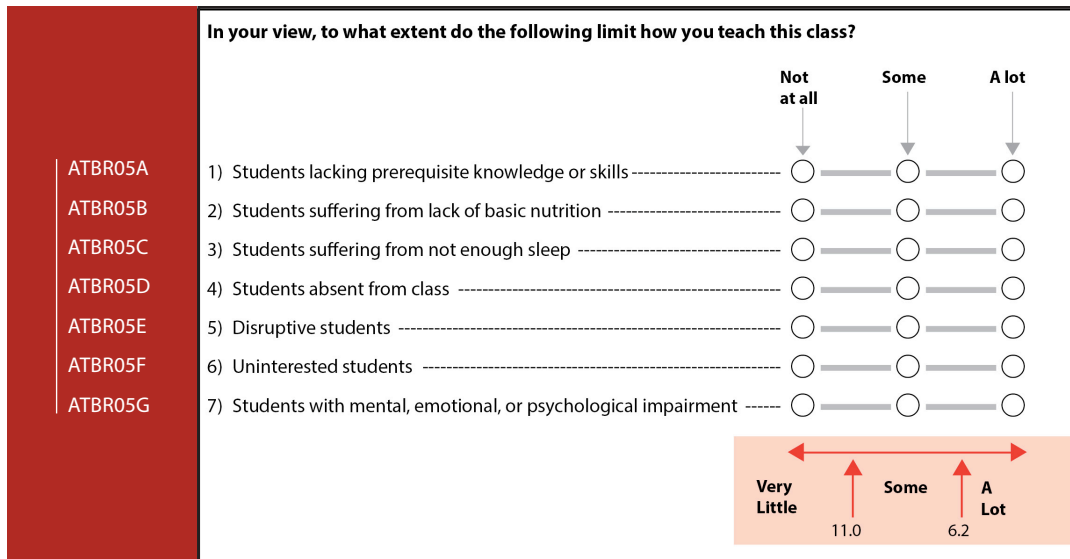


Classroom Instruction Limited by Student Attributes Scale

The *Classroom Instruction Limited by Student Attributes* (SLI) scale was created based on teachers' responses concerning seven attributes of students described below.

Items in the PIRLS 2016 *Classroom Instruction Limited by Student Attributes* Scale



Item Parameters for the PIRLS 2016 Classroom Instruction Limited by Student Attributes Scale

Item	delta	tau_1	tau_2	Infit
ATBR05A	0.86545	-1.95409	1.95409	1.01
ATBR05B	-1.21694	-1.05765	1.05765	1.04
ATBR05C	-0.29564	-1.60966	1.60966	0.97
ATBR05D	-0.06615	-1.48492	1.48492	1.04
ATBR05E	0.34789	-1.40914	1.40914	0.99
ATBR05F	0.48997	-1.87068	1.87068	0.91
ATBR05G	-0.12458	-1.47958	1.47958	1.05

SOURCE: IEA's Progress in International Reading Literacy Study – PIRLS 2016

Scale Transformation Constants for the PIRLS 2016 Classroom Instruction Limited by Student Attributes Scale

Scale Transformation Constants	
A = 8.565173	Transformed Scale Score = 8.565173 + 1.261182 • Logit Scale Score
B = 1.261182	

Equivalence Table of the Raw Score and Transformed Scale Scores for the PIRLS 2016 Classroom Instruction Limited by Student Attributes Scale

Raw Score	Transformed Scale Score	Cutpoint
0	3.09130	
1	4.66178	
2	5.50732	
3	6.15928	6.2
4	6.73472	
5	7.28482	
6	7.84240	
7	8.42725	
8	9.04720	
9	9.68742	
10	10.33571	
11	11.00861	11.0
12	11.75725	
13	12.70534	
14	14.37342	

SOURCE: IEA's Progress in International Reading Literacy Study – PIRLS 2016

Cronbach's Alpha Reliability Coefficient and Principal Components Analysis of the Items in the PIRLS 2016 Classroom Instruction Limited by Student Attributes Scale

Country	Cronbach's Alpha Reliability Coefficient	Percent of Variance Explained	Component Loadings for Each Item						
			ATBRO5A	ATBRO5B	ATBRO5C	ATBRO5D	ATBRO5E	ATBRO5F	ATBRO5G
Australia	0.83	49	0.68	0.66	0.76	0.65	0.71	0.72	0.72
Austria	0.77	42	0.69	0.56	0.74	0.58	0.61	0.71	0.64
Azerbaijan	0.68	35	0.66	0.44	0.51	0.67	0.49	0.72	0.58
Bahrain	0.77	43	0.64	0.60	0.62	0.45	0.73	0.84	0.67
Belgium (Flemish)	0.69	35	0.63	0.47	0.62	0.54	0.64	0.70	0.53
Belgium (French)	0.72	37	0.61	0.55	0.71	0.60	0.52	0.64	0.64
Bulgaria	0.77	42	0.69	0.46	0.54	0.70	0.65	0.78	0.68
Canada	0.75	40	0.64	0.69	0.72	0.54	0.59	0.55	0.69
Chile	0.75	41	0.58	0.68	0.62	0.68	0.69	0.74	0.40
Chinese Taipei	0.63	32	0.47	0.44	0.62	0.59	0.59	0.61	0.60
Czech Republic	0.65	32	0.64	0.10	0.42	0.53	0.67	0.69	0.66
Denmark	0.76	41	0.61	0.50	0.69	0.49	0.78	0.79	0.57
Egypt	0.66	33	0.57	0.59	0.62	0.46	0.74	0.61	0.39
England	0.76	41	0.67	0.55	0.71	0.71	0.64	0.62	0.59
Finland	0.69	36	0.53	0.49	0.71	0.44	0.65	0.71	0.58
France	0.77	42	0.60	0.58	0.67	0.69	0.70	0.63	0.64
Georgia	0.80	46	0.57	0.65	0.74	0.73	0.68	0.70	0.66
Germany	0.77	43	0.67	0.61	0.67	0.67	0.66	0.62	0.67
Hong Kong SAR	0.64	32	0.63	0.39	0.45	0.58	0.55	0.70	0.60
Hungary	0.75	40	0.66	0.68	0.71	0.50	0.53	0.65	0.69
Iran, Islamic Rep. of	0.76	41	0.50	0.54	0.71	0.69	0.69	0.58	0.73
Ireland	0.77	44	0.71	0.71	0.73	0.65	0.58	0.71	0.49
Israel	0.88	57	0.68	0.71	0.77	0.84	0.77	0.80	0.71
Italy	0.61	30	0.61	0.28	0.47	0.52	0.67	0.66	0.51
Kazakhstan	0.83	50	0.54	0.62	0.69	0.72	0.79	0.79	0.77
Kuwait	0.66	34	0.63	0.54	0.46	0.61	0.66	0.71	0.36
Latvia	0.81	47	0.59	0.71	0.69	0.74	0.72	0.68	0.66
Lithuania	0.79	45	0.69	0.48	0.76	0.60	0.70	0.68	0.75
Macao SAR	0.72	38	0.72	0.28	0.55	0.63	0.70	0.60	0.71
Malta	0.85	53	0.59	0.73	0.79	0.75	0.76	0.76	0.68
Morocco	0.70	36	0.49	0.63	0.62	0.59	0.67	0.74	0.43
Netherlands	0.80	48	0.59	0.70	0.76	0.67	0.71	0.69	0.73
New Zealand	0.76	41	0.53	0.73	0.71	0.68	0.59	0.64	0.59
Northern Ireland	0.80	45	0.68	0.61	0.76	0.61	0.57	0.73	0.72
Norway (5)	0.74	40	0.61	0.57	0.66	0.58	0.66	0.67	0.66
Oman	0.80	46	0.55	0.66	0.70	0.76	0.76	0.71	0.56
Poland	0.64	33	0.61	0.57	0.55	0.63	0.53	0.71	0.39
Portugal	0.77	43	0.52	0.64	0.67	0.73	0.75	0.69	0.57
Qatar	0.71	37	0.50	0.51	0.68	0.46	0.72	0.74	0.58
Russian Federation	0.86	54	0.54	0.67	0.76	0.80	0.77	0.79	0.77
Saudi Arabia	0.68	35	0.52	0.60	0.52	0.42	0.68	0.72	0.59
Singapore	0.82	48	0.65	0.68	0.71	0.76	0.66	0.66	0.73
Slovak Republic	0.78	44	0.76	0.55	0.61	0.72	0.68	0.74	0.57
Slovenia	0.78	44	0.62	0.60	0.71	0.41	0.78	0.76	0.69
South Africa	0.72	38	0.35	0.50	0.60	0.59	0.73	0.72	0.72
Spain	0.81	46	0.68	0.62	0.77	0.69	0.69	0.69	0.64
Sweden	0.68	35	0.54	0.58	0.57	0.54	0.63	0.71	0.52
Trinidad and Tobago	0.80	44	0.66	0.62	0.67	0.72	0.64	0.71	0.63
United Arab Emirates	0.80	46	0.58	0.71	0.68	0.63	0.70	0.75	0.70
United States	0.80	45	0.66	0.63	0.71	0.62	0.70	0.70	0.66
Benchmarking Participants									
Buenos Aires, Argentina	0.86	54	0.64	0.81	0.81	0.76	0.69	0.75	0.63
Ontario, Canada	0.75	41	0.74	0.70	0.76	0.56	0.40	0.58	0.69
Quebec, Canada	0.75	41	0.53	0.69	0.74	0.52	0.72	0.46	0.73
Denmark (3)	0.77	43	0.66	0.63	0.73	0.63	0.67	0.68	0.60
Norway (4)	0.72	38	0.52	0.67	0.68	0.49	0.64	0.67	0.61
Moscow City, Russian Fed.	0.79	45	0.55	0.51	0.64	0.68	0.79	0.72	0.76
Eng/Afr/Zulu - RSA (5)	0.64	34	0.59	0.43	0.47	0.21	0.76	0.81	0.59
Andalusia, Spain	0.77	44	0.70	0.66	0.72	0.65	0.60	0.71	0.61
Madrid, Spain	0.73	39	0.72	0.54	0.75	0.63	0.59	0.53	0.60
Abu Dhabi, UAE	0.76	41	0.57	0.72	0.56	0.59	0.71	0.76	0.57
Dubai, UAE	0.82	49	0.66	0.68	0.76	0.69	0.63	0.73	0.72

SOURCE: IEA's Progress in International Reading Literacy Study – PIRLS 2016

Relationship Between the PIRLS 2016 Classroom Instruction Limited by Student Attributes Scale and PIRLS 2016 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	0.24	0.06	0.05
Austria	0.14	0.02	0.02
Azerbaijan	0.05	0.00	0.00
Bahrain	0.19	0.03	0.02
Belgium (Flemish)	0.21	0.04	0.03
Belgium (French)	0.24	0.06	0.03
Bulgaria	0.28	0.08	0.05
Canada	0.18	0.03	0.02
Chile	0.24	0.06	0.05
Chinese Taipei	0.03	0.00	0.00
Czech Republic	0.12	0.02	0.01
Denmark	0.10	0.01	0.01
Egypt	0.13	0.02	0.02
England	0.14	0.02	0.02
Finland	0.13	0.02	0.01
France	0.15	0.02	0.02
Georgia	0.01	0.00	0.01
Germany	0.27	0.07	0.05
Hong Kong SAR	0.15	0.02	0.02
Hungary	0.24	0.06	0.04
Iran, Islamic Rep. of	0.06	0.00	0.01
Ireland	0.21	0.05	0.02
Israel	0.27	0.07	0.07
Italy	0.03	0.00	0.00
Kazakhstan	-0.10	0.01	0.01
Kuwait	0.08	0.01	0.01
Latvia	0.01	0.00	0.01
Lithuania	0.13	0.02	0.01
Macao SAR	0.10	0.01	0.01
Malta	0.11	0.01	0.02
Morocco	0.21	0.04	0.05
Netherlands	0.18	0.03	0.04
New Zealand	0.23	0.06	0.04
Northern Ireland	0.19	0.03	0.01
Norway (5)	0.16	0.02	0.02
Oman	0.10	0.01	0.01
Poland	0.13	0.02	0.01
Portugal	0.10	0.01	0.01
Qatar	0.21	0.04	0.04
Russian Federation	0.16	0.03	0.02
Saudi Arabia	0.20	0.04	0.04
Singapore	0.37	0.13	0.11
Slovak Republic	0.26	0.07	0.09
Slovenia	0.04	0.00	0.00
South Africa	0.04	0.00	0.01
Spain	0.12	0.02	0.01
Sweden	0.11	0.01	0.01
Trinidad and Tobago	0.21	0.04	0.06
United Arab Emirates	0.35	0.12	0.09
United States	0.24	0.06	0.05
International Median	0.15	0.02	0.02
Benchmarking Participants			
Buenos Aires, Argentina	0.17	0.03	0.03
Ontario, Canada	0.20	0.04	0.03
Quebec, Canada	0.18	0.03	0.04
Denmark (3)	0.11	0.01	0.01
Norway (4)	0.07	0.00	0.00
Moscow City, Russian Fed.	0.09	0.01	0.01
Eng/Afr/Zulu - RSA (5)	0.08	0.01	0.00
Andalusia, Spain	0.19	0.04	0.03
Madrid, Spain	0.16	0.03	0.02
Abu Dhabi, UAE	0.25	0.06	0.07
Dubai, UAE	0.30	0.09	0.07

SOURCE: IEA's Progress in International Reading Literacy Study – PIRLS 2016