

Focus Paper written by Julie Lindsay for the Education Technology Leadership MA degree with the George Washington University.

Topic: The Internet: I'm sure it must be an effective tool for teaching and learning but let me check the research....."

My Position

The Internet will not revolutionise education nor will it live up to its educational potential if 'blind' surfing and lack of involvement in learning is the condition of the classroom. Recent research on the efficacy of Internet use has been marred by a lack of definitive large studies on integrated uses of technology. This is largely due to the technology changing faster than educators can complete controlled research. As David Wizer (audio tape #4 , Wk.3) stated, we are making assumptions about the Internet being an effective tool for teaching without foundation research. As Fulton says, "Clearly the question of technology effectiveness requires us to be clear in what results we seek, how we measure success and how we define effectiveness." The real question for educational technology is not 'Does it work?', rather it's 'When does it work and under what circumstances?'

Supporting Evidence

A detailed study by Becker asked teachers about the value of the Internet. Nearly 50% saw as 'essential resources', having a computer station with email as well as WWW access in their classrooms. One out of three regarded the Internet as an essential teaching resource. According to findings by the ISTE, the Internet plays four roles in school improvement and reform models: as a digital library, for communication, web page development (hypermedia), and IT assisted PBL (project based learning). But will the use of the Internet help create the type of students and citizens we want? There are major concerns and considerations for educators in areas such as potential access to inappropriate people and information, the time needed to master the technology and the ongoing 'digital divide' issue. Technology is seen as part of broad-based education reform. At the same time the role of the teacher in the classroom can determine the effectiveness of using the Internet. The ISTE reports that "The Internet provides students and teachers with improved access to people and information....underpinning significant changes in curriculum, instruction and assessment." Studies on different types of computer use make different assumptions about teachers roles in a computer-using classroom (Kirkpatrick and Cuban). Most studies have focused on CAI and CMI, both de-emphasising the teachers' role in helping students learn. Few studies have focused on CEI (computer-enhanced instruction) where the teacher is considered essential to the learning process. The constructivist learning trend is relatively new and technology has been used to support it only in the last few years. Using the Internet in the classroom can create a synergy with constructivist teaching method. As Firek states, "... technology has given us more tools than ever before to encourage students to create their own knowledge." The ACOT (Apple Computers Of Tomorrow) project, a ten year study of computers in the classroom, found benefits assigned to students such as becoming independent learners and self-starters, working cooperatively, expressing positive attitudes towards the future and representing information in a variety of forms.

Conclusion

There is no doubt the Internet is a powerful tool for communication but its ability to reform education has yet to be seen in terms of documented research. As to its effectiveness in improving teaching and learning in the classroom we need to look at the technology in context (Honey) in that technology use is mediated by such factors as classroom organisation, pedagogical matter and socio-cultural factors. If the vision for all students is to promote higher level thinking, problem solving and better communication skills the role of the teacher may be a determining factor in the effectiveness of using the Internet.

Resources:

- Becker, Henry Jay (February 1999). Internet Use by Teachers: Conditions of Professional Use & Teacher-Directed Student Use. [Online] Available <http://www.crito.uci.edu/TLC/findings/Internet-Use/Startpage.html>
- Firek, Hilve (2000). Constructing Knowledge in Today's Interactive Classroom. [Online] Available <http://www.suite101.com/article.cfm/6833/38063>
- Fulton, Kathleen (July 1998). Kathleen Fulton on Evaluating the Effectiveness of Educational Technology. [Online] Available <http://millennium.aed.org/fulton.shtml>
- Honey, Margaret (1999). Perspectives on technology and Education Research: Lessons from the Past and Present. [Online] Available <http://www.ed.gov/Technology/TechConf/1999/whitepapers/paper1.html>
- ISTE Research Reports: Research on Internet Use in Education (1999). [Online] Available <http://www.iste.org/research/reports/tlcu/internet.html>
- Trotter, Andrew (1997). Taking Technology's Measure. [Online] Available <http://www.edweek.org/sreports/tc/intros/in-n.htm>
- Viadero, Debra (1997). A Tool for Learning. [Online] Available <http://www.edweek.org/sreports/tc/class/cl-n.htm>