

ABSTRACT

BENI ADAM, Analysis of Students' Errors in Solving Word Problems on Permutation and Combination with Newman's Error Analysis at Class XI SMA Negeri 2 Rangkasbitung. Bachelor Thesis. Jakarta: Program of Mathematics Education, Faculty of Mathematics and Natural Sciences, Universitas Negeri Jakarta, 2017.

This research described the types of students' errors, factors causing students' errors, and the percentage of students' errors, and it also proposed the solutions to anticipate the errors and causes of mistakes in students' work after those are identified.

The method of the research was qualitative descriptive. Research data was collected through written test and interview. The subjects of this research were 6 students taken from 28 students of class XI IIA 3 SMA Negeri 2 Rangkasbitung. Each of the research subject's work was analyzed to describe the type of error using Newman's Error Analysis method, then each subject was interviewed to determine the causes of the mistakes.

Based on the results of the research, it can be concluded that there are five types of errors that occurred when students solved the problems of permutation and combination: (1) reading errors, (2) comprehension errors, (3) transformation errors, (4) process skills errors, (5) encoding errors. Several factors that caused the subjects to make mistakes were inability to interpret the numbers on the problems, inability to identify the informations and the questions within the problems, inexperience and unfamiliarity in writing down the informations and the questions within the problem, inability to comprehend the methods that were used to solve the problems, inability to identify which method that can be used to solve specific problems, inability to identify between permutation or combination type of problems, low cognitive abilities, calculation errors, inability to calculate correctly because of previous calculation errors, and carelessness about checking the final answer.

The percentage of errors in Newman's Error Analysis were reading errors as 6.67%, comprehension errors as 43.33%, transformation errors as 23.33%, process skills errors as 40.00% and encoding errors as 43.33%.

Keywords: Newman's Error Analysis, word problems, cause of errors, percentage of errors