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Issues in Educational Technology

Digital Divide

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In the past referring to the digital divide meant those people who had access to technology and those people who did not. As the access and availability to technology has increased, so has the meaning of the digital divide. Most people have access to technology in their everyday lives rather it be in their personal homes, at their work, at their school, or at a public domain such as a library. The digital divide has now come to mean the level of competency a person possesses when using technology. As the new generation of students is being exposed to different areas of technology throughout their everyday lives, technology has become a way of living. The digital divide has been created because students that are living in the “digital age” are growing up in a technological world and are very literate in the operations of all different types of technology, while adults who were not exposed to the increasing technology use until later in life are not as competent with the usage of technology.

Students are greatly affected by the digital divide because most educators are not as efficient with the use of current technology as the students they are teaching. There are so many new and exciting ways for educators to teach students and empower their learning. However, many educators are stuck in the “old school” ways of pencil and paper, and drill and practice techniques and are losing the students in the process. Our society is raising a generation of students that have the need to be engaged in the learning process. They are no longer satisfied by the old style of teaching and need an educator to facilitate the use of technology for learning. These students are used to multi-tasking and having unending amounts of information available to them at the click of a button. The old way of teaching is no longer an effective method for students living in the digital age.

Educators need to become efficient with the use of the technology available in education. Teachers have to begin to “think outside of the box” and come up with new and exciting ways to empower their students to think and create. The possibilities for education are ever changing and new technologies are continuously popping up. As an educator, we must stay on top of the new ideas and technologies. Training is essential for educators to use technology in positive and appropriate ways within the confines of the educational system. Continuous professional development opportunities need to be offered to educators regarding technology in education. The students are interested in learning in new and exciting ways and educators need to step up to the challenge.

Technology has made vast improvements in special education in the field of early childhood education. There are many simple changes that can be made to a preschool classroom that can be done using basic technology. For example, children who have special needs and typically developing children will benefit from the use of a picture schedule. Children at this age and stage of development have difficulty with abstract concepts such as time. Those children who have tendencies towards anxiety or hyperactivity can become really stressed and act out simply because they don’t know what they are expected to do throughout the day. One way a preschool teacher can alleviate this anxiety for the children is through the use of a picture schedule. A teacher can use a digital camera and printer for this adaptation. Along with the printed, time schedule the teacher will display pictures of the daily routines. The teacher then posts the pictures of the routines next to the written time. The teacher can then refer to the pictures and times throughout the day and discuss what activity will come next and how the day will play out for the child. This helps the child feel more secure and aware of his daily schedule.

Another technological adaptation that can be used for children with special needs in a preschool classroom is the use of music. Music can be soothing for children and some children have a tough time calming themselves down. There are many choices for children and music. Music can be played through a cd player, a computer, or a music player (mp3, iPod, etc.). These tools can be used as a whole classroom activity or for an individual activity for a child. The music can be used to cue specific transitions throughout the day or to help calm children during quiet times.

Technologies in preschool have helped create a successful inclusive environment for children with special needs. Children without the ability to be mobile can now rely on the use of motorized wheelchairs to be involved in the group. Many playgrounds in education have been adapted to be used with wheelchairs and other physical handicaps. Another adaptation that is used frequently for preschool children is augmentative communication strategies. These are strategies that help children communicate when the verbal ability to speak is not present. There are many low technology forms of augmentative technology available. The use of pictures to make word boards is one way to help children communicate. These boards give the children a choice of various photos that can help them communicate with children and adults in the classroom. There are several online tools that have premade pictures for use on a communication board. One great example I found is [www.mayer.johnson.com](http://www.mayer.johnson.com). Another example of augmentative technology is the eye gaze board. This board allows the non-verbal student to communicate through the use of a switch. An example would be a child with cerebral palsy that cannot communicate would not have much ability to participate with classmates in the past. The eye gaze board allows the student with cerebral palsy to use the switch to independently turn pages of a story or to choose answers along with the other students in class.

There are many, many other options for use of technology for children who have special needs. These technologies create a better learning environment in an inclusive classroom and allow the students to be more successful in academics. Some of the benefits of using assistive technology are improving the student’s self-concept and self-esteem, decreasing frustration and behavior issues, increasing class participation, making learning an interactive experience rather than a passive one, and changing other people’s expectations of the child’s potential. The use of technology in the classroom is a win-win for typically developing children and for children with special needs. There are now new and innovative ways to capture the interest of children and empower them to learn and create.