

Predictive Criterion Validity

Standalone verified Python analysis

Test: Predictive Criterion Validity

Design: G1/G2 academic composite validated against later G3 performance.

Variables: G1, G2, G3

Null hypothesis: The earlier-grade composite has zero association with G3.

Formula: $r = \text{cor}(\text{mean}[z(G1), z(G2)], G3)$; regression $R^2 = r^2$.

Source rows: 649

Calculated metrics:

criterion_r: 0.9034976113559182

p_value: 2.9749991570957307e-240

r_squared: 0.8163079337258499

n_cases: 649

predictor_items: 2

Independent reference values:

criterion_r: 0.9034976113559182

p_value: 2.9749991570957307e-240

r_squared: 0.8163079337258499

n_cases: 649

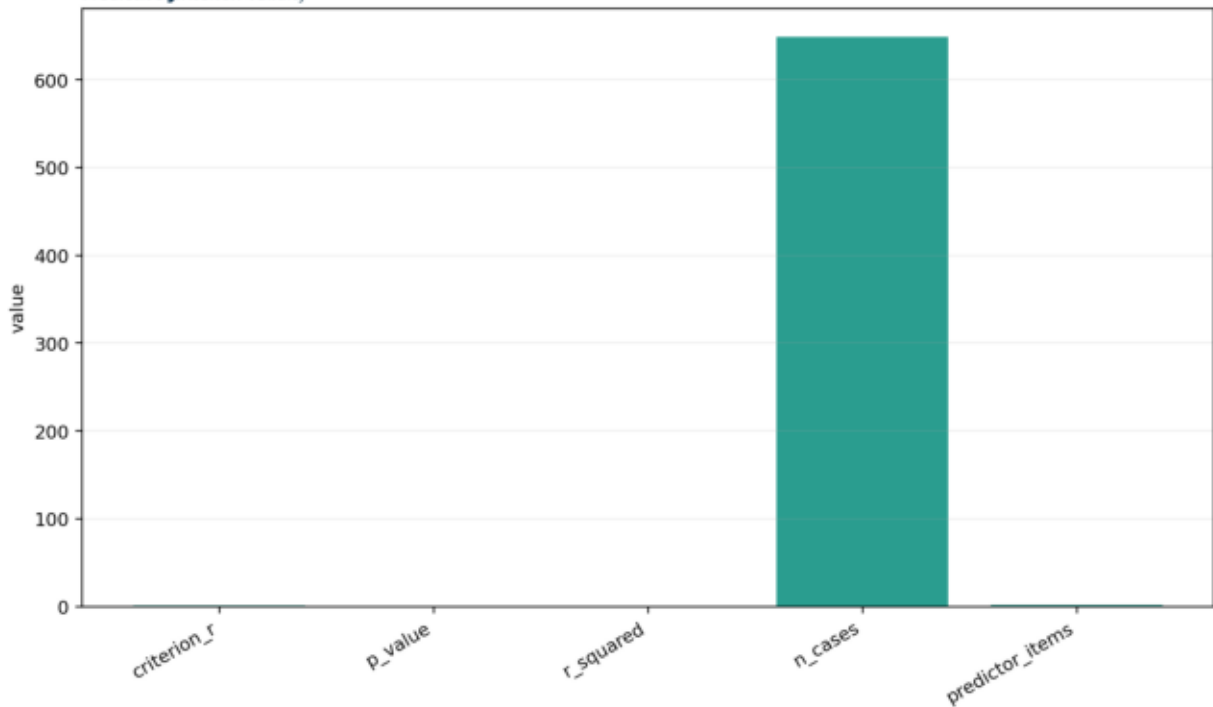
predictor_items: 2

Interpretation:

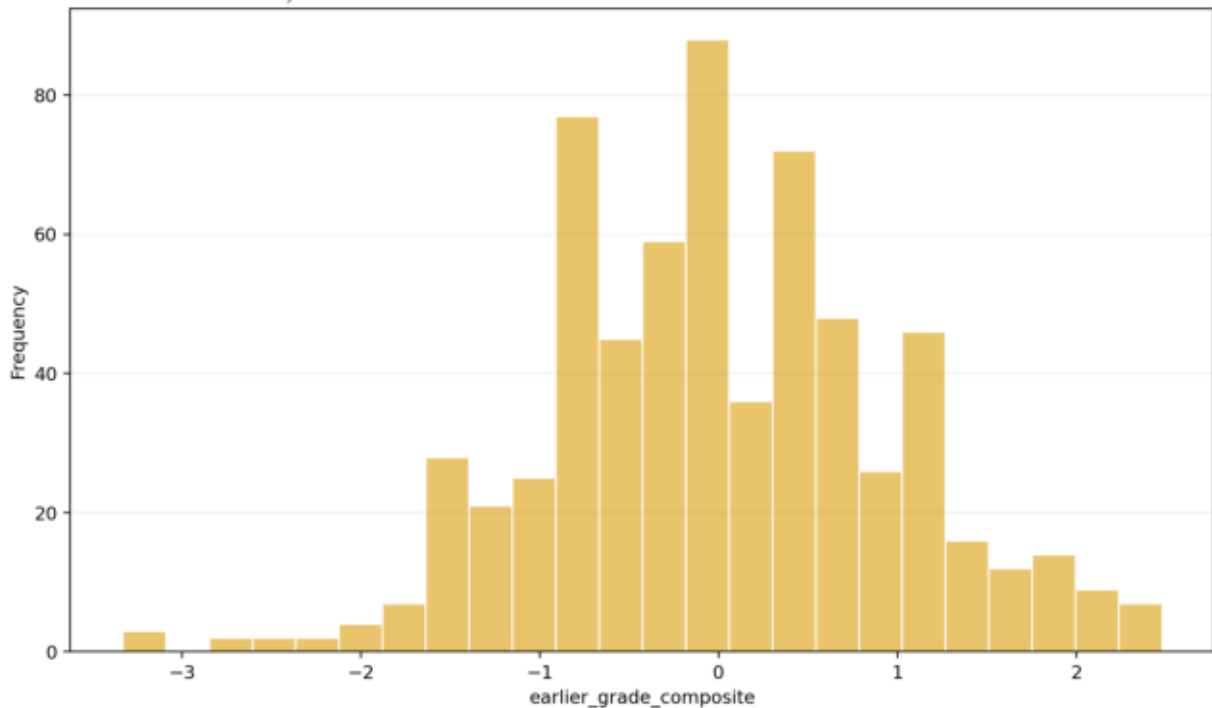
G1 and G2 form the predictor; temporally later G3 is the external criterion.

Predictive criterion $r = 0.903498$.

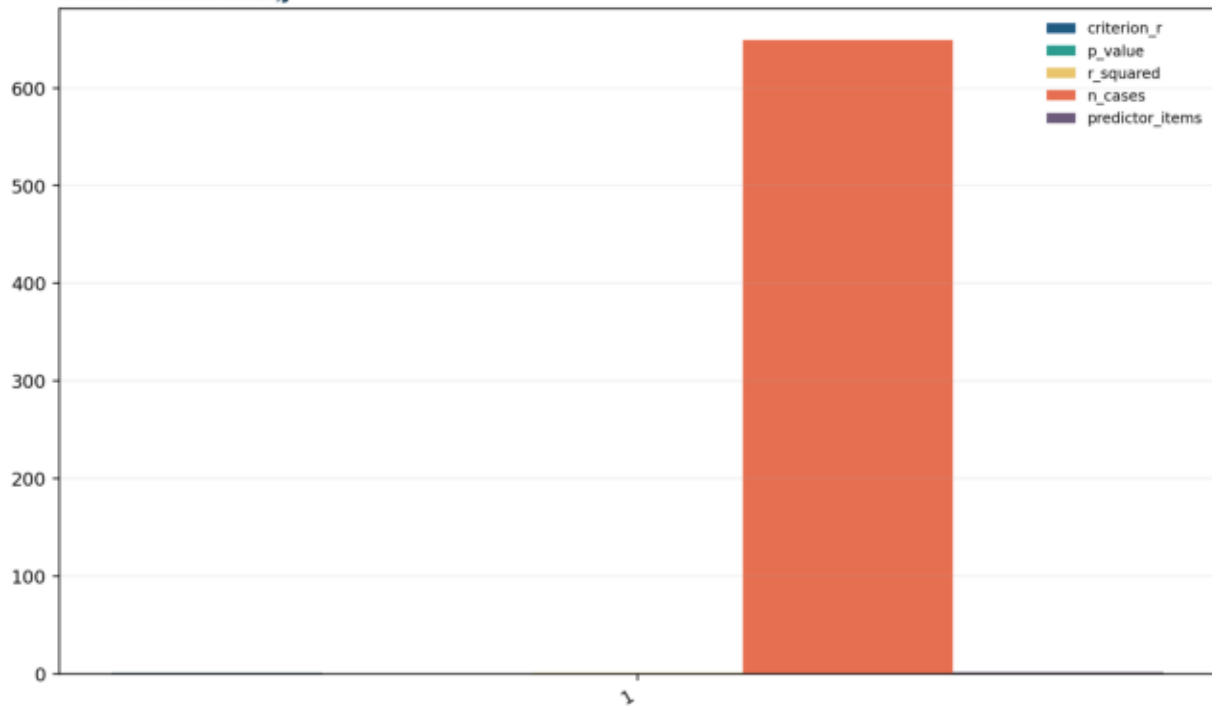
Primary Metrics



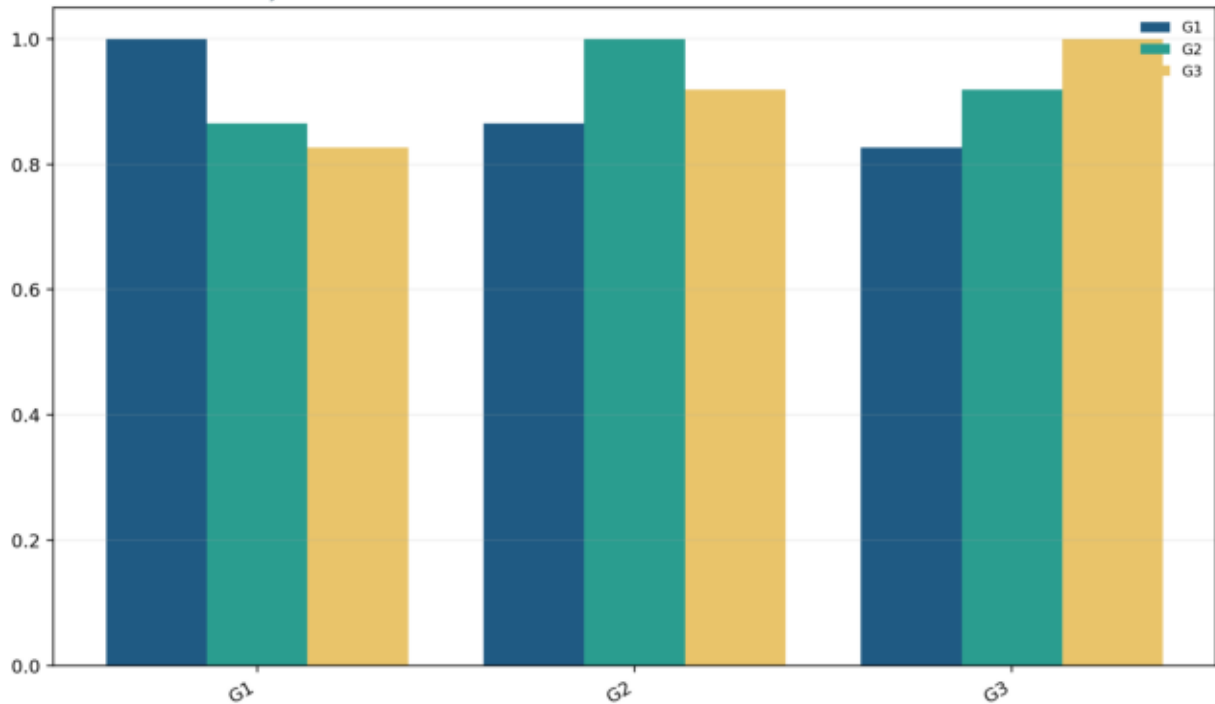
Criterion Pairs validity



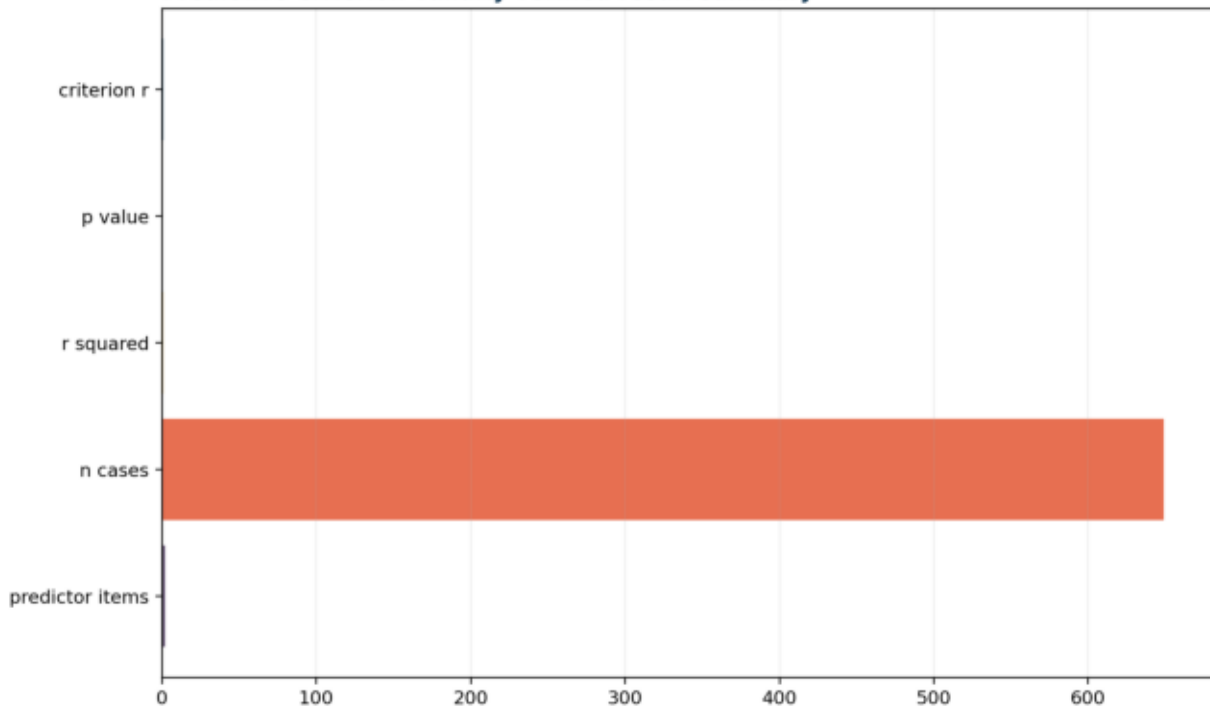
Criterion Summary



Predictor Item Correlations



Predictive Criterion Validity verified result summary



Primary Metrics

metric	value
criterion_r	0.903498
p_value	2.975e-240
r_squared	0.816308
n_cases	649
predictor_items	2

Criterion Pairs

earlier_grade_composite	later_G3
-2.17397	11
-0.534782	11
0.354827	12
0.890697	14
0.172695	13
0.18322	13
0.365352	13
-0.00943699	13
1.41604	17
0.18322	13
0.890697	14
-0.181044	13
0.354827	12
0.18322	13
0.890697	15
1.95191	17
0.536958	14
0.708565	14
-1.23173	7
0.18322	12
0.354827	14
0.00108806	12
0.354827	14
-0.524257	10
-0.35265	10
-0.35265	12

Criterion Summary

criterion_r	p_value	r_squared	n_cases	predictor_items
0.903498	2.975e-240	0.816308	649	2

Predictor Item Correlations

grade	G1	G2	G3
G1	1	0.864982	0.826387
G2	0.864982	1	0.918548
G3	0.826387	0.918548	1