

### **Assignment 3 Discussion - Making a Difference with Technology**

Evaluate the critical role(s) that you think computers play in education today. Consider areas where technology may be lacking, under or over-represented. Substantiate your findings with examples.

Computers have altered the fashion of doing our daily activities such as shopping, reading the news, communicating with family, etc., which has made these activities more productive and efficient to do. Similarly, a critical role of computers in schools has been as a productivity tool, facilitating the responsibilities and tasks of schools' administrators and teachers in a productive and efficient fashion. Johnson (1996) stated that schools first use of computers is to enhance professional productivity and with good results. Teachers are using computers for record keeping, monitoring students, creating course materials, delivering course content, improving communication, acquiring teaching skills, and many other purposes that will help them improve their classroom practices.

Another critical role of computers in schools has been the automation of instruction where computers are used as tutors supplementing the teachers' traditional roles and functions. However, according to Johnson (1996), the effectiveness or impact of this computers' role has been disputable and expensive, which has tainted the disposition of educational leaders to continue viewing technology as useful for teaching and learning. In my developmental math courses, the computer plays the role of a tutor, which is critical for making possible my goal of changing the traditional instructional model (i.e. lectures) to an instructional model where the classroom becomes a learning resource center with the instructor and tutors available for personalized assistance.

The role of computers as a tutee has become a rare use in schools (Provenzo, Brett, and McCloskey, 2005), which it is unfortunate since computer programming promotes the skill of thinking in a logical and structured manner. Computer programming involves extensive use of higher-order level thinking skills to accomplish a specific task using the computer. Johnson (1996) stated the proper instructional use of computers in schools should be for information processing and productivity tool, so students can complete complex and authentic projects similar to those done in the real world. However, to use effectively productivity tools, such as spreadsheets and databases, for information processing require using skills that are often develop in computer programming courses. For example, students often struggle using spreadsheets since involves programming the cells with formulas. Similarly occurs when students are doing research using databases or Internet, they have difficulties using Boolean operations to narrow their searches. If we want students acquire critical thinking skills necessary in an information society then we should re-emphasis the role of computers as a tutee in schools.

## References

- Johnson, D. (1996). *Evaluating the impact of technology: The less simple answer*. Retrieved July 15, 2008, from <http://www.fno.org/jan96/reply.html>.
- Provenzo, E. F., Brett, A., & McCloskey, G. N. (2005). *Computers, curriculum, and cultural change*. Mahwah, NJ: Lawrence Erlbaum Associates, Inc.