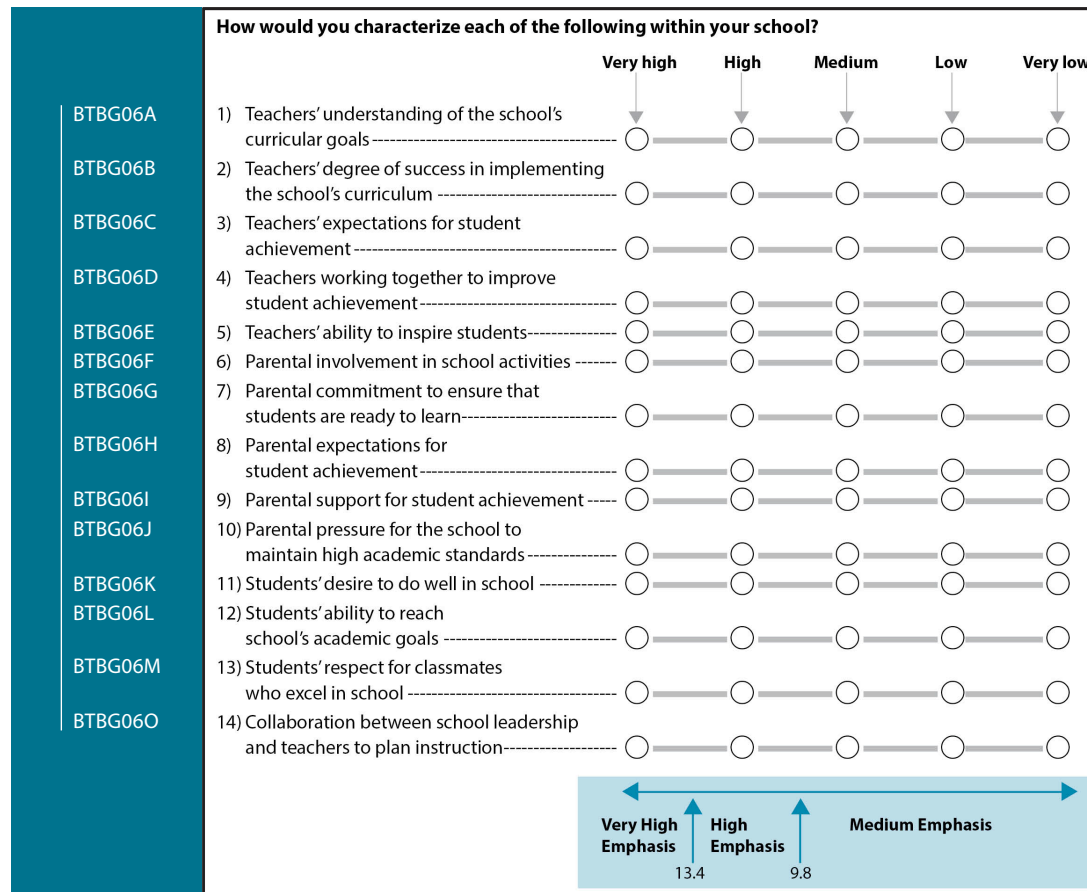


# School Emphasis on Academic Success–Teachers’ Reports Scale, Eighth Grade

The School Emphasis on Academic Success–Teachers’ Reports (EAS) scale was created based on teachers’ responses characterizing the fourteen aspects described below.

## Items in the TIMSS 2015 School Emphasis on Academic Success–Teachers’ Reports Scale, Eighth Grade<sup>1</sup>



<sup>1</sup> For the purpose of scaling, categories in which there were very few respondents were combined. The categories “Low” and “Very low” were combined for all variables. The scale statistics that are reported herein reflect analysis of the items following collapsing.

**Item Parameters for the TIMSS 2015 School Emphasis on Academic Success - Teachers' Reports Scale, Eighth Grade**

Item	delta	tau_1	tau_2	tau_3	Infit
BTBG06A	-1.68045	-2.66063	-0.27020	2.93083	1.09
BTBG06B	-1.23725	-3.06845	-0.05158	3.12003	1.03
BTBG06C	-0.74602	-2.64414	0.01364	2.63050	1.06
BTBG06D	-0.90371	-2.10492	-0.18604	2.29096	1.11
BTBG06E	-0.96090	-2.89984	-0.06546	2.96530	1.01
BTBG06F	1.23541	-1.97221	0.09341	1.87880	1.01
BTBG06G	1.38741	-2.14973	0.06550	2.08423	0.81
BTBG06H	0.11852	-2.02680	-0.08263	2.10943	1.03
BTBG06I	1.09297	-2.17010	0.06285	2.10725	0.84
BTBG06J	0.81054	-1.85391	-0.02340	1.87731	1.08
BTBG06K	0.44514	-2.56091	0.08041	2.48050	0.90
BTBG06L	0.78421	-2.99698	0.22187	2.77511	0.86
BTBG06M	0.06382	-2.32494	-0.24518	2.57012	1.13
BTBG06O	-0.40969	-1.72466	-0.33054	2.05520	1.28

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

**Scale Transformation Constants for the TIMSS 2015 School Emphasis on Academic Success - Teachers' Reports Scale, Eighth Grade**

Scale Transformation Constants

A = 9.648219

B = 1.396196

Transformed Scale Score = 9.648219 + 1.396196 • Logit Scale Score



**Equivalence Table of Raw and Transformed Scale Scores for the TIMSS  
2015 School Emphasis on Academic Success - Teachers' Reports Scale,  
Eighth Grade**

Raw Score	Transformed Scale Score	Cutpoint
0	0.62601	
1	2.37454	
2	3.30485	
3	3.99189	
4	4.55434	
5	5.03713	
6	5.46429	
7	5.84928	
8	6.20193	
9	6.52956	
10	6.83772	
11	7.13072	
12	7.41200	
13	7.68391	
14	7.94962	
15	8.21035	
16	8.46755	
17	8.72250	
18	8.97609	
19	9.22901	
20	9.48165	
21	9.73421	9.8
22	9.98673	
23	10.23910	
24	10.49131	
25	10.74338	
26	10.99555	
27	11.24826	
28	11.50221	
29	11.75840	
30	12.01811	
31	12.28292	
32	12.55479	
33	12.83506	
34	13.12842	
35	13.43840	13.4
36	13.77078	
37	14.13422	
38	14.54168	
39	15.01763	
40	15.61090	
41	16.44334	
42	18.09479	

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



**Cronbach's Alpha Reliability Coefficient and Principal Components Analysis of the Items in the TIMSS 2015 School Emphasis on Academic Success - Teachers' Reports Scale, Eighth Grade**

Country	Cronbach's Alpha Reliability Coefficient	Percent of Variance Explained	Component Loadings for Each Item													
			BTB006A	BTB006B	BTB006C	BTB006D	BTB006E	BTB006F	BTB006G	BTB006H	BTB006I	BTB006J	BTB006K	BTB006L	BTB006M	BTB006O
Australia	0.92	51	0.61	0.69	0.73	0.59	0.69	0.67	0.84	0.78	0.82	0.70	0.79	0.74	0.67	0.60
Bahrain	0.89	42	0.49	0.66	0.70	0.51	0.68	0.60	0.75	0.56	0.75	0.56	0.75	0.75	0.70	0.55
Botswana (9)	0.84	34	0.50	0.51	0.50	0.55	0.54	0.65	0.71	0.49	0.65	0.61	0.69	0.59	0.59	0.56
Canada	0.90	45	0.59	0.66	0.62	0.56	0.66	0.70	0.81	0.76	0.81	0.67	0.71	0.69	0.58	0.55
Chile	0.90	45	0.53	0.71	0.67	0.56	0.55	0.72	0.74	0.75	0.76	0.68	0.73	0.74	0.62	0.59
Chinese Taipei	0.91	47	0.51	0.40	0.68	0.59	0.71	0.74	0.75	0.80	0.81	0.69	0.79	0.77	0.55	0.64
Egypt	0.90	44	0.61	0.62	0.60	0.64	0.64	0.74	0.73	0.61	0.70	0.66	0.74	0.71	0.58	0.65
England	0.92	50	0.57	0.70	0.70	0.67	0.67	0.69	0.80	0.79	0.78	0.71	0.74	0.75	0.73	0.50
Georgia	0.88	40	0.55	0.58	0.62	0.65	0.63	0.69	0.72	0.66	0.71	0.61	0.63	0.56	0.57	0.58
Hong Kong SAR	0.90	42	0.40	0.54	0.70	0.60	0.65	0.59	0.76	0.76	0.75	0.70	0.69	0.76	0.51	0.54
Hungary	0.90	45	0.47	0.67	0.63	0.41	0.71	0.70	0.81	0.74	0.83	0.68	0.76	0.72	0.69	0.46
Iran, Islamic Rep. of	0.91	45	0.57	0.62	0.63	0.66	0.67	0.76	0.77	0.63	0.71	0.69	0.74	0.70	0.62	0.63
Ireland	0.92	48	0.57	0.68	0.77	0.55	0.63	0.69	0.83	0.76	0.80	0.76	0.77	0.71	0.65	0.51
Israel	0.87	39	0.56	0.66	0.59	0.54	0.60	0.62	0.73	0.61	0.72	0.56	0.70	0.66	0.59	0.50
Italy	0.87	38	0.62	0.72	0.62	0.57	0.56	0.67	0.67	0.55	0.61	0.62	0.58	0.70	0.45	0.59
Japan	0.87	39	0.60	0.55	0.65	0.49	0.59	0.44	0.75	0.71	0.74	0.53	0.71	0.71	0.54	0.58
Jordan	0.88	40	0.45	0.66	0.42	0.56	0.62	0.71	0.79	0.65	0.74	0.64	0.66	0.72	0.53	0.57
Kazakhstan	0.90	44	0.54	0.58	0.64	0.63	0.67	0.73	0.76	0.74	0.77	0.63	0.70	0.67	0.58	0.58
Korea, Rep. of	0.91	46	0.55	0.60	0.72	0.63	0.62	0.75	0.80	0.71	0.79	0.65	0.68	0.74	0.59	0.59
Kuwait	0.90	44	0.59	0.62	0.54	0.54	0.62	0.74	0.78	0.66	0.77	0.64	0.67	0.76	0.63	0.63
Lebanon	0.90	44	0.55	0.61	0.57	0.58	0.50	0.69	0.82	0.70	0.82	0.73	0.67	0.75	0.66	0.55
Lithuania	0.88	40	0.63	0.64	0.64	0.60	0.62	0.69	0.73	0.66	0.68	0.49	0.66	0.68	0.56	0.56
Malaysia	0.88	41	0.50	0.54	0.55	0.56	0.63	0.71	0.77	0.68	0.74	0.51	0.76	0.71	0.65	0.54
Malta	0.91	46	0.48	0.63	0.73	0.56	0.62	0.72	0.79	0.71	0.78	0.73	0.76	0.73	0.63	0.58
Morocco	0.88	41	0.50	0.59	0.54	0.61	0.62	0.70	0.78	0.64	0.74	0.73	0.68	0.67	0.48	0.66
New Zealand	0.90	45	0.59	0.64	0.70	0.53	0.66	0.63	0.78	0.74	0.74	0.74	0.75	0.66	0.62	0.56
Norway (9)	0.86	37	0.54	0.60	0.65	0.53	0.57	0.71	0.69	0.65	0.72	0.57	0.63	0.58	0.55	0.39
Oman	0.90	43	0.55	0.56	0.67	0.62	0.59	0.71	0.77	0.72	0.76	0.56	0.69	0.77	0.60	0.54
Qatar	0.89	41	0.34	0.36	0.65	0.40	0.61	0.68	0.81	0.75	0.80	0.63	0.80	0.78	0.71	0.37
Russian Federation	0.85	36	0.56	0.65	0.63	0.64	0.65	0.64	0.68	0.54	0.63	0.09	0.61	0.66	0.59	0.59
Saudi Arabia	0.90	43	0.64	0.68	0.53	0.70	0.66	0.72	0.77	0.61	0.73	0.61	0.73	0.64	0.50	0.63
Singapore	0.90	44	0.59	0.63	0.70	0.56	0.65	0.66	0.74	0.72	0.77	0.64	0.69	0.72	0.61	0.60
Slovenia	0.82	31	0.60	0.67	0.63	0.68	0.67	0.58	0.59	0.37	0.55	0.28	0.55	0.49	0.52	0.54
South Africa (9)	0.91	46	0.56	0.59	0.59	0.60	0.60	0.72	0.80	0.63	0.79	0.68	0.74	0.79	0.71	0.63
Sweden	0.86	37	0.58	0.64	0.66	0.58	0.59	0.64	0.72	0.63	0.62	0.52	0.64	0.59	0.51	0.55
Thailand	0.89	43	0.53	0.63	0.63	0.62	0.59	0.68	0.73	0.71	0.79	0.66	0.69	0.72	0.55	0.60
Turkey	0.89	41	0.46	0.58	0.64	0.50	0.53	0.73	0.78	0.71	0.78	0.70	0.72	0.75	0.51	0.50
United Arab Emirates	0.91	45	0.49	0.57	0.71	0.58	0.61	0.71	0.81	0.71	0.78	0.67	0.76	0.78	0.66	0.46
United States	0.92	49	0.51	0.64	0.67	0.54	0.67	0.77	0.84	0.79	0.84	0.75	0.77	0.68	0.66	0.49
<b>Benchmarking Participants</b>																
Buenos Aires, Argentina	0.88	40	0.55	0.61	0.61	0.56	0.59	0.74	0.79	0.68	0.76	0.70	0.57	0.57	0.56	0.43
Ontario, Canada	0.89	43	0.56	0.62	0.65	0.45	0.60	0.73	0.83	0.78	0.80	0.73	0.70	0.67	0.50	0.42
Quebec, Canada	0.91	47	0.60	0.70	0.53	0.61	0.73	0.69	0.80	0.70	0.81	0.62	0.71	0.72	0.68	0.67
Norway (8)	0.85	35	0.45	0.50	0.62	0.47	0.56	0.71	0.66	0.73	0.72	0.57	0.68	0.64	0.51	0.36
Abu Dhabi, UAE	0.90	43	0.42	0.53	0.70	0.50	0.59	0.66	0.80	0.66	0.78	0.69	0.80	0.79	0.65	0.39
Dubai, UAE	0.91	48	0.61	0.63	0.73	0.64	0.64	0.72	0.79	0.73	0.76	0.64	0.76	0.76	0.64	0.58
Florida, US	0.92	51	0.64	0.67	0.57	0.60	0.73	0.79	0.81	0.79	0.80	0.74	0.74	0.79	0.74	0.53

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

**Relationship Between the TIMSS 2015 School Emphasis on Academic Success - Teachers' Reports Scale, Eighth Grade, and TIMSS 2015 Achievement**

Country	Pearson's Correlation with Achievement				Variance in Achievement Accounted for by Difference Between Regions of the Scale ( $\eta^2$ )	
	(r)		(r <sup>2</sup> )		Mathematics	Science
	Mathematics	Science	Mathematics	Science		
Australia	0.26	0.24	0.07	0.06	0.07	0.03
Bahrain	0.16	0.22	0.03	0.05	0.04	0.04
Botswana (9)	0.24	0.19	0.06	0.04	0.04	0.03
Canada	0.18	0.15	0.03	0.02	0.03	0.02
Chile	0.27	0.30	0.07	0.09	0.06	0.05
Chinese Taipei	0.24	0.21	0.06	0.04	0.05	0.05
Egypt	0.18	0.20	0.03	0.04	0.02	0.04
England	0.30	0.30	0.09	0.09	0.10	0.07
Georgia	0.11	0.12	0.01	0.01	0.01	0.01
Hong Kong SAR	0.39	0.31	0.15	0.09	0.11	0.07
Hungary	0.40	0.33	0.16	0.11	0.11	0.05
Iran, Islamic Rep. of	0.32	0.33	0.10	0.11	0.08	0.08
Ireland	0.25	0.22	0.06	0.05	0.07	0.05
Israel	0.28	0.14	0.08	0.02	0.08	0.03
Italy	0.15	0.13	0.02	0.02	0.00	0.00
Japan	0.19	0.15	0.04	0.02	0.02	0.02
Jordan	0.18	0.23	0.03	0.05	0.02	0.04
Kazakhstan	0.11	0.01	0.01	0.00	0.03	0.00
Korea, Rep. of	0.12	0.11	0.02	0.01	0.02	0.01
Kuwait	0.23	0.23	0.05	0.05	0.08	0.04
Lebanon	0.18	0.19	0.03	0.03	0.04	0.02
Lithuania	0.20	0.10	0.04	0.01	0.04	0.01
Malaysia	0.24	0.15	0.06	0.02	0.03	0.02
Malta	0.26	0.21	0.07	0.05	0.03	0.03
Morocco	0.11	0.13	0.01	0.02	0.02	0.03
New Zealand	0.20	0.25	0.04	0.06	0.02	0.05
Norway (9)	0.13	0.13	0.02	0.02	0.01	0.01
Oman	0.16	0.08	0.02	0.01	0.02	0.00
Qatar	0.23	0.20	0.05	0.04	0.06	0.03
Russian Federation	0.18	0.12	0.03	0.01	0.02	0.02
Saudi Arabia	0.14	0.17	0.02	0.03	0.07	0.02
Singapore	0.29	0.32	0.08	0.10	0.06	0.11
Slovenia	0.05	0.06	0.00	0.00	0.00	0.00
South Africa (9)	0.22	0.21	0.05	0.04	0.04	0.07
Sweden	0.20	0.17	0.04	0.03	0.03	0.02
Thailand	0.20	0.17	0.04	0.03	0.04	0.03
Turkey	0.31	0.31	0.09	0.10	0.05	0.07
United Arab Emirates	0.26	0.32	0.07	0.10	0.06	0.09
United States	0.27	0.26	0.07	0.07	0.07	0.05
<b>International Median</b>	<b>0.20</b>	<b>0.20</b>	<b>0.04</b>	<b>0.04</b>	<b>0.04</b>	<b>0.03</b>
<b>Benchmarking Participants</b>						
Buenos Aires, Argentina	0.15	0.17	0.02	0.03	0.01	0.04
Ontario, Canada	0.17	0.12	0.03	0.01	0.02	0.01
Quebec, Canada	0.06	0.18	0.00	0.03	0.01	0.04
Norway (8)	0.17	0.16	0.03	0.02	0.02	0.01
Abu Dhabi, UAE	0.16	0.29	0.03	0.08	0.02	0.08
Dubai, UAE	0.29	0.26	0.08	0.07	0.10	0.06
Florida, US	0.36	0.18	0.13	0.03	0.11	0.04

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