

A View of High School Mathematics Curricula through the Lens of Schwab's Commonplaces

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Context

Narrative Inquiry

"The duration of the enquiry is indefinite; what will constitute the significant data is unknown; the outlines of a satisfactory outcome are vague or invisible. In general, the task is not to traverse a marked route but to determine a route and a destination and to do so with uncertainty as a conspicuous factor at each step." (Schwab, 1960, p. 21)

High school

- A large, urban district in the southern mid-western United States
- Large number of low-socioeconomic students, most performing below grade level in mathematics, and many of whom are second-language learners

Participants

- Geometry teachers using a new program during its second year of adoption

Initial focus

- To improve teachers' instructional approaches to a new Geometry program

Subsequent focus

- To help empower mathematics teachers to deal with instructional challenges in the face of systemic impediments within their high school

Conceptual Frameworks

Schwab's Commonplaces (1973) should be in balance (see Figure 1).

- **Teacher** commonplace: the knowledge and flexibility the teacher brings to the translation of the curriculum
- **Subject-matter** commonplace: the teacher's depth of understanding of the subject matter
- **Learner** commonplace: awareness of what learners already know, what each will find easy or difficult to learn, and what motivates or creates anxiety for each
- **Milieu** commonplace: the learning environments that impact affective aspects of learning

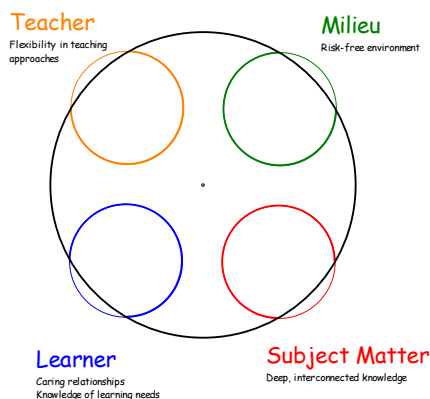


Figure 1. Schwab's commonplace framework focuses the importance not only on teacher and learner but on their interaction with the subject matter within particular classroom settings and in relation to outer environmental constraints.

Teachers' Knowledge Landscape (Clandinin and Connelly (1995)

- Defined by relationships among people, stories positioned around time, interactions and place in educational institutions
- **Sacred** stories: Administrative directives handed to teachers via *the conduit*, a metaphor describing the series of channels along which sacred stories flow to teachers
- **Cover** stories: Teachers' responses to sacred stories which are trails of confirming compliance
- **Secret** stories: Teachers daily enactments within the confines of their classrooms which bear little resemblance to their formal cover-story versions
- **Knowledge communities**: Formal or informal collaborations between and among teachers which support a high degree of interpersonal trust among members (Craig, 1995)

Methodology

Narrative inquiry served as the framework for conceptual interpretation of the stories that unfolded during the study.

Participants:

- Seven high school Geometry teachers who had a forty-five minute weekly scheduled common planning time
- Two of the teachers who received individual attention within their classrooms

Duration:

- One full day each week during the entire 2004 – 2005 academic year

Data sources:

- Field notes which detailed conversations with teachers and administrators
- Semi-structured interviews with teachers
- Observations of classrooms, surrounding hallways and larger communal rooms
- Artifacts such as agendas for meetings, notices pertaining to school activities, teacher-developed assessment instruments, and articles shared and discussed with teachers
- Audio-recordings and hand-scribed notes of group discussions and selected discussion protocols
- Personal-reflection journal

References

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Stories of Incoherence

Analyses of the two teachers' individual classrooms:

- Lack of coherence in the four commonplaces, particularly with respect to teacher and learner evidenced by inflexibility and inability to address individual students' needs
- Social disruption that pointed to milieus which did not engender learning even for those few students who were motivated to learn

Whole group analysis and interaction:

- Teacher morale was at an all-time low as a result of a campus event. The importance of milieu and the other three commonplaces came into focus as the researcher struggled with the analysis of non-subject-matter issues.
- Teachers began to share their feelings and opinions about school. Teachers' secret stories emerged, indicating the momentary presence of a knowledge community (Craig, 1995).
- School-wide milieu incoherence was determined to be a key impediment to teachers' abilities to change their classroom practices. Teachers were overwhelmed with conduit directives and the enactment of cover stories.
- Helping teachers come to terms with their milieu and recognize their own power in enacting change in their classrooms became to focus of the researcher's work.

Conclusions

- In the wake of NCLB accountability, large school systems frequently seem to focus on subject matter while paying little attention to teacher, learner and milieu commonplaces. Schwab (1973) cautions to avoid dominance of one commonplace over the others.
- The researcher proposes a view of Schwab's *deliberative* curriculum, a conscious, explicit focus on the four commonplaces at the classroom level that extends to professional development and community development levels within a school and beyond written policy.
- School leadership must be aware of the need for continual, deliberative collaboration among all members of school community around the four commonplaces.
- As a mathematics professional developer, the researcher deliberately plans around the four commonplaces, paying close attention to how the selected subject matter will serve teachers with varying ability levels and contexts for learning and teaching.

Implications and Unanswered Questions

- Demonstrate *how* the commonplace balance can be brought about systemically in schools and possibly across districts.
- What should professional development look like so that deliberative, coherent curriculum becomes a natural, everyday practice?
- Do successful schools practice deliberative curriculum making? Can these schools further improve through making deliberative curriculum more explicit?