A cross-disciplinary analysis of math students’ writing. Preliminary report.

For the last few decades, scholars in rhetoric and composition have recognized the importance of writing in the disciplines as a means by which students learn to communicate effectively in a particular field. Effective writing in the disciplines tasks challenge students to adopt and master the idiosyncratic grammatical, syntactic, and semantic conventions of their discipline as they become authentic practitioners of that discipline.

Relatively little research has been done on the ways in which college mathematics students learn adopt the rhetorical conventions of research writing in math. In this, the first stage of our ongoing research in this area, we identify these conventions (which include use of metacommentary, use of sources, style and tone, visual rhetoric, and contextualization of research) through careful analysis of the writing performed by student participants in the mathematics REU hosted at the University of North Carolina, Asheville. We also indicate how a better understanding both of these conventions and of the ways in which students learn to master them will help to improve mathematics education, and we give a preview of the next stage of our research. (Received July 06, 2011)