

Results

An alpha of .05 was used for all analyses unless otherwise indicated. Linear regression was used to predict statistics anxiety using the teacher ratings and age of students. See Table 1 for descriptive statistics and correlations among the variables. The sample was randomly split in half to allow cross-validation of the model. Sample “A” was used to develop the linear regression model. The analysis indicated we were able to predict statistics anxiety using teacher ratings and student ages, $F(2, 23) = 7.91$, $MSE = 2.99$, $p = .002$, $R^2 = .41$. Table 2 contains the regression model for Sample “A”. The regression model shown in Table 2 was then used to calculate predicted values for statistics anxiety within Sample “B”. The correlation between actual statistics anxiety scores and predicted anxiety scores for Sample “B” was .764. Since there was more than a .10 difference in R^2 values (i.e., .41 for Sample “A” and $.764^2 = .584$ for Sample “B”), it was concluded that the regression model would not generalize to other samples.

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Table 1

Descriptive Statistics and Pearson Correlations

<i>Sample "A", N = 26</i>			Correlations	
	<i>M</i>	<i>SD</i>	Teacher	Age
Anxiety	7.62	2.16	-.50	.41
Teacher	10.35	1.20		-.04
Age	24.88	3.76		

<i>Sample "B", N = 34</i>			Correlations	
	<i>M</i>	<i>SD</i>	Teacher	Age
Anxiety	7.52	2.32	-.48	.41
Teacher	10.15	1.42		-.04
Age	24.29	3.26		

Table 2

Linear Regression Model to Predict Statistics Anxiety Using Sample “A”

Predictor	<i>B</i>	<i>SE</i>	β	<i>95% CI</i>
Constant	11.14	3.85		
Teacher	-0.88	0.29	-0.49	-1.48, -0.28
Age	0.23	0.092	0.39	0.034, 0.42

Table 3

Linear Regression Model to Predict Statistics Anxiety Using Total Sample

Predictor	<i>B</i>	<i>SE</i>	β	<i>95% CI</i>
Constant	10.25	3.83		
Teacher	-0.82	0.26	-0.48	-1.46, -0.26
Age	0.21	0.094	0.41	0.032, 0.40