

ABSTRACT

GEMALA HAVIZA. Efforts to Increase the Mathematical Creative Thinking Ability of Students of Class X MIPA 3 Through a Treffinger Learning Model with a Scientific Approach to Trigonometric Material at SMA 48 Jakarta.

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This study aims to find out how the application of learning model Treffinger with scientific approach on trigonometric material can improve students' mathematical creative thinking ability. Based on the results of observation and early tests of students' mathematical creative thinking ability in class X MIPA 3 SMA 48 Jakarta, it was concluded that students' mathematical creative thinking ability in the low category, so it needs to be improved. Treffinger learning model with a scientific approach can be used as an alternative implementation of mathematics learning in class. This type of research is a classroom action research conducted in three cycles. Each cycle consists of four stages, namely planning, implementation, analysis, and reflection.

The results showed that learning mathematics through learning model Treffinger with scientific approach can improve students' mathematical creative thinking ability. This is shown through the increase in the average score of students' mathematical creative thinking skills over three cycles. The average score of creative thinking ability test of grade X of MIPA 3 students in SMA 48 Jakarta in cycle I is in good enough category, that is 41,1, in cycle II in good category, that is 64, and in cycle III is in good category also, which is 73. Presentation of the number of students who reached or exceeded the minimum completeness criteria (KKM) of 70, also reached an increase. In the first cycle of 11.1% of all students of class X MIPA 3 has reached or exceeded the KKM, the second cycle increased to 36.1%, and in the third cycle increased to 77.8%.

Students are given tests at the end of each cycle to measure the ability to think creatively mathematically. The time of the research took place from April to May 2017 in class X MIPA 3 SMA 48 Jakarta in the academic year 2016-2017. Students in the class were 36 students. However, due to limitations in doing research, only selected 6 research subjects (SP). The increase of each SP that is, SP1 cycle I get the score of 72.2, cycle II 76.4, and cycle III increased to 80.6. SP2 cycle I scores 73.7, cycle II 91.3, and cycle III increases to 94.4. SP3 cycle I scores 65.3, cycle II 77.8, and cycle III increases to 91.8. SP4 cycle I obtained a value of 47.2, cycle II 62.5, and cycle III increased to 70.8. SP5 cycle I got 55.2, cycle II 69,4 and cycle III increased to 81,8. SP6 cycle I scores 41.7, cycle II 61.1 and cycle III increases to 70.8.

Key word: *Creative Thinking Mathematical Ability, learning models treffinger, saintific approach, trigonometry*