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Lexical bundle analysis in mathematics classroom discourse: the significance of stance.

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Summary: In this article, we introduce the lexical bundle, defined by corpus linguists as a group of three or more words that frequently recur together, in a single group, in a particular register (Biber, Johansson, Leech, Conrad, & Finegan, 2006; Cortes, English for Specific Purposes 23:397-423, 2004). Attention to lexical bundles helps to explore hegemonic practices in mathematics classrooms because lexical bundles play an important role in structuring discourse and are often treated as "common sense" ways of interacting. We narrow our findings and discussion to a particular type of lexical bundle (called a "stance bundle" or bundles that relate to feelings, attitudes, value judgments, or assessments) because it was the most significant type found. Through comparing our corpus from secondary mathematics classrooms with two other corpora (one from university classrooms (not including mathematics classrooms) and one from conversations), we show that most of the stance bundles were particular to secondary mathematics classrooms. The stance bundles are interpreted through the lens of interpersonal positioning, drawing on ideas from systemic functional linguistics. We conclude by suggesting additional research that might be done, discussing limitations of this work, and pointing out that the findings warrant further attention to interpersonal positioning in mathematics classrooms.

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Keywords: corpus linguistics; hegemonic practices; hidden curriculum; lexical bundle; mathematics education; socio-cultural; stance bundle; linguistics; mathematical discourse; mathematics and language; classroom observation; secondary schools
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