Talk as a Window into Collaborative Lesson Design: Designing a Common Rubric in an Elementary School Work Circle

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Abstract: This poster aims to illustrate the analytic value of a design conversation that occurred during a multi-year practitioner-researcher partnership. This partnership takes the form of work circles (Fogleman, Fishman, & Krajcik, 2006; Reiser et al., 2000; Shrader et al., 1999; Shrader et al., 2001), which are a participatory, collaborative design setting. We present an example of how a dialogue between elementary teachers and university researchers offers a window into the design process and design itself.

Introduction

This poster aims to illustrate the analytic value of a design conversation that occurred during a multi-year practitioner-researcher partnership. This partnership takes the form of work circles (Fogleman, Fishman, & Krajcik, 2006; Reiser et al., 2000; Shrader et al., 1999; Shrader et al., 2001), which are a participatory, collaborative design setting. The work is participatory in that it engages practitioners as central to the design and research process (Schuler & Namioka, 1993). In the case of work circles, researchers and practitioners collaborate to analyze and set goals related to a problem of practice, and to design instructional materials that address an identified goal. Decision-making in the work circle is democratic (Shrader et al., 1999). However, external funding, policies, and other factors may set parameters for the work content, timelines, and products.

The current practitioner-researcher partnership focuses on improving the quality of student writing across the content areas. These work circles aim to improve students' ability to make evidence-based claims in their written work. To achieve this goal, the work circle teams: 1) create, share, and provide feedback on lessons related to claims and evidence; 2) design common assessments of student writing; and 3) iteratively refine instructional resources and the design process.

Theoretical Approach

The work circle reflects a distributed intelligence framework (Pea, 1993), which posits that intelligence is created and distributed in interaction and artifacts across an activity in relation to a goal. Knowledge about teaching and learning is shared through the participants' interaction within the work circle in relation to the set problem of practice. The design process should recognize and draw on the expertise of each participant. Although participants might not participate equally at each stage of the process, all do contribute to the work at different points in the collaboration.

In a work circle, there are two levels at which to consider learning – that of the participants, and that of students. The instructional resources that the group designs are intended to share targeted knowledge with students. We suggest that the work circle participants, both researchers and practitioners, learn through the process of designing and revising instructional resources for students. It is through the participants' negotiation of what to include, what not to include, and what to adapt in a lesson that the group gains a greater understanding of the learning task. Through an analysis of the work circle meetings, we seek to understand how the design conversations draw upon knowledge about practice, as well as how that knowledge is reflected in the artifacts that the participants create.

Methodological Approach

The current analysis focuses on one work circle, which was comprised of eight teachers from a laboratory elementary school, a researcher, and a graduate student researcher. The group collectively determined the problem of practice to address, and the design goals related to this problem of practice, as well as when, and how often, the work circle meetings occurred during the school year. This work circle began meeting in fall 2012, and convened approximately 1-2 times per month throughout the 2012-2013 school year. These meetings occurred on site during the school day. Each work circle meeting was approximately 1 hour. There were a total of 15 work circle meetings.

During the first work circle meeting, the participants considered problems of practice that would be meaningful for the group to address. The group identified a need to create shared tools and language for teaching students to make evidence-based claims across the content areas. Over the course of the school year, the work circle designed and refined lessons, tasks, and a rubric related to this goal. The group would coordinate instruction and collaboratively plan lessons during the work circle meetings, the teacher partners would enact these lessons in the classroom, and then the group would discuss the lessons and learn from the resultant student

work. In order to document the design process, the researchers audio recorded and then transcribed each of the work circle meetings. The researchers also took notes during the meetings, and collected copies of lesson plans, rubrics, and other instructional resources that were discussed or created during a meeting.

This analysis sought to examine "decision points" in the work circle design conversations. We reviewed meeting transcripts to identify portions of a meeting during which the researchers and teachers discussed a particular topic related to a lesson or other instructional resource. We identified the point when a participant, or participants, first introduced an idea in the conversation, and then determined when the group arrived at an agreement within the meeting. However, the topic may have been revisited in a subsequent meeting. These segments range in the amount of dialogue that they include. The segment described in the next section was identified as a decision point in the design of a rubric for evaluating student work. It is representative of several segments that occurred over the course of design meetings related to this rubric.

Preliminary Analysis

In this "decision point" segment, the work circle team members are engaged in the design of a rubric for evaluating claims and evidence in student writing. This moment of design discussion emerged at a midpoint during the school year. In previous work circle meetings, the group had decided that it was possible to analyze students' claims and evidence work across the content areas, and that it would be useful to design a common rubric that could be applied to student work. The group also determined that claims and evidence could be analyzed according to three criteria: accuracy, relevance, and depth. In this segment of conversation, the group worked to reconcile a description of accuracy in the rubric. However, this conversation was not simply wordsmithing. As the participants designed the rubric, they engaged in questions around the kinds of knowledge they wanted to have about students' ability to make claims and offer evidence. In probing the wording related to the accuracy of claims, the participants tacitly and explicitly drew on the knowledge present in the group. They identified potential redundancy in the knowledge that would be derived from two statements on the rubric. They read the statements aloud, and wondered about the differences between relevance and accuracy. They identified likely points of confusion in the rubric, and they decided to annotate the document so that students would not be confused. The researcher role was to seek clarity about the wording, and to offer recollection of previous ideas that were part of earlier instantiations of the design.

Discussion

The theme of the 2014 ICLS conference is "Learning and Becoming in Practice." In this poster, we present an example of how a dialogue between elementary teachers and university researchers offers a window into the design process and design itself. We have suggested that participant talk, within the context of a collaborative practitioner-researcher design context, helps us to recognize what teachers "call out" as important in a designed artifact, as well as how teachers and researchers make knowledge claims, resolve differences in recollection and in knowledge, and interact with each other to refine designs. In future explorations of talk in collaborative design contexts, we hope to offer additional evidence of how participants' knowledge claims and expertise come to bear on the design of common artifacts.

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