

ENHANCING THE QUALITY OF MATHEMATICS TEACHING AND LEARNING THROUGH THE IMPLEMENTATION OF LESSON STUDY

By:

Yaya S. Kusumah

Department of Mathematics Education,
Indonesia University of Education (UPI)

Jl. Dr. Setiabudhi 229, Bandung 40154

e-mail: ykusumah@upi.edu

Abstract

The quality of mathematics teaching and learning, is a not a simple problem. It should be enhanced by strengthening teachers' knowledge, belief, skills, and performance in their daily teaching activities. Among structured programs which can foster teacher's professionalism are pre-service, in-service and on-service teacher training programs. This effort should include observations and reflection of open lessons to analyze and improve teachers' performance and capabilities in dealing with teaching and learning process. The more open lesson teachers observe, the better their understanding in teaching and learning process will be. Open lessons in Lesson Study which are attended by other teachers from other schools can foster strong development of collegiality; encourage teachers to apply new approaches and methods of teaching; and help teachers in learning some essential and advanced concepts of mathematics. In addition, through open lessons, teachers can also obtain new ideas and experiences which are presented by experts (facilitators) in relevant areas. In this paper, we will discuss some experiences in implementing Lesson Study which has been held for more than 3 years in Sumedang and Karawang District. The description of the paper will cover the lesson learned, the most frequent methods and approaches teachers use, teaching aids and teaching materials they construct and apply, teachers' misconception in mathematics and mathematical representations, and some notes regarding recommendation given by facilitators, related to the teachers' performance.

Keywords: Lesson study, open lesson, misconceptions, representations, teaching and learning process.