



Computation is used to denote application level within the cognitive process dimension of the multiple choice questions derived from biomechanics and kinesiology courses

Tarek M. El-gohary,^{1,2*} Samiha M. Abdelkader³

¹⁾ Biomechanics Department, Faculty of Physical Therapy, Cairo University, Egypt

¹⁾ Board Certified Orthopedic Clinical Specialist, USA

¹⁾ Mechanical Diagnosis & Therapy, McKenzie Institute, USA

¹⁾ Certified Ergonomic Assessment Specialist, NJ, USA

²⁾ College of medical Rehabilitation Sciences, Taibah University, Saudi Arabia

³⁾ Physical Therapy Department, College of Applied Medical Science, King Saud University, Saudi Arabia

Abstract : The purpose of this study was to test the reliability of multiple choice questions (MCQs) that were administered simultaneously using two versions but of same questions from biomechanics and kinesiology exam. Methods: a number of MCQs that needed some sort of computations were selected from biomechanics and kinesiology course. After ensuring the validity of the included MCQs, Kuder- Richardson- 20 (K-R-20) test was run to ensure its reliability. Difficulty/ facility and discrimination indices were calculated for different exam versions. Results: analysis showed almost same but atypical indices for the majority of the included MCQs. Questions that needed multiple steps of computation showed better difficulty/ facility and discrimination indices compared with questions that only needed simple computation. Conclusions: academics need to focus on including advanced MCQs that require more complex calculations in order to discriminate more from less capable students.

Key words: Calculation, application, MCQs, biomechanics and kinesiology.

International Journal of ChemTech Research, 2018,11(03): 158-164

DOI : <http://dx.doi.org/10.20902/IJCTR.2018.110317>
