

Thesis Title	Developing Item Specifications for Analytical Thinking Skill Tests in Science Learning Strand for Mathayom Suksa 3 Students
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ABSTRACT

The Purpose of this research was to construct Item Specification of Sciences for Mathayom Suksa 3 Students and study of the Parallel of Achievement test Items constructed on the Basic of Item specification and study of problems, obstacles involved in as well as recommendations generated following the application of such construction. The sample 2 Matayomsuksa 3 science teachers were trained and studied about measurement and evaluation. and 269 Matayomsuksa 3 students in Lampang Province of the 2009 academic year. The instruments use to collect data were the researcher-constructed (1) 60 Item Specification of Sciences, (2) 3 Sciences achievement tests, (3) Questionnaires Seeking to identify problems obstacles and recommendations.

The researcher employed a number of statistical techniques to analyze the obtained data. They were the basic statistic, Pearson Product Moment Correlation Coefficient for testing validity, Chi-Square Test for testing efficiently of the test, discrimination differences and reliability, Kuder-Richardson : KR_{20} reliability test technique, One-Way Repeated Measures Analysis of Variance for testing the difficulty differences, and Levene's Test for testing variance.

The findings of this study were as follows ;

1. 60 Item specification of Sciences were qualified and each can be written 1 science item
2. The difficulty, the discrimination, the efficiency, the reliability of the test, the mean of the third test, the variance of test were found to be not significantly different. In addition to the inter-correlation of test were significantly different at .01
3. The problems obstacles and suggestions from the questionnaires show that the given Item Specification was clearly explain about description, questions, answers and choice and such Item Specification enable teachers to write the test with the same quality and behavior. Some of the item writers commented that they should not limit the number of messages or situation for writing-test.