Providing Support to Struggling Readers using Technology-Assisted Reading

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Struggling readers

According to the Canadian Education Association (2004) Canada has ranked first over the past 11 years on the United Nations Human Development Index in regards to low-literacy rates. Those who are most susceptible to fall within the group of low literacy are the poor, disabled persons, aboriginal people, those whose native language is not English or French and those who live in rural and isolated areas. Furthermore, due to advances in technology and demands for higher skill sets, those with poor literacy skills continue to struggle to find work which can leave them even more isolated from the rest of the population that can read. The Canadian Education Association recognizes illiteracy as a significant problem in Canada and has called for action to remedy the problem. Likewise, Aist (2002) argued that there is a need for more support for literacy development.

Wyk and Louw (2008) found that students who struggled with reading had a more negative outlook towards their education. They also found that teaching reading is one of the main challenges that teachers face and teachers often miss or misunderstand the behaviors of low-level readers as mere disobedience. In general, educators are challenged to provide constant and additional support for students who are learning to read (Blanchard, McLain, & Bartshe, 2004).

Technology-assisted reading

Researchers have recognized the impact technology can have on improving an individual's ability to read (Knezek & Christensen, 2007). Technology-assisted reading is an effective tool to encourage children to read and become more skilled in their reading (Juliebo & Durnford, 2000). Juliebo and Durnford (2000) reported on a study of a program called On-line Webstories for Learning (OWL) that provided students with reading support both at home and in school. OWL allowed students to work online and at their own pace. In addition to online support, OWL provided students with access to teacher support whenever needed. OWL allowed teachers to offer support either online or directly to their students. The authors noted that OWL helped children build literary concepts and encouraged them to apply their skills.

Blanchard, McLain, and Bartshe (2004) conducted a study using web-based K-12 reading sites such as www.AOL@school.com, www.Scholastic.com, and www.rif.org/readingplanet. The authors found that these sites supported struggling readers of all ages and of all reading levels. They noted that, due to the evolution in literacy development, these web-based sites offered schools and

households more choice when seeking reading instruction. Web-based reading sites are becoming increasingly popular due to the simple fact that they provide additional support and practice for any reader (Blanchard, McLain, & Bartshe, 2004).

Aist (2002) found that a computer-based program called *Reading Tutor* helped children learn to read. *Reading Tutor* listens to children read sentences and corrects them whenever they make an error. The program fosters visual, auditory and kinesthetic learners. Aist concluded that "…the help that the *Reading Tutor* provided balanced the student's immediate goal of reading the word or sentence with the longer-term goal of helping the student learn to read" (p. 151).

Voogt and McKenney (2007) examined the effect of a technology-supported environment called *PictoPa*l on the development of literacy and communication skills of kindergarten students. They found that *PictoPal* helped children in the areas of reading, writing and authentic experiences. Overall, Voogt and McKenney reported that "…regular and frequent use of technology can have a positive learning effect on literacy development in 4-5 year olds, at least in cases where adult facilitation is present" (p.93).

Obstacles to technology-assisted reading

Wyk and Louw (2008) reported that many educators have reservations regarding the use of technology to foster literacy development. They found that lack of technological skills poses a problem for some learners as they may find it difficult to achieve their educational goals. The authors also found that assistive technology does not remedy or eradicate the learning difficulties associated with reading. Instead, technology-assisted reading provides extra support and instructions to those learning to read. Technology-assisted reading does not provide face-to-face feedback; however, it does provide teachers with the data needed to help assess and support students struggling to read. Online feedback provides readers with immediate feedback which helps increase motivation and confidence. The authors argued that it is critical for teachers to choose technology assisted reading programs that will provide readers with the best chance for success.

Another obstacle associated with technology-assisted reading stems from the lack of research (Blanchard, McLain and Bartshe, 2004). Blanchard et al. (2004) noted that there are few documented benefits of technology-assisted reading programs. However, they also observed that the lack of research in the area stems from the fact that technology is always changing which makes it difficult for researchers to investigate advances in educational technology.

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