

Jakkapong Prongprommarat 2011: A Development of Analytical Thinking Test for Prathomsuksa 6 Students under Bangkok Primary Educational Service Area Office. Master of Education (Educational Research and Evaluation), Major Field: Educational Research and Evaluation, Department of Education. Thesis Advisor: Miss Warunee Lapanachokdee, Ph.D. 136 pages.

The purpose of this research was to develop the analytical thinking test for prathomsuksa six students under Bangkok primary educational service area office. The four specific objectives were 1) to construct the analytical thinking test; 2) to validate the analytical thinking test; 3) to establish local norms of the analytical thinking test, and 4) to construct the manual of the analytical thinking test. Using multi-stage random sampling method, research sample for test validation and norms construction consisted of 380 prathomsuksa six students who studied in schools under Bangkok primary educational service area office in second semester, academic year 2010.

The developed analytical thinking test comprised of 40 items, aimed to assess 5 analytical thinking composition; classification, categorization, conclusion, generalization, and prediction. Each composition consisted of eight 4-choice with one corrected answer items.

The research result showed that the developed test was the soundness test that could be efficiently used to assess the analytical thinking of prathomsuksa six students under Bangkok primary educational service area office. The significant findings were as follows:

1. The content validity of the analytical thinking test, investigated by calculating the item objective congruence (IOC), were in the range of 0.60 – 1.00.
2. The item difficulty index varied from 0.31-0.79, item discrimination index were in the range of 0.21 - 0.73.
3. The construct validity of the analytical thinking test, investigated by confirmatory factor analysis, revealed that construct validity of the analytical thinking test was achieved. Chi-Square (χ^2) with 729 df was 390.95 ($p = 1.00$); Standardized RMR was 0.03; RMSEA was 0.00; GFI was 0.95; and AGFI was 0.94.
4. Cronbach's alpha reliability coefficient for the classification, categorization, conclusion, generalization, and prediction was 0.81 0.78 0.77 0.82 and 0.79 respectively, and for the whole test was 0.92
5. The local norms for the analytical thinking test score interpretation presented in the form of normalized T-score for the whole test were in the range of T25 – T73 and in the range of T17- T66 for classification, in the range of T33-T65 for categorization, in the range of T35- T63 for conclusion, in the range of T33- T65 for generalization, and in the range of T32- T65 for prediction.
6. The manual of the analytical thinking test was suitable and convenient for usability, easy to understand, and fully important composition.

Student's signature

Thesis Advisor's signature