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Research
Brief

Teaching through Interactions in Secondary Classrooms: Revisiting the Classroom Assessment Scoring System-Secondary and Domains of Effective Teaching

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This study used four diverse samples of middle and high school classrooms in the first comprehensive study of the CLASS-Secondary factor structure. Results confirmed the importance of approaching classroom interactions in secondary classrooms as having a 3-factor structure including emotional, organizational, and instructional domains. The implications of this structure for researchers, teachers, and policy stakeholders are discussed.

Recent educational reforms place new focus on identifying fair and reliable ways of evaluating a teacher's role in student learning. Most of these newer systems include a combination of value-added scores, student reports, and observational measures of teacher performance. Although observational methods of assessing teacher performance have the potential to provide specific and actionable feedback to improve practice, very few observational measures of teachers' performance currently utilized in middle schools and high schools take into account adolescent development. The Classroom Assessment Scoring System – Secondary (CLASS-S) is one such measure, but is still not used widely by school systems. This measure is the focus of this study.

The Study

The goal of the current study was to present confirmatory evidence on the theoretical structure of the CLASS-S across several samples of secondary school classrooms.

Observations for the study were drawn from video recordings of 1,482 classrooms across the United States (grades 6-11). These classrooms were drawn from 4 independent studies including the Measures of Effective Teaching study (Kane et al., 2012), the MyTeachingPartner-Secondary study (Allen et al., 2011; see research brief), and 2 studies conducted by Educational Testing Service (Bell et al., 2012).

In each of these four studies, video-recorded lessons were coded using the CLASS-S yielding dimension-level scores for:

- Positive Climate
- Teacher Sensitivity
- Regard for Adolescent Perspectives
- Behavior Management
- Productivity
- Negative Climate
- Instructional Learning Formats
- Content Understanding
- Analysis and Inquiry
- Quality of Feedback
- Instructional Dialogue

For information on CLASS coding, see http://curry.virginia.edu/research/centers/castl/class.

The CLASS-S dimension scores from every classroom were then utilized in exploratory and confirmatory factor analyses to determine the domain structure that most accurately portrayed the observational data.

Findings

The findings from this study suggest a three factor structure provided the best fit to the data and was best described in terms of: Emotional Support (Positive Climate, Teacher Sensitivity, and Regard for Adolescent Perspectives); Classroom Organization (Behavior Management, Productivity, and Negative Climate); and Instructional Support (Instructional Learning Formats, Content Understanding, Analysis and Inquiry, Quality of Feedback, and Instructional Dialogue). See Figure 1.
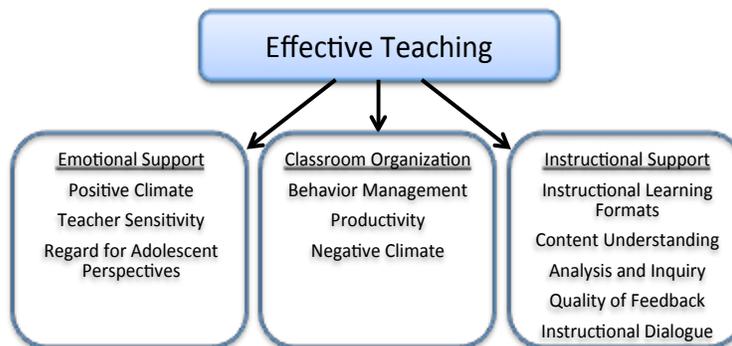
This three domain structure was only slightly different from the three factor solution reported for elementary classrooms (Hamre et al., 2013). Also, in comparison to other potential models for organizing classroom interactions, such as a single teacher quality factor or a simpler social and instructional supports model, the aforementioned three factor model more accurately described the observational data from over 1000 secondary school classrooms. Importantly this three factor model fit observational data collected from a range of studies across a broad range of settings, including urban and rural classrooms, and across sixth to twelfth grade classrooms.

Conclusion

This study provides evidence that teacher-student interactions, as observed by the CLASS-S can be reasonably organized into domains of emotional, organization, and instructional behavior across a range of samples. This framework provides a vehicle that may help link basic research to teacher evaluation and professional development for middle and high school teachers and provide practitioners with a more nuanced understanding of the classroom interactions that influence student learning. For example, as can be seen in Figure 2, teachers in middle school and high school classrooms maintain fairly well organized classrooms; however this rigid structure may actually take away from their ability to facilitate meaningful emotional and instructional interactions for their adolescent students. This likely explains why students report declining levels of engagement throughout middle school and high school. Organizing teaching into these three domains helps to identify these variations, making it possible for teachers to evaluate and adjust their practice accordingly.

For More Info:

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Figure 1. Three Domains of Effective Teaching as Described by CLASS-S

Effective Teaching

Emotional Support
Positive Climate
Teacher Sensitivity
Regard for Adolescent Perspectives

Classroom Organization
Behavior Management
Productivity
Negative Climate

Instructional Support
Instructional Learning Formats
Content Understanding
Analysis and Inquiry
Quality of Feedback
Instructional Dialogue

Figure 2. CLASS-S Score Distributions Across Domains

Low Quality   Moderate Quality   High Quality

Emotional Support

Classroom Organization

Instructional Support

CLASS Scores