

PIRLS 2011

The PIRLS 2011 School Emphasis on Academic Success–Teacher Reports Scale

The School Emphasis on Academic Success–Teacher Reports (EAS–T) scale was created based on teachers’ responses characterizing five aspects described below. See [Creating and Interpreting TIMSS and PIRLS 2011 Context Questionnaire Scales](#) for more information on how the scales were formed.

Exhibit 1: Items in the PIRLS 2011 School Emphasis on Academic Success–Teacher Reports Scale

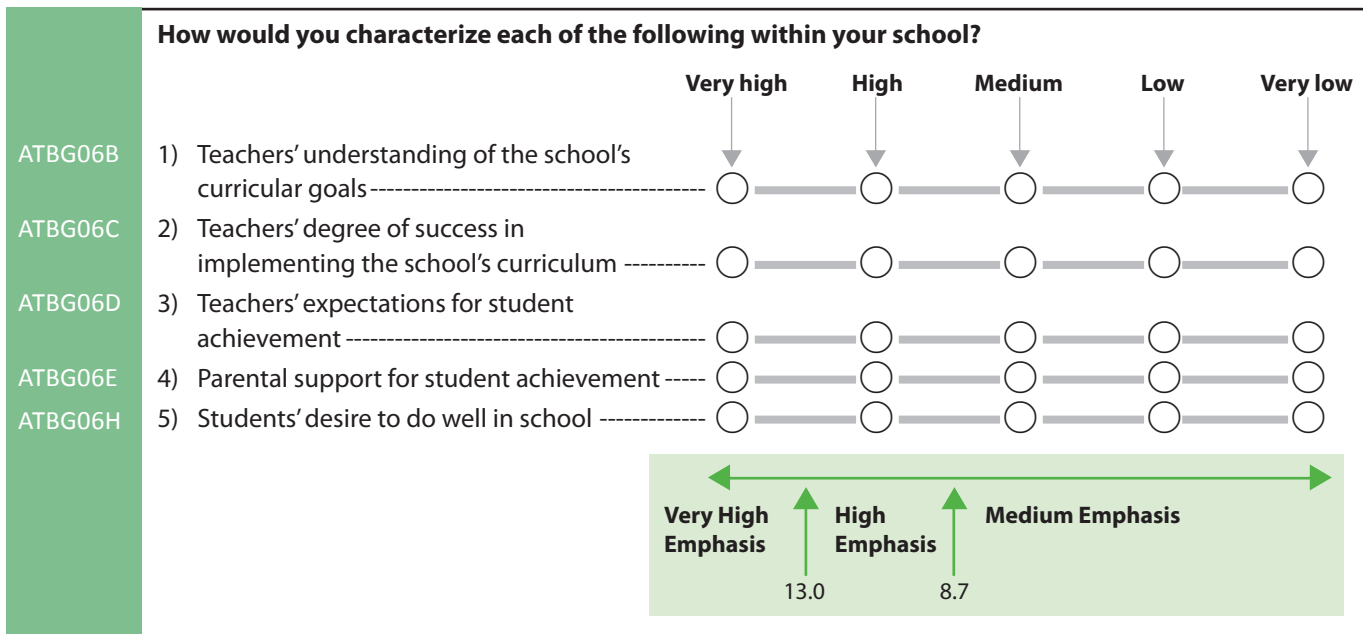


Exhibit 2: Item Parameters for the PIRLS 2011 School Emphasis on Academic Success–Teacher Reports Scale¹

Item	delta	tau_1	tau_2	tau_3
ATBG06B	-0.23200	-1.62194	1.62194	
ATBG06C	0.35289	-1.68960	1.68960	
ATBG06D	0.29398	-1.59204	1.59204	
ATBG06E	0.55977	-2.55540	0.17469	2.38071
ATBG06H	-0.53864	-3.14104	0.23135	2.90969

¹ For the purpose of scaling, categories in which there were very few respondents were combined for several of the variables. The categories of “Medium,” “Low,” and “Very low” were combined for variables ATBG06B, ATBG06C, and ATBG06D, and the categories of “Low” and “Very low” were combined for variables ATBG06E and ATBG06H, respectively.

Exhibit 3: Scale Transformation Constants

Scale Transformation Constants

$$A = 9.99491$$

$$B = 1.19492$$

$$\text{Transformed Scale Score} = 9.99491 + 1.19492 \cdot \text{Logit Scale Score}$$

Exhibit 4: Equivalence Table of the Raw Score and the Transformed Scale Score

Raw Score	Transformed Scale Score	Cutpoint	Raw Score	Transformed Scale Score	Cutpoint
0	4.08764		7	10.93525	
1	5.96772		8	11.64337	
2	7.07448		9	12.33837	
3	7.91710		10	13.07807	13.0
4	8.67451	8.7	11	13.97765	
5	9.42566		12	15.55610	
6	10.18950				

Exhibit 5: Cronbach's Alpha Reliability Coefficient and Principal Components Analysis of the Items in the PIRLS 2011 School Emphasis on Academic Success-Teacher Reports Scale

Country	Cronbach's Alpha Reliability Coefficient	Percent of Variance Explained	Factor Loadings for Each Item				
			ATBG06B	ATBG06C	ATBG06D	ATBG06E	ATBG06H
Australia	0.81	58	0.72	0.80	0.79	0.73	0.78
Austria	0.77	52	0.71	0.80	0.72	0.70	0.70
Azerbaijan	0.77	53	0.75	0.74	0.75	0.71	0.68
Belgium (French)	0.69	45	0.73	0.72	0.59	0.68	0.64
Bulgaria	0.77	53	0.59	0.75	0.73	0.77	0.79
Canada	0.76	51	0.67	0.77	0.75	0.71	0.68
Chinese Taipei	0.77	53	0.78	0.65	0.77	0.79	0.63
Colombia	0.83	60	0.78	0.82	0.70	0.77	0.80
Croatia	0.78	53	0.74	0.74	0.71	0.75	0.71
Czech Republic	0.74	50	0.73	0.78	0.65	0.68	0.66
Denmark	0.77	52	0.69	0.73	0.73	0.72	0.75
England	0.81	58	0.76	0.84	0.78	0.68	0.74
Finland	0.73	49	0.60	0.71	0.75	0.72	0.69
France	0.57	37	0.50	0.57	0.56	0.70	0.67
Georgia	0.76	51	0.72	0.74	0.74	0.65	0.72
Germany	0.58	39	0.25	0.49	0.67	0.82	0.70
Hong Kong SAR	0.80	57	0.72	0.77	0.83	0.68	0.76
Hungary	0.76	51	0.58	0.78	0.70	0.73	0.77
Indonesia	0.76	53	0.71	0.84	0.52	0.79	0.76
Iran, Islamic Rep. of	0.71	47	0.70	0.72	0.63	0.69	0.69
Ireland	0.76	52	0.64	0.73	0.79	0.70	0.75
Israel	0.75	51	0.72	0.73	0.67	0.76	0.67

Exhibit 5: Cronbach's Alpha Reliability Coefficient and Principal Components Analysis of the Items in the PIRLS 2011 School Emphasis on Academic Success–Teacher Reports Scale (Continued)

Country	Cronbach's Alpha Reliability Coefficient	Percent of Variance Explained	Factor Loadings for Each Item				
			ATBG06B	ATBG06C	ATBG06D	ATBG06E	ATBG06H
Italy	0.71	46	0.66	0.70	0.69	0.65	0.71
Lithuania	0.75	50	0.67	0.72	0.74	0.73	0.66
Malta	0.77	54	0.75	0.79	0.77	0.67	0.68
Morocco	0.76	54	0.79	0.80	0.70	0.76	0.60
Netherlands	0.62	40	0.70	0.72	0.58	0.55	0.60
New Zealand	0.79	56	0.71	0.80	0.77	0.70	0.74
Northern Ireland	0.78	54	0.72	0.70	0.75	0.75	0.75
Norway	0.73	49	0.73	0.77	0.69	0.65	0.65
Oman	0.70	46	0.67	0.76	0.74	0.60	0.62
Poland	0.79	55	0.75	0.79	0.75	0.68	0.72
Portugal	0.74	50	0.66	0.69	0.77	0.72	0.68
Qatar	0.73	49	0.73	0.71	0.73	0.60	0.72
Romania	0.79	54	0.64	0.74	0.74	0.77	0.77
Russian Federation	0.68	44	0.50	0.67	0.68	0.77	0.69
Saudi Arabia	0.76	51	0.74	0.76	0.71	0.66	0.72
Singapore	0.78	54	0.74	0.77	0.67	0.72	0.76
Slovak Republic	0.71	46	0.67	0.66	0.64	0.71	0.72
Slovenia	0.66	42	0.70	0.77	0.58	0.60	0.59
Spain	0.79	55	0.64	0.82	0.78	0.73	0.73
Sweden	0.73	49	0.68	0.71	0.79	0.65	0.68
Trinidad and Tobago	0.81	58	0.65	0.81	0.81	0.72	0.79
United Arab Emirates	0.75	50	0.68	0.70	0.69	0.71	0.77
United States	0.77	53	0.70	0.75	0.75	0.70	0.74
Sixth Grade Participants							
Botswana	0.79	55	0.76	0.79	0.68	0.70	0.77
Honduras	0.80	56	0.73	0.77	0.77	0.70	0.75
Kuwait	0.74	50	0.68	0.71	0.62	0.73	0.77
Morocco	0.79	57	0.77	0.84	0.77	0.72	0.66
Benchmarking Participants							
Alberta, Canada	0.73	50	0.60	0.76	0.79	0.66	0.69
Ontario, Canada	0.74	50	0.71	0.77	0.73	0.66	0.66
Quebec, Canada	0.71	46	0.68	0.77	0.66	0.69	0.59
Maltese - Malta	0.75	51	0.74	0.82	0.72	0.62	0.65
Eng/Afr (5) - RSA ^a	0.77	53	0.75	0.84	0.54	0.73	0.76
Andalusia, Spain	0.79	55	0.61	0.82	0.81	0.75	0.70
Abu Dhabi, UAE	0.74	49	0.69	0.70	0.65	0.73	0.74
Dubai, UAE	0.78	54	0.70	0.75	0.74	0.69	0.77
Florida, US	0.82	61	0.75	0.83	0.86	0.70	0.74

Exhibit 5: Cronbach's Alpha Reliability Coefficient and Principal Components Analysis of the Items in the PIRLS 2011 School Emphasis on Academic Success–Teacher Reports Scale (Continued)

Country	Cronbach's Alpha Reliability Coefficient	Percent of Variance Explained	Factor Loadings for Each Item				
			ATBG06B	ATBG06C	ATBG06D	ATBG06E	ATBG06H
prePIRLS Participants							
Botswana	0.76	52	0.79	0.83	0.59	0.68	0.71
Colombia	0.83	60	0.78	0.82	0.70	0.77	0.80
South Africa	0.73	49	0.74	0.72	0.67	0.68	0.69

◊ Republic of South Africa (RSA) tested 5th grade students receiving instruction in English (ENG) or Afrikaans (AFR).

Exhibit 6: Relationship Between the PIRLS 2011 School Emphasis on Academic Success–Teacher Reports Scale and PIRLS 2011 Reading Achievement

Country	Pearson's Correlation with Reading Achievement		Variance in Reading Achievement Accounted for by Difference Between Regions of the Scale (η^2)
	(r)	(r ²)	
Australia	0.21	0.04	0.03
Austria	0.15	0.02	0.02
Azerbaijan	0.10	0.01	0.01
Belgium (French)	0.17	0.03	0.02
Bulgaria	0.30	0.09	0.08
Canada	0.14	0.02	0.02
Chinese Taipei	0.06	0.00	0.00
Colombia	0.19	0.03	0.03
Croatia	0.02	0.00	0.00
Czech Republic	0.06	0.00	0.01
Denmark	0.16	0.02	0.01
England	0.19	0.03	0.03
Finland	0.10	0.01	0.01
France	0.15	0.02	0.02
Georgia	0.12	0.02	0.02
Germany	0.24	0.06	0.03
Hong Kong SAR	0.07	0.00	0.01
Hungary	0.26	0.07	0.06
Indonesia	0.13	0.02	0.01
Iran, Islamic Rep. of	0.20	0.04	0.04
Ireland	0.18	0.03	0.02
Israel	0.22	0.05	0.06
Italy	0.04	0.00	0.00
Lithuania	0.16	0.03	0.01
Malta	0.19	0.04	0.02
Morocco	0.22	0.05	0.05
Netherlands	0.11	0.01	0.02
New Zealand	0.20	0.04	0.04

Exhibit 6: Relationship Between the PIRLS 2011 School Emphasis on Academic Success–Teacher Reports Scale and PIRLS 2011 Reading Achievement (Continued)

Country	Pearson's Correlation with Reading Achievement		Variance in Reading Achievement Accounted for by Difference Between Regions of the Scale (η^2)
	(r)	(r^2)	
Northern Ireland	0.14	0.02	0.02
Norway	0.09	0.01	0.01
Oman	0.16	0.03	0.03
Poland	0.06	0.00	0.00
Portugal	0.20	0.04	0.03
Qatar	0.05	0.00	0.00
Romania	0.16	0.03	0.03
Russian Federation	0.09	0.01	0.01
Saudi Arabia	0.21	0.04	0.04
Singapore	0.22	0.05	0.03
Slovak Republic	0.18	0.03	0.02
Slovenia	0.07	0.01	0.00
Spain	0.15	0.02	0.03
Sweden	0.13	0.02	0.01
Trinidad and Tobago	0.16	0.02	0.02
United Arab Emirates	0.15	0.02	0.02
United States	0.18	0.03	0.02
International Median	0.16	0.02	0.02
Sixth Grade Participants			
Botswana	0.34	0.12	0.12
Honduras	0.13	0.02	0.03
Kuwait	0.22	0.05	0.03
Morocco	0.20	0.04	0.06
Benchmarking Participants			
Alberta, Canada	0.19	0.04	0.04
Ontario, Canada	0.12	0.01	0.01
Quebec, Canada	0.12	0.01	0.02
Maltese - Malta	0.02	0.00	0.00
Eng/Afr (5) - RSA [◇]	0.28	0.08	0.08
Andalusia, Spain	0.20	0.04	0.03
Abu Dhabi, UAE	0.25	0.06	0.05
Dubai, UAE	0.06	0.00	0.01
Florida, US	0.19	0.04	0.04
prePIRLS Participants			
Botswana	0.31	0.10	0.08
Colombia	0.17	0.03	0.02
South Africa	0.21	0.04	0.07

◇ Republic of South Africa (RSA) tested 5th grade students receiving instruction in English (ENG) or Afrikaans (AFR).