

DEVELOPMENT OF STUDENT WORKSHEET BASED ON COGNITIVE LOAD THEORY FOR LEARNING JUNIOR HIGH SCHOOL ALGEBRA

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ABSTRACT

The objective of the community service (Pengabdian Pada Masyarakat (PPM)) is to facilitate mathematics teachers to develop learning worksheet based on *cognitive load theory* for an effective and efficient algebra learning. The community service team is lecturers at Department of Mathematics Education, UNY collaborated with the mathematics teacher association, MGMP Matematika Kabupaten Kulon Progo, therefore as many as 75 mathematics teachers actively participated in the program. The program used trainee centered training methods, these are (1) *Focused Group Discussion*, where the participants ask, collect information, explore ideas and find solutions of problems in mathematics learning, particularly in developing worksheet using the 2013 Curriculum and based on cognitive load theory. (2) Group works and individual works, where participants select an algebra topic and then discuss in the group, then develop the worksheet individually. (3) Presentation, the participants show their worksheet to receive comments from the others. (4) Discussion and feedback, the community service team facilitate discussion and give feedback to the developed worksheet. As the reward, the participants receive certificate of participation. The evaluation results indicate that the activity was categorised good and followed-up activities are needed to facilitate teachers develop worksheet for the other topics.

Kata Kunci: *cognitive load theory, worksheet, algebra*