Title: Disciplinary Literacies and Learning to Read for Understanding: A Conceptual Framework of Core Processes and Constructs

Authors: Goldman, S. R., Britt, M. A., Brown, W., Cribb, G., George, M., Greenleaf, C., Lee, C. D., Shanahan, C., & Project READI


Strand of work: Theoretical/Integrative

Abstract:
In this paper we present a framework for guiding research and intervention design that have as their goal improving literacy and subject matter learning for adolescents so that they are prepared to take their places in 21st century society as literate knowledge generators as well as consumers (Goldman & Scardamalia, 2014). The framework was designed in the context of a large, multi-year, multi-institution federally funded research and development project on reading for understanding, defined as evidence-based argument from multiple sources of information as situated in three different disciplines – literary reading, science, and history. We postulated expanding reading comprehension models to accommodate additional processes and mental representations needed for competent multiple information source reading for understanding. We engaged in a “conceptual metanalysis process” to describe problem spaces for each discipline from which to specify what adolescents needed opportunities to learn if they were to engage in developmentally appropriate forms of disciplinary argumentation from multiple sources of information. The process involved multi-disciplinary teams of researchers, specialists and teachers in each discipline in iterative analysis, synthesis, and integration of the literature concerned with how and why experts/specialists in each of these disciplines engage with texts. We also examined extant research on adolescents’ learning and performance in these disciplines, including where they struggled and the sorts of instruction that seemed to lead to improved comprehension and learning. Iterative reading, discussion, and debate produced a framework for conceptualizing what one needed to know about the nature of knowledge, how it is generated (reading inquiry processes), and how it is communicated (literacy/argumentation processes) in each of the three disciplines. The framework does not encompass the what of a particular discipline, i.e., the existing knowledge base, but attempts to reflect the reading and writing literacies, argumentation, and inquiry practices needed to engage in text-based knowledge discovery and generation processes that enhance, amplify, and re-direct the existing knowledge base. This framework guided the directions we took in researching and developing interventions to enhance reading to learn with understanding within the three specific disciplines of literary reading, science, and history.
Implications
The framework has been valuable for classroom teachers’ planning and implementation of generative literacy and argumentation instruction because it helped them more clearly define and distinguish among instructional goals and targets encompassed by the CCSS and the NGSS. The framework has also proven useful with educators and specialists in three disciplines of literature, history and science as it assists them in making explicit the sense – making processes they use, particularly the literacy and inquiry practices. These processes frequently remain tacit in their own minds and invisible in their interactions with students and those who are less expert in their fields of specialization. Making these processes more explicit is a first step in making them visible to students. Thus a main purpose of this paper is to convey this framework in hopes that other researchers and practitioners will find it useful.

Acknowledgments:
The research reported herein was supported by the Institute of Education Sciences, U.S. Department of Education, through Grant R305F100007 to University of Illinois at Chicago. The authors thank the other members of Project READI for their assistance and contributions. The opinions expressed are those of the authors and do not represent views of the Institute or the U.S. Department of Education.