Ways Technology Supports Early Literacy

There are many benefits to using technology as a tool to support early literacy. The use of technology should be based on the instructional objective(s) being taught and should enhance children's learning. Using developmentally appropriate software and Internet resources that support instructional outcomes will provide opportunities to develop higher-level reasoning and problem solving skills. One important key to the effectiveness of technology is its interactive quality, so children get involved with the content as they manipulate the media (Farmer 1998). Multimedia allows the user to proceed as a function of his or her interest, prior knowledge, and skills. When using technology children control their own learning. Research on early reading development supports the effectiveness of the simultaneous presentation of written words and sounds for helping children's decoding skills. This resource outlines the benefits of using technology to support early literacy.

Electronic Books have many benefits for young readers, ESOL and Special Education students. Electronic books combine reading, writing, listening, and speaking as part of the development of the children's literacy skills. They help in decoding by presenting written information and spoken words simultaneously. Comprehension is supported by combining words with related pictures, sounds, and video. Electronic books provide a multi-sensory approach with related pictures, sound, and video and appeals to all multiple intelligences. They give students the opportunity to self monitor and provides them with immediate feedback. E-books enhance memory skills by presenting written and spoken words at the same time. They help readers construct mental models for information. For early emergent readers, electronic books allow them to follow along with a story even if they cannot read the text independently by highlighting words as they are read aloud. E-books also help with concepts of print and provides opportunities for language acquisition.

Word processing is a tool that can be used to help students write more and more fluently. It is a way for students to get their ideas into print without needing the fine motor skills to write letters.   The potential for collaboration is easy. Word processing facilitates easy revision without recopying and allows all students work to look important. Interactive writing using word processing allows for modeling of basic word processing skills in an authentic setting.

Multimedia applications provide scaffolding and support to young readers by offering audio word lists and text to speech capabilities. Developmentally appropriate software helps provide differentiation, allows students to work at their own pace and guides children to success (Bailey's Book House). Applications can include tutorials for enrichment, extension or remediation.   Several CDs make accommodations for different languages and allow students to hear directions in their native language but require them to read the stories and do word work in English.

Templates,which support wordwork, can be created using multimedia applications such as Kid Pix . Directions can be recorded and saved as part of

the template, which supports early readers and reinforces listening skills. It also helps students become independent. They don't have to run to the teacher for help with directions. They can listen to the directions as often as they need to. Multimedia applications can also support students creating their own books and teachers creating leveled texts to directly support their curriculum.

The Internet supports differentiation of ability as well as interest. The **World Wide Web** makes different types of reading materials more accessible to students. By copying and pasting text from the Web into a word processing program, adaptations can easily be created to make accommodations for individual children. Text size can be increased for students with visual impairments. Vocabulary can be simplified for emerging readers. Key words, concepts, etc.... can be highlighted using different colors or fonts. Text from the WWW can be brought into SimpleText and read aloud to students. Additionally, text can be translated into almost any language with the click of a button.

The **Internet's** Virtual Field Trips allow children to travel beyond the classroom without actually leaving and gives them the opportunity to learn about different cultures and gain an appreciation of diversity. **Email and websites give students authentic purposes and audiences for reading and writing.**

Digital Images allow students to record & document their experiences. These images encourage reflection and provide a springboard for discussion and writing. The pictures they take can be used almost instantly. Scanning allows students to incorporate authentic art into projects and portfolios.

Technology supports teachers' professional and personal growth by empowering them to move beyond the walls of their classroom. The WWW provides access to wonderful resources that enhance instruction. Email allows teachers to communicate and collaborate with others and facilitates involvement in different communities of learning. Technology helps teachers stay current with research and current event issues. Various technology tools help provide support for teachers to create inspiring and adaptable instructional materials.

For additional information on the ways technology can support early literacy, check out the **Early Childhood Technology Literacy Project** website http://www.ectlp.org/ It includes lesson plans, links, software suggestions, computer family night ideas, training resources and more.

The **NAEYC Technology and Young Children** website www.techandyoungchildren.org contains information, research and best practices with regards to technology and young children. Get involved by joining the Technology Special Interest Forum.

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