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Appraising lexical bundles in mathematics classroom discourse: obligation and choice.

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Summary: Working from a large corpus of transcripts from secondary mathematics classrooms, we identify patterns of speech that encode interpersonal positioning. We extend our analysis from a previous article (Herbel-Eisenmann, Beth; Wagner, David; Cortes, Viviana: Lexical bundle analysis in mathematics classroom discourse: the significance of stance, in: Educ. Stud. Math. 75, No. 1, 23-42 (2010); for a review see ME 2010f.00354), in which we introduced a concept from corpus linguistics—a “lexical bundle,” which has been defined as a group of three or more words that frequently recur together, in a single group, in a particular register. In that article we noted the prevalence of pervasive stance bundles unique to the mathematics classroom register. Because stance bundles communicate personal feelings, attitudes and values, we noted the importance of positioning in mathematics classrooms. In this article, we interpret the stance bundles as they relate to authority in mathematics classrooms by organizing them into groups that relate to the ways in which students are assumed to have choice in the discourse and to have obligations. Gradations of obligation and choice are important because they can help mathematics educators think about the ways in which they might open up or close down discourse in the classroom. We argue that it is important for university researchers, classroom teachers, and even mathematics students to engage in conversations about issues of authority, as they relate to developing mathematical understanding in their classroom discourse.

Classification: C50 C60 M80

Keywords: appraisal linguistics; authority; collocation; concordance; corpus linguistics; critical discourse analysis; lexical bundle; positioning; socio-cultural; stance bundle; systemic functional linguistics; mathematics classroom discourse

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