

Gender in DIF in the Reading Comprehension Section of the University Entrance Examination for the Applicants for English programs at Iranian Universities Using Diagnostic Classification Modeling Approach

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The present study investigated DIF in the reading comprehension items of the university entrance examination for the applicants into the English programs at Iranian universities. A diagnostic classification DCM-based method of DIF detection was used. A comparison was also made between the DCM-based method and the traditional Mantel-Hanzel method in which the matching variable was total score. To this end, item responses of 10000 test takers who took the test in 2014 were analyzed using the CDM and difR packages in R. based on the DCM approach, one item and based on the Mantel-Hanzel approach two items were flagged for moderate DIF. As to the construct validity of the test under study, it can be concluded that the results are generalizable across gender. A methodological implication of the present study can be that when the matching variable in DIF detection methods is total score, more items are likely to be flagged for DIF, as compared with when the attribute profiles of the test takers are used as the matching variable.

Keywords: Attribute, Attribute Profile, DIF, Diagnostic Classification Models, Mantel-Haenszel.

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