

How Hard Can It Be? What Knowledge and Skills Does a Teacher Practising Formative Assessment Use?

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Abstract: This case study investigates a teacher's use and need of knowledge and skills during interaction in whole-class is using formative assessment. This practice includes eliciting information about student learning, interpreting the responses, and modifying teaching and learning activities based on the given information. The teacher has participated in a professional development program and teaches grade 5 in mathematics. The results of the study will be presented at the conference.

Background

Several studies have demonstrated that substantial learning gains are possible when teachers use formative assessment (FA) in their classroom practice (e.g. Black & Wiliam, 1998; Hattie, 2009).

However, introducing and implementing formative assessment is not an easy quick-fix. There is little consensus among scholars about the specific meaning of formative assessment, but at the heart of most definitions lies the idea of collecting evidence of students' thinking and learning, and based on this information modifying teaching to better meet students' needs. Such regulation of learning processes would require skills to elicit the thinking underlying students' oral and written responses, and the capacity to make suitable instructional decisions based on this thinking. These decisions could sometimes be made between lessons, but other times the teacher is required to make such wise choices within seconds after discovering important student thoughts in the middle of a lesson (Bell & Cowie, 2000; Wiliam, 2007) When the continuation of the teaching is contingent on the information that appears in such assessments additional knowledge and skills are required compared with a more traditional approach to teaching. Knowledge and skills such as create or choose questions that make student's thinking evident to the teacher and to know ways to collect the information from students as well as to have different ways to explain or plan instructional action on the learning object depending on the student's level of understanding.

Today, sufficient knowledge about how to help teachers and teacher students develop their formative classroom practice is lacking (Wiliam, 2010). In the pursuit of gathering research evidence about the specific content and design of professional development programs and teacher education courses in formative assessment, it is paramount that we know what kinds of skills and knowledge teachers need to successfully orchestrate a formative classroom practice.

The aim of this study is to identify some of the mathematics teacher knowledge and skills that are decisive for a successful formative assessment practice.

Method

This study is a case study conducted in a fifth-grade class in mathematics. The teacher in the study participated in a professional development program in FA during spring 2010. We observed the lessons in mathematics in the class for 2 months. During the lessons the teacher and most students were audiotaped and the observing researcher took field notes. In the study a number of examples on situations with formative assessment have been analysed. The situations were chosen from interactive whole-class lessons from three different time cycles; long-term, between lessons and within lessons. The examples represent situations where the teacher elicit information of student thinking and learning in different ways. The examples were analysed to identify the teacher knowledge and skills she used (Ball, Thames, Phelps 2008).

Discussion and Conclusions

At Madif I will present preliminary results and conclusions.

References

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