS mini lectures and examples

Technology frequency of usage was ranked by daily use, weekly use, monthly or less often use or never heard of it. About half of the technologies were used daily or weekly in personal life and about one fifth were used daily or weekly in academic life. Uses of the cell phone and the Internet tied and ranked highest in personal use frequency. Use of the Internet followed by the personal computer ranked highest in academic use frequency. Some caution

should be practiced in examining the student self-reported use as survey estimates have been found to be higher than daily diary recording of use frequency (Greenberg, Eastin, Skalski, Cooper, Levy, & Lachlan, 2005).

Profile

The student profile that emerged from the survey was a:

- Full-time student
 - either sex
 - 23 years old
 - part-time employee
- High interest in using technology in the classroom
- Owns a computer
- Comfortable using technology
 - especially a calculator, a cassette tape player, CD music, a cell phone, DVD, email, Internet, paper printer and VCR
- Considers technology use as
 - a good preparation for a future career
 - fun
 - an influence on future grades
- Drawbacks to use of technology
 - Equipment failure
 - Lack of knowledge on how to operate a given technology
- Most frequent daily usage
 - Personal
 - Internet and cell phone
 - Academic
 - Internet, PC, and calculator

Discussion

The majority of students enrolled in the basic class are confident in their abilities to use all types of technology. What is more, the majority are using the necessary technological requirements of the basic class: personal computer, printer, and software for preparing outlines and presentational aids, and while less frequently used, but still in use, is the CD-ROM study aid. The survey results suggest instructors interested in expanding technological use in the classroom or for outside of class assignments can be confident that most students will feel at ease in attempting to use the technology. It should not be too surprising that students feel competent around technology. Students have grown up hearing about, observing their use, and using the technologies since early childhood as all of the listed technologies have been in use since the early 1990s and some even earlier.

The most frequently used technology is the Internet. While this study did not ask for what purposes the Internet is used the *Pew Internet & American Life Project Tracking Surveys* (Internet activities, 2005) lists frequent Internet activities that are congruent with the basic class requirements: using a search engine to find information, an internet search to answer a specific question, researching for school, downloading files or pictures, and taking an online class.

Results from this survey did identify topics that may be of some concern to instructors, such as, how to prepare or assist students feeling less than competent in their usage of technology and how to select other technologies that may be useful in the classroom. The continued increase of technology in the classroom seems to be an important idea as it would complement students' number one reason for using technology in the classroom, career preparation. Increasing the requirement for use of technology in assignments develops technical skills and changes interaction modes from student–fun to student–professional, both valuable career enhancers (Jones, 2006). How to adjust assignments and time spent on training due to the

20% or more needing such assistance is an unknown that warrants further investigation. As in-depth speech preparation is time consuming (Sellnow & Ahlfeldt, 2005), the addition of technology could be either a boon or a bust depending on if the students perceive such additions as fun, an opportunity, entertainment, and a difference from the same-oh, same-oh.

Speculatively, if the new technology is something very new, such as an online mail list, the lack of knowledge on how to use could offset the fun factor [some research shows that use of a listserv can augment face to face classroom interactions and research referencing (Khan, 2005)].

A lack of fun factor could be especially problematic given students admit to studying about seven hours per week (Jones, 2006).

Of special concern for instructors should be the students expressed need for more competencies regarding the use of electronic books, online databases, and the Internet. This lack of ability may be a contributing factor to less library use and more plagiarism occurring in college assignments as students (Rainie, 2002), despite college-level instruction on speech-contents research, rely on search techniques learned pre-college enrollment (Jones, 2006). However, learning from the Internet has been found to be valuable to college students (Perse & Ferguson, 2000), hence careful evaluation of curtailing or eliminating Web use to offset these drawbacks must be undertaken by instructors. In fact this careful consideration should extend to all technology integration decisions as students tend to loose interest if there is too much technology use in the classroom (Truman & Schrodt, 2005).

One question that bears future investigation is why are students less confident in their academic technology usage than personal technology usage? Does lack of knowledge coupled with the concern for grade lessen confidence? Or is the academic competency and usage more

accurate reflections of personal usage given the tendency to overestimate usage? If this assumption is true, what is the rate of academic competency and usage?

Conclusion

Although the answers to these questions are yet unknown, proceeding to supplement the communications basic class with more technology appears to be compatible with students' virtual educational expectations (Levin & Arafah, 2002). Given this virtual expectation the examination of technology in the communication basic course is valid. Results indicate that 85% of student participants have a high or moderate interest in using technology to supplement class room lectures and activities. Today's public speaking student not only has a high interest in using technology in the classroom, but is comfortable using technology, considers technology use as a good preparation for a future career, and like 30% of Internet users is fun.

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Self-assessment of ability was based on a scale of: Competent, Know how to use it, Sometimes wish I were more competent, Know enough to get by, and Don't have a clue!

Frequency of use was based on a scale of: Daily use, Weekly use, Monthly or less often use, Never use, and Never heard of it!

The list of technologies was: Audio cassettes/ tape player, Blog, Calculator, Cell phone, CD music only, CD-ROM data or video, CD-R, Chat room, Digital camcorder, Digital camera, DVD—audio, data, or movie, Electronic book, E-mail, Fax, Instant messaging, Listserv/Mailing list, Online class, Online databases, Online games, Pager, PC desktop or laptop, PDA, Portable digital media player (ex: iPod), Portable DVD player, Printer paper Printer photo, Scanner, Software—Word or PowerPoint, Software—games, The Internet, Text messages, VCR – videotape, Web cam, and Wireless e-mail.