An Evaluation of Technology Use in the Basic Public Speaking Classroom

Ulla Bunz

There are a variety of teaching approaches a public speaking instructor can follow. For example, a behavioristic approach focuses on the change in behavior. The cognitivist approach focuses on the development of schemata. "For the Humanist, learning is a two-step process involving the acquisition of knowledge followed by individual personalization. The teacher must ensure a classroom free of threat, provide an abundant resource of materials from which the student can choose, and teach the process of learning.... On a humanistic level, interpersonal skills are encouraged by audio and video conferencing with computer-aided conferencing and the Internet sitting at the highest level of humanistic effectiveness" (Tomei, 1997). While some students still prefer the traditional teacher centered classroom (Wagler, 1999), instructors feel more and more the pressure to incorporate some kind of technology into classrooms, including the public speaking classroom. This pressure is subjectively perceived rather than objectively applied and derives from the belief that students expect technologies in the classroom because the students themselves are increasingly technologically fluent. In reality, technologies have long penetrated classrooms in all kinds of fields and have proved to be neither panopticon nor panacea.

The following paragraphs will review the comparatively sparse literature on technologies specifically in the public speaking classroom. Three major types of technologies will be discussed, video tapes, computer technologies, and Internet technologies. Each of these will present student and instructor applications. Excluded from this review are issues of technology use to reduce speech anxiety, and issues of physical technological influences such as the layout of the computer lab classroom.

The limited amount of available literature and personal experience allow the conclusion that technologies in general have not yet penetrated the teaching of basic communication classes to a large degree. "It is amazing that these courses are so slow to embrace computer visuals, when one realizes how interwoven visual images, visual teaching, and visual learning are to the very core of these subjects" (Carter, 1995, p. 6). Public speaking instructors should both embrace and use technology in the classroom themselves, and encourage students to profit from the many tools and applications available to them. After all, "not only do computers offer rich motivation appeal with students today but they also boost professorial [or speaker] credibility" (Carter, 1995, p. 5).

Video Tapes

Used by Instructors for Evaluation

In addition or in exchange for audio tapes, some instructors use video tapes for recording and evaluating speeches. The benefits include capture of both audio and visual cues. Instructors do not have to rely on their memory to evaluate, i.e., facial expressions, gestures, eye contact, speed of speech or intonation. Another benefit is that students can keep a record of their performance and see themselves as members of the audience do. Some students are intimidated by the thought of watching and hearing themselves on video tape, but research has shown that in general, students with low levels of speech competency improve after reviewing themselves on tape (Glenn, 1996, p. 10; Hinton & Kramer, 1998, p. 157).

Disadvantages include the increased amount of time necessary on the instructor's side for each individualized student evaluation. Especially experienced instructors may consider it a nuisance having
to review video tapes because they feel capable of grading a speech when they first see it. They thus, run the danger of being biased or influenced by other external factors such as being tired or distracted. Another disadvantage is that research also has shown that video evaluations did not improve or even had a negative impact on performance of students with moderate to high levels of apprehension (Hinton & Kramer, 1998, p. 157), and therefore did more damage than good. More research on this topic is needed, because the existing research is mostly observatory and not statistically significant.

Personal experience with using videos for evaluation have been mainly positive. While evaluating students based on video documentation rather than on audio presentation certainly takes more time, I find myself able to give more precise and individually targeted feedback that helps students to understand better which parts of the speech need improvement in which way. In addition, my students are required to write an analysis of their second informative speech. Usually, during the next speech I see great improvement, especially in the presentational aspect. Even though students often express uneasiness when assigned this analysis paper, they usually come back later and report how much this assignment has helped them to improve.

**Used by Instructor for Instruction**

Since the 1980s research has began to focus on the use of video tapes or feature films for instruction in public speaking courses. Reading, listening, or watching speeches of renowned speakers including politicians has become common practice. Now, instructors include movies such as *Wallstreet* into their curriculum (Smitter, 1994). This change has its reason in the purpose those instructors hope to achieve with the exercise. First of all, students can identify with popular movies. They will be more motivated and interested to watch and listen critically than when facing a politician's presentation. In addition, “films are not to be taught as films but rather as case studies of humans engaged in an ongoing process of communication: the power of symbolic acts, the function of communication in community, the various currencies of exchange in human relations” (Smitter, 1994, p. 22). Research has shown this method to be useful and effective for communication courses (Proctor, 1984; Proctor & Adler, 1991).

Personal experience supports these findings. I included clips from popular movies such as *Jerry McGuire*, *Contact*, *Election* and *City Hall* with well known actors such as Tom Cruise, Jody Foster, Reese Witherspoon and Al Pacino into my curriculum. Using these and other clips students learn to analyze situations, design their speeches targeted to specific audience demographics, and apply ethos, logos and pathos to different degrees based on the specific purpose of their speech. Students enjoy these activities very much, and only short explanations and de-briefings are necessary. The videos help students comprehend abstract concepts in an enjoyable way they can relate to.

**Used by Students during Speeches**

Most students are required to use a visual aid during their speeches in a public speaking course. Some choose video clips. It can be assumed that the more an instructor uses videos him or herself, the more motivated students will be to use this medium too. The educational benefit of these presentational aids has not been researched yet extensively. Some common guidelines exist, such as requirements restricting the length of the video clip. Some instructors also require the video to be shown without audio, so the presenter has to explain the images on screen.

I have only had very few incidences were students used a video clip during their speeches. In my classes students can only use videos during their persuasive speeches, because I want them to gain speaking experience and confidence before they begin battling technology. In all cases the video clip was restricted to a length of 30 seconds. In most incidences the clip actually took longer, because of technology problems such as insufficient volume, or simply walking to the VCR, pushing the right button, waiting for the clip to start, etc. Normally, students went over the allotted time for their speech and, thus, received penalty loss of points. I believe videos can be powerful visual aids, but not in a speech that is limited to five or six minutes.
Computer Technology

Used by Instructors for Evaluation

For a number of years some public speaking instructors have experimented with computer evaluation of speeches. In this case, speech feedback will be selected from a list of sample criticism that has been collected before the beginning of the speech cycle. The feedback is "generated by selecting appropriate comments from the computer bank of comments and merged into the speech objective list" (Russell, 1992, p. 4). Some research has shown that students receiving this kind of computer generated feedback actually improve more than students receiving hand-written feedback (Russell, 1992, p. 8). Other research has failed to show a connection (Vest & Tajchman, 1995). Yet another research never got to the point of comparing between computer generated and hand generated feedback, because the grades assigned varied too much among coders. Obviously, more research is needed. Most of these studies were several years old, which is almost like decades in terms of technology development. Possibly more intense instructor training would serve better than trying to drill a computer to grade public speaking.

Used by Instructors for Instruction

Computer technology can be used in two major ways for instruction in the public speaking classroom. First, by using computer presentations to supplement lecture, and second, by using Computer Assisted Instruction (CAI) software that actually works without the instructor's presence.

A variety of software programs exist to create computer presentations. The most popular probably is PowerPoint, possibly because the program is automatically included in Microsoft Office. When using presentation slides, instructors should take the attitude that "computer technology is not an end in itself but rather a vehicle that can complement traditional styles of education" (Schenone-Stevens, 1996, p. 6). A bad instructor will not become better by using presentation slides (Holt, 1998, p. 93). Computer presentations should not substitute, but supplement instruction and interaction. Certain design guidelines should be followed, such as "ten slides in a fifty-minute class, with about five layered items per slide. More slides keep the students constantly writing and they do not focus on understanding the material" (Nantz & Lundgren, 1998).

CAI is more complicated than presentation slides. Cronin (Cronin, 1993; Cronin & Grice, 1993; Cronin, Grice & Olsen, 1994), who "looked at a spectrum of communication topics including speech apprehension, constructing speaking outlines and listening skills" (Vest & Tajchman, 1995, p. 3), has found mostly positive effects of CAI. Others (Vest & Tajchman, 1995) have not found any influence of their CAI software on student performance. CAI implies a variety of aspects. CAI can consist of a software program students follow to learn about the topic assigned. The advantages mainly are self-paced learning, opportunities to review as often as necessary, and complex concepts followed directly by examples.

Another CAI example is Interactive Video Instruction (IVI), which has been shown to improve performance as compared to conventional instruction (Cronin & Kennan, 1993, p. 7). IVI "allows students to interact via a computer with any combination of videotape, videodisc, film, slide, and graphic materials. In most cases, the student can view a segment of a module and respond to it. Based on that response, appropriate video/textual information is provided. Most IVI modules are designed to provide individualized self-paced instruction. Rapid access to information is available based on the student's demonstrated understanding of topics or expressed interest in specific information... Effectively designed IVI materials provide practice, feedback, repetition, motivation, and exposure to multi-sensory information" (Cronin & Kennan, 1993, pp. 5-6).

Even though these computer technologies may sound interesting at first, they bear some inherent problems. First of all, they are designed to instruct without a human instructor. This may be an option for a student who had to miss class, but in general the thought of a public speaking class without interaction and actual speech seems to defeat the purpose. The researchers themselves agree that "interactive video instruction should not and cannot replace classroom instruction" (Cronin & Kennan, 1993, p. 4). Another problem lies in the assumption of the student as a responsible adult.
Today's students grew up with technologies and are used to employing a variety of software. Normally, computers are used to do something faster or more efficiently than could be done manually. The danger exists that students will simply try to "get through" the tutorial to "get it over with" instead of really working through the exercises. The right answer will not be sought to satisfy a question, but to complete this level and move to the next one.

Personal experience with computer presentation slides has not been positive. I like the interactive classroom. When using a self-produced computer presentation, students start to scribble down each word on the projection like many do with transparencies used in the classroom. Instead of listening attentively, they seem to pass time until the next bulleted point or slide appears. In addition, I feel limited by the sequence of the presentation. Going backwards is awkward, and little freedom remains to define terms in own words, add examples, do exercises, or stimulate discussion. Students no longer have an own opinion as soon as a printed word appears on the wall behind my head. Lastly, when using presentation slides I do most of the talking in the class. Since this is a speech class, I usually try to encourage each student to make at least one comment during each class period. I am not able to come even close to this goal when using computer technology.

Despite these experiences, PowerPoint can also have positive impacts when used by an instructor for instructional purposes. First, creating the presentation helps the instructor to organize and structure his or her lecture. The outline view in PowerPoint can even be used to demonstrate a sample speech outline. In addition, PowerPoint allows to include images, or link to the Internet. Thus, an instructor can easily incorporate additional digitized material, visual examples, and current events. Limited use of colors, shapes, animations or even sound can help to keep students interested and alert. Activities or discussion questions can be provided in writing for easy reference. In addition, though some students suffer from transcribing every word on a PowerPoint slide because they no longer listen to the lecture, other students profit greatly from copying the instructor's notes, as it helps them determine the important points of each lecture. In the end, the effectiveness of PowerPoint as an instructional tool depends on the interaction of numerous factors, including class topic, atmosphere of the class, the instructor's teaching style, the instructor's fluency with technology, and personal preference.

Used by Students during Speeches

Students increasingly use PowerPoint presentations during their speeches. Currently, their level of technological fluency may still vary across the classroom, but within a few years students will come to college with a minimum level of computer skill. PowerPoint or similar computer presentation software can benefit students in a variety of ways. First, students play a more active role in the classroom if they are able to construct a "lecture" type presentation for their speech. Second, "another interesting effect was the use of speaker notes. Typically, many students choose to use a manuscript style of speaking. Unfortunately, they are not trained to do so and the delivery of the speech suffers dramatically. With PowerPoint, speaker notes must be condensed; one cannot write out the entire speech word for word. Therefore, students had to make some decisions regarding the content of their speaker notes" (Schenone-Stevens, 1996, p. 6). Thus, use of computer technology actually may lead to more free speech, which is the goal of any public speaking class.

Other positive effects of students' use of PowerPoint during their speeches include the level of confidence that a visual aid such as this technology can provide to insecure speakers. The slides allow students to express themselves creatively, and simply being able to touch the computer keys or mouse to advance to the next slide can provide stress release. In addition, students develop a certain level of professionalism that may serve them well in business oriented work environments. Practicing the use of presentation technology in the fairly threat-free environment of a public speaking class may give students the skill and confidence they will need in their later careers.

Disadvantages of PowerPoint or other computer technology used by students during speeches again includes the inherent technology problem. If the software or hardware does not work appropriately, time is lost, students' nervousness increases, and technology becomes a nuisance rather than an asset. In addition, some students may feel pressured into using sophisticated computer
presentations because the majority of the class is using presentation slides. To many instructors, public speaking in the basic course level is not so much about incorporating computer technology or excelling with visual aids. Rather, these instructors focus on developing speaking skills, competency of structuring and delivering arguments, and gaining experience. Unless sufficient time to learn and practice technology use is provided in the public speaking classroom, presentations can be targeted in more specialized classes such as Advanced Persuasive Speaking or Business Communication.

Internet Technology

Used by Instructor for Instruction

When Internet technology is used for instruction, this occurs mainly in the computer-mediate-communication (CMC) context. A variety of media, usually including the computer and the Internet, are used to together create an instructional means. As Witmer (1998) points out, there are a number of challenges a teacher needs to master besides the purely technological aspect when trying to incorporate CMC into the communication or public speaking classroom. "Educators face four key challenges to effectively incorporate CMC into communication courses. The first involves the students' discernment of when and how to use the technology. [...] A second challenge involves the wide variance of student expertise in CMC. [...] A third, related obstacle stems from the ways in which both students and educators think and talk about computers. [...] The fourth challenge is perceived relevance" (Witmer, 1998, pp. 163-164). The fourth challenge especially bears weight when it comes to public speaking classes. Public speaking has to do with speech, with interaction. Feedback is an important part of interaction. Media richness theory (Daft & Lengel, 1984; 1986) shows: a) people prefer a medium with the largest amount of cues possible, and b) that face-to-face offers the most communication and interaction cues.

Some technologies are so advanced that they don't require a human teacher anymore. By now it is possible to receive a university degree by taking only Internet classes. However, for the public speaking environment this online scenario does not seem beneficial. Technologies can be used to add more depth and breadth to a topic (McGrath, 1998). Research has shown that students are exposed to intellectual environments online, but "it remains unclear how much demand there is among students for an alternative to the traditional classroom" (Althaus, 1997, p. 158). The Internet can not replace human speech, it can only copy it.

Used by Students for Research

One example of students' use of Internet technology is the opportunity to do research. Information is widely accessible online to both print sources, such as print journals online, and strictly cyber-sources, such as bulletin boards. Using email students even have direct access to first-hand information (Wirths, & Bowman-Kruehm, 1995). One problem with online information is the question of credibility and reliability. Instructors need to alert students to be even more critical of sources they intend to use for speeches. The fact that anyone can put anything online is both the greatest strength and the greatest weakness of the Internet.

Personal experience with online research by students is mixed. Many universities organize library tours including training sessions of the library online catalogue for students in the basic course. Students can familiarize themselves with online search techniques on both computer catalogues and online search engines, such as Google, Yahoo or Lycos. If the library session is held in the library, rather in a computer lab to only explain online catalogues, it helps to explain to students how to locate a journal physically in the library, and how to use other sources such as Microfilm and Microfiche. In one class where I explained only the online catalogue system and online search engines without taking students to the library, students seemed to enjoy the lab session and completed their practice assignment. While the semester went on, though, students often relied more on solely online sources such as websites, or on popular magazine sources instead of journal articles or published book material. As their instructor, this puts me in a difficult situation. If students reference a journal
I am not familiar with, I can still make the assumption that this source has a minimum of credibility because each article had to pass certain minimum criteria for publication. Online websites do not provide this guarantee.

Lessons Learned

There are two major lessons that can be learned from this review of technology for the public speaking classroom. First, instructors need to be taught how to use technology before they begin incorporating technology into their classrooms. This training should go beyond simply explaining software and/or hardware. Technology issues need to be addressed, such as the impact of media on students? perceptions, attention spans, etc. Just like each class exercise has its purpose, each technology used in the classroom should have its own purpose. “Why do you use a PowerPoint presentation instead of transparencies or the blackboard?” If instructors cannot answer this or similar questions satisfactorily, they should not use technologies in their classrooms. Technologies do not make instructors or their lectures better. Instead, a good instructor will be able to use technologies as a tool to enhance an existing quality lecture. Then, in a second step instructors need to train students. At this point we cannot assume that all students are technologically fluent. An instructor should not require the use of, for example, PowerPoint without tutoring the students on the use of the program. Since most syllabi currently do not offer time for such a lab session, certain changes will be necessary in the future if such requirements or expectations will become more prevalent.

The second lesson learned goes hand in hand with the first one. Ideally, “technology promotes cooperation and collaboration among students and good teachers can capitalize on these opportunities” (McGrath, 1998). The combination of technologies with traditional teaching methods will bring about the most desired results. To a certain degree many instructors are already doing this by video taping speeches or showing video clips. Many instructors require their students to have an email address and send out announcements on a regular basis. This forces students to take a step into Internet technology, which later will facilitate the apprentice of other Internet technologies. At this point, some students may know more about certain technologies than their teachers. In that case, instructors should encourage these students to share their knowledge with the class. Most likely, this trend will continue as students increasingly are exposed to technology from a young age on.

It has been under discussion to require public speaking students at my university to use at least one PowerPoint presentation during the term. Though the advantages are many and apparent, at this point I would discourage this requirements for my university. Not all student are ready, and though the idea of techno-illiterate college students may be sad, it is not the purpose of the public speaking course to teach computer or presentation software. Public speaking has been taught effectively without technologies for thousands of years. We do not lose from teaching it the traditional way with limited technological addenda for a few more years.

Conclusion

Computers are neither panacea nor panopticum. They don’t solve problems deriving from bad teaching. Neither do they lead to the disappearance of the teacher in the speech classroom. Computers have already changed communication in the classroom and will continue to do so, but they do not diminish the teacher’s presence (Carter, 1995, 24). Especially in domains such as public speaking courseware cannot substitute for the experience of learning from the successful classroom teacher, for the experience of giving speeches in front of live attentive classmates, or for the experience of careful, thoughtful discussion following the speech? (Vest & Tajchman, 1995, pp. 15-16). Technologies should not be added on or substituted for anything in the public speaking classroom. Instead, they need to be integrated, which takes time, effort, and experience. When instructors note that students begin to use computers with ease and creativity (Dockstader, 1999, p. 73), technology has become a natural part of their interaction. At that point students are ready to use
this technology themselves during speeches. At that point also, the use of PowerPoint or similar presentation software is encouraged for the public speaking classroom. Until then, in my public speaking class, a well-designed and presented poster board will do just fine.

References


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Author Identifications

Lorin Basden Arnold (Ph.D., Purdue University) currently teaches in the Department of Communication Studies at Rowan University in Glassboro, NJ. Her course responsibilities include Public Speaking, Public Speaking for the Reticent Student, Interpersonal Communication, and Senior Seminar in Communication Studies, among others. In the classroom, she is particularly interested in assignments and projects that facilitate student’s critical thinking and self-reflection processes.

Philip J. Aust (Ph. D., University of Oklahoma) is Assistant Professor at Illinois State University where he teaches Organizational Communication, Group Communication, and Research Methods. His research interests include organizational and group leadership, development and maintenance of identity, and communication ethics and values.

Ellen B. Bremen (M.A., University of Nevada, Las Vegas) is Instructor of Speech at Darton College in Albany, Georgia. She teaches a wide range of undergraduate communication courses and focuses much of her curriculum on workplace application. Her research interests include communication across-the-curriculum, workforce communication, integration in non-speech courses, teaching with technology, and service learning.

Ulla Bunz (Ph.D., University of Kansas) is Assistant Professor in Mediated Communication in the Department of Communication at Rutgers, The State University of New Jersey. The experiences described in this essay result from four years of teaching as a Graduate Teaching Assistant in the Department of Communication Studies at the University of Kansas.

Heidi A. Burns (M.A., Iowa State University) received a B.A. in English and a B.A. in Spanish from Dickinson State University in Dickinson, SD.

Dacia Charlesworth (Ph.D., Southern Illinois University at Carbondale) is a faculty member at Robert Morris University. She is the author of over forty articles, book chapters, and conference papers. Her primary teaching interests include the basic communication course, communication and gender, and persuasion.

Marla Del Collins (Ph. D., New York University) earned her degree in Arts and Humanities in Education with a Teaching Fellowship in Speech and Interpersonal Communication. She specializes in student-centered learning, drama in education, general systems of evaluation, international negotiation, and gender communication.