

# **ATFY-R: Psychometric Properties and Predictive Value for Academic Performance in Online Learning**

A dissertation by  
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## ABSTRACT

The psychometric properties of a revised form of an instrument widely used to assess suitability for distance learning and its predictive value for academic performance in online learning courses were examined. Volunteer students in two undergraduate education courses completed online a revised form of "Are Telecourses for You?" (ATFY-R) and provided information regarding a prerequisite course. Academic performance was measured using the percentage of total base points earned in the course. Additional demographic and academic data were collected in other online forms.

Scores for 142 participants ranged from 19 to 33, of a possible 12 to 36, and were normally distributed; mean, median, and mode were equal at 27. Cronbach alpha of .43 indicated poor reliability of the ATFY-R as a scale. Four factors extracted in a factor analysis explained only 52% of the variance; only one could be clearly defined.

Total base percentage scores ranged from 11 to 102. More than 70% of students scored 90% or better, resulting in a non-normal distribution of scores. Earning a base percentage score  $\geq 90$  was set as the criterion for defining successful academic performance. Using that definition, 102 (72%) were successful and 40 (28%) were unsuccessful.

Only the ATFY-R question related to procrastination was found to be a significant predictor of successful academic performance. Other significant predictors were GPA and preference for a sensing learning style. Trends toward significance as a predictor were found for access to a computer outside of the lab, preference for a global learning style, number of previous online courses, and grade in a prerequisite course.

Successful academic performance was six times more likely for students who did not self-report as being procrastinators. Procrastination appeared to be the most valuable predictor of success; only sensing learning style preference retained significance when controlled for procrastination.

Implications of the lack of reliability and predictive value of the ATFY-R found in the study are discussed, with acknowledgement of the study limitations. Recommendations for similar research with other populations and for continued use of individual ATFY-R items in lieu of an alternative measure are made.