

Personality and the Prediction of Student Engagement



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INTRODUCTION

In a meta-analysis of the relation between academic performance (measured using mostly GPA) and measures of the Five-Factor Model in samples of children and adolescents by Poropat (2009), conscientiousness and openness were the strongest predictors of achievement with Openness' predictive power decreasing as the students passed onto higher levels of education. However, the student experience richer than the academics. Student engagement is also an important component of successful academic and social adjustment within university life (Tinto, 1993), and it is predictive of student persistence and eventual graduation (Astin, 1984). Hu and Kuh (2002) define academic engagement as "the quality of effort students themselves devote to educationally purposeful activities that contribute directly to desired outcomes," and is it the amount of physical and psychological efforts the students devote to not only the academic, but also the social aspect of the university experience (Astin, 1984).

Studies have shown that self-ratings of conscientiousness, extraversion, and neuroticism predicted academic engagement but not social engagement (Kurtz, Puher, & Cross, 2012), where social engagement has been studied in the context of the classroom (Caspi, Chajut, Saporta, & Beyth-Marom, 2006). Voluntary self-reported absence, which has been found to be negatively related to conscientiousness, has often been used as a measure of academic engagement (Conrad, 2006; Farsides & Woodfield, 2003). However, there are more ways in which students may exhibit engagement. The present study utilizes the Five-Factor Model of personality to replicate findings on the relation between academic engagement and personality, and to produce more information on non-academically related social engagement and personality by using the Academic Engagement Scale and the Social Engagement Scale.

METHODS

Participants

Participants were 167 UCR undergraduate students (46 males and 120 females and one participant who did not disclose sex). The participant sample was ethnically diverse (40.1% Asian, 38.3% Hispanic/Latino, 3.6% African American, 15.4% Caucasian). The mean age was 19.05 ($SD = 1.432$).

Measures

The *Academic Engagement Scale* was used to measure students' academic engagement. It is a select 24-items ($\alpha = .913$) on the normative perceptions of good educational practices in higher education adapted from the CORE module question subsets 5-8 from the University of California Undergraduate Experience Survey (UCUES) (University of California, 2008). The questions ask "how frequently" "in the last quarter" the participants engage in the academic activities. Subjects rated how frequently they engaged in the activities on a 6-point scale ranging from 1- *never* to 6- *very often*.

The *Social Engagement Scale* was used to measure the students' social engagement on campus. It is an 11-item scale ($\alpha = .852$) measuring social engagement behaviors around campus and the nearby Riverside community. The scale was developed in a focus group, and it consists of non-academically oriented social activities in which undergraduate students may engage on or around campus. Participants were asked to rate how frequently they engaged in activities such as "volunteer on campus," "attend informal social events on campus," and "have a meal with a friend." The prompt and the response choices were developed to match those of the Academic Engagement Scale.

The *International Personality Item Pool –NEO (IPIP-NEO)* was used to measure students' personality. This measurement consists of self-rating items for each of the big five factors: extraversion (25 items), agreeableness (24 items) conscientiousness (24 items), neuroticism (23 items), and openness to experience (24 items). The Cronbach's alpha coefficient for the traits ranged from .72 (openness) to .88 (conscientiousness) with an average of $\alpha = .825$. Subjects rated the accuracy of each item on a 5-point scale that ranged from 1- *very inaccurate* to 5- *very accurate*. The ratings of each item were averaged to provide the score for each trait for each participant.

RESULTS

Pearson product-moment correlations between the five factors of personality, Academic Engagement scores, and Social Engagement scores are displayed in Table 1. Multiple regression analysis was used to test if the five personality traits and Social Engagement predict Academic Engagement; the model had a good fit, adjusted $R^2 = .378$, and it was statistically significant, $F(6,160) = 17.810$, $p = .000$. Additionally, multiple regression analysis was performed to predict Social Engagement from the five factors of personality and Academic Engagement; this model had a good fit, adjusted $R^2 = .358$, and it was statistically significant, $F(6,160) = 16.432$, $p = .000$. The results of the regression analyses for both models are displayed in Table 3.

Table 1. Descriptive Statistics

	Mean	Std. Deviation
Academic Engagement	3.589	.747
Neuroticism	2.994	.576
Extraversion	3.244	.521
Openness	3.338	.398
Agreeableness	3.730	.468
Conscientiousness	3.634	.535
Social Engagement	3.672	.893

Table 2. Correlations of Social Engagement, Academic Engagement, and Personality Traits

	Social Engagement	Academic Engagement
Neuroticism	-.206**	-.202**
Extraversion	.544**	.485**
Openness	.297**	.264**
Agreeableness	.103	.060
Conscientiousness	.117	.374**
Academic Engagement	.475**	--

** The correlation is statistically significant at the .01 level (2-tailed)

Table 3. Academic and Social Engagement as Predicted Variables

	Academic Engagement			Social Engagement		
	Beta	t	Sig.	Beta	t	Sig.
Academic Engagement	-	-	-	.298	3.884	.000
Social Engagement	.289	3.884	.000	-	-	-
Neuroticism	.127	1.618	.108	.019	.237	.608
Extraversion	.272	3.195	.002	.412	4.970	.000
Openness	.120	1.733	.085	.096	1.361	.409
Agreeableness	-.125	-1.800	.074	.058	.808	.237
Conscientiousness	.356	4.973	.000	-.128	-1.655	.024

DISCUSSION

Extraversion and Conscientiousness significantly predicted academic engagement when social engagement was included in the model. While not statistically significant predictors, Agreeableness and Openness show a trend.

Extraversion and negative Conscientiousness were also statistically significant predictors of social engagement when academic engagement was included in the model.

These results suggest that personality traits may relate to students' capacity to successfully engage in the university environment not only academically but also socially.

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