Issues in Information Technology Education

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Abstract:
Technology can affect education in many ways. There are just as many negative points as positive. Negative points may be that the 'over' use of technology makes kids lazy, in the way they use language, which may show in class work, exams, etc. This can be a problem in their learning and can affect some students a lot. This is because of the use of I'm's and social networking sites, where children will link the use of computers in the classroom and in lessons to where they have used them at home. A positive point is that nowadays it is kind of essential that computers are used for homework, (and class work). Without computers kids would not be able to do a lot of their work, for example homework is now set to be done of different websites etc. (this can be a problem however if a less advantaged student does not have a computer, which is another thing to take into account).

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1. Introduction
Technology plays a very important role in all levels of education today. In today's world, all people need to be able to understand and use a computer. Almost every job requires the use of some form of technology. Therefore, teachers need to be using and teaching technology in every class and every subject available. Students do not learn today as they did ten or twenty years ago. Today, they are influenced by technology. There are many household items such as televisions, radios, iPods, computers and games which students use every day. So, because these items are part of their everyday lives, it is important that they learn how to use them in a productive manner. Technology enhances their lives in many ways.

2. Access
One of the major issues in information technology education is the access to and availability of technology. Many districts can't afford to equip large numbers of schools with technology; as a result, there is often a great discrepancy in the amount of technology in school districts. Some students may become skilled at utilizing technology only to discover that there is little implementation or use at the next level of schooling. As a result, students can have very different experiences with technology from one school or district to the next. Another access issue involves the availability of technology in the home. Some schools that have adequate computer access find that their students don't have the same level of technology at home. This means that it can be difficult for students to take assignments back and forth from school to home. If students don't have equal access to technology compared with their school peers, they can be at a great disadvantage. Unchecked, technology can essentially widen the gap between higher and lower-achieving students.

3. Quality of Information
Another issue in information technology education is the quality of information available on the web. While students may have access to the Internet in order to research a topic, the resources

available can be unreliable. Students may leave references unchecked, or they may have to go through an extensive review process to ensure that they are citing and utilizing reliable sources. Additionally, younger students may not be able to check the validity and reliability of sources, which can make the task tedious and sometimes unmanageable for teachers.

4. Shift in Teaching and Learning Roles

The shift in teaching and learning roles is also an issue in technology education. Teachers have traditionally been sources of information, lecturing and providing information for students to internalize and interpret. However, a classroom in which technology is prevalent means that the traditional roles of teacher and student shift. In technology-rich schools, teachers take on more of a facilitator role, which means that the computers themselves become the teachers or teaching tools. Teachers have to shift into more of a management role, deciding how and when to integrate technology into the curriculum and also modifying and differentiating assignments for individual students. Students who utilize technology often can find themselves in a more active role than in a more traditional classroom. Increased access to technology means that students may be producing more projects; projects require a presentation to showcase and explain. Also, technology projects have a tendency to be more collaborative which means more contact between students. Finally, students may be required to blog and share ideas more often since reactions and responses can be easy to complete when in front of a computer. All of these situations thrust students into the limelight much more than in traditional learning.

5. Lack of Support and Training

Using technology effectively requires great support. It requires intensive training as well as in-house technology support. In many situations, school districts can't afford to pay for full-time tech support in schools, which means that days or weeks can go by before issues are addressed. Without a quick turnaround rate on repairs and installations, technology can be rendered useless pretty quickly. If schools want to help students get the most out of computers and other technology, teachers need a lot of professional development or intense training in tech teaching and methodology. While many teachers are comfortable using computers as a research and presentation tool, many also don't understand the theories behind information technology learning. Constructivist or inquiry-based learning is the ultimate goal for technology integration. Without training in developing inquiry-based lessons, teachers may not be using technology to its fullest potential. Students should be able to learn with technology, not just from technology. This kind of learning requires specific professional development and practice to implement.

6. Expensive to Purchase and Maintain

Another issue in information technology education is the fact that computers can be very expensive to purchase and maintain. While many teachers may welcome a technology purchase, schools may not be prepared for the great expense of maintaining and upgrading them as needed. Unless schools have implemented a rolling technology plan with steps to update and funds to purchase replacements or have technology repaired, they may not be prepared for the necessary expenditures later down the road.

7. Fragmented Implementation

Technology implementation is another major issue in information technology education. While some teachers are comfortable incorporating technology into daily lessons and units, other teachers may be less sure of themselves. Because of this, students may not be using technology to increase their understanding or think critically. If students aren't using higher-level thinking skills, then they essentially can be using computers as glorified typewriters or slide show makers. Schools wanting to purchase computers for all classrooms may find that it is unnecessary to

purchase computers for everyone upon further examination. While computers may lend themselves to some content areas well, they can be a hindrance in others. Without adequate time to plan, collaborate and work with technology integration specialists or experts, money spent on computers can be wasted if the equipment is not being used.

8. Conclusion

Technology can be a huge step to the education of today's students, but then again it can be a huge distraction. One way technology is an advantage is the amount of resources students and teachers have access to and how easy it is to get it. Also learning can be a more fun experience for students encouraging them to learn more. The down side to technology is that it can be very distracting, even thought students say they can multi-task, which very few people can actually do, their brain is not working on its full potential on the work. Also information that is provided on the internet for example can be false or bias, and students often believe the information.

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