

IMPROVING SCHOOL TEACHER COMPETENCE IN IMPLEMENTATION REALISTIC MATHEMATICS
EDUCATION (RME) THROUGH LESSON STUDY

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Background

In the Government Regulation (PP) No.19 of 2005 on National Education Standards states that the learning process in educational unit organized in an interactive, inspiring, exciting, challenging, motivating creativity, and independence according to their talents, interests and physical development and psychology students. This suggests that, a teacher is required to master the approach, methods or techniques of learning that can create the class situation into an active, innovative, creative, effective and fun. This can be realized by professional teachers.

Usman (2002:15) says that teachers are professionals who have specialized skills and expertise in the field of teacher training, so he was able to perform their duties and functions as a teacher with the ability of the optimal. One way to improve the professionalism of teachers is the lesson study. Slamet Mulyono (2007) says that the lesson study as a model of professional development of educators through collaborative learning and assessment based on the principles of sustainable collegiality and mutual learning to build a learning community.

The reality shows that there are still many teachers who apply the learning in conventional, ie tend to emphasize on how teachers teach rather than how students learn. The results of preliminary studies in the Elementary School Task Force Makamhaji Sukoharjo showing the same thing, namely: (1) the majority of teachers applying conventional learning, (2) most teachers do not know the development of models of innovative learning, (3) lack of opportunity to follow the activities which is an increase in teachers' professional competence, (4) lack of guidance for teachers to be able to produce / write good scientific work through Classroom Action Research (CAR), Lesson study, or training. On the basis of the above, the importance of efforts to increase research on Primary School Mathematics Teachers in Implementation of Realistic Mathematics Education (RME) Through Lesson Study (LS)

Research goals in the second year

Second year of research objectives are: (1) The implementation of RME implementation through lesson study by a group of teachers, (2) Increased student learning outcomes, and (3) Product second year in the form of: (i) report student learning outcomes, and (ii) Reports of activities teacher as Scientific Writing (KTI), which can be dissemination

Method and Implementation

Design of activities stipulated in the three stages, namely: (1) Socialization of Realistic Mathematics Education (RME) and Lesson Study (LS), (2) planning workshop programming, preparation of lesson study, and (3) Implementation of Lesson Study in the school, along with system monitoring

Results of Research

1. **Socialization RME-LS.** Socialization goes well: (1) The teachers are enthusiastic and active during the debriefing following the RME-LS, (2) The teachers want to know more about the RME-LS, (3) It wants a follow-up, (4) The majority of teachers believes: the RME-LS will help improve students' understanding of mathematics that ultimately can improve learning achievement.
2. **Workshop on learning programming.** The workshop went so well that professional competence of teachers to increase: (1) teachers more control of learning materials, (2) able to prepare lesson plans properly, (3) be able to choose the right strategy, (4) capable and skillful use of learning media, and (5) able to develop an evaluation tool.
3. **Implementation.** Lesson plans (RPP that has been arranged in the classroom can be implemented with either: (1) presents a model teacher lesson plans appropriate learning materials, (2) partner with an expert teacher / mentor / researcher to observe during the learning process, (3) collaboration partner teacher, lecturer / researcher along teachers model reflection, (4) the result of reflection as an input to the next round of improvements, (5) of each round there is an evaluation to determine students' level of understanding concepts, and so on so activities learning the procedures as CAR-based lesson Study, and (6) completed the Lesson study, the teacher model is able to report its activities in the form of Classroom Action Research Reports (CAR) as one of the scientific work for them.

Conclusion

Of the three stages of the research activity plan on an ongoing basis in order to enhance the professionalism of teachers and the quality of learning math in school, it turns out the first phase of implementation (dissemination), the second stage (lesson planning) and the third stage (implementation class) can be done well. Judging from the mastery of the material, primary school teachers has increased understanding of the operation, especially on the broad concept of fractions and wake-up flat which was originally seen as a difficulty to teach it to students. And secondly, the teachers have increased professionalism, especially in preparing lesson plans. RPP is a learning device, therefore, with the perfection of RPP may be indicator that teaching and learning process will go well and can improve student achievement.

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