

**Original Article:****Reliability and Factor Structure of the Westside Test Anxiety Scale among University Students.****Authors:**

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Abstract: The Westside Test Anxiety Scale (WTAS) is a widely-used screening instrument for assessing test anxiety impairments in educational settings. However, psychometric properties of this measure have not been established adequately. Therefore, the main objective of this study was to evaluate the factor structure and measurement invariance of the WTAS. Data for the cross-sectional study was collected from a convenience sample of 218 undergraduate students enrolled in a public university in Malaysia. Construct validity was investigated by Exploratory Factor Analysis (EFA). Confirmatory Factor Analysis (CFA) was used to test two models (original structure and EFA structure). Also, multiple-group invariance was analyzed in order to determine the extent to which the factor structure was comparable across gender. Results of CFA indicated that both models met all the pre-established fit criteria. There was however, more support for the re-organized two-factor EFA model, with high reliability values. Multi-group CFA demonstrated measurement invariance across gender. Findings from the present study indicate that the WTAS could serve as a screening tool to detect test anxiety among students.

Key Words: Test anxiety, Factor structure, Gender invariance

Introduction:

Examinations and tests, without doubt, are an unavoidable part of every student's educational journey. The importance of examination as an integral part of education cannot be denied[1]. Anxiety is more common at test period[2]. Most students experience some level of nervousness when anticipating or taking an exam.

A little anxiety during exams is required that will help students to get motivated and learn[3], for some students, test anxiety becomes so debilitating that it impairs optimal performance.

Uncontrollable emotions caused by anxiety associate with negative situations [2]. This in turn, could negatively impact

their academic progress, as well as future career prospects. Apparently, progress in school and entrance into or promotion within a vocational field may be, in part, a function of the capacity to demonstrate abilities and aptitudes on a test or series of tests [4]. In view of that, responses to high levels of test anxiety could have important implications in the educational setting[5], especially for university students who are aiming for a degree and aspiring to join the workforce.

Test anxiety is an undesirable reaction toward evaluation [3]. Test anxiety is defined as the physiological and behavioral responses related to taking oral or written tests that is experienced before and during test taking about possible negative consequences or failure on an examination[6]. Research on test anxiety has repeatedly attempted to provide a more refined measurement of multiple dimensions of the construct [7]. On the whole, there has been general consensus that emotionality and worry constitute the two primary dimensions of test anxiety [8,9], leading to stress. Stress levels may escalate to significant proportions in some students, to present with symptoms of anxiety especially during tests and examination periods[10-13]. Academic stress can also result in increased pervasiveness of psychological and physical problems like depression, behavioral problems, irritability and procrastination, which in turn can affect their academic results.[14-18] It was demonstrated in a number of studies that parental pressures and teachers' expectations were associated with stress around the time of examinations or about choosing particular academic study or a future career [11].

There has been considerable interest in the level of manifestation of test-anxiety as it relates to such topics as verbal or motor learning, stimulus generalization, form discrimination and size estimation [19]. In developing a measurement for assessing the level of test anxiety, Driscoll (2004) devised the Westside Test Anxiety Scale (WTAS)[20] as a concise instrument which could be completed by respondents in approximately 5-8 minutes[20]. The WTAS