

## **A DESCRIPTION FOR MATH PROBLEM-SOLVING PRACTICUM FOR (5-7)TH GRADE MATH TEACHERS AND ITS EFFECT ON THEIR TEACHING AND ON THEIR STUDENTS' LEARNING**

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### **ABSTRACT**

The purpose of this study is to introduce a description for practicum for (5-7) grade math teachers, and to investigate the effect of (5-7) grade teachers participating in mathematical problem solving workshops on their teaching and on their students' learning. This study was conducted on nineteen public school teachers who teach (5-7) grade and their students. Five workshops were done with teachers using problem-solving activities with open-ended tasks, math investigation, games, and critical thinking as new methods of teaching. Each workshop had educational and mathematical activities. Also, I focused on: group work, sharing activities instead of lecturing, open-ended tasks and questions, open discussions, listening to each other's' ideas, and thinking in different ways. Teachers carried these new things to their classes and used them while teaching several topics in mathematics. Data was collected from different resources: teachers' survey, classroom observations, teacher interviews before and after the workshops, teachers' assignments, students' interviews and short exams, mathematical activities for both teachers and students, teachers' and students' reflections. Then these data were analyzed to answer the research questions. The results of analyzing the data show that participating teachers in problem-solving workshops using several and different strategies changed teachers' strategies for the better, and their knowledge in measurement increased. Moreover this affected their students' motivation and understanding in measurement lessons.