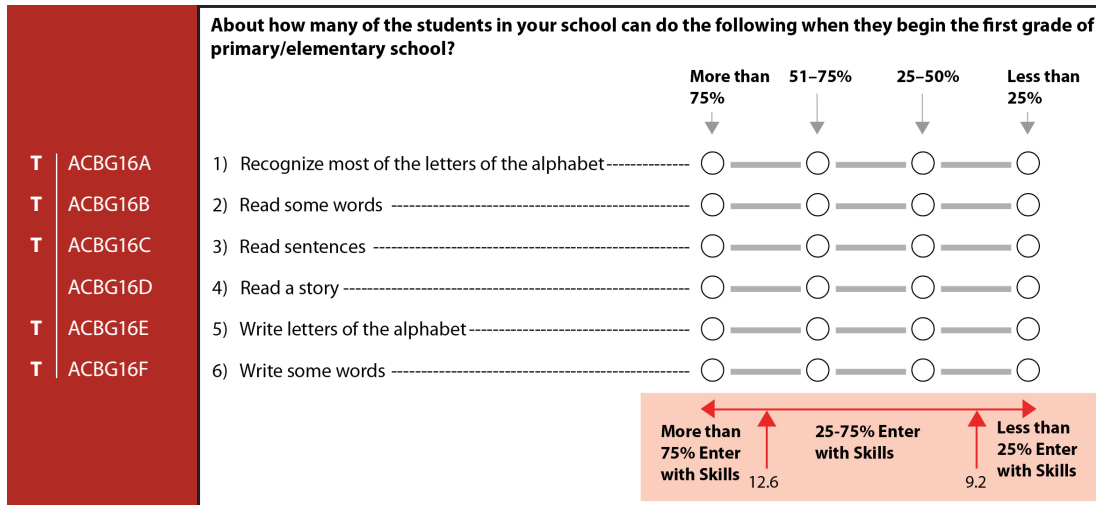


Schools Where Students Enter the Primary Grades with Early Literacy Skills Scale

The *Schools Where Students Enter the Primary Grades with Early Literacy Skills* (ELS) scale was created based on principals’ responses about the percentage of children in the school who began first grade with the six key skills described below.

Items in the PIRLS 2016 *Schools Where Students Enter the Primary Grades with Early Literacy Skills* Scale



T Trend item—item was included in the same scale in PIRLS 2011 and was used for linking the PIRLS 2011 and PIRLS 2016 scales.

Item Parameters for the PIRLS 2016 Schools Where Students Enter the Primary Grades with Early Literacy Skills Scale

Item	delta	tau_1	tau_2	tau_3	Infit
ACBG16A	-1.78233	-1.97973	0.20099	1.77874	1.50
ACBG16B	-0.57140	-2.07581	0.12065	1.95516	0.90
ACBG16C	1.30316	-1.75400	-0.13912	1.89312	0.93
ACBG16D	2.41057	-1.45499	-0.37070	1.82569	1.19
ACBG16E	-1.31646	-2.29289	0.42674	1.86615	1.31
ACBG16F	-0.04354	-1.97416	0.16291	1.81125	1.08

Scale Transformation Constants for the PIRLS 2016 Schools Where Students Enter the Primary Grades with Early Literacy Skills Scale

Scale Transformation Constants

A = 10.926395

B = 0.700871

Transformed Scale Score = 10.926395 + 0.700871 • Logit Scale Score

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

Equivalence Table of the Raw Score and Transformed Scale Scores for the PIRLS 2016 Schools Where Students Enter the Primary Grades with Early Literacy Skills Scale

Raw Score	Transformed Scale Score	Cutpoint
0	7.11411	
1	8.08353	
2	8.66466	
3	9.13106	9.2
4	9.52767	
5	9.87200	
6	10.17733	
7	10.45638	
8	10.71757	
9	10.96860	
10	11.21588	
11	11.46487	
12	11.72126	
13	11.99312	
14	12.29199	
15	12.64157	12.6
16	13.08630	
17	13.70842	
18	14.76593	

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 Schools Where Students Enter the Primary Grades with Early Literacy Skills Scale

Country	Cronbach's Alpha Reliability Coefficient	Percent of Variance Explained	Component Loadings for Each Item					
			ACBG16A	ACBG16B	ACBG16C	ACBG16D	ACBG16E	ACBG16F
Australia	0.94	77	0.87	0.92	0.91	0.77	0.89	0.90
Austria	0.94	78	0.90	0.88	0.94	0.91	0.77	0.88
Azerbaijan	0.95	79	0.84	0.92	0.92	0.83	0.91	0.90
Bahrain	0.94	77	0.82	0.94	0.91	0.73	0.89	0.94
Belgium (Flemish)	0.86	62	0.73	0.83	0.82	0.82	0.69	0.82
Belgium (French)	0.83	53	0.74	0.86	0.68	0.50	0.76	0.78
Bulgaria	0.92	72	0.80	0.91	0.91	0.78	0.82	0.87
Canada	0.93	75	0.83	0.92	0.88	0.77	0.88	0.90
Chile	0.96	84	0.89	0.94	0.93	0.88	0.91	0.93
Chinese Taipei	0.94	78	0.84	0.93	0.92	0.89	0.88	0.85
Czech Republic	0.78	51	0.77	0.73	0.57	0.51	0.85	0.80
Denmark	0.88	64	0.83	0.88	0.82	0.69	0.77	0.79
Egypt	0.93	74	0.89	0.92	0.88	0.63	0.90	0.92
England	0.97	86	0.93	0.95	0.93	0.85	0.94	0.95
Finland	0.86	59	0.67	0.83	0.88	0.74	0.66	0.79
France	0.82	54	0.71	0.79	0.72	0.61	0.75	0.81
Georgia	0.95	80	0.83	0.90	0.94	0.86	0.91	0.94
Germany	0.78	52	0.76	0.83	0.62	0.52	0.76	0.78
Hong Kong SAR	0.95	80	0.88	0.93	0.94	0.91	0.88	0.81
Hungary	0.92	75	0.88	0.92	0.93	0.76	0.80	0.91
Iran, Islamic Rep. of	0.95	81	0.86	0.94	0.94	0.83	0.89	0.93
Ireland	0.87	70	0.78	0.86	0.87	0.65	0.92	0.91
Israel	0.91	70	0.73	0.89	0.88	0.83	0.81	0.88
Italy	0.92	72	0.79	0.90	0.88	0.78	0.85	0.89
Kazakhstan	0.90	68	0.76	0.88	0.90	0.82	0.78	0.81
Kuwait	0.95	81	0.86	0.94	0.94	0.81	0.91	0.93
Latvia	0.90	68	0.68	0.87	0.90	0.82	0.84	0.84
Lithuania	0.89	65	0.71	0.88	0.87	0.76	0.77	0.84
Macao SAR	0.93	76	0.85	0.85	0.92	0.83	0.91	0.86
Malta	0.90	69	0.74	0.90	0.88	0.73	0.82	0.88
Morocco	0.95	82	0.92	0.96	0.91	0.75	0.94	0.94
Netherlands	0.86	61	0.66	0.86	0.81	0.68	0.80	0.84
New Zealand	0.93	79	0.85	0.93	0.92	0.85	0.89	-
Northern Ireland	0.96	86	0.94	0.97	0.96	0.77	0.93	0.96
Norway (5)	0.86	61	0.82	0.87	0.78	0.54	0.81	0.81
Oman	0.90	68	0.73	0.91	0.88	0.68	0.82	0.90
Poland	0.93	75	0.80	0.90	0.92	0.74	0.90	0.91
Portugal	0.92	74	0.82	0.92	0.89	0.85	0.79	0.87
Qatar	0.96	84	0.87	0.95	0.93	0.85	0.92	0.95
Russian Federation	0.91	69	0.73	0.87	0.89	0.84	0.78	0.83
Saudi Arabia	0.93	74	0.83	0.93	0.92	0.66	0.86	0.92
Singapore	0.95	82	0.89	0.96	0.91	0.84	0.93	0.91
Slovak Republic	0.84	58	0.85	0.86	0.70	0.56	0.82	0.73
Slovenia	0.86	61	0.78	0.89	0.75	0.61	0.80	0.83
South Africa	0.93	75	0.76	0.88	0.90	0.86	0.88	0.91
Spain	0.90	70	0.82	0.90	0.88	0.74	0.79	0.88
Sweden	0.88	63	0.76	0.84	0.88	0.73	0.70	0.84
Trinidad and Tobago	0.92	72	0.81	0.90	0.87	0.74	0.87	0.88
United Arab Emirates	0.95	81	0.89	0.96	0.92	0.77	0.91	0.94
United States	0.97	87	0.91	0.96	0.94	0.89	0.95	0.95
Benchmarking Participants								
Buenos Aires, Argentina	0.90	66	0.81	0.90	0.83	0.62	0.83	0.84
Ontario, Canada	0.94	78	0.88	0.92	0.88	0.81	0.88	0.92
Quebec, Canada	0.89	65	0.78	0.91	0.82	0.58	0.86	0.86
Denmark (3)	0.88	63	0.82	0.88	0.82	0.69	0.77	0.78
Norway (4)	0.86	60	0.82	0.87	0.78	0.51	0.81	0.81
Moscow City, Russian Fed.	0.88	63	0.78	0.89	0.85	0.78	0.68	0.74
Eng/Afr/Zulu - RSA (5)	0.92	73	0.73	0.87	0.90	0.86	0.87	0.88
Andalusia, Spain	0.89	69	0.83	0.87	0.88	0.75	0.79	0.88
Madrid, Spain	0.81	58	0.73	0.82	0.85	0.77	0.66	0.73
Abu Dhabi, UAE	0.95	80	0.90	0.95	0.91	0.76	0.90	0.94
Dubai, UAE	0.95	81	0.90	0.96	0.92	0.74	0.93	0.95

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

A dash (-) indicates comparable data not available.

Relationship Between the PIRLS 2016 Schools Where Students Enter the Primary Grades with Early Literacy Skills 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	0.12	0.01	0.01
Austria	0.12	0.01	0.01
Azerbaijan	0.08	0.01	0.00
Bahrain	0.19	0.04	0.03
Belgium (Flemish)	0.05	0.00	0.00
Belgium (French)	0.12	0.01	0.02
Bulgaria	0.32	0.10	0.10
Canada	0.16	0.03	0.04
Chile	0.26	0.07	0.07
Chinese Taipei	0.05	0.00	0.02
Czech Republic	0.09	0.01	0.00
Denmark	0.09	0.01	0.01
Egypt	0.11	0.01	0.01
England	0.10	0.01	0.01
Finland	0.05	0.00	0.00
France	0.07	0.00	0.02
Georgia	0.07	0.00	0.00
Germany	0.17	0.03	0.01
Hong Kong SAR	0.09	0.01	0.02
Hungary	0.09	0.01	0.01
Iran, Islamic Rep. of	-0.06	0.00	0.01
Ireland	0.08	0.01	0.00
Israel	0.07	0.00	0.04
Italy	0.04	0.00	0.00
Kazakhstan	0.10	0.01	0.01
Kuwait	0.12	0.01	0.01
Latvia	0.08	0.01	0.01
Lithuania	0.15	0.02	0.01
Macao SAR	0.01	0.00	0.01
Malta	0.02	0.00	0.00
Morocco	0.26	0.07	0.06
Netherlands	0.07	0.00	0.01
New Zealand	0.17	0.03	0.05
Northern Ireland	0.12	0.01	0.02
Norway (5)	0.04	0.00	0.00
Oman	0.11	0.01	0.02
Poland	-0.02	0.00	0.00
Portugal	0.06	0.00	0.01
Qatar	0.20	0.04	0.04
Russian Federation	0.23	0.05	0.04
Saudi Arabia	0.01	0.00	0.01
Singapore	0.09	0.01	0.02
Slovak Republic	0.18	0.03	0.01
Slovenia	0.07	0.00	0.00
South Africa	-0.02	0.00	0.00
Spain	0.15	0.02	0.02
Sweden	0.18	0.03	0.02
Trinidad and Tobago	0.26	0.07	0.04
United Arab Emirates	0.34	0.12	0.11
United States	0.19	0.04	0.03
International Median	0.09	0.01	0.01
Benchmarking Participants			
Buenos Aires, Argentina	0.27	0.07	0.06
Ontario, Canada	0.15	0.02	0.01
Quebec, Canada	0.07	0.01	0.00
Denmark (3)	0.06	0.00	0.00
Norway (4)	0.09	0.01	0.01
Moscow City, Russian Fed.	0.18	0.03	0.03
Eng/Afr/Zulu - RSA (5)	0.07	0.00	0.03
Andalusia, Spain	0.14	0.02	0.02
Madrid, Spain	0.14	0.02	0.02
Abu Dhabi, UAE	0.26	0.07	0.06
Dubai, UAE	0.32	0.10	0.09

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