Contesting nonfiction: Fourth graders making sense of words and images in science information book discussions

Monica A Belfatti, University of Pennsylvania

Abstract

Recently developed common core standards echo calls by educators for ensuring that upper elementary students become proficient readers of informational texts. Informational texts have been theorized as causing difficulty for students because they contain linguistic and visual features different from more familiar narrative genres (Lemke, 2004). It has been argued that learning to read informational texts, particularly those with science subject matter, requires making sense of words, images, and the relationships among them (Pappas, 2006). Yet, conspicuously absent in the research are empirical studies documenting ways students make use of textual resources to build textual and conceptual understandings during classroom literacy instruction. This 10-month practitioner research study was designed to investigate the ways a group of ethnically and linguistically diverse fourth graders in one metropolitan school made sense of science information books during dialogically organized literature discussions. In this nontraditional instructional context, I wondered whether and how young students might make use of science informational text features, both words and images, in the midst of collaborative textual and conceptual inquiry. Drawing on methods of constructivist grounded theory and classroom discourse analysis, I analyzed student and teacher talk in 25 discussions of earth and life science books. Digital voice recordings and transcriptions served as the main data sources for this study.

I found that, without teacher prompts or mandates to do so, fourth graders raised a wide range of textual and conceptual inquiries about words, images, scientific figures, and phenomena. In addition, my analysis yielded a typology of ways students constructed relationships between words and images within and across page openings of the information books read for their sense-making endeavors. The diversity of constructed word-image relationships aided students in raising, exploring, and contesting textual and conceptual ideas. Moreover, through their joint inquiries, students marshaled and evaluated a rich array of resources. Students' sense-making of information books was not contained by the words and images alone; it involved a situated, complex process of making sense of multiple texts, discourses, and epistemologies. These findings suggest educators, theorists, and policy makers reconsider acontextual, linear, hierarchical models for developing elementary students as sense-makers of nonfiction.

Subject Area
Education, Elementary|Education, Reading|Education, Sciences

Recommended Citation
https://repository.upenn.edu/dissertations/AAI3542779
entry. Students will be asked to speak with authority on what they’ve learned and include facts from two sources, sifting through the subtle differences between the facts in a first-
person’s account, say, and a third-person narration. This ability to learn about the same topic from different sources — and understand how the information varies based on the source — are key to making sure your child’s adept at s Traditional printed texts used in schools pass through editing, represent a finite amount of information bound within the covers of a book, and contain images and words designed primarily to provide accurate facts. In contrast, many Internet texts are not carefully edited, link to vast amounts of related information, and are designed to deceive or persuade young readers (Coiro, 2003b). Does this sound like it makes sense? I asked people I trust if they had ever seen or heard of a Velcro crop, and they all said no. Sifting through information on Web sites, video clips, collaborative discussion boards, and such emerging technologies as Weblogs compounds the challenges for readers who already struggle with synthesizing multiple sources of paper-based information. Word-forming ability of native words. E.g.: summer, winter, rain, bridge, house, shop, shirt, shoe, life, need, to bake, to buy, to learn, to make, to see, and many others. Native words constitute about 80 % of the 500 most frequent words in English. They may be characterized by a high lexical and grammatical valency (ability to combine with other words), high frequency and developed polysemy. Most of the native words have undergone great changes in their semantic structure, and as a result are nowadays polysemantic, e.g. the word finger does not only denote a part of a hand as in Old English, but also 1) the part of a glove covering one of the fingers, 2) a finger-like part in various machines, 3) a hand of a clock, 4) an index, 5) a unit of measurement.