

Parents Like Reading Scale

The *Parents Like Reading* (PLR) scale was created based on parents' responses to the nine items listed below.

Items in the PIRLS 2016 *Parents Like Reading* Scale

		Please indicate how much you agree with the following statements about reading.				
		Agree a lot	Agree a little	Disagree a little	Disagree a lot	
T	ASBH12A*	1) I read only if I have to*	○	○	○	○
T	ASBH12B	2) I like talking about what I read with other people	○	○	○	○
T	ASBH12C	3) I like to spend my spare time reading	○	○	○	○
T	ASBH12D*	4) I read only if I need information*	○	○	○	○
T	ASBH12E	5) Reading is an important activity in my home	○	○	○	○
T	ASBH12F	6) I would like to have more time for reading	○	○	○	○
T	ASBH12G	7) I enjoy reading	○	○	○	○
	ASBH12H	8) Reading is one of my favorite hobbies	○	○	○	○
T	ASBH11	When you are at home, how often do you read for your enjoyment?	○	○	○	○
		*reverse coded				

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 Parents Like Reading Scale

Items	delta	tau_1	tau_2	tau_3	Infit
* ASBH12A	0.44643	-0.55854	0.31019	0.24835	1.32
ASBH12B	-0.10611	-1.00923	-0.53256	1.54179	1.24
ASBH12C	0.06094	-0.99352	-0.30069	1.29421	0.81
* ASBH12D	0.69129	-0.76655	0.16445	0.60210	1.24
ASBH12E	-0.11197	-1.34252	-0.17347	1.51599	0.98
ASBH12F	-0.56903	-0.81012	-0.19368	1.00380	1.06
ASBH12G	-0.77034	-0.57881	-0.39616	0.97497	0.72
ASBH12H	0.15110	-0.96505	-0.17289	1.13794	0.81
ASBH11	0.20769	-0.67165	-0.49178	1.16343	1.13

* Reverse coded

Scale Transformation Constants for the PIRLS 2016 Parents Like Reading Scale

Scale Transformation Constants	
A = 8.166833	Transformed Scale Score = 8.166833 + 1.409138 • Logit Scale Score
B = 1.409138	

Equivalence Table of the Raw Score and Transformed Scale Scores for the PIRLS 2016 Parents Like Reading Scale

Raw Score	Transformed Scale Score	Cutpoint
0	2.72380	
1	4.25018	
2	4.97008	
3	5.45813	
4	5.84059	
5	6.16163	
6	6.44443	
7	6.70075	
8	6.94217	
9	7.17109	
10	7.39134	
11	7.60584	
12	7.81680	
13	8.02605	8.1
14	8.23505	
15	8.44528	
16	8.65831	
17	8.87608	
18	9.10113	
19	9.33684	
20	9.58564	
21	9.85661	
22	10.15845	
23	10.50626	10.5
24	10.92449	
25	11.46501	
26	12.25570	
27	13.87824	

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

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Cronbach's Alpha Reliability Coefficient and Principal Components Analysis of the Items in the PIRLS 2016 Parents Like Reading Scale

Country	Cronbach's Alpha Reliability Coefficient	Percent of Variance Explained	Component Loadings for Each Item								
			ASBH12A*	ASBH12B	ASBH12C	ASBH12D*	ASBH12E	ASBH12F	ASBH12G	ASBH12H	ASBH12I
Australia	0.89	56	0.76	0.59	0.84	0.75	0.72	0.62	0.84	0.86	0.67
Austria	0.90	57	0.72	0.57	0.87	0.76	0.79	0.63	0.85	0.84	0.70
Azerbaijan	0.83	52	-	0.55	0.77	-	0.76	0.65	0.84	0.84	0.57
Bahrain	0.81	43	0.43	0.47	0.79	0.50	0.70	0.68	0.81	0.83	0.57
Belgium (Flemish)	0.90	57	0.75	0.50	0.87	0.75	0.75	0.67	0.88	0.86	0.70
Belgium (French)	0.90	55	0.70	0.52	0.85	0.72	0.72	0.71	0.86	0.86	0.70
Bulgaria	0.91	60	0.62	0.71	0.89	0.48	0.82	0.84	0.90	0.88	0.73
Canada	0.89	54	0.73	0.56	0.84	0.73	0.70	0.64	0.84	0.85	0.69
Chile	0.87	50	0.63	0.60	0.83	0.59	0.69	0.70	0.80	0.83	0.63
Chinese Taipei	0.86	49	0.57	0.48	0.77	0.54	0.76	0.77	0.86	0.86	0.56
Czech Republic	0.90	57	0.73	0.63	0.86	0.75	0.71	0.67	0.86	0.89	0.66
Denmark	0.90	57	0.74	0.60	0.88	0.78	0.76	0.60	0.85	0.83	0.70
Egypt	0.79	55	-0.25	0.78	0.83	-0.41	0.85	0.86	0.91	0.87	0.58
England	-	-	-	-	-	-	-	-	-	-	-
Finland	0.91	58	0.73	0.57	0.87	0.76	0.82	0.65	0.86	0.87	0.67
France	0.88	51	0.69	0.53	0.82	0.70	0.65	0.60	0.82	0.84	0.71
Georgia	0.78	43	0.24	0.56	0.81	0.26	0.68	0.75	0.85	0.81	0.61
Germany	0.89	54	0.75	0.57	0.87	0.66	0.70	0.61	0.86	0.85	0.68
Hong Kong SAR	0.85	48	0.46	0.52	0.78	0.41	0.75	0.78	0.87	0.87	0.61
Hungary	0.90	56	0.70	0.60	0.84	0.71	0.74	0.74	0.83	0.86	0.65
Iran, Islamic Rep. of	0.81	44	0.39	0.55	0.79	0.28	0.71	0.78	0.82	0.82	0.60
Ireland	0.88	53	0.74	0.55	0.83	0.74	0.69	0.57	0.84	0.86	0.69
Israel	0.85	47	0.65	0.50	0.81	0.65	0.68	0.57	0.79	0.84	0.62
Italy	0.88	52	0.69	0.55	0.82	0.69	0.70	0.67	0.81	0.83	0.67
Kazakhstan	0.72	39	0.11	0.51	0.74	0.20	0.70	0.73	0.77	0.82	0.60
Kuwait	0.84	47	0.52	0.49	0.80	0.58	0.75	0.70	0.81	0.84	0.54
Latvia	0.87	51	0.68	0.37	0.84	0.72	0.69	0.68	0.84	0.85	0.61
Lithuania	0.89	54	0.68	0.56	0.85	0.65	0.75	0.70	0.85	0.86	0.64
Macao SAR	0.83	46	0.38	0.56	0.76	0.35	0.76	0.78	0.87	0.87	0.55
Malta	0.86	49	0.68	0.49	0.82	0.72	0.57	0.64	0.82	0.86	0.62
Morocco	0.84	55	-0.04	0.81	0.86	-0.19	0.86	0.82	0.90	0.88	0.69
Netherlands	0.89	56	0.81	0.54	0.87	0.76	0.61	0.55	0.87	0.87	0.74
New Zealand	0.89	54	0.73	0.53	0.85	0.72	0.73	0.61	0.84	0.87	0.68
Northern Ireland	0.91	59	0.82	0.66	0.86	0.80	0.71	0.58	0.82	0.88	0.75
Norway (5)	0.89	53	0.73	0.52	0.85	0.74	0.74	0.60	0.83	0.83	0.66
Oman	0.78	41	0.24	0.55	0.77	0.34	0.69	0.69	0.80	0.81	0.58
Poland	0.88	53	0.70	0.61	0.83	0.71	0.75	0.62	0.81	0.80	0.67
Portugal	0.87	50	0.68	0.55	0.80	0.67	0.72	0.64	0.79	0.84	0.61
Qatar	0.81	43	0.44	0.44	0.79	0.46	0.70	0.68	0.82	0.83	0.54
Russian Federation	0.86	49	0.61	0.51	0.82	0.64	0.65	0.68	0.83	0.85	0.61
Saudi Arabia	0.82	44	0.38	0.55	0.79	0.34	0.74	0.69	0.83	0.83	0.61
Singapore	0.85	49	0.58	0.43	0.82	0.54	0.72	0.75	0.86	0.87	0.59
Slovak Republic	0.90	57	0.74	0.62	0.87	0.71	0.72	0.68	0.87	0.89	0.68
Slovenia	0.88	53	0.74	0.54	0.85	0.63	0.70	0.69	0.87	0.83	0.59
South Africa	0.75	41	0.03	0.66	0.76	0.05	0.70	0.71	0.82	0.80	0.61
Spain	0.89	54	0.71	0.59	0.83	0.73	0.67	0.67	0.83	0.85	0.70
Sweden	0.89	55	0.78	0.58	0.88	0.77	0.68	0.56	0.85	0.82	0.67
Trinidad and Tobago	0.82	44	0.63	0.53	0.80	0.63	0.60	0.45	0.79	0.83	0.57
United Arab Emirates	0.80	42	0.41	0.49	0.78	0.41	0.72	0.68	0.81	0.82	0.53
United States	-	-	-	-	-	-	-	-	-	-	-
Benchmarking Participants											
Buenos Aires, Argentina	0.84	46	0.62	0.51	0.82	0.62	0.62	0.66	0.78	0.83	0.57
Ontario, Canada	0.88	53	0.73	0.53	0.83	0.73	0.69	0.64	0.83	0.85	0.67
Quebec, Canada	0.90	55	0.74	0.63	0.85	0.72	0.70	0.62	0.84	0.85	0.70
Denmark (3)	0.89	55	0.74	0.58	0.87	0.77	0.75	0.61	0.84	0.82	0.66
Norway (4)	0.88	53	0.72	0.53	0.85	0.73	0.75	0.60	0.83	0.83	0.63
Moscow City, Russian Fed.	0.86	49	0.65	0.47	0.82	0.69	0.67	0.63	0.83	0.83	0.61
Eng/Afr/Zulu - RSA (5)	0.78	41	0.28	0.62	0.77	0.29	0.69	0.60	0.81	0.80	0.63
Andalusia, Spain	0.89	55	0.71	0.59	0.83	0.73	0.69	0.67	0.85	0.86	0.70
Madrid, Spain	0.87	51	0.69	0.55	0.82	0.74	0.68	0.58	0.81	0.85	0.65
Abu Dhabi, UAE	0.79	41	0.39	0.50	0.78	0.37	0.73	0.66	0.81	0.82	0.49
Dubai, UAE	0.82	44	0.54	0.44	0.78	0.56	0.71	0.66	0.81	0.82	0.57

A dash (-) indicates comparable data not available.
*Reverse coded

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

Relationship Between the PIRLS 2016 Parents Like Reading 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	0.30	0.09	0.08
Azerbaijan	0.11	0.01	0.01
Bahrain	0.19	0.04	0.03
Belgium (Flemish)	0.23	0.05	0.05
Belgium (French)	0.28	0.08	0.08
Bulgaria	0.41	0.17	0.16
Canada	0.21	0.04	0.04
Chile	0.23	0.05	0.05
Chinese Taipei	0.19	0.04	0.04
Czech Republic	0.28	0.08	0.07
Denmark	0.21	0.04	0.04
Egypt	0.30	0.09	0.08
England	-	-	-
Finland	0.25	0.06	0.06
France	0.25	0.06	0.05
Georgia	0.20	0.04	0.04
Germany	0.35	0.12	0.11
Hong Kong SAR	0.09	0.01	0.01
Hungary	0.35	0.12	0.11
Iran, Islamic Rep. of	0.25	0.06	0.05
Ireland	0.26	0.07	0.05
Israel	0.18	0.03	0.03
Italy	0.22	0.05	0.04
Kazakhstan	0.09	0.01	0.01
Kuwait	0.17	0.03	0.02
Latvia	0.22	0.05	0.05
Lithuania	0.24	0.06	0.05
Macao SAR	0.13	0.02	0.01
Malta	0.14	0.02	0.02
Morocco	0.24	0.06	0.05
Netherlands	0.26	0.07	0.06
New Zealand	0.29	0.09	0.07
Northern Ireland	0.18	0.03	0.03
Norway (5)	0.25	0.06	0.05
Oman	0.20	0.04	0.03
Poland	0.21	0.05	0.04
Portugal	0.21	0.05	0.04
Qatar	0.21	0.05	0.04
Russian Federation	0.22	0.05	0.04
Saudi Arabia	0.14	0.02	0.02
Singapore	0.20	0.04	0.04
Slovak Republic	0.38	0.15	0.11
Slovenia	0.26	0.07	0.06
South Africa	0.17	0.03	0.03
Spain	0.20	0.04	0.04
Sweden	0.26	0.07	0.06
Trinidad and Tobago	0.12	0.02	0.02
United Arab Emirates	0.22	0.05	0.04
United States	-	-	-
International Median	0.22	0.05	0.04
Benchmarking Participants			
Buenos Aires, Argentina	0.24	0.06	0.06
Ontario, Canada	0.20	0.04	0.04
Quebec, Canada	0.17	0.03	0.03
Denmark (3)	0.18	0.03	0.03
Norway (4)	0.24	0.06	0.05
Moscow City, Russian Fed.	0.21	0.04	0.04
Eng/Afr/Zulu - RSA (5)	0.16	0.02	0.03
Andalusia, Spain	0.22	0.05	0.05
Madrid, Spain	0.18	0.03	0.03
Abu Dhabi, UAE	0.22	0.05	0.04
Dubai, UAE	0.23	0.05	0.05

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

A dash (-) indicates comparable data not available.