

UPRM Classroom Observation Instrument Internal Reliability Report

The internal reliability of the 28 item UPRM Classroom Observation Instrument (COI) was determined with Cronbach's Alpha Coefficient for a 31 student sample. Cronbach's Alpha Coefficient fluctuated between .95 and .97 (calculated over three distinct time periods). These coefficients suggest an excellent internal reliability of the instrument. Also, a high internal reliability (between .82 and .87) was found with the Split-Half Method (two parts of the COI with 14 items each).

The construct validity of the COI was evaluated using the total mean score of the test across time. The total mean scores of the COI increased significantly across time (the mean for the first time period was 75.29; the mean for the second time period was 89.93; and the mean for the third time period was 96.97). Specifically, several one sample t-tests were conducted between time periods. Differences between the means were statistically significant ($\alpha \leq .001$). The mean differences between the time periods evaluated correspond to an increase in learning and performance as expected.

First Evaluation: Internal Reliability Cronbach's Alpha = .97 (n= 31 students - 28 items)

Internal Reliability Cronbach's Alpha = .95 (n= 31 students - 14 items)

Internal Reliability Cronbach's Alpha = .95 (n= 31 students - 14 items)

Internal Reliability Split-Half Method = .84

Second Evaluation: Internal Reliability Cronbach's Alpha = .95 (n= 31 students - 28 items)

Internal Reliability Cronbach's Alpha = .921 (n= 31 students - 14 items)

Internal Reliability Cronbach's Alpha = .926 (n= 31 students - 14 items)

Internal Reliability Split-Half Method = .87

Third Evaluation: Internal Reliability Cronbach's Alpha = .96 (n= 31 students - 28 items)

Internal Reliability Cronbach's Alpha = .927 (n= 31 students - 14 items)

Internal Reliability Cronbach's Alpha = .942 (n= 31 students - 14 items)

Internal Reliability Split-Half Method = .826

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DESCRIPTIVES AND ONE SAMPLE T_TEST

	N	Minimum	Maximum	Mean	Std. Deviation
COI Eval #1	31	58.00	112.00	75.2903	11.90292
COI Eval #2	31	75.00	112.00	89.9355	10.25650
COI Eval #3	31	79.00	112.00	96.9677	9.81999
Valid N (listwise)	31				

One-Sample Test

	Test Value = 0					
	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
COI Eval #1	35.218	30	.000	75.29032	70.9243	79.6563
COI Eval #2	48.822	30	.000	89.93548	86.1734	93.6976
COI Eval #3	54.979	30	.000	96.96774	93.3657	100.5697