

Research Title	The effects on test scores and the reliability of the test when taking out its items with negative discrimination power: Maternal and Newborn Nursing and Midwifery 2
Researcher	Mrs. Niramai Usaha Mrs. Pisut Pathumasute
Research Consultants	Assistant Professor Jurai Apaijirarat
Organization	Faculty of Nursing Suan Dusit Rajabhat University
Year	2015

This study aimed to 1) to describe the quality of the test item Maternal and Newborn Nursing and Midwifery 2. 2) to compare the reliability of the test obtained before and after excluding the Items with negative discrimination power. 3) to compare the test scores students obtained before and After excluding the items with negative discrimination power. 4) to compare the test ranks students obtained before and after excluding the items with negative discrimination power. This study used with 92 nursing students year 3, in the first semester of academic year 2012. Data were collected by test score of the midterm and the final examination and Program analysis of test items. Percentage, mean, standard deviations, Paired t-test (one-tailed) and Sign Ranked test were performed for data analysis.

Research finding were shown as following:

1) The quality of the test : In the first midterm examination test items, the 55 test items (57.88%) had their index of difficulty within a proper range ($P=.20-.80$) and 49 test items (51.57%) had proper index of discrimination ($r \geq .20$) and 7 test items (7.36%) had negative discrimination power. The reliability of this test was 0.74. In the second midterm examination test items, the 60 test items (66.78%) had their index of difficulty within a proper range ($P=.20-.80$) and 62 test items (70.52%) had proper index of discrimination ($r \geq .20$) and 3 test items (3.33%) had negative discrimination power. The reliability of this test was 0.81. In the final examination test items , the 53 test items (62.36%) had their index of difficulty within a proper range ($P=.20-.80$) and 49 test items (57.64%) had proper index of discrimination ($r \geq .20$) and 3 test items (3.53%) had negative discrimination power. The reliability of this test was 0.74.

2) After excluding the items with negative discrimination power of 3 test items , the reliability of the first midterm examination test items was up from 0.743 to 0.778 , the reliability of first the second term examination test items was up from 0.810 to 0.819, the reliability of final examination test items was up from 0.744 to 0.754

3) After excluding the items with negative discrimination power, the two-tailed Paired t-test revealed that the mean score of the test in the first midterm examination was significantly increased at 0.01 but wasn't significantly changed at 0.01 in the second midterm examination and final examination.

4) In the same way, the Signed Rank Test showed that student's rank were significant changed in the first midterm examination at 0.01 and hadn't significant changed at 0.01 in the second midterm examination and final examination.

Keywords: quality of the test items, negative discrimination power, reliability of this test