## ABSTRACT

ANNISA RAMALIKA HANANI. Efforts to Improve Communication Skills Students with a Mathematical Model Cooperative Learning Think-Talk-Write On SPLDV in Class VIII-4 SMP Negeri 121 Topic Jakarta. Essay. Jakarta: Mathematics Education, Faculty of Mathematics and Natural Sciences. State University of Jakarta. in 2017. This study aims to determine how the implementation of cooperative learning model TTW on the subject SPLDV can improve students' mathematical communication. skills.

Based on observations in class VIII-4 and an early test of mathematical communication skills in classes IX-5 SMP Negeri 121 Jakarta, concluded that students' mathematical communication skills are in the low category, so it needs to be improved. TTW cooperative learning model is an alternative implementation of the learning of mathematics in the classroom. TTW cooperative learning model consists of three main stages, namely tink (thinking), talk (talk), and write (write). Each stage of this learning model can improve students' mathematical communication skills in learning activities. This study aims to improve students' mathematical communication skills through cooperative learning model TTW in class VIII-4 SMP Negeri 121 Jakarta. This type of research is a classroom action research conducted in three cycles. Each cycle consists of four phases: planning, implementation, analysis, and reflection. At each cycle, the learning activities carried out by implementing cooperative learning model TTW. Students are given a test at the end of each cycle to measure Traffic mathematical communication. The timing of the studies lasted from February to October 2016 in the 4th grade VIII SMP Negeri 121 Jakarta in academic year 2015-2016 and 2016-2017. Students in class VIII-4 amounted 36 people. to The results showed that the learning of mathematics using cooperative TTW models can improve student's mathematical communication skills. This is shown by the increase in the average value of students' mathematical communication ability test for three cycles. The percentage of the average value of mathematical communication ability test students in grade IX-5 SMP Negeri 121 Jakarta on prapenelitian are in the low category, ie 18.29%, in the first cycle in class VIII-4 in a category is, ie 45.43%, in the second cycle in a category is, ie

59.77%, in the third cycle is in the high category, ie 75.44%. The percentage of students who achieve or exceed KKM also increased. In prapenelitian, no student who reaches 73. In the first cycle, amounting to 2.86% of all students in grade VIII-4 has reached or exceeded KKM, on the second cycle increased to 20%, and the third cycle increased to 77.78 %.

## Keywords: Mathematical Communications, Cooperative Learning Model TTW, SPLDV