

A Research Spotlight on Reading and eBooks

Feature

Setting the Stage

A recent opportunity to do some people watching in a Chicago airport prompted a few field notes about humans and eBooks:

- A baby swipes the pages of her Eric Carle board book trying to make it go forward or backward, up or down.
- The baby's sibling devours an eBook called *Big Nate Blasts Off* on his digital device.
- Mom's iPad whizzes through pages of *Primal Fat Burner*, which she chats about with probable grandma.
- Probable grandma seamlessly finds her way back to the action in *The Girl on the Train* on her Kindle, making progress for a book club.
- Down the row, tween girls, dealing with airport boredom, use flying fingers, apps, and smartphones to engage with interactive, multimodal text that embeds links, animation, game features, and video.

Proof of the pervasive presence of eBooks radiates out from Chicago to the digital world, which definitely includes school libraries. Annette Lamb has dubbed our new world a "transmedia universe" with a "new breed" of reader.

As learners arrive at schools with years of experience in digital environments, their habits and predispositions have positive and negative consequences for reading performance. Indeed, the plasticity of their brains drives the novice reader to develop new circuitry geared for digital media, not deep reading.

By putting research to work, school librarians can be instructionally and administratively strategic with the new breed of learner and the digital universe.

Data to Get the Conversation Started

Data generated by research on eBooks and reading fills the air like so much confetti. Coming from all directions, multiple perspectives abound, and research takes many forms. Gathering and clustering the bits and pieces to consolidate some big ideas can produce a sense of the core ideas—or the big questions—in this area of study. Consider the following as food for thought. Don't be surprised by contradictions. Remember Carol Kuhlthau and the chaos phase of inquiry (<http://wp.comminfo.rutgers.edu/ckuhlthau/information-search-process/>).

- Scholastic's "Kids & Family Reading Report" 2017 found that 65% of kids say they will always want to read print rather than eBooks; 16% prefer eBooks. ("Kids & Family Reading Report" 2017)
- Britain's National Literacy Trust, using an expansive survey, concluded that 52% of school age readers preferred eBooks to print. However, the same study found that those who read only in a digital environment did not enjoy reading at a level anywhere near that of those who read books. Students who engaged in frequent online reading for many purposes were identified as more proficient than those who did little online reading (Picton 2014).
- A study by the Joan Ganz Cooney Center contrasts reading eBooks and print books with young children. The study found eBook reading resulted in a lower level of recall of details. Further, early experience with digital devices and online reading predispose readers to skimming and scanning behaviors, preference for shortcuts, distraction related to multitasking, images, animation, links, and interactive features. Reading in an F-shaped sweep can be the default for digital readers seeking keywords or skimming text.
- The study also noted the pervasiveness of digital platforms for reading, rapid change in technology, and the challenges to understanding the effects of eBooks on reading comprehension. In 2014, 63% of colleges were using digital textbooks (Niccoli 2015)
- Learners with experience on digital devices are oriented to a non-linear and fragmented information landscape, according to Annette Lamb and Larry Johnson (2011).
- The *Washington Post* reported that even adults who spend extended time on digital screens read in a skim-and-scan pattern and find it challenging to slow down and read deeply due to brain plasticity (Rosenwald 2014).
- According to Maryanne Wolf and Mirit Barzillai, "The digital culture's pervasive emphasis on immediacy, information loading, and a media-driven cognitive set... embraces speed and can discourage deliberation in both our reading and our thinking." Further, "Early immersion in reading that is largely online tends to reward... multitasking... immediate information gathering and quick attention shifts, rather than... deep reflection and original thought" (2009).
- Studies by Indiana State doctoral student Jim Johnson and others counter the conclusion that students perform less well on measures of comprehension when using digital texts vs. paper texts. (Indiana State University 2013).
- Behaviors such as writing notes in the text, re-reading segments, and bringing original thinking to the text are integral to success with paper text. eBooks emulate the tools that boost comprehension in readers of paper texts. Features are now readily available for eBooks that allow highlighting, access to audio, even note taking.

Research suggests these may be underutilized. (Kwan2013).

- A cross section of research encourages the use of eBooks and digital tools to enhance the success of less capable readers and ELL readers (Gonzalez 2014).
- *Publishers Weekly* in June of 2016 noted the decline of eBook sales and the rise of digital fatigue, noting that between 15% and 37% of adults in varying age groups want to spend less time reading using digital devices (Millot 2016).

One universal conclusion is that readers need direct instruction in digital literacy and practice in the skills that result in critical thinking, deep reading, and analysis. Back to square one with the connection between information literacy and the text, however it manifests itself.

Four core questions emerge for the school librarian.

- How can a clear understanding of the behaviors of new digital readers shape a school librarian's literacy instruction and coaching?
- How do the features of eBooks provide tools for reading comprehension and motivation?
- How do eBooks motivate readers?
- How should school librarians rethink instructional practice regarding digital literacy?

Each of these questions can be matched with useful, significant, and strategic guidance for teaching digital literacy.

Needs of the Digital Reader

Digital reading and cognition need to be examined together. Deep reading for understanding necessitates the reading behaviors that digital reading discourages. Digital readers launch quickly into an information-finding mode by skimming and scanning. Eye movement often moves down a text at a pace that skips over words and segments of text. Orientation to text is non-linear with fragmentation of information driving a scoop and spit mindset. Readers seek and find rewards in a fast-paced, multitasking approach.

Plentiful distractions pull the reader out of a purposeful and linear approach to text, with images, audio, animations, links, and multimodal temptations one click away. Digital readers are wired for a fast-paced survey of texts. In terms of deep understanding of texts, their mental wiring is working against them.

Deep reading behavior is characterized by a deliberate and purposeful process, bringing prior knowledge, evaluative thinking, and synthesis to the task. Connecting details to deduce main ideas and drawing conclusions from them requires self-regulation and executive function skills that are mastered over time. Direct instruction in text types, text structures, skills for constructing meaning from text, and reading for information are key.

Takeaways

- Explicit instruction in how the brain works can foster awareness in digital learners about how their reading brains work. Mindfulness also encourages problem solving, persistence, and process skill development.
- The digital reader needs to practice and master metacognitive skills to manage, monitor, and regulate reading.
- Useful strategies to slow down and think, include think alouds, process guides, self-assessment tools, conversations with peers and teachers about what is known and what is needed, posts to a bulletin board or social media platform, reflection, and prompts that are incremental but encourage connections and development of meaning.
- The development of executive functions in the brain occurs slowly over time. Awareness of pertinent skills at developmental stages empowers the school librarian to meld cognition with reading in productive ways.
- Teaching text structures and modeling their use for research purposes combines traditional literacy and digital literacy instruction.
- Designing knowledge products that require synthesis of multiple texts in multiple formats can be the golden key to deep reading for understanding.
- Guide readers in the use of the tools in eBooks that support reading success. For example, vocabulary checks, audio options, highlighting capability, font adjustment, and multimodal points of access to content.
- Raise reading experiences to an explicit level. Question not just the progress with research but the progress with literacy. Feedback, feedback, feedback.

EBook Tools for Reading Comprehension and Motivation

Readers of paper texts enhance their comprehension by taking notes, highlighting, coding, going backwards and forwards, and paying attention to vocabulary in context. These and related behaviors require the self-regulation and management of text that elude digital readers. Producers of eBooks continue to build in tools and features that improve comprehension, and even boost performance for ELL readers and those who are challenged by text. Research studies consistently highlight the effectiveness of various eBook features in literacy progress. School librarians should determine the what, when, and how of these features. Explicit modeling and guidance can reverse the trend of underuse.

Takeaways

- Conscientiously use your professional expertise to build quality eBook access and digital devices for the library and the school. Content is still the most important issue.
- Use embedded text-to-speech scaffolds for readers who could benefit from that option.
- Make use of embedded prompts that ask readers to think, visualize, and summarize.
- Optimize the use of multiple points of access to reinforce information including animation, video, images, maps, music, and links.
- Plug readers into eBook interactive features with the purpose of distinguishing reading for fun from reading to learn.
- Model and support digital notetaking and highlighting as a cognitive strategy.
- Model and reinforce access to embedded vocabulary tools, the control of text size, screen resolution, slide bars, and screen orientation to suit reader needs.
- Encourage the social aspects of eBook use with sharing, commenting, and reflection options.
- Elicit learner feedback on the use of devices and eBook content and make their comments explicit, visible, and worthy of response.

eBooks and Motivation

Studies have been inconsistent on the preference for eBooks and inherent motivation linked to digital resources. Some studies found that among young readers, only 16% indicated a strong preference for eBooks. Other studies assert a far higher proportion of students prefer eBooks. Let direct experience guide you. Often success motivates eBook readers who are using embedded features to access texts and overcome challenges. Motivation and engagement from inquiry learning experiences; meaningful, authentic, and relevant searches for information; and the creation of challenging final products can carry over into eBooks.

Lotta Larson, University of Kansas professor of reading, has addressed digital literacy since its inception. Her current research resonates with that of other researchers and emphasizes the success of social literacy, reader response, and online learning communities. The mantra "choice and voice" is a powerful reminder of what motivates learners. eBook motivation correlates with kids choosing what they read and sharing their responses with peers. Creativity has extensive intrinsic rewards for digital readers who become digital writers or speakers in response to research or literature.

Takeaways

- Insure choices and selection based on personal interest, curiosity, wonder.
- Build in connections with peers, teachers, school, and community sharing for response and building social literacy.
- Guide readers in how to control the functions, features, and options in eBooks.
- Support struggling readers with text-to-speech, vocabulary prompts, and alternative access to content.
- Sustain motivation with a process approach to projects, emphasizing conversations, feedback, formative assessment, and recognition of success.
- Build in metacognitive strategies that lead a learner to reflect and problem solve.
- Rigor and relevance motivate learners in any setting.
- Encourage choice, personal expression, and social interaction.

Next Steps

School librarians can always rely on the advice of Ross Todd. "Do what works. Don't do what doesn't work." Maintain a deliberate critical perspective as learners engage with technology and develop digital literacy skills. With no absolute guidance in research, every school library is a learning laboratory with the opportunity to succeed. The next chapters on reading comprehension and motivation will be written in your library with your kids and your resources.

Works Cited

Barger, Betty Parsons, and Mary Notwell. "The eBook Hook: Using Non-fiction eBooks to Engage Students in Science Research." *Science & Children* 51, no. 4 (December 2013): 31.

Gonzalez, Michelle. "The Effect of Embedded Text-to-Speech and Vocabulary eBook Scaffolds on the Comprehension of Students with Reading Disabilities." *International Journal of Special Education* 29, no. 3 (2014):111-125.

Indiana State University. "Research Shows Students Perform Well Regardless of Reading Print or Digital Books." Press release (May 6, 2013) <http://www2.indstate.edu/news/news.php?newsid=3564>

"Kids & Family Reading Report" 6th edition. Scholastic, 2017. <http://www.scholastic.com/readingreport/files/Scholastic-KFRR-6ed-2017.pdf>

- Kwan, Helen. "Follow the Reader: E-Book Readers as Tools for Increasing Reading Comprehension." Department of Communications. Stanford University, 2013.
- Lamb, Annette and Larry Johnson. "Nurturing a New Breed of Reader: Five Real-World Issues." *Teacher Librarian* 39 no.1 (October 2011): 56-63.
- Lamb, Annette. "Reading Redefined for a Transmedia Universe." *Learning & Leading with Technology* (November 2011): 12-17.
- Larson, Lotta. "Digital Readers: The Next Chapter in E-Book Reading and Response." *Reading Teacher* 64, no. 1 (September 2010) 15-21.
- Millot, Jim. "As E-book Sales Decline, Digital Fatigue Grows." *Publishers Weekly* (June 17, 2016). <https://www.publishersweekly.com/pw/by-topic/digital/retailing/article/70696-as-e-book-sales-decline-digital-fatigue-grows.html>
- Niccoli, Anne. "Paper or Tablet? Reading Recall and Comprehension." *EDUCAUSE Review* (September 2015). <http://er.educause.edu/articles/2015/9/paper-or-tablet-reading-recall-and-comprehension>
- Picton, Irene. "The Impact of Ebooks on the Reading Motivation and Reading Skills of Children and Young People." National Literacy Trust, September 2014. http://www.literacytrust.org.uk/assets/0002/3898/Ebooks_lit_review_2014.pdf
- Rosenwald, Michael S. "Serious Reading Takes a Hit from Online Scanning and Skimming, Researchers Say." *Washington Post* (April 6, 2014) https://www.washingtonpost.com/local/serious-reading-takes-a-hit-from-online-scanning-and-skimming-researchers-say/2014/04/06/088028d2-b5d2-11e3-b899-20667de76985_story.html?utm_term=.21b9351ee459
- Smith, Tara. "Exponential Reading Growth Celebrating Digital ELA Curriculum Success." *Tech & Learning* (December 2016) . <http://www.techlearning.com/resources/0003/exponential-reading-growth-celebrating-digital-ela-curriculum-success/70352>
- Wolf, Maryanne, and Mirit Barzillai. "The Importance of Deep Reading." *Educational Leadership* 66, no. 6 (March 2009): 32-37.

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