

C740331 : MAJOR EDUCATIONAL MEASUREMENT AND EVALUATION

KEY WORD: DIF METHODOLOGY/ DIFFERENTIAL ITEM FUNCTIONING/ TEST/ ITEM BIAS/
MANTEL-HAENSZEL

KASORN HWANGCHIT : AN ANALYSIS OF DIFFERENTIAL ITEM FUNCTIONING
BASED ON MANTEL-HAENSZEL PROCEDURE IN THAI AND ENGLISH LANGUAGE
GRADUATE ENTRANCE EXAMINATION TESTS. THESIS ADVISOR : ASSO. PROF.
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The purpose of this research was to analyze the Differential Item Functioning (DIF) based on MANTEL - HAENSZEL procedure for 4 subgroups; gender, social background, test experience and educational insitution. The data were the item response to Thai and English language entrance exammination tests, administered by Educational Testing Center (Testing code 383), Faculty of Education, Chulalongkorn University. The population of study were 506 and 501 examinees in Thai and English tests, respectively. The data were then analyzed by descriptive statistics using SPSS/PC⁺, detected DIF through MH_{DIF}. Reliabilities were analyzed through Classical Theory (CTIA) and confirmatory factor analysis were also performed to determine the construct validity through LISREL 8.10.

The major findings were as follows:

1. DIF items mostly were analyzed by nonuniform DIF. Detecting DIF according to gender subgroup was the largest number of DIF items; followed by social background, educational institution and test experience, respectively.

2. In Thai and English Tests: DIF items had low discriminant index (0.20-0.39). In Thai test, DIF items mostly were very easy items (0.80-1.00), the item content was about the "language using 1". In English Test, DIF items mostly were very difficult items (0.00-0.19), the item content was about the "detailed information".

3. After the DIF items were eliminated, reliability and construct validity of the test scores mostly were not significantly different from original test in both Thai and English Tests.

ภาควิชา..... วิทยาลัยการศึกษา..... ลายมือชื่อนิสิต..... *K. J.*
สาขาวิชา..... การวัดและประเมินผลการศึกษา..... ลายมือชื่ออาจารย์ที่ปรึกษา..... *Sirichai Kanjanawasi*
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