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Strand of work: Design and Design-Based Research on Interventions

Abstract:

In this chapter we look under the hood, and share the processes of developing designs to support adolescents' learning how to engage in text-based argumentation in science, literature, or history. The work took place in the context of a large, multi-discipline, multi-stakeholder development and research project: Project READI (Reading, Evidence, and Argumentation in Disciplinary Instruction). The participatory design process surfaced multiple perspectives and frequent debates about concepts central to the work (e.g., argumentation, explanation, claims, and evidence) and how to provide instructional support. Specifically, we attempt to make visible some of the often invisible "productive messiness" of design-based research through an artifact that played a central role in our work: evidence and interpretation charts. We explore the processes of making design decisions, implementations, and iterative revisions of these charts as a window into the nuances and adaptations that are integral to teaching and learning processes. We discuss implications of productive messiness for conceptualizing and engaging in design.

Implications

This chapter suggests that DBR does not move in a linear, unidirectional fashion, from conjectures to designed tools, and then to observed outcomes. Instead, studying the designed tools in action can surface messiness that leads to greater clarity in theoretical conjectures about how these designs mediate desired outcomes. Our work also suggests that the process of turning textual information into *evidence* for a *claim* is not straightforward. Supporting students in constructing arguments requires a critical examination of discipline-specific notions of argument that often go unexamined. We hope that this brief discussion of the participatory design process in READI provokes further conversations about the more designerly, messy, yet productive aspects of DBR.

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