Promoting Deep Comprehension with Traditional and Digital Texts

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The Challenge

Today's students, perhaps unlike their predecessors or their instructors, developed their reading skills as the information landscape was being transformed by new communications technologies. Whereas earlier generations' access to information was defined by physical parameters of access—ability to travel to a library, that library's holdings, and so on—today's students can, from their own desks, access information from diverse global sources. But does that necessarily mean that these students have greater knowledge? Now that physical barriers to access have been diminished, do other restrictions pose new obstacles for students?

Although students now can locate a seemingly limitless trove of data, they must be able to *do* something with this information for it to be useful. We want students to be able to think critically about text in all its forms but, in a complicated twist, the very medium that opens doors to information access may also unwittingly work against the deep comprehension of it. How do we get students beyond merely accruing data and into the practice of deeply understanding what they read online?

The Literature

Not all reading is created equal. Readers engage with text in a variety of ways depending on the goals for reading: skimming for information, close analysis for critical understanding, chunking text for "big ideas," and so on. Established research indicates that these varying types of reading are not only behavioral, they are also neurological (Wolf, 2007; Sandak et al., 2004; Noble, et al., 2005). The brain has no one genetically predefined reading circuit; rather, it appropriates neural pathways related to vision, hearing, cognition, and language to decode written text (Wolf, 2007). Moreover, the specific pathways employed are affected by the nature of the text in question, not only the characteristics of a given orthography but also by the number and richness of the reader's experiences with written language and its material properties, such as "the stability and linearity of printed text."[2]

As such, recent innovations in digital presentation of text have significant impacts on reading. The rhizomatic, non-linear quality of digital text, unlike more traditional forms, lends itself to particular kinds of cognitive activity—especially multitasking, skimming, and identifying connections among broad topics—while diminishing opportunities for critical reflection and original, individual thought.[3] Given this reality, and since web-based text would seem to be with us for the foreseeable future, how can instructors develop activities that require students to read deeply even with online material?

What Instructors Can Do

Wolf and Barzillai define *deep reading* as "the array of sophisticated processes that propel comprehension and include inferential and deductive reasoning, analogical skills, critical analysis, reflection, and insight."[4] Like many cognitive behaviors, contemplative web reading needs to be explicitly taught and modeled. This kind of explicit instruction in deep reading with printed texts is already part of primary and secondary school curricula, and thus we often assume—wrongly—that the same skills will automatically transfer to online reading. In truth, though, instructors must actively and intentionally *promote* this kind of deep reading, a goal that may be facilitated by one of the following approaches:

- **Guiding questions and reading protocols**. Questioning techniques can act like a rudder to steer students' thinking and cognition toward deeper comprehension and original thought. By asking questions such as "What assumptions do you think the author is making?" and "What in the text would you like to argue with?" the instructor can encourage (and require) students to devote contemplative attention to text. A

variety of discussion guides is available through the Office of Academic Affairs' Faculty Portal.

- **Reflection logs/journals**. Ask students to keep a reading journal throughout the semester. The entries can be generic and include information such as what they learned from the reading; if a web search was used, how they decided which links had greater credibility or value; summaries of a source and what information it did *not* include; or other reflective responses.
- **Think aloud**. Model for students in "real time" your own thought processes while reading text. Read text aloud and pause periodically to share with students what your thinking is, what questions you have, and how the text is influencing your cognition. In a course where technology is used frequently, ask students to make podcasts or web recordings of their own "think alouds" and to submit them for course credit.
- **Graphic organizers**. Ask students to represent their learning from online texts in visual form. Three Column Organizers and Concept Maps (see attached) are especially useful for digital text since they promote "drilling down" into key ideas and make connections among ideas explicit, respectively.

This list is by no means exhaustive. The Director of Educational Initiatives and the Office of Academic Affairs look forward to working with you to determine what methods will be most fruitful for your students.

Conclusion

Readers today have access to a breadth of texts unprecedented in the history of written language. While this access encourages and rewards particular kinds of cognition—such as agile attention, interactive communication, and multitasking—it also reduces opportunities to practice different thinking skills, including contemplation, criticism, and reflection. Equipped with purposeful teaching strategies, instructors can promote deep reading and sophisticated mental activity, ultimately creating a learning model in which students can benefit not only from breadth of text but also from depth of thought.

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[2] Wolf, M and Barzillai, M. (2009.) The importance of deep reading. *Educational leadership*. (66)6. p. 32-37. Available online at http://www.ascd.org/ASCD/pdf/journals/ed_lead/el200903_wolf.pdf.

[3] and [4] Ibid.

Graphic Organizers for Deep Comprehension

These diagrams can support student comprehension during reading. For more information, see "Promoting Deep Comprehension with Traditional and Digital Texts."

Three Column Organizer

Use this chart to track essential concepts and supporting details as you read. The applications and conclusions section can allow you to form new ideas from what you have read.

Core ideas	Supporting details	Applications
Conclusions		

Concept Map

Place central ideas toward the center of the diagram, with related ideas linked as the map spreads. Add additional shapes and branches as necessary.