

PIRLS 2011

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

The School Emphasis on Academic Success–Principal Report (EAS–P) scale was created based on principals’ 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–Principal Reports Scale

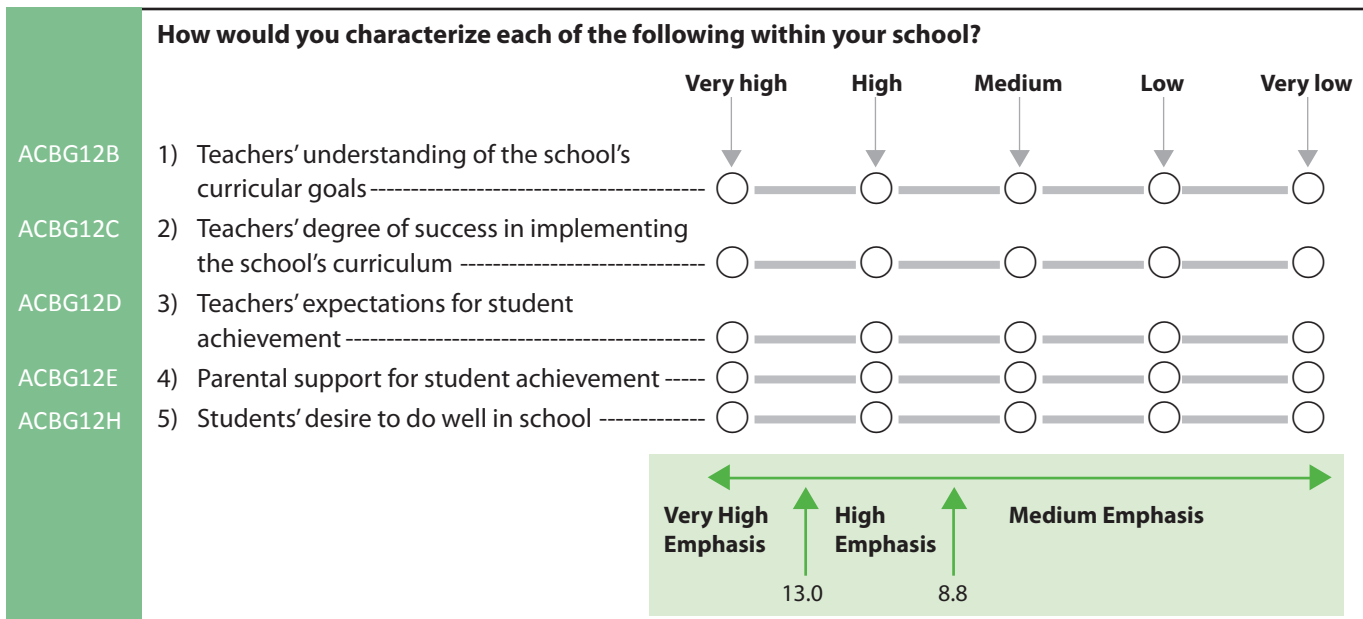


Exhibit 2: Item Parameters for the PIRLS 2011 School Emphasis on Academic Success–Principal Reports Scale¹

Item	delta	tau_1	tau_2	tau_3
ACBG12B	-0.09401	-1.82345	1.82345	
ACBG12C	0.52135	-1.79086	1.79086	
ACBG12D	0.38753	-1.80936	1.80936	
ACBG12E	0.55434	-2.72462	0.15075	2.57387
ACBG12H	-0.56357	-3.28365	0.07883	3.20482

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 = 9.99494	Transformed Scale Score = 9.99494 + 1.07867 • Logit Scale Score
B = 1.07867	

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	4.50312		7	10.97408	
1	6.22851		8	11.68384	
2	7.25030		9	12.35320	
3	8.02856		10	13.04267	13.0
4	8.73212	8.8	11	13.86300	
5	9.44578		12	15.28976	
6	10.20709				

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

Country	Cronbach’s Alpha Reliability Coefficient	Percent of Variance Explained	Factor Loadings for Each Item				
			ACBG12B	ACBG12C	ACBG12D	ACBG12E	ACBG12H
Australia	0.81	58	0.75	0.83	0.81	0.71	0.72
Austria	0.72	47	0.64	0.69	0.66	0.72	0.72
Azerbaijan	0.76	53	0.70	0.73	0.75	0.69	0.76
Belgium (French)	0.71	48	0.64	0.77	0.66	0.65	0.73
Bulgaria	0.80	57	0.59	0.84	0.74	0.81	0.76
Canada	0.80	56	0.74	0.81	0.80	0.71	0.69
Chinese Taipei	0.82	59	0.75	0.75	0.85	0.75	0.73
Colombia	0.82	60	0.80	0.83	0.73	0.76	0.74
Croatia	0.78	53	0.69	0.79	0.73	0.68	0.76
Czech Republic	0.68	44	0.66	0.74	0.68	0.60	0.63
Denmark	0.78	53	0.68	0.72	0.79	0.73	0.73
England	0.83	62	0.74	0.87	0.84	0.75	0.74
Finland	0.74	50	0.69	0.77	0.78	0.66	0.64
France	0.64	42	0.41	0.64	0.65	0.76	0.72
Georgia	0.71	48	0.67	0.79	0.71	0.57	0.69
Germany	0.60	39	0.38	0.64	0.65	0.74	0.65
Hong Kong SAR	0.76	52	0.63	0.81	0.80	0.72	0.64
Hungary	0.78	53	0.58	0.80	0.64	0.83	0.75
Indonesia	0.78	55	0.73	0.75	0.69	0.74	0.78
Iran, Islamic Rep. of	0.69	46	0.70	0.70	0.66	0.61	0.70
Ireland	0.78	54	0.66	0.71	0.77	0.79	0.74
Israel	0.78	54	0.74	0.80	0.78	0.64	0.71

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

Country	Cronbach's Alpha Reliability Coefficient	Percent of Variance Explained	Factor Loadings for Each Item				
			ACBG12B	ACBG12C	ACBG12D	ACBG12E	ACBG12H
Italy	0.68	44	0.72	0.73	0.62	0.62	0.61
Lithuania	0.77	52	0.70	0.76	0.78	0.69	0.68
Malta	0.79	55	0.66	0.75	0.76	0.77	0.75
Morocco	0.84	63	0.84	0.88	0.78	0.72	0.72
Netherlands	0.58	39	0.62	0.79	0.67	0.51	0.47
New Zealand	0.80	57	0.77	0.82	0.81	0.70	0.68
Northern Ireland	0.83	62	0.79	0.85	0.83	0.74	0.73
Norway	0.67	44	0.69	0.74	0.65	0.63	0.58
Oman	0.71	47	0.77	0.74	0.68	0.62	0.61
Poland	0.81	57	0.77	0.84	0.82	0.65	0.69
Portugal	0.75	51	0.50	0.77	0.82	0.71	0.73
Qatar	0.80	57	0.81	0.82	0.75	0.65	0.75
Romania	0.78	54	0.72	0.78	0.74	0.69	0.75
Russian Federation	0.70	46	0.59	0.76	0.72	0.71	0.60
Saudi Arabia	0.82	59	0.76	0.82	0.78	0.73	0.74
Singapore	0.84	61	0.64	0.85	0.85	0.73	0.84
Slovak Republic	0.62	40	0.67	0.70	0.37	0.69	0.68
Slovenia	0.75	50	0.67	0.77	0.69	0.70	0.70
Spain	0.74	49	0.63	0.76	0.71	0.74	0.65
Sweden	0.75	50	0.63	0.74	0.83	0.67	0.67
Trinidad and Tobago	0.84	62	0.70	0.84	0.77	0.80	0.82
United Arab Emirates	0.82	59	0.78	0.79	0.78	0.75	0.75
United States	0.81	59	0.74	0.82	0.83	0.70	0.74
Sixth Grade Participants							
Botswana	0.75	51	0.70	0.78	0.67	0.70	0.71
Honduras	0.81	58	0.80	0.82	0.74	0.71	0.72
Kuwait	0.79	56	0.81	0.79	0.78	0.62	0.72
Morocco	0.84	62	0.84	0.88	0.78	0.72	0.72
Benchmarking Participants							
Alberta, Canada	0.80	57	0.73	0.78	0.84	0.73	0.67
Ontario, Canada	0.76	52	0.74	0.81	0.76	0.63	0.66
Quebec, Canada	0.80	57	0.71	0.79	0.77	0.75	0.74
Maltese - Malta	0.79	55	0.66	0.75	0.76	0.77	0.75
Eng/Afr (5) - RSA ^a	0.85	64	0.86	0.87	0.72	0.79	0.75
Andalusia, Spain	0.73	49	0.59	0.76	0.73	0.75	0.65
Abu Dhabi, UAE	0.81	58	0.80	0.82	0.74	0.76	0.69
Dubai, UAE	0.87	67	0.82	0.85	0.87	0.73	0.81
Florida, US	0.84	63	0.74	0.85	0.84	0.81	0.73

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

Country	Cronbach's Alpha Reliability Coefficient	Percent of Variance Explained	Factor Loadings for Each Item				
			ACBG12B	ACBG12C	ACBG12D	ACBG12E	ACBG12H
prePIRLS Participants							
Botswana	0.78	54	0.70	0.76	0.74	0.73	0.75
Colombia	0.82	60	0.80	0.83	0.73	0.76	0.74
South Africa	0.79	55	0.80	0.81	0.68	0.74	0.68

◊ 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–Principal 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	0.26	0.07	0.06
Austria	0.07	0.01	0.00
Azerbaijan	0.03	0.00	0.00
Belgium (French)	0.16	0.03	0.03
Bulgaria	0.20	0.04	0.04
Canada	0.14	0.02	0.02
Chinese Taipei	0.13	0.02	0.02
Colombia	0.25	0.06	0.06
Croatia	0.08	0.01	0.01
Czech Republic	0.06	0.00	0.00
Denmark	0.11	0.01	0.01
England	0.13	0.02	0.02
Finland	0.10	0.01	0.01
France	0.15	0.02	0.01
Georgia	0.04	0.00	0.00
Germany	0.24	0.06	0.05
Hong Kong SAR	–0.02	0.00	0.00
Hungary	0.27	0.08	0.05
Indonesia	0.05	0.00	0.00
Iran, Islamic Rep. of	0.16	0.03	0.02
Ireland	0.14	0.02	0.01
Israel	0.12	0.02	0.03
Italy	0.02	0.00	0.00
Lithuania	0.13	0.02	0.02
Malta	0.20	0.04	0.05
Morocco	0.20	0.04	0.05
Netherlands	0.07	0.00	0.00
New Zealand	0.17	0.03	0.02

Exhibit 6: Relationship Between the PIRLS 2011 School Emphasis on Academic Success–Principal 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	0.07	0.01	0.00
Oman	0.12	0.01	0.02
Poland	0.13	0.02	0.01
Portugal	0.11	0.01	0.01
Qatar	0.24	0.06	0.03
Romania	0.19	0.04	0.02
Russian Federation	0.04	0.00	0.03
Saudi Arabia	0.28	0.08	0.06
Singapore	0.19	0.04	0.02
Slovak Republic	0.12	0.02	0.01
Slovenia	0.03	0.00	0.00
Spain	0.17	0.03	0.03
Sweden	0.10	0.01	0.01
Trinidad and Tobago	0.23	0.05	0.04
United Arab Emirates	0.23	0.05	0.04
United States	0.19	0.03	0.03
International Median	0.13	0.02	0.02
Sixth Grade Participants			
Botswana	0.33	0.11	0.11
Honduras	-0.05	0.00	0.01
Kuwait	0.07	0.01	0.01
Morocco	0.24	0.06	0.05
Benchmarking Participants			
Alberta, Canada	0.18	0.03	0.02
Ontario, Canada	0.15	0.02	0.02
Quebec, Canada	0.12	0.01	0.02
Maltese - Malta	0.13	0.02	0.01
Eng/Afr (5) - RSA [◇]	0.46	0.21	0.19
Andalusia, Spain	0.23	0.05	0.04
Abu Dhabi, UAE	0.13	0.02	0.01
Dubai, UAE	0.31	0.10	0.11
Florida, US	0.16	0.03	0.04
prePIRLS Participants			
Botswana	0.34	0.12	0.12
Colombia	0.20	0.04	0.05
South Africa	0.22	0.05	0.07

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