

Cronbach's Alpha Reliability Coefficient and Principal Components Analysis of the Items in the TIMSS 2015 Students' Views on Engaging Teaching in Mathematics Lessons Scale, Fourth Grade

Country	Cronbach's Alpha Reliability Coefficient	Percent of Variance Explained	Component Loadings for Each Item									
			ASBM02A	ASBM02B	ASBM02C	ASBM02D	ASBM02E	ASBM02F	ASBM02G	ASBM02H	ASBM02I	ASBM02J
Australia	0.88	49	0.52	0.73	0.75	0.75	0.74	0.76	0.65	0.71	0.68	0.68
Bahrain	0.88	49	0.45	0.63	0.71	0.76	0.76	0.74	0.73	0.75	0.70	0.68
Belgium (Flemish)	0.83	41	0.52	0.65	0.66	0.63	0.70	0.72	0.57	0.65	0.61	0.65
Bulgaria	0.86	47	0.50	0.65	0.70	0.69	0.76	0.71	0.73	0.66	0.70	0.71
Canada	0.88	48	0.54	0.70	0.73	0.73	0.75	0.75	0.64	0.69	0.67	0.68
Chile	0.87	48	0.49	0.63	0.71	0.69	0.74	0.76	0.65	0.72	0.72	0.75
Chinese Taipei	0.90	54	0.70	0.71	0.77	0.71	0.76	0.75	0.75	0.77	0.74	0.66
Croatia	0.87	48	0.54	0.68	0.61	0.67	0.79	0.77	0.70	0.71	0.73	0.72
Cyprus	0.89	51	0.54	0.62	0.76	0.75	0.76	0.77	0.72	0.77	0.68	0.73
Czech Republic	0.88	50	0.54	0.76	0.69	0.66	0.77	0.77	0.57	0.77	0.72	0.74
Denmark	0.88	50	0.49	0.75	0.73	0.73	0.73	0.79	0.67	0.72	0.67	0.73
England	0.87	48	0.51	0.72	0.73	0.73	0.74	0.76	0.60	0.70	0.67	0.71
Finland	0.86	46	0.41	0.72	0.68	0.68	0.66	0.78	0.67	0.74	0.70	0.72
France	0.84	42	0.45	0.66	0.71	0.69	0.68	0.72	0.64	0.63	0.64	0.65
Georgia	0.87	53	0.38	0.74	0.48	0.79	0.80	0.87	0.76	0.83	0.66	0.79
Germany	0.85	44	0.46	0.74	0.69	0.71	0.74	0.73	0.65	0.63	0.63	0.63
Hong Kong SAR	0.91	56	0.67	0.76	0.78	0.78	0.79	0.75	0.74	0.75	0.72	0.73
Hungary	0.87	47	0.51	0.63	0.73	0.71	0.73	0.75	0.62	0.70	0.70	0.72
Indonesia	0.79	36	0.43	0.55	0.63	0.64	0.57	0.62	0.64	0.67	0.64	0.56
Iran, Islamic Rep. of	0.85	45	0.36	0.62	0.71	0.66	0.75	0.76	0.70	0.68	0.64	0.73
Ireland	0.87	47	0.48	0.71	0.73	0.73	0.75	0.75	0.62	0.69	0.68	0.71
Italy	0.82	41	0.36	0.54	0.70	0.69	0.72	0.71	0.67	0.60	0.60	0.69
Japan	0.90	53	0.57	0.79	0.77	0.73	0.77	0.79	0.55	0.76	0.76	0.75
Jordan	0.84	46	0.35	0.60	0.75	0.73	0.76	0.76	0.65	0.71	0.71	0.66
Kazakhstan	0.83	43	0.41	0.52	0.72	0.75	0.72	0.73	0.75	0.60	0.66	0.63
Korea, Rep. of	0.90	54	0.53	0.70	0.78	0.76	0.78	0.78	0.59	0.81	0.78	0.78
Kuwait	0.85	45	0.44	0.66	0.67	0.72	0.75	0.75	0.65	0.69	0.66	0.65
Lithuania	0.83	42	0.47	0.60	0.60	0.70	0.70	0.71	0.63	0.64	0.66	0.70
Morocco	0.78	37	0.37	0.53	0.67	0.64	0.66	0.69	0.55	0.69	0.65	0.62
Netherlands	0.82	40	0.54	0.66	0.64	0.63	0.72	0.70	0.56	0.60	0.60	0.67
New Zealand	0.87	48	0.53	0.69	0.73	0.72	0.75	0.75	0.63	0.70	0.65	0.69
Northern Ireland	0.86	45	0.49	0.70	0.73	0.70	0.75	0.72	0.57	0.66	0.63	0.71
Norway (5)	0.87	48	0.51	0.72	0.69	0.70	0.74	0.74	0.67	0.70	0.70	0.71
Oman	0.81	41	0.35	0.59	0.69	0.64	0.69	0.71	0.68	0.68	0.68	0.65
Poland	0.91	55	0.61	0.70	0.73	0.77	0.81	0.81	0.72	0.78	0.72	0.76
Portugal	0.79	38	0.37	0.51	0.64	0.71	0.67	0.67	0.63	0.57	0.63	0.67
Qatar	0.90	53	0.53	0.73	0.76	0.78	0.78	0.78	0.69	0.78	0.71	0.70
Russian Feder	0.82	42	0.43	0.64	0.68	0.69	0.69	0.69	0.62	0.67	0.64	0.68
Saudi Ar	0.87	48	0.40	0.68	0.74	0.72	0.77	0.77	0.63	0.77	0.69	0.69
Serbia	0.85	44	0.46	0.67	0.70	0.68	0.73	0.72	0.72	0.61	0.64	0.65
Singapore	0.88	49	0.56	0.72	0.75	0.74	0.74	0.73	0.64	0.72	0.71	0.68
Slovak Republic	0.88	49	0.56	0.70	0.69	0.69	0.73	0.76	0.69	0.73	0.74	0.72
Slovenia	0.88	49	0.55	0.59	0.68	0.76	0.74	0.79	0.71	0.74	0.71	0.68
South Africa (5)	0.85	42	0.52	0.63	0.67	0.69	0.63	0.68	0.64	0.66	0.67	0.64
Spain	0.84	44	0.39	0.58	0.69	0.72	0.72	0.67	0.65	0.70	0.71	0.72
SwedeQ	0.86	46	0.44	0.70	0.68	0.68	0.73	0.73	0.68	0.73	0.67	0.70
Turkey	0.73	34	0.39	0.53	0.61	0.40	0.65	0.63	0.60	0.58	0.64	0.68
United Ares	0.88	48	0.48	0.70	0.72	0.74	0.76	0.75	0.67	0.71	0.69	0.68
United St3dT4nes	0.88	49	0.54	0.73	0.74	0.72	0.75	0.75	0.63	0.71	0.71	0.72
Benchmarking Participants												
Buenos Aires, ArgeQ	0.84	43	0.41	0.56	0.72	0.70	0.72	0.72	0.61	0.67	0.67	0.71
OQio, Canada	0.88	48	0.53	0.71	0.73	0.74	0.74	0.75	0.62	0.70	0.67	0.68
Quebec, Canada	0.87	46	0.49	0.68	0.73	0.72	0.74	0.74	0.67	0.67	0.67	0.65
Norway (4)	0.85	44	0.52	0.64	0.69	0.70	0.70	0.73	0.63	0.69	0.66	0.67
Abu Dhabi, UAE	0.87	46	0.47	0.69	0.72	0.74	0.74	0.74	0.65	0.70	0.67	0.65
Dubai, UAE	0.88	49	0.53	0.70	0.71	0.74	0.75	0.75	0.67	0.71	0.70	0.69
Florida, US	0.87	47	0.57	0.72	0.74	0.72	0.72	0.73	0.65	0.65	0.66	0.71

SOURCE: IEA's Trends in International Mathematics and Science Study – TIMSS 2015

