

Formative Assessment Delivery System (FADS) and Uses for Teachers in Curriculum Development *Mark Wilson, University of California at Berkeley; Kathleen Scalise, University of Oregon*

Question(s) for Discussion: How do you help teachers use formative assessment effectively in the classroom?

Session Description: The benefits of using high-quality formative assessment data to inform teachers' day-to-day and longer-term classroom decisions have been rigorously established in the landmark meta-analysis by Black & Wiliam (1998). Researchers have come a long way towards agreeing on what "good" assessment looks like, with clear connections between what is taught and what is assessed (NRC, 2001b). Emerging evidence suggests that the most profitable designs for classroom formative assessment allow teachers to tap and interpret the rich source of evidence about critical-thinking skills that students generate while engaging in performance activities or developing constructed responses (Black, Harrison, Lee, Marshall & Wiliam, 2003). A number of research efforts have demonstrated that advanced psychometric techniques (e.g., explanatory item response modeling) can use this extensive evidentiary base to provide valid and reliable measures of student knowledge and performance on multiple dimensions of learning (Wilson & Scalise, 2003). Moreover, recent developments in presenting such information to teachers in an interpretive framework that reports student knowledge with respect to targeted learning progressions indicate that teachers are able to use these assessment data to plan next instructional steps (Gearhart et al. 2006).

The benefits of these advances in assessment practice are limited, however, by the capacity of classroom teachers to gather and score the type of data generated when students engage in activities that elicit evidence of deep knowledge and critical-thinking skills. If measurement results are to be useful to inform teachers' immediate teaching decisions, then the results need to be available quickly; however, in the current state of things, teachers must score this relatively complex student work by hand, which will likely require more time than teachers have available.

Dozens of online assessment products with automated scoring already exist, either contained within e-learning systems, executed as standalone products that accompany textbooks, or within classroom management systems. Rarely do these products take advantage of the recent development of learning progressions, incorporate complex item formats that evaluate constructed responses, or take advantage of sophisticated item-response modeling techniques, although the incorporation of these features could dramatically improve the quality and usefulness of assessment data. This presentation will report on development and use of tools in the UC Berkeley Formative Assessment Delivery System (FADS) that are intended to make it easier for teachers to engage in high-quality formative assessment for their classrooms, with feedback and automated scoring. In the first FADS trial of signature item types this past spring, teachers were exhibiting engagement. We completed our first validity study in March, to be followed by a second validity study next fall; however, after seeing the first assessment objects, the teachers requested access to and use of the objects be made possible more frequently, even in the initial year. "The students are going to enjoy this," one teacher commented. "They are going to want to do more and more of this."