Investing the Learning Technologies

The River Valley school board should propose a millage to fund the purchase of new computers for the middle school/ high school building. These new computers would replace the few old units in the building and greatly increase access to technology for all students. Students from all subject areas would benefit from the use of the computers. Technology assisted learning allows for individualized instruction, improves student achievement, and increases intrinsic motivation and enjoyment of learning. Computers in the classroom also allow students to tackles otherwise inaccessible real world problems and interact with professionals from around the world.

Prior to the introduction of computers to the classroom, a teacher who wished to provide instruction tailored to each student's needs would have to create materials based on the student's current level and provide scaffolding to support each individual's needs and interests. This is nearly impossible when one considers the number of students in most classrooms and the range of learning levels in students by the time they enter high school. Use of programs such as the Belvedere system, in which students use computers to explore science policy issues and are provided with scaffolding to improve reasoning skills, can help students to explore areas of interest within the curriculum. Also, immediate feedback helps teachers and students monitor progress and provide extra practice on difficult concepts

(Bransford, Brown, and Cocking, 1999).

Technology use in the classroom also helps students achieve more and increases engagement in school. One example which demonstrates this outcome is the Peabody Learning Lab, a tool for middle school learners who need help in reading. In this program the students interact with "Melvin," an animated character that provides feedback on pronunciation and reading comprehension. Students using this program have shown improvement on standardized reading tests and, perhaps more importantly, show increased confidence and interest in the classroom (Blasewitz and Taylor, 1999).

Gains have also been shown for less structured computer use. For example, simply writing in a word processor instead of with paper and pencil has been shown to increase the amount that students write and revise, and make students more proud of their work (Slavin, 2003). Investing in computers for our schools would make it possible for teachers to use these and other content specific programs to improve motivation and academic success in all students.

Another benefit of introducing computers into the classroom is that they allow students to interact with professionals and other students in investigating and finding solutions to real problems. This aspect of technology use is most widely applied in the sciences, where students can use data collect by teams all over the world and distributed over the

internet to test their hypotheses. In Global Lab, for example, students collect data about their local environments and analyze data from schools in many countries to explore issues in environmental science using the same strategies as real scientists (Bransford, Brown, and Cocking, 1999). The online community surrounding Global Lab tackles real problems and uses everyone from students and teachers to research scientists to construct new knowledge and even publish their work.

These examples are only a glimpse of the possible uses of computers in our children's classrooms. Every discipline from English to math could benefit from the use of these learning tools. Teachers will need to carefully plan the programs they wish to implement in order to make the best use of the new computers, but I am convinced that teachers can make wise choices about the programs most suited to their students. Our children will thank us for this investment we make in their learning in their test scores and love of learning.

References

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