

## Implementing Lesson Study in Qatari Mathematics Classroom: A Case Study of a New Experience for Teachers through IMPULS-QU Lesson Study Program

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**Abstract :** The implementation of Japanese lesson study approach in the mathematics classroom has been grown worldwide as a model of professional development for teachers. In Qatar, the implementation of IMPULS-QU lesson study program aimed to establish a robust organizational improvement model of professional development for mathematics teachers in Qatar schools. This study describes the implementation of a lesson study model at Al-Markhyia Independent Primary School through different stages; and discusses how the planning process, the research lesson, and the post discussion participates in providing teachers and researchers with a successful research lesson for teacher professional development. The research followed a case study approach in one mathematics classroom. Two teachers and one professional development specialist participated the planning process. One teacher conducted the research lesson study by introducing a problem solving related to the concept of the 'Mean' in a mathematics class, 21 students in grade 6 participated in solving the mathematic problem, 11 teachers, 4 professional development specialists, and 4 mathematics professors observed the research lesson. All previous participants except the students participated in a pre and post-lesson discussion within this research. This study followed a qualitative research approach by analyzing the collected data through different stages in the research lesson study. Observation, field notes, and semi-structured interviews conducted to collect data to achieve the research aims. One feature of this lesson study research is that this research describes the implementation for a lesson study as a new experience for one mathematics teacher and 21 students after 3 years of conducting IMPULS-QU project in Al-Markhyia school. The research describes various stages through the implementation of this lesson study model starting from the planning process and ending by the post discussion process. Findings of the study also address the impact of lesson study approach in teaching mathematics for the development of teachers from their point views. Results of the study show the benefits of using lesson study from the point views of participated teachers, theory perceptions about the essential features of lesson study, and their needs for future development. The discussion of the study addresses different features and issues related to the implementation of IMPULS-QU lesson study model in the mathematics classroom. In the light of the study, the research presents recommendations and suggestions for future professional development.

**Keywords :** lesson study, mathematics education, mathematics teaching experience, teacher professional development

**Conference Title :** ICCMTS 2017 : International Conference on Classroom Management and Teaching Skills

**Conference Location :** Madrid, Spain

**Conference Dates :** September 11-12, 2017