

# # 3971439227: MAJOR EDUCATIONAL MEASUREMENT AND EVALUATION  
KEY WORD: NONUNIFORM DIF /THE MANTEL-HAENSZEL/ LOGISTIC REGRESSION / GROUP ABILITY /  
ITEM DIFFICULTY / ITEM DISCRIMINATION

RUTCHARIN MUKDA : A COMPARISON OF THE EFFICIENCY BETWEEN THE MANTEL-HAENSZEL AND LOGISTIC REGRESSION PROCEDURES IN DETECTING NONUNIFORM DIFFERENTIAL ITEM FUNCTIONING WITH DIFFERENT GROUP ABILITIES, ITEM DIFFICULTIES AND ITEM DISCRIMINATIONS. THESIS ADVISOR : ASSO. PROF. SIRICHAJ KANJANAWASEE, Ph.D. 157 pp. ISBN 974-638-462-7.

The purpose of this research was to compare the efficiency between the Mantel-Haenszel and Logistic Regression procedures in detecting nonuniform differential item functioning. Data were simulated from IRTDATA program. Factors of this study were (1) 3 ability groups ; high,medium and low ability groups (2) 3 item difficulties ; high,medium and low item difficulties (3) 3 item discriminations; high,medium and low item discriminations. Twenty-seven conditions were investigated in this study.

The results of this research were as follows :

1. The Mantel-Haenszel and Logistic Regression procedures were equally efficient in detecting nonuniform DIF for high, medium and low ability groups.
2. For the high ability group, nonuniform DIF was detected mostly for items with high difficulty and high discrimination.
3. For the medium ability group, nonuniform DIF was detected mostly for items with medium difficulty and high discrimination.
4. For the low ability group, nonuniform DIF was detected mostly for items with low difficulty and high discrimination.

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