

C140165 : MAJOR EDUCATIONAL MEASUREMENT AND EVALUATION

KEY WORD: UNIDIMENSIONALITY/HOMOGENEITY/MIMIC

WORANUCH YAMSANG : A DEVELOPMENT OF PROCEDURE FOR ASSESSING UNIDIMENSIONALITY OF A TEST. THESIS ADVISORS : ASSO. PROF. SIRICHAJ KANJANAVASEE, Ph.D., ASSO. PROF. SUPHAT SUKAMOLSON, Ph.D., 182 pp. ISBN 974-584-175-7

The main purpose of this study was to develop the procedure of three indices for testing unidimensionality of a test namely 1) ER Index from eigen values plot, 2) ABT Index from biserial test and 3) AG Index from Green's homogeneity index. In the study, 1000 Prathom Suksa 5 students were used as subject and 2 tests, one was a mathematic test and the other was an English test, were used. Each test consisted of 15 items which were contaminated by the other test systematically to make its unidimensionality impure. The 3 developed indices were calculated and compared with the original ones and GFI resulted from MIMIC model to test their fitness and sensitivity.

It was found that of all 3 indices, ER Index was the best for testing unidimensionality of a test when its content and length varied. There was not sufficient evidence to prove that the other 2 indices were good for a such testing.