

# The Validity of Severity Standards for the Cognitive Test Anxiety Scale – 2<sup>nd</sup> Edition

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## Background

Research has demonstrated that cognitive test anxiety places students at-risk for academic struggle (Hembree, 1988).

To better assist test anxious students, educators have called for the creation of validated methods that can be used to identify students most at risk for the experience of debilitating levels of test anxiety (Segool et al., 2013).

To address this need, the current investigation was designed to provide additional evidence of the validity of an empirically generated set of diagnostic guidelines that can be used to classify students as possessing low, moderate, or high levels of cognitive test anxiety based on responses to the freely accessible Cognitive Test Anxiety Scale - 2nd Edition (CTAS-2, Thomas, Cassady, & Finch, 2018).

## Method

Undergraduate students ( $N = 220$ , Female = 91%, Caucasian = 78%)

### The Cognitive Test Anxiety Scale – 2<sup>nd</sup> Edition (CTAS - 2; Thomas et al., 2018):

- 24 – item measure assessing the cognitive manifestations of test anxiety.

### Reactions to Tests (Sarason, 1984):

- Worry Subscale (RTT - W):
  - 10 - item subscale assessing the severity of performance related concerns.
- Test-Irrelevant Thinking (RTT - T):
  - 10 - item subscale assessing presence of intrusive thoughts that are not focused on the performance event .

### Demographic Questionnaire

## Results

### Multivariate Analysis of Variance

We conducted a Multivariate Analysis of Variance exploring group differences among participants classified as possessing low, medium, and high levels of cognitive test anxiety on three dependent variables (i.e., RTT-W, RTT-T, & Cumulative GPA).

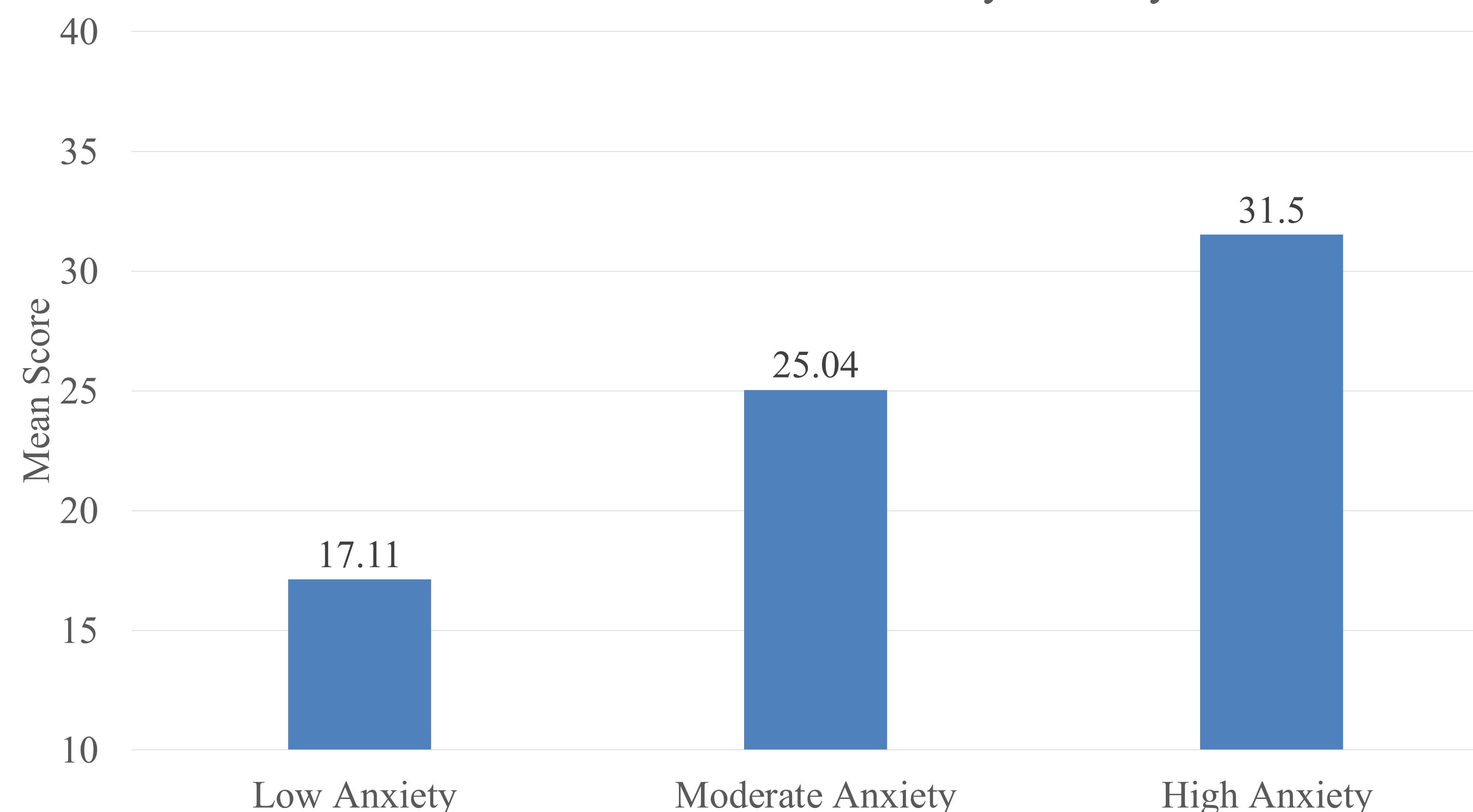
Results revealed significant a multivariate effect of CTAS-2 severity, Wilk's  $\lambda = .29$ ,  $F(6,430) = 60.14$ ,  $p < .05$ ,  $\eta^2_p = .45$ .

### Discriminant Analysis

Consistent with best practices in the field of multivariate statistics, the nature of the significant Multivariate main effect was determined using discriminant analysis. Discriminant analysis results indicated that responses to the RTT-W (Parallel DRC = 86) contributed to group difference while self-reported GPA (Parallel DRC = .05). and responses to the RTT-T (Parallel DRC = .07) did not contribute to group differences noted in the MANOVA.

Examination of mean values indicated that highly test anxious participant demonstrated the highest levels of worry, followed by moderately anxious students, and finally students will low levels of anxiety.

Mean RTT - W Scores Across Test Anxiety Severity Levels



## Conclusion

Results of the current examination provide additional validity evidence for a set of severity standards that can be used to differentiate among students with low, moderate, and high levels of cognitive test anxiety.

We believe the results of the current investigation have important implications for efforts to support test anxious students. Specifically, we believe CTAS - 2 severity standards provide educators with a practical method of identifying students who experience the most severe levels of test anxiety who can then be referred to structured support services.

By providing educators with the tools needed to support test anxious students, learners at all educational levels can be taught the skills needed to cope with academic stress and thrive within standard educational settings.

## References

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