

Replicating an Artifact Instrument

Reliability Report

Scales for the Replicating an Artifact (RA) instrument were constructed from 1399 students completing the assessment (version 3/4/2010). The correct answers for the 16 questions were summed to create an “All” scale. This was tested for internal reliability and found to have a Cronbach’s α of .734 (n=1399). The subscales for the RA instrument are presented in the table below with reliability information.

Scale	N of Students	# Items	Items	Reliability: Cronbach’s α
All	1399	16	1-16	.734
Rocks	1353	8	1, 2, 4-7, 9, 12	.641
Properties of Materials	1334	8	3, 8, 10, 11, 13-16	.568