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Distance Learning:
Computers and the Internet are Changing Education

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Distance learning has been a popular form of adult education for many years. Correspondence courses by mail, prerecorded class sessions on videotapes, and televised courses on instructional television channels are educational alternatives for adults who cannot return to the classroom because of time constraints or who simply do not want to return to the classroom for personal reasons. Recently, many companies, colleges, and universities have been experimenting using video conferencing and the Internet as tools for instruction (Eddy, Burnett, Spaulding, & Murphy, 1997; Sedlak & Cartwright, 1997)

Distance learning has been an alternative method of adult education and has worked well for those who choose to learn that way. Some believe it would be an effective and less costly replacement for the traditional classroom at all grade levels. Students could then have an individualized education based on their interests at a pace that works best for them. They could learn in the comfort of their own homes, at a recreation center, or wherever they choose. They could learn in the morning, afternoon, evening, or in the middle of the night. They are in control (Snider, 1996).

Others believe that virtual classrooms should not replace traditional classrooms for most students. Most students will not be motivated to learn without the physical presence of a teacher, or, even if they are motivated, they may not know what they want to learn. Another disadvantage is the gap between the students from low socioeconomic backgrounds and high socioeconomic backgrounds will widen as the “haves” get the newest and best technologies and the “have-nots” get the old, obsolete machines the “haves” discarded (Postman, 1995).

People debating issues such as this one tend to support one side or the other. They tend to see one side as perfect, while the other side is detrimental. However, the best solution is integrating distance learning into the traditional system so that all students benefit from both learning environments.

Pros

Distance learning on the Internet has many attractive aspects. It is cost effective for schools and convenient for students. The best teachers will thrive, while less effective teachers will either meet expectations or leave the teaching field. It also increases curricular program possibilities and encourages communication between students, teachers, and other experts. Students at all age levels can benefit from virtual schools.

Attali, Dyson, & Burda (1997) and Eddy, et al. (1997) assert that distance learning can be cost effective. Schools would no longer need to maintain large buildings and pay heating and air conditioning costs. More materials would be supplied by the parents and students themselves so educational institutions can focus on the education of students rather than materials and building maintenance.

Distance learning is more convenient for students. Students can learn in their own homes or wherever they wish. They do not need to ride a school bus or walk to school. They can learn at their own pace without the pressure of keeping up with the rest of the class (Eddy, et al., 1997).

They can choose who they want to teach them, even if that person lives in another state or country. This is especially attractive to parents who are ambassadors or missionaries or when children's illnesses or disabilities prevent them from attending school (Berman & Tinker, 1997).

Gilster (1997) asserts that the best teachers will thrive on the Internet. They will be able to communicate to their students through e-mail, chat lines, video conferencing, and other electronic forums. The Internet provides them with many media forms to captivate and instruct their students. They can teach when they wish and allow students to learn when they want.

Asynchronous communication, communication that does not require the sender and receiver to be present at the same time, accommodates different schedules, time zones, and requires less sophisticated equipment than synchronous communication. Asynchronous communication includes e-mail, newsgroups, listservs, and discussion boards. Synchronous communication includes video conferencing, live chats, and real video. Both forms of communication are useful in virtual classrooms and teachers can decide which would be best for their students.

In addition, Berman & Tinker (1997) state that virtual schools can increase curricular possibilities, especially for advanced or specialized courses. Traditional schools may not offer courses because there isn't a student demand for a course. If only a few students at a school wish to take a class, the administration is unlikely to hire a teacher and get course materials for those few students. However, if there are 20 - 30 students in the district that wish to take a course, the administration may approve the class.

Virtual schools can allow more flexibility in bilingual programs. District, county, or state-wide programs could offer instruction in the primary language of the students if there is a teacher who speaks their language. The students would not need to be transported to the other school; instead, they would receive instruction via video conferencing or the Internet.

Virtual schools can offer technology-rich instruction about multimedia technology. Classes on publishing on the internet, Internet collaboration on science projects, or doing research on the Internet could teach students how to use technology to learn. They actively learn how they can use the Internet as a tool for publishing, research, collaboration, and pleasure.

Finally, distance learning encourages communication between students, teachers, and experts (Berman & Tinker, 1997). Students, especially those who are less vocal, will benefit from the more casual atmosphere. Classroom discussions which take place asynchronously will allow students to think about and process what they wish to say. The quick responders are not the only ones involved in the discussions. Also, since students are allowed more time to think about and ponder the subject matter, discussions can lead to deeper thinking and insights.

Teachers can also consult with one another and with experts. They can learn from the experiences and expertise of other adults as well as share their unique abilities. Teachers have always relied on fellow teachers for ideas, but on the Internet they potentially have thousands of teachers and experts to consult with. Teaching can become a team activity, and students will reap the benefits of having a wide variety of specialists involved in their education.

Lastly, students can consult experts directly. Students can converse with the experts their teachers consult or can find others on the Internet. For example, The MAD Scientist Network (<http://128.252.223.239/~yp/MSN/>) and Pitsco's Ask an Expert (<http://www.askanexpert.com/>) answer students' questions on a variety of subjects. They post answers to previously asked questions on their Web pages so that other students can see what has already been asked. These Web pages become resources that students can refer to as they search for answers to their questions or may spark their interest in subjects they did not know about.

Cons

Opponents to virtual classrooms use present situations to predict the future of education. They present disadvantages that supporters must address to insure quality education for all. Their arguments focus on three realities, the imbalance of power and wealth, the characteristics of students, and the importance of a social education.

On a survey of classrooms, Krashen (1996) found that the technology in schools is seldom used since it is obsolete and the software is ineffective and boring. If society eliminates schools and parents are required to purchase the equipment students need to get on-line for their education, many parents would not be able to afford the monthly Internet fees, let alone the computer equipment. Donations may not include enough of the more sophisticated equipment necessary for on-line classes.

A valid argument not mentioned in this literature review is that the elimination of schools will cause child care problems for working parents. Parents will need to find and pay for all-day child care, not just for after school and holidays. This will place a heavy financial burden on the parents and may make it financially impossible for both parents to work.

Another concern is that students may not be motivated to learn from a remote teacher. Eddy, et al. (1997) admit that some students may need direct student-teacher interaction to build rapport with their teachers in order to learn from them. They need to have an emotional bond with their teacher. A remote teacher cannot give students pats on the back or hugs for a job well done. They may try to convey these same messages to their students, but words cannot accomplish what human contact can. Students who thrive on personal contact will not do as well if they spend their entire school career in a virtual classroom.

Opponents of virtual classrooms are also fearful that students of virtual classrooms will not exercise their whole body and five senses to learn while they are sitting at a computer (Eddy, et al., 1997). They picture students sitting at computer screens passively learning. All of their spontaneity and creativeness is stifled as they watch preprogrammed material flashing before their eyes. They are afraid that students will not be exposed to real experiences as they vicariously experience situations on a computer screen.

Finally, they are fearful that students will not be able to live in a society or learn social norms (Attali, et al., 1997). Part of their education is learning to live with others. If they do not go to school with other students, they will not learn how to socialize with other people. Attali, et al. warns that “tribal violence will once again become the rule” and that “solidarity can only be a facade” (p. 24) in a society that raises children apart from one another.

The Future Educational Environment of M. E. Barr

Technology will not replace teachers, nor will virtual schools eradicate traditional schools. However, teachers will use technology to transform their own teaching practices and curriculum so their students learn through real and virtual experiences. Students at all grade levels will have the opportunity to learn in both traditional and virtual classrooms.

Younger students will spend most of their time in traditional classrooms, but will participate in Internet science projects where they collaborate with other schools to conduct research and analyze data. They may have contact with a scientist if one is on-line. They may also have e-mail penpals that live in countries they are studying or reading about. During this time, teachers will familiarize students on how to use the computer as an educational tool as well as how to use traditional tools of education.

Upper primary school students will still spend most of their time in traditional classroom and participate in the Internet activities they did as younger students. However, they will also learn how to do traditional types of research as well as research on the Internet. Teachers will teach them how to use search engines and evaluate the information they obtain from research.

In junior high and high school, students will have the opportunity to take traditional and virtual classes. The school will have computer labs for students who wish to take their virtual classes on campus. Students will also have the option of taking their virtual classes at home or other location. Students in virtual classes will have the potential of meeting and interacting with others in a different state or country.

In college, students will have the opportunity to participate in on-campus classes, on-line classes, or a combination of both. On-line classes will allow students more flexibility to be employed while studying for a degree. They will also allow students to attend distant schools without moving or commuting long distances.

Conclusion

People tend to try to make decisions black or white, when neither black nor white is the best solution. Some students will find that they learn best in the traditional classroom, and that is where they should learn. Others will find that the virtual classroom is the best environment for them, and they should have that option. Still others may find that they enjoy learning in both environments, so they should have the freedom to choose the one that is most convenient for their current situation. Students are all individuals; they all learn in unique ways. In this world of compromise, concerns of both sides are addressed and dealt with in an impartial way. And, the winners are the students.

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