

C240452 : MAJOR EDUCATIONAL MEASUREMENT AND EVALUATION

KEY WORD : LOGICAL REASONING/MATHAYOM SUKSA THREE STUDENTS

WASANA NUCHTED: THE DEVELOPMENT OF THE LOGICAL REASONING TEST FOR

MATHAYOM SUKSA THREE STUDENTS: THESIS ADVISOR ASSIST. PROF. PUANGKAEW

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The purpose of this research was to construct and develop the logical Reasoning Test for Mathayom Suksa Three students. The subjects were 1,310 Mathayom Suksa Three students in the academic year 1991 of the secondary schools in educational region 12 drawn by multi-stage sampling technique. The instrument was a logical Reasoning Test with 51 multiple choice items. The test consisted of two parts; the first part was 22-items in inductive reasoning test, and the second part was 29-items in deductive reasoning test. The data were analyzed by computer using SPSSX. The findings were as follows;

1. Mean of the test was 29.07 and the standard deviation was 7.88
2. The percentage of the correct answers ranged from 26 % - 82 % and the item discrimination ranged from .20 to .50
3. The reliability considering the internal consistency was .85 and the standard error of measurement was 3.08
4. The predictive validity was analyzed by Pearson Product Moment Correlation. The correlation between the mathematics achievement scores and the logical Reasoning Test scores, ranged from .3069 to .5778
5. The construct validity was analyzed by the factor analysis technique. It was found that 2 factors explained the logical Reasoning abilities; inductive reasoning and deductive reasoning.
6. Norm was provided in Percentile Norm.