

## **Difficulty and discrimination indices of sample of typical multiple choice questions administered to students at different levels showed atypical values**

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**Abstract : Objectives:** To compare the statistical indices obtained from exposing students at different academic levels to the same multiple choice questions (MCQs). **Methods:** Samples of MCQs administered simultaneously to students at level one and level five within the physical therapy program. Questions were classified as high quality MCQs. A difficulty and discrimination indices were achieved for all questions. The MCQs were analyzed for their reliability using Kuder- Richardson-20 (KR-20). The results of MCQs extracted from level one and level five were compared. **Results:** The analysis showed disparity in the difficulty and discrimination indices for most of MCQs. The difficulty levels were classified based on Bloom's taxonomy of cognitive processes dimension. The discrimination indices were classified on a spectrum from poor to fair to good with having a template specifically designed to easily settle the MCQs at its corresponding cells. **Conclusions:** It is concluded that typical MCQs are more likely to give atypical values due to different backgrounds, experience, retention abilities and academic course priorities among students.

**Keywords :** Difficulty index; discrimination index; high quality MCQs; question analysis.

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