

Distance Learning – Don't Forget the Pedagogy

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Abstract

Interactive-television, Web based instruction, computer assisted instruction and any other method that provides education at a distance or uses technology in the classroom are the buzz words of the day. Chunking, the dividing of material into useful parts that stand-alone, is a term that regularly enters conversations in the distributive learning arena. Organizations are spending large sums of money to make the technology work; the concern is the pedagogy. What is being delivered? What are the desired outcomes of the delivery and the delivery method? What is the best way to involve higher order learning skills? This paper will illustrate the pedagogical needs of technology as a teaching tool.

I. Introduction

The provision of distance educational opportunities is not new. The correspondence course and the broadcast of televised classes with interactive sound have been around for some time. The value of the correspondence course can be questioned as it provided knowledge and the learner was totally responsible for learning the material. The learner was evaluated via a test that was graded by an unknown instructor and returned with comments that reflected the only contact with a real person.

Inviscid Fluid Aerodynamics was an excellent course taught by a superb Professor. It was televised to neighboring communities with interactive voice via telephone connections. The instructor was very organized and did a wonderful job including the students that were at a distance. The lectures were complex for all of the students, as were the exams. The success of the course rested with the excellence of the Professor, a Professor who was highly rated in every class taught. That was in 1978 and technology has developed rapidly since then.

Current distance opportunities include video conferencing, interactive computer video, a myriad of software programs, and Web and Internet connections that allow instant access to material, day or night. Professors provide syllabi, notes, homework solutions, grades, excerpts from books, and hyperlinks to “connect” learners to the course material. Students can receive the whole course without leaving their dorm, their home, or their office, except for the occasional exam; and the exams can be computerized as well. Communication is not a problem because the whole class can meet without traveling and instructors are immediately accessible via e-mail or chat rooms. Convenience is important because of student needs and for economic reasons.

Even college classrooms are fitted with the latest multimedia equipment to allow for the use of technology in much the same way as distance learning is envisioned. Aside from the possibility of technical problems, the question to be asked is: will the desired learning modes be satisfied? If not, what is the impact on the learning? What are the limits on learning to have an effective course? Finally, when does the pedagogy fail?¹

II. Learning

Inviscid Fluid Aerodynamics was a great course because the Professor was excellent. Those in the broadcast studio were exposed to a learning environment that was different, but the course was well designed and well delivered. “What improves learning is well designed instruction.”² That was the case in 1978 and is even more important now. The fact that the class was being broadcast did not impair the learning; the methodology and the learning were seamless. The Professor was a master.

Pedagogy is “the science or profession of teaching; also, the theory or the teaching how to teach.”³ Pedagogy therefore, can be considered the study of the profession of teaching. It is the development of the learning environment and the practice of methods that provide that learning environment. The practice of good teaching has been the subject of many books and countless articles. One such article was the *AAHE Bulletin* that contained the “Seven Principles of Good Practice in Undergraduate Education”.⁴ The seven practices are:

1. Good Practice Encourages Contacts Between Students.
2. Good Practice Develops Reciprocity and Cooperation Among Students and Faculty.
3. Good Practice Uses Active Learning Techniques.
4. Good Practice Gives Prompt Feedback.
5. Good Practice Emphasizes Time on Task.
6. Good Practice Communicates High Expectations.
7. Good Practice Respects Diverse Talents and Ways of Learning.

Armed with these and some fundamental presentation and interpersonal skills a professor is on the way to being the master that taught in 1978.

The good practices focus on the learning environment. It is important to determine who is learning, and what level of learning is satisfactory. When applying the good practices and developing the pedagogy, much should be considered. “The approach taken to creating a teaching and learning environment has a clear dependency on the subject being taught, the characteristics of the student community being addressed, and the requirements of the individual students.”¹ Consideration of the learning community is of great importance and the results of teaching the community outside its comfort zone can be disastrous. Communities vary from traditional to non-traditional, full-time to part-time, two-year to four-year, and the myriad of learning styles of the individuals within the communities.

Learning and teaching have been accomplished using many methods. The lecture has been the subject of years of concern, yet it survives. Whole teaching societies such as the International Society for Exploring Teaching Alternatives have been examining ways to move from the lecture to other methods. The Society for Teaching and Learning in Higher Education has an active listserv that discusses the best practices in learning. Collaborative learning, cooperative learning and experiential learning are important parts of contemporary teaching. These are often discussed with questions still appearing as to the best way to incorporate these methods into the classroom. Considerable success has been reported, as have been many failures. Distance education and the use of technology are being rushed to the classroom for many reasons. One that is held high is the need of the students, but there are others including economic ones like

“Write Once – Distribute Everywhere”.¹ Where are we in the development of the pedagogy to support this new learning methodology?

III Don't Forget the Pedagogy

“..we first use new technology in old ways.”⁵ It is a common sequence as the new technologies are introduced to use them the old way. Notes are converted to overhead slides, slides to PowerPoint, and PowerPoint is placed on the computer to form the basis of distance education. No more old yellowed paper notes but - the same old material. The same material developed for one medium and presented via a new medium.

The new medium can be any level of technology; however, distance education may require the most study because of the lack of contact between students and teachers, learners and facilitators. In “Implementing the Seven Principles, Technology as Lever”, it is clear from the beginning that technology is a tool. “Faculty members who already work with students in ways consistent with the Principles need to be tough-minded about the software- and technology- assisted interactions they create and buy into. They need to eschew materials that are simply didactic, and search instead for those that are interactive, problem oriented, relevant to real world issues, and that evoke student motivation.”⁴ Student motivation is one of the most important factors to academic success. Poorly developed instruction can reduce motivation. So, is it the technology or the professor that causes this loss of motivation? Essentially it is the lack of pedagogy: an instructor problem.

The issue of teaching with technology is not new; although the explosion of technology is accelerating the rate of implementation of technology in many forms. Wankat⁷ provides a list of guidelines for the successful use of technology based on a 1977 study. These include:

1. Plan use for a specific audience.
2. Define objectives which are relevant to the audience.
3. Pick a technological medium and a teaching method which are appropriate to the topic.
4. Pick educators interested in using the technology.
5. Plan for personal interaction, particularly among students.
6. Monitor the course and change materials and methods as appropriate.

Wankat adds that technology and teaching method can be interchanged, an interesting observation.

The Australian National Training Authority (ANTA)² indicates that technology is coming before pedagogy. “The value of any technology for education is proportional to the needs for that technology to realise educational objectives. We are constantly reminded that learning must be developed around learning needs, meeting educational objectives and producing viable graduates. However, at this stage of development, the effort put into exploring technologies to ‘keep at the cutting edge’ is at the expense of equal investment in the underpinning educational design.” Further, there is an argument that repackaging of lecture handouts to satisfy technological media is not the type of redevelopment necessary to effectively use the technology.

The guidelines provided by Wankat seem out of place until they are viewed as the underpinning of a pedagogical study of the audience and the best practices for reaching that audience. Preparing that distance education session requires study and knowledge of the community receiving the instruction. It requires knowledge of best practices and a sincere effort to make the distance event like the classroom on campus. A similar discussion addresses large classroom situations; distance education is a large classroom although often not filled with students. ANTA supports the assertion that the steps are important; “Teachers who are applying good instructional design principles to online learning are likely to have been the ones who have always done so regardless of the medium”.²

Pedagogy is “the science or profession of teaching; also, the theory or the teaching how to teach.”³ It is important that the pedagogy is included in instructional design and that professors spend the time to learn about the medium and develop the pedagogy rather than repackage the old yellow notes.

IV. Summary

Good teachers teach well regardless of medium. Good teachers investigate the pedagogy of the medium and work to ensure that learning is being accomplished. The best practice can be a lever with the use of technology. Technology is a tool, not the solution to learning. The pedagogy of distance learning is lagging behind the technology. It is important that pedagogy and technology be developed together to ensure the maximum learning experience is available to students.

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