Title: The enduring impact of design based professional development on literacy instruction in secondary subject areas

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Citation: Litman, C., Marple, S. & Greenleaf, C., (submitted). The enduring impact of design based professional development on literacy instruction in secondary subject areas.

Strand of work: Design and Design-based Research

Purpose and Questions Investigated
This study was inspired by the problem of how to transform traditional content area instruction, often dominated by teacher lecture, into the kind of instruction that supports the complex reading and reasoning skills and processes instantiated in current literacy reform initiatives, such as the Common Core State Standards and the Next Generation Science Standards. Drawing on observations of secondary English language arts, history, and science classrooms, this quasi-experimental study explores differences in opportunity to learn (OTL) offered by teachers who had previously participated in Reading Apprenticeship, a model of design-based Professional Development (PD), to those who had not. The PD focused on supporting teachers in engaging students with inherently challenging disciplinary reading and reasoning tasks, tightly integrating disciplinary literacy with content learning, and drawing on the social resources of the classroom to support students in the challenging intellectual work of making meaning from academic texts. The following overarching question guided our research: How does teacher participation in design-based, inquiry driven PD focused on tightly integrating disciplinary literacy and content learning impact the opportunities they offer students to engage in reading and reasoning practices targeted by literacy reform efforts currently reshaping the landscape of public education? Specifically, we compared PD and comparison teachers on the following:

• What opportunities do students have to work with text in observed lessons?
• What opportunities do students have to engage in tasks central to disciplinary reading and reasoning?
• How are tasks assigned in the context of working with text different from tasks assigned when content is delivered by the teacher?
• How are various task opportunities to learn related to one another?
• How are different grouping structures allocated across lessons?
• Which activities and tasks are associated with particular grouping structures?

Research Context or Methodology
The data set used in the present analysis consisted of videotapes of 71 lessons taught by 34 teachers from 22 urban and suburban schools. Observations were conducted between October 2010 and June 2011. Researchers coded videotapes of the 71 lessons for the type of complex disciplinary literacy practices envisioned by current literacy reforms: text-based learning that involves negotiation of meaning; interrogation, evaluation, corroboration, synthesis, and reconciliation of content from multiple texts; and
participation in evidence-based argumentation, both individually and with teachers and peers. In addition, because we were interested in how teachers integrated disciplinary literacy with content learning, we also coded opportunities to learn content, distinguishing broadly between tasks with a disciplinary knowledge focus and tasks with a fact acquisition focus characterized by lower cognitive demand. Subsequently, we compared PD and comparison groups on these opportunities to learn.

**General Statement of Findings**

Our analysis revealed that PD teachers spent less time lecturing and delivering content and more time supporting students to work with text than comparison teachers (p<.05). PD teachers allocated nearly twice as much time to argumentation, over four times as much time to close reading (p<.01), and three times as much time to cross-textual analysis as comparison teachers. Additionally PD teachers structured their lessons such that students worked with each other far more frequently that comparison teachers (p<.05). We found that literacy tasks in PD classrooms generally had a disciplinary knowledge focus contradicting common assumptions that literacy instruction conflicts with disciplinary learning. Dramatic differences between PD and comparison teachers suggest that professional development can potentially increase literacy learning opportunities presented to students. Our findings also suggest that the kinds of preparation typically offered to teachers may not be adequate to shift the pervasive emphasis on content mastery above disciplinary reading and reasoning processes, even among teachers who are otherwise skilled in fostering subject area learning.

**Implications**

We concluded that with sufficient support through design-based, inquiry driven PD focused on disciplinary literacy, teachers can effectively integrate literacy instruction with content learning. Of particular interest, teachers who had participated in the PD had done so in years prior to the observational study reported here. Thus, the study offers an opportunity to explore the enduring effects of design-based PD on teacher practice and thereby, on students’ opportunity to learn. As such, we offer Reading Apprenticeship as a “case of” professional development with the attributes we believe are required to build teacher capacity to address the ambitious new literacy standards.

**Acknowledgments:** Masha Yukhymenko’s consultation and work with the statistical analyses for this paper were of great importance. In addition the analysis in this paper draws from the same data set as Litman et al. (2015, under review). 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 opinions expressed are those of the authors and do not represent views of the Institute or the U.S. Department of Education.