

TEERASAK URAJANANON : A COMPARISON OF QUALITY OF MULTIPLE CHOICE TEST WITH DIFFERENT NUMBERS OF ALTERNATIVES BY USING ITEM RESPONSE THEORY. THESIS ADVISOR : PROF. DR. SOMWUNG PITTIYANUWAT, Ph.D. AND DR. CHUSAK KHUMPALIKIT, Ph.D. 109 PP.

The purposes of this study were to compare the quality of the multiple choice test that reduced the alternatives from five alternatives to four alternatives and three alternatives respectively by using item response theory and compared the differences of the reliability coefficients of these tests by using classical test theory.

The findings were as follows :

1. The multiple choice test with five alternatives had higher quality than the multiple choice test with three alternatives in high and low ability groups and the multiple choice test with three alternatives had higher quality than the multiple choice test with five alternatives in moderate ability group.

2. The multiple choice test with five alternatives had higher quality than the multiple choice test with four alternatives in high and moderate ability groups and the multiple choice test with four alternatives had higher quality than the multiple choice test with five alternatives in low ability group.

3. The multiple choice test with four alternatives had higher quality than the multiple choice test with three alternatives in high and low ability groups and the multiple choice test with three alternatives had higher quality than the multiple choice test with four alternatives in moderate ability group.

4. In high ability group the multiple choice test with five alternatives had highest quality and reduced the quality in the multiple choice tests with four and three alternatives respectively. In moderate ability group the multiple choice test with three alternatives had highest quality and reduced the quality in the multiple choice tests with five and four alternatives respectively. In low ability group the multiple choice test with four alternatives had highest quality and reduced the quality in the multiple choice tests with five and three alternatives respectively.

5. The reliability coefficients of the multiple choice tests with five, four and three alternatives were not significant difference.