

TITIDA KRATULURK : A COMPARISION ON NONPARAMETRIC TESTS FOR ANALYSIS OF COVARIANCE. THESIS ADVISOR : ASSO. PROF.SORACHAI PHISANBUTR,Ph.D. 260 PP. ISBN 974-579-773-1.

This research has an objective to compare power of the test among two nonparametric tests statistics in analysis of covariance of completely randomized design ; that is, Quade's Rank and Rank Transformation. They are compared by determining power of the test when probability of type I error could be controlled for two nonparametric tests and when the residual distribution is logistic , double exponential and scale contaminated normal distribution. The results of this research can be concluded as follow :-

a.) For all type of distributions under study are found that two nonparametric tests statistics are able to control probability of type I error equivalently well.

b.) It is found that test statistic of Rank Transformation has a power of the test absolutely the same for all distributions, all sample size (n), all correlation between dependent variable with concomitant variable (ρ_{xy}) and all coefficient of variation (C.V.).

c.) The factors influential to a power of the test are the sample size (n), the correlation coefficient (ρ_{xy}) and the coefficient of variation (C.V.).