RE-CONSTRUCTION OF THE MATHEMATICS CLASSROOM EVALATION IN PRIMARY SCHOOL AIMING AT KEY COMPETENCIES

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Abstract: Key Competencies advance new goals and requirements for mathematics classroom teaching. How to teach mathematics effectively pointing to Key Competencies is the focus of the mathematics education research at present. Classroom teaching evaluation which could explore teachers' educational value and behavior is an important part in teaching practice aiming to Key Competencies. Through analyzing the classroom observation scales of 30 primary schools in Guangzhou selected randomly, this study found that the goals of most classroom teaching evaluation was unclear and the scales were difficult to operate. There is a big gap between the requirements of Key competencies and classroom teaching evaluation. According to Bloom's Taxonomy, the requirements of Key Competencies of mathematics was deconstructed, and an evaluation model for promoting Key Competencies in primary mathematics teaching was proposed.

Research Questions

Two Questions were explored in this study: 1) what was the current evaluation of mathematics classroom teaching in primary schools? 2) how to design the evaluation model for mathematics classroom teaching based on the teachers' behavior in primary mathematics classroom .

Results

1. Many goals of Key Competencies does not get enough attention classroom evaluation and most verbs-concern, analyze, adopt, help, form, etc., used in scales are difficult to measure the quality of teaching.

Highest concern					Lowest concern						Intermediate concern		
Aims for curriculum standards	Suitable content	Using multimedia	Cooperative inquiry learning	Clear teaching idea	Question Posing	Emotional attention	Multi-subjects	Teaching openness	Students' personality	Independent knowledge construction	Learning objectives	Classroom atmosphere	Creating Situation
100%	100.00%	96.70%	90%	100%	23.30%	3.30%	6.70%	10%	16.70%	6.70%	63%	53.30%	60%

Table1: Results of Items analysis of classroom evaluation form of 30 primary schools

2. 3 Dimensions Key Competencies-orientated evaluation model

Aiming to promoting students' Mathematical Key Competencies in mathematics teaching, a new model for mathematical teaching was constructed based on Bloom's Taxonomy, teachers' behavior, Mathematical Key Competencies. This model distinguishes 3 dimensions: *what to learn* (knowledge and competencies to learn, especially Key Competencies), *learning process and results* (cognitive and psychological process), *instructional approac*h (including methods and condition).

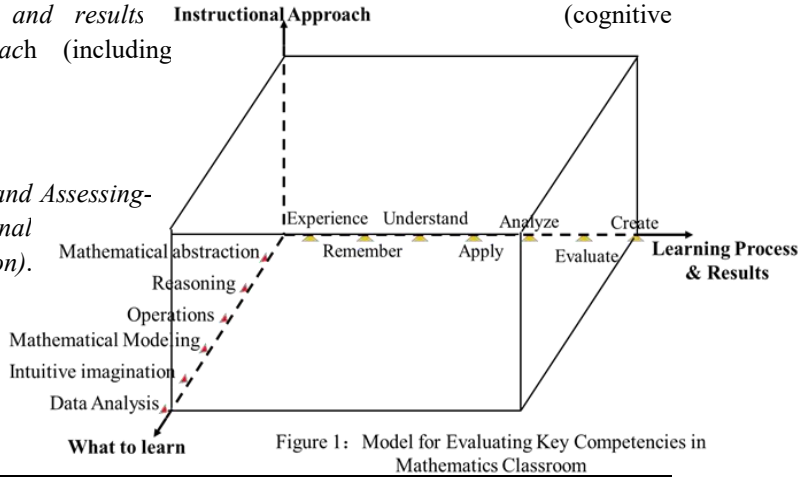

Figure 1: Model for Evaluating Key Competencies in Mathematics Classroom

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