



THE PROS AND CONS OF CD-ROM STORYBOOKS

An analysis of research conducted on the use of CD-ROM storybooks by Pearman and Chang (2010) showed that there are both advantages and disadvantages of using this technology with young or struggling readers.

Advantages:

- The simulated read-aloud component provides a model of reading fluency, including correct pronunciation and expression.
- The read-aloud component also increases comprehension because the reader's 'cognitive energy' is not exclusively focused on decoding.
- The highlighting of the written word to coincide with the spoken word (especially when this is done on a word-by-word, rather than sentence basis) provides auditory and visual awareness of letter-sound relationships. In some programs, this is further reinforced through the choice of having the word segmented into syllables or individual sound units.
- Some programs allow readers to obtain the definition of words. A study of third graders using this feature found that they outperformed the control group in defining words.
- Sound and graphic effects increase comprehension by signalling the occurrence of an important event and support vocabulary development by linking vocabulary to pictures.
- Young and struggling readers are able control the reading process and obtain repeated assistance without embarrassment or feelings of inadequacy, leading to an increased sense of self-efficacy.
- Tracking systems enable parents and teachers to discover each student's specific areas of weakness which they can then address. These systems also provide insight into the strategies, skills and level of confidence of the reader.

Disadvantages:

- Readers do not develop their own decoding skills for either pronunciation or meaning as they continually rely on the computers to provide this information.
- Incidental animation and sound effects (i.e., those which do not advance the story line) distract the reader and decrease comprehension by taking the reader's focus away from the text.
- Competent readers often find the animations irritating especially if they have to wait for the animation to finish before being able to continue reading.
- The use of 'hot spots' which require the student to roll the cursor over the screen to activate an animation is a distraction which delays literacy development. In one study 65% of the student's time was spent searching for the hot spot rather than reading.

- Hyperlinks to games also reduces comprehension as the reader is taken to a new screen and either does not return to the story or if they do return often find that the disruption hinders their understanding of the plot.
- Young or struggling readers may not realise they have mispronounced a word or not correctly comprehended the story and this feedback is not automatically provided by the computer.

Reference

Pearman, C., & Chang, C. (2010). Scaffolding or distracting: CD-ROM storybooks and young readers. *Techtrends*, 54 (4), 52-56