

# PIRLS 2011

## The PIRLS 2011 Parents Like Reading Scale

The Parents Like Reading (PLR) scale was created based on parents' responses to seven statements about reading and how often they read for enjoyment, 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 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
ASBH13A* 1) I read only if I have to* -----	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
ASBH13B 2) I like talking about what I read with other people -----	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
ASBH13C 3) I like to spend my spare time reading -----	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
ASBH13D* 4) I read only if I need information* -----	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
ASBH13E 5) Reading is an important activity in my home -----	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
ASBH13F 6) I would like to have more time for reading -----	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
ASBH13G 7) I enjoy reading -----	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

  

ASBH12 When you are at home, how often do you read for your enjoyment? -----

\*Reverse coded

← Like      Somewhat Like      Do Not Like →

10.9      7.9

Every day or almost every day      Once or twice a week      Once or twice a month      Never or almost never

↓      ↓      ↓      ↓

← Like      Somewhat Like      Do Not Like →

10.9      7.9

**Exhibit 2: Item Parameters for PIRLS 2011 Parents Like Reading Scale**

Item	delta	tau_1	tau_2	tau_3
ASBH13A*	-0.65531	-0.36330	0.21738	0.14592
ASBH13B	-1.13499	-0.73433	-0.58325	1.31758
ASBH13C	-1.07584	-0.77299	-0.30034	1.07333
ASBH13D*	-0.47832	-0.57531	0.08992	0.48539
ASBH13E	-1.20879	-1.04164	-0.24816	1.28980
ASBH13F	-1.50524	-0.48673	-0.33169	0.81842
ASBH13G	-1.76367	-0.19379	-0.52354	0.71733
ASBH12	-0.98335	-0.50717	-0.57156	1.07873

\* Reverse coded

**Exhibit 3: Scale Transformation Constants**

Scale Transformation Constants

$$A = 10.00921$$

$$B = 1.69802$$

$$\text{Transformed Scale Score} = 10.00921 + 1.69802 \cdot \text{Logit Scale Score}$$

**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	2.32952		13	8.31893	
1	4.05390		14	8.57953	
2	4.84787		15	8.84658	
3	5.38431		16	9.12366	
4	5.80309		17	9.41589	
5	6.15528		18	9.73209	
6	6.47108		19	10.07944	
7	6.76105		20	10.48141	
8	7.03436		21	10.96593	10.9
9	7.29735		22	11.59895	
10	7.55447		23	12.53542	
11	7.80895	7.9	24	14.48509	
12	8.06204				

**Exhibit 5: Cronbach's Alpha Reliability Coefficient and Principal Components Analysis of the Items in the PIRLS 2011 Parents Like Reading Scale\*\***

Country	Cronbach's Alpha Reliability Coefficient	Percent of Variance Explained	Factor Loadings for Each Item							
			ASBH13A*	ASBH13B	ASBH13C	ASBH13D*	ASBH13E	ASBH13F	ASBH13G	ASBH12
Australia	0.87	54	0.79	0.57	0.82	0.77	0.74	0.58	0.83	0.70
Austria	0.87	53	0.71	0.58	0.86	0.74	0.78	0.60	0.83	0.68
Azerbaijan	0.65	36	0.11	0.57	0.76	0.07	0.74	0.68	0.82	0.51
Belgium (French)	0.87	52	0.69	0.56	0.83	0.75	0.73	0.65	0.84	0.69
Bulgaria	0.87	56	0.57	0.71	0.88	0.46	0.79	0.81	0.89	0.73
Canada	0.87	53	0.76	0.59	0.83	0.76	0.72	0.59	0.83	0.71
Chinese Taipei	0.82	47	0.58	0.55	0.79	0.53	0.76	0.78	0.84	0.57
Colombia	0.76	41	0.38	0.60	0.78	0.41	0.68	0.69	0.81	0.64
Croatia	0.84	49	0.70	0.52	0.82	0.72	0.70	0.62	0.83	0.65
Czech Republic	0.87	53	0.73	0.63	0.84	0.76	0.72	0.65	0.84	0.64
Denmark	0.86	53	0.77	0.54	0.88	0.78	0.72	0.53	0.85	0.68
Finland	0.87	53	0.74	0.56	0.86	0.76	0.80	0.56	0.84	0.67
France	0.86	52	0.71	0.75	0.82	0.70	0.64	0.58	0.82	0.70
Georgia	0.70	37	0.46	0.45	0.75	0.45	0.63	0.64	0.77	0.61
Germany	0.87	53	0.77	0.64	0.87	0.66	0.72	0.60	0.84	0.70
Hong Kong SAR	0.75	40	0.30	0.56	0.78	0.31	0.74	0.74	0.83	0.57
Hungary	0.84	48	0.66	0.58	0.81	0.68	0.71	0.69	0.80	0.58
Indonesia	0.71	37	0.44	0.32	0.73	0.40	0.71	0.76	0.78	0.51
Iran, Islamic Rep. of	0.73	38	0.44	0.49	0.75	0.39	0.65	0.75	0.76	0.57
Ireland	0.84	48	0.72	0.58	0.80	0.74	0.70	0.47	0.80	0.70
Israel	0.79	43	0.66	0.46	0.80	0.66	0.65	0.57	0.76	0.58
Italy	0.84	48	0.70	0.58	0.81	0.71	0.69	0.59	0.78	0.65
Lithuania	0.83	47	0.67	0.51	0.82	0.67	0.70	0.62	0.82	0.61
Malta	0.83	48	0.70	0.51	0.80	0.69	0.69	0.63	0.80	0.65
Morocco	0.72	42	0.11	0.67	0.77	-0.05	0.79	0.79	0.82	0.60
Netherlands	0.85	52	0.81	0.55	0.86	0.79	0.61	0.48	0.84	0.72
New Zealand	0.85	51	0.75	0.53	0.82	0.75	0.73	0.55	0.81	0.68
Northern Ireland	0.88	55	0.79	0.73	0.84	0.78	0.73	0.51	0.82	0.69
Norway	0.86	52	0.72	0.55	0.84	0.73	0.77	0.64	0.82	0.68
Oman	0.71	38	0.16	0.60	0.78	0.25	0.70	0.71	0.81	0.57
Poland	0.85	50	0.69	0.62	0.83	0.69	0.74	0.61	0.81	0.63
Portugal	0.82	46	0.65	0.57	0.78	0.70	0.72	0.59	0.78	0.61
Qatar	0.74	38	0.41	0.48	0.77	0.42	0.69	0.66	0.79	0.57
Romania	0.83	50	0.45	0.71	0.83	0.40	0.79	0.80	0.85	0.68
Russian Federation	0.83	47	0.65	0.54	0.82	0.69	0.65	0.64	0.81	0.66
Saudi Arabia	0.76	42	0.23	0.55	0.81	0.42	0.78	0.73	0.80	0.63
Singapore	0.79	43	0.51	0.44	0.80	0.49	0.74	0.73	0.83	0.60

**Exhibit 5: Cronbach's Alpha Reliability Coefficient and Principal Components Analysis of the Items in the PIRLS 2011 Parents Like Reading Scale\*\* (Continued)**

Country	Cronbach's Alpha Reliability Coefficient	Percent of Variance Explained	Factor Loadings for Each Item							
			ASBH13A*	ASBH13B	ASBH13C	ASBH13D*	ASBH13E	ASBH13F	ASBH13G	ASBH12
Slovak Republic	0.85	51	0.71	0.57	0.84	0.69	0.69	0.65	0.83	0.67
Slovenia	0.85	51	0.74	0.56	0.86	0.74	0.69	0.62	0.83	0.60
Spain	0.86	52	0.71	0.60	0.82	0.75	0.70	0.63	0.83	0.70
Sweden	0.83	49	0.76	0.55	0.86	0.76	0.64	0.47	0.82	0.65
Trinidad and Tobago	0.77	41	0.62	0.54	0.78	0.63	0.66	0.38	0.78	0.64
United Arab Emirates	0.74	39	0.41	0.50	0.78	0.33	0.73	0.68	0.80	0.59
<b>Sixth Grade Participants</b>										
Botswana	0.70	40	-0.01	0.74	0.78	0.09	0.71	0.70	0.82	0.64
Honduras	0.73	39	0.23	0.62	0.78	0.30	0.67	0.74	0.81	0.60
Kuwait	0.77	42	0.44	0.53	0.80	0.46	0.74	0.72	0.81	0.51
Morocco	0.73	42	0.12	0.70	0.77	0.02	0.80	0.80	0.82	0.58
<b>Benchmarking Participants</b>										
Alberta, Canada	0.86	53	0.78	0.54	0.82	0.78	0.73	0.59	0.82	0.71
Ontario, Canada	0.85	50	0.69	0.58	0.81	0.72	0.72	0.57	0.83	0.70
Quebec, Canada	0.87	53	0.77	0.62	0.83	0.75	0.74	0.58	0.83	0.69
Maltese - Malta	0.83	48	0.69	0.51	0.80	0.69	0.69	0.64	0.81	0.65
Eng/Afr (5) - RSA <sup>◇</sup>	0.78	43	0.40	0.61	0.81	0.45	0.69	0.59	0.82	0.73
Andalusia, Spain	0.87	53	0.72	0.60	0.82	0.76	0.70	0.65	0.84	0.71
Abu Dhabi, UAE	0.73	39	0.39	0.56	0.78	0.24	0.74	0.72	0.81	0.55
Dubai, UAE	0.75	40	0.51	0.45	0.78	0.51	0.72	0.59	0.78	0.61
<b>prePIRLS Participants</b>										
Botswana	0.70	40	-0.03	0.71	0.77	0.10	0.73	0.71	0.80	0.61
Colombia	0.76	41	0.38	0.60	0.78	0.41	0.68	0.69	0.81	0.64
South Africa	0.69	38	0.09	0.67	0.77	0.13	0.69	0.69	0.81	0.59

\*\* England and the United States did not administer the Home Questionnaire.

\* Reverse coded.

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

**Exhibit 6: Relationship Between the PIRLS 2011 Parents Like Reading Scale and PIRLS 2011 Achievement\*\***

Country	Pearson's Correlation with Reading Achievement		Variance in Reading Achievement Accounted for by Difference Between Regions of the Scale ( $\eta^2$ )
	(r)	(r <sup>2</sup> )	
Australia	0.23	0.05	0.06
Austria	0.27	0.07	0.07
Azerbaijan	0.13	0.02	0.02
Belgium (French)	0.30	0.09	0.07
Bulgaria	0.36	0.13	0.11
Canada	0.20	0.04	0.04
Chinese Taipei	0.19	0.03	0.03
Colombia	0.15	0.02	0.03
Croatia	0.21	0.04	0.03
Czech Republic	0.22	0.05	0.05
Denmark	0.22	0.05	0.05
Finland	0.21	0.04	0.04
France	0.27	0.07	0.07
Georgia	0.21	0.05	0.04
Germany	0.29	0.09	0.08
Hong Kong SAR	0.12	0.01	0.01
Hungary	0.31	0.10	0.08
Indonesia	0.15	0.02	0.02
Iran, Islamic Rep. of	0.17	0.03	0.02
Ireland	0.22	0.05	0.05
Israel	0.25	0.06	0.05
Italy	0.20	0.04	0.04
Lithuania	0.21	0.04	0.04
Malta	0.17	0.03	0.03
Morocco	0.20	0.04	0.04
Netherlands	0.17	0.03	0.02
New Zealand	0.27	0.07	0.07
Northern Ireland	0.16	0.03	0.03
Norway	0.24	0.06	0.05
Oman	0.19	0.03	0.03
Poland	0.22	0.05	0.05
Portugal	0.19	0.04	0.03
Qatar	0.17	0.03	0.02
Romania	0.33	0.11	0.09
Russian Federation	0.25	0.06	0.05
Saudi Arabia	0.20	0.04	0.03
Singapore	0.17	0.03	0.02

**Exhibit 6: Relationship Between the PIRLS 2011 Parents Like Reading Scale and PIRLS 2011 Achievement\*\* (Continued)**

Country	Pearson's Correlation with Reading Achievement		Variance in Reading Achievement Accounted for by Difference Between Regions of the Scale ( $\eta^2$ )
	(r)	(r <sup>2</sup> )	
Slovak Republic	0.25	0.06	0.05
Slovenia	0.27	0.07	0.06
Spain	0.21	0.04	0.04
Sweden	0.27	0.07	0.08
Trinidad and Tobago	0.19	0.04	0.03
United Arab Emirates	0.26	0.07	0.06
<b>International Median</b>	<b>0.21</b>	<b>0.04</b>	<b>0.04</b>
<b>Sixth Grade Participants</b>			
Botswana	0.30	0.09	0.07
Honduras	0.13	0.02	0.04
Kuwait	0.23	0.05	0.05
Morocco	0.25	0.06	0.06
<b>Benchmarking Participants</b>			
Alberta, Canada	0.14	0.02	0.02
Ontario, Canada	0.18	0.03	0.03
Quebec, Canada	0.18	0.03	0.03
Maltese - Malta	0.12	0.02	0.02
Eng/Afr (5) - RSA <sup>◇</sup>	0.27	0.07	0.08
Andalusia, Spain	0.23	0.05	0.05
Abu Dhabi, UAE	0.24	0.06	0.04
Dubai, UAE	0.31	0.09	0.08
<b>prePIRLS Participants</b>			
Botswana	0.29	0.08	0.07
Colombia	0.15	0.02	0.03
South Africa	0.21	0.05	0.05

\*\* England and the United States did not administer the Home Questionnaire.

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