

Findings Chapter

Overview

This chapter presents the findings of a cross-sectional correlational study examining the association between academic self-efficacy and learning persistence among undergraduate students in their first three years of study. Each participant completed a single questionnaire comprising two multi-item scales, each scored as the mean of its respective items, with no reverse-scored items or missing values present in this version of the dataset. Prior to examining the substantive research question, the internal consistency reliability of each scale was assessed using Cronbach's alpha, and descriptive statistics were computed for study year, individual items, and composite scale scores. The central analytic question concerned whether academic self-efficacy and learning persistence scale scores are associated, as formalized in a single hypothesis proposing a positive association between the two constructs. This was evaluated using a Pearson correlation coefficient, following preliminary inspection of the scatterplot, assessment of linearity, and consideration of potentially influential observations. The strength and direction of the association, together with an indication of its uncertainty, are reported using a two-sided test evaluated against a conventional significance level. Given the cross-sectional, self-report nature of the design, the results that follow should be interpreted as describing the co-occurrence of self-reported self-efficacy and persistence at a single point in time rather than as evidence of causal influence of one construct on the other. The subsequent sections present the reliability analyses, descriptive statistics, and the outcome of the hypothesis test in turn, with each section reporting its own result in relation to the stated hypothesis.

Interpretation Limits

- Because the design is not a controlled experiment, these results describe relationships and associations, not cause and effect.
- Because the sample was not drawn by probability sampling, generalization beyond this sample should be made with caution.

Descriptive Statistics

sample: $N = 180$ participants.

Table 1

Sociodemographic Characteristics of the Participants ($N = 180$)

Variable	n	%
Year of undergraduate study		
Second year	63	35.0
Third year	61	33.9
First year	56	31.1

Table 2

Descriptive Statistics of the Research Variables ($N = 180$)

Variable	Scale	Min	Max	M	SD
Academic self efficacy	1–5	1.20	5	2.99	0.75
Learning persistence	1–5	1.20	4.60	2.98	0.73

Note. Scale = the response range of the questionnaire items.

Table 3*Pearson Correlations Among the Research Scales (N = 180)*

Variable	1	2
1. Academic self efficacy	—	
2. Learning persistence	.43**	—

Note. * $p < .05$. ** $p < .01$. Two-tailed tests.

Table 4*Internal Consistency Reliability (Cronbach's α) of the Research Scales*

Scale	Items	Reverse-scored	Removed	Cronbach's α
Academic self efficacy	5	—	—	.82
Learning persistence	5	—	—	.77

Table 5*Distribution of Answers to the Questionnaire Items*

Item	Response					n	M	SD
	1	2	3	4	5			
Academic self efficacy								
I can understand new course material even when it is complex.	11 (6.1)	43 (23.9)	69 (38.3)	50 (27.8)	7 (3.9)	180	2.99	0.96
I know how to approach an unfamiliar academic assignment.	13 (7.2)	43 (23.9)	67 (37.2)	46 (25.6)	11 (6.1)	180	2.99	1.02
I can find a way to resolve a difficulty in my studies.	15 (8.3)	36 (20.0)	78 (43.3)	43 (23.9)	8 (4.4)	180	2.96	0.98
I believe I can meet the requirements of my courses.	8 (4.4)	56 (31.1)	57 (31.7)	46 (25.6)	13 (7.2)	180	3.00	1.02
I can use feedback to improve my academic work.	13 (7.2)	40 (22.2)	65 (36.1)	54 (30.0)	8 (4.4)	180	3.02	1.00
Learning persistence								
I continue working on an assignment when it takes longer than I expected.	7 (3.9)	49 (27.2)	76 (42.2)	31 (17.2)	17 (9.4)	180	3.01	0.99
After an unsuccessful attempt, I return to try again.	10 (5.6)	48 (26.7)	72 (40.0)	36 (20.0)	14 (7.8)	180	2.98	1.00
I set aside regular time to make progress on my coursework.	16 (8.9)	42 (23.3)	69 (38.3)	41 (22.8)	12 (6.7)	180	2.95	1.04
I complete study tasks even when my motivation is low.	13 (7.2)	43 (23.9)	70 (38.9)	46 (25.6)	8 (4.4)	180	2.96	0.98
When course material is unclear, I keep looking for an explanation.	12 (6.7)	46 (25.6)	66 (36.7)	42 (23.3)	14 (7.8)	180	3.00	1.04

Note. Cells show n (%) of each item's answers; M and SD are the item's mean and standard deviation.

Hypothesis 1

An association analysis was conducted to evaluate this hypothesis.

The findings are consistent with the hypothesis, indicating a statistically significant positive correlation between Academic self efficacy and Learning persistence, such that students reporting greater self efficacy tended also to report greater persistence in their learning. As this is a cross-sectional, correlational design, this association should not be interpreted as evidence that self efficacy causes persistence.

$N = 180$, $r(178) = .43$, $p < .001$, $p_{\text{adj}} < .001$

The result was: supported.

Figure 1

Learning persistence

