Revealing Student Difficulties in Mathematics Lessons through Lesson Study

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Abstract

This study examines how teachers’ choice of key questions and activities in mathematics lessons affects their awareness in student thinking through lesson study processes. A total of 38 video-taped research lessons and subsequent post-lesson discussions are analyzed qualitatively. Three types of lessons are identified in terms of how the lesson reveals student difficulties in carrying out the mathematical tasks included in the lesson. Frequencies of teachers’ remarks on student thinking in post-lesson discussions are examined and connected to the types of research lessons. Preliminary results indicate that incorporating activities that reveal student difficulties in mathematics is an essential component for increasing teachers’ awareness in student thinking. Implications of the findings in promoting teacher growth through the lesson study professional development model are discussed.