

# Digital Reading:

## A Look at a Second Grade Class

by MARY F. TAYLOR

**A QUALITATIVE STUDY** was recently done with students in a second grade class examining their use of eBooks and other digital online reading materials, as well as their use of traditional print books. In the classroom chosen from the study, the students were being taught through the use of balanced literacy instruction, which includes both whole language immersion into quality literature, phonetics instruction, and writing instruction, and they were exposed to a variety of books and technology. This study looks at their preferences in format and records various learning experiences that were reflected in student behavior and survey answers.

### PROS AND CONS OF DIGITAL READING

“Digital forms of expression are increasingly replacing printed forms and there is a widespread consensus, at least intuitively, that this shift has consequences for the way we communicate and disseminate information, how we approach the task of reading and writing” (Karchmer 2001). Because students seem to love to work on computers, parents, school librarians, and teachers assume that students

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will want to learn by using computers to read. However, there is some controversy today regarding traditional forms of reading and eBooks or digital reading.

Terence Cavanaugh writes about the kinds of accommodations available in eBooks that are helpful for both struggling readers and advanced readers, including instant access to interactive dictionaries, highlighting, notetaking, adjustable text size, and audio (2002, 56). eBooks and digital websites provide varied subjects, new vocabulary, challenging and current information, and varying areas of interest for students, as well as scaffolding and “just in time” support for all students (Cavanaugh and Weber 2006, 57-59). Although Lotta Larson is positive about the possibilities of different types of texts, she acknowledges that “studies examining how students interact



with and respond to e-book texts are still few and results are somewhat conflicting.” She points to increases in desire to read when struggling readers use multimodal texts in some studies and to distraction from reading and making sense of the story in other studies (Larson 2010, 16). M. T. Jong and A. G. Bus also propose that electronic books are useful as another way for early readers in the initial stages of decoding text to experience stories. They hypothesize, however, that the success of this type of reading experience is dependent on repeated exposure to prior adult-led reading experiences with print books (Jong and Bus 2004).

Others are concerned that digital reading is too movie-like and that this type of “edutainment” and “eye candy” has been associated with poor reading comprehension and is not the “serious play” required for real learning to occur (Guernsey 2011; Baird and Henninger 2011, 5). In fact, if the eBook program or device is not flexible enough to help



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children who do not read well, the child focuses on the technology rather than the text and loses interest

in trying to read the text (Baird and Henninger 2011, 6). Likewise, Anne Mangen expresses her concern, “One main effect of the intangibility of the digital text is that of making us read in a shallower, less focused way” (2008, 408). She argues that the clicking and interactivity of digital reading divides the cognitive attention so that reading is more easily diverted and interrupted and true immersive reading that seeks the meaning of the text is not as ideally attainable (Mangen 2008).

Although they are not against students reading digital texts, Yoram Eshet-Alkalai and Nitza Geri explain that the medium itself affects reading and that the design of the text must match the medium to be most effective for readers’ comprehension and retention of text information (2010).

All of these thoughts about reading, learning, digital texts, and eBooks make one wonder about the efficacy of learning using these means.

## A LOOK AT ONE SECOND GRADE CLASS

### eBOOK AND PRINT BOOKS

The second graders involved in the study were observed in the classroom and in the library while they made choices about and read traditional books, eBooks, and digital information online. The students also completed a survey to measure attitudes towards standard books, eBooks, and online reading resources.

Some of the most interesting findings were produced by the survey. When asked, “What do you like about reading a book?” student answers were related to their motivations and personal feelings: enjoyment, gathering information, and their own learning.

When asked, “What do you like about working on the computer?” student answers revealed their beliefs that computers are fun or interesting, with several references to computer games, even though games were never mentioned in the survey. These second graders liked using the computer as a reference tool to research and to find books in the library. One student liked computers because they allowed him to type. Only one student stated that reading eBooks was what he liked about working on the computer. For these students, computers were associated

with fun games or research and productivity tools that allow personal involvement and choice as they learn and find information interactively.

When asked specifically about eBooks, the associations of fun and engaging choice on the computer carried over to eBooks as well, but were not exclusive of regular printed books. The survey results also indicated that more than half of the students preferred reading books from the library, a standard book format, but they also liked the computer for digital reading when they were looking for information and enjoyment.

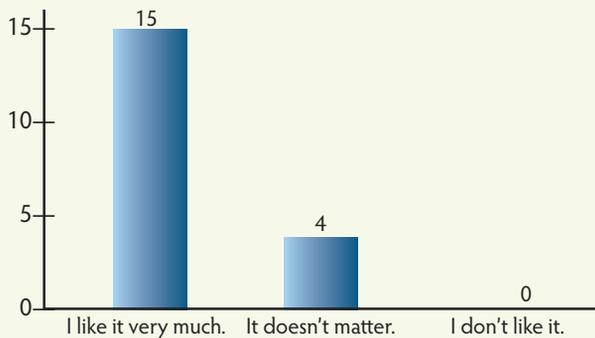
Looking at the graphs (see Figures 1-5, page 13), it seems that while most of these second graders liked reading a book from the library and an eBook on the computer, about a third more students preferred reading a print book from the library on their own rather than an eBook on the computer screen. Some students liked the added audio support many eBooks offer. Interestingly, no student chose reading an

eBook by himself or herself on the computer without audio. Perhaps a correlation exists in some students' minds between eBooks and listening support. Finally, in the graphed responses, the computer seemed to be the most desired source when asked about "reading and learning." Students seemed to consider digital reading as a source of information and discovery. The motivating factors for reading both standard books and eBooks or digital texts seemed to be mainly for enjoyment, interesting information, and learning support.

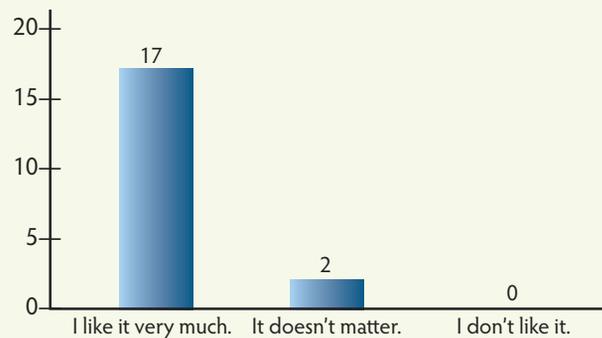
## SHARING TEXTS

While observing students, several recurring learning experiences were recognized—both with standard books and also with eBooks. The students enjoyed sharing their reading experiences with library books, but also tried to do the same with eBooks even though they were at individual computers with individual headphones. These students seemed to learn by discussing, experiencing, and sharing in a learning community. This noted desire to share texts was obviously more difficult when students tried to share using different

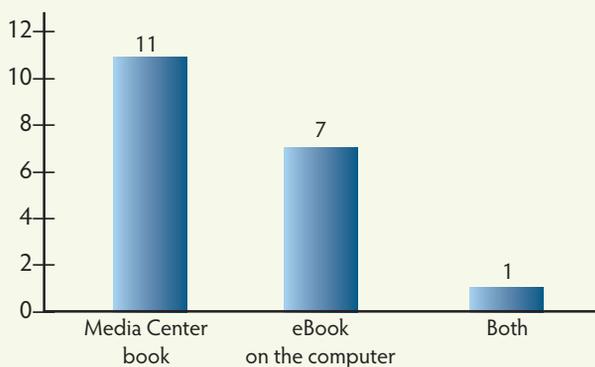
**Fig. 1. How much do you like reading books on the computer?**



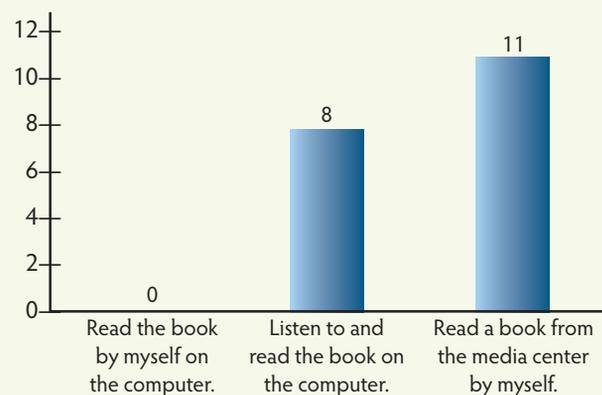
**Fig. 2. How much do you like reading a book you have checked out from the media center?**



**Fig. 3. If you had a choice of what you could read, which would you choose?**



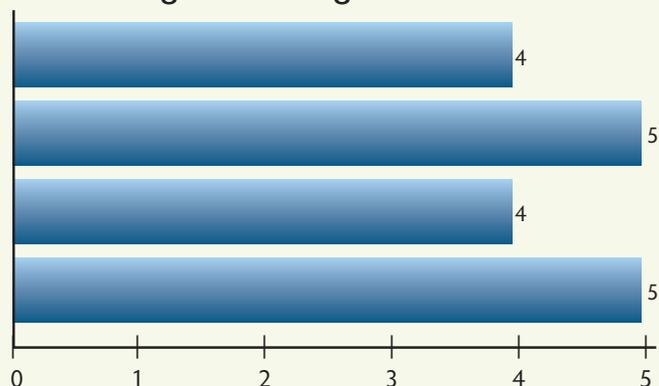
**Fig. 4. I remember and understand best what I have read when I ...**



**Fig. 5. Which statement tells how you feel about reading and learning?**

- I like exploring the information in the Online Encyclopedias and eBooks on the computer.
- I prefer finding a book in the media center so that I can read it wherever I want.
- I like being able to listen while I read because I understand more.
- It is easier to find information by reading it on the computer.

\*\*One student circled all four of the above.



computers. However, eBooks, even computer-viewed ones, seemed to encourage and motivate struggling students in the sharing and learning process because eBooks and digital text enable struggling readers to enter into reading and shared learning conversations that they would miss without technical accommodations afforded in this environment (Pearman 2009).

## FLEXIBLE SPACES

These students also loved to read in different positions and places. In the classroom, students were observed sitting on the floor, lying on their stomachs, or leaning across desks. With the computers, there were limits to the ways they could read. L. Larson writes: "...when reading on laptops or desktop computers, readers often express physical discomfort or say they miss the feel of 'snuggling up' with a real book" (Larson 2010, 20). The students in this study, even though it was inflexible, liked reading and sharing on the computer as well as with traditional books. Students could actually scaffold their own learning for themselves with the text-to-speech eBooks and pop-up definitions.

## AUDIO SUPPORT

Another interesting tendency observed, which correlated with the survey results, was that most students preferred to listen to text speech as they read assigned eBooks on the computer rather than reading digital texts without sound. A few students chose to read without audio support, when given the opportunity, at their own pace, and when this occurred, students usually scrolled over words to read their definitions. In both cases, students chose electronic support to scaffold their reading experiences. If students were assigned to read and to write about an eBook, without audio support, they would skip the assignment and choose later to return to it when allowed the audio function. All students used the sound and text on the screens for self-scaffolding at some point to help with their reading and writing responses. Because of the speech to text audio support, all students could discuss the eBooks with everyone in their class, which would have been impossible for some without this accommodation.

## TEXT ONLY

However, when no audio support was available and while reading for information during a webquest about Cherokee and Creek Natives Americans, several students, regardless of reading ability, missed answers because they read only the words with the pictures. Eshet-Alkalai and Geri found that students preferred using short reading pieces on the Internet for information and more extensive reading through traditional books (2010). "The PC as a reading device for straight text generally works best for short passages" (Abrams 2010). Similarly, this behavior gives credence to Mangen's ideas that

digital reading is more surface reading (2008). These second grade students wanted the answers to be quick and obvious rather than having to read paragraphs on the webpage to find them.

## IN CONCLUSION

The results of the study of this group imply that both reading traditional books and eBooks can be a part of balanced literacy instruction that advocates a variety of reading experiences (Larson 2008; Pressley 2006). eBooks are an innovative way to motivate students and create excitement about reading (Grimshaw, McKnight, and Morris 2007). However, in this case, one size does not fit all; it provides evidence that a balanced approach to literacy provides a variety of text mediums in order to differentiate according to student interest and need, as well as to maximize student learning.

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