

# PIRLS 2011

## PIRLS 2011 Students Confident in Reading Scale

The Students Confident in Reading (SCR) was created based on students' degree of agreement with seven statements 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 Students Confident in Reading Scale**

**How well do you read? Tell how much you agree with each of these statements.**

		Agree a lot	Agree a little	Disagree a little	Disagree a lot
ASBR08A	1) I usually do well in reading -----	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
ASBR08B	2) Reading is easy for me -----	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
ASBR08C*	3) Reading is harder for me than for many of my classmates* -----	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
ASBR08D	4) If a book is interesting, I don't care how hard it is to read -----	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
ASBR08E*	5) I have trouble reading stories with difficult words* -----	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
ASBR08F	6) My teacher tells me I am a good reader -----	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
ASBR08G*	7) Reading is harder for me than any other subject* -----	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

\* Reverse coded

Confident      Somewhat Confident      Not Confident

10.6      7.9

**Exhibit 2: Item Parameters for the PIRLS 2011 Students Confident in Reading Scale**

Item	delta	tau_1	tau_2	tau_3
ASBR08A	-1.38588	-0.06832	-0.67050	0.73882
ASBR08B	-1.41524	-0.12326	-0.41288	0.53614
ASBR08C*	-0.70497	-0.15123	0.25172	-0.10049
ASBR08D	-1.01512	0.44367	-0.39057	-0.05310
ASBR08E*	-0.13353	-0.54074	0.47905	0.06169
ASBR08F	-0.85116	-0.29990	-0.45939	0.75929
ASBR08G*	-0.81967	0.16729	0.25788	-0.42517

\* Reverse coded

### Exhibit 3: Scale Transformation Constants

#### Scale Transformation Constants

$$A = 9.96677$$

$$B = 2.18490$$

$$\text{Transformed Scale Score} = 9.96677 + 2.18490 \cdot \text{Logit Scale Score}$$

### 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	1.97908		11	8.09145	
1	3.87424		12	8.37394	
2	4.75552		13	8.67056	
3	5.36024		14	8.98289	
4	5.83733		15	9.32033	
5	6.23940		16	9.69670	
6	6.59960		17	10.12500	
7	6.92758		18	10.64147	10.6
8	7.23353		19	11.29688	
9	7.52532		20	12.25876	
10	7.80940	7.9	21	14.35923	

### Exhibit 5: Cronbach's Alpha Reliability Coefficient and Principal Components Analysis of the Items in the PIRLS 2011 Students Confident in Reading Scale

Country	Cronbach's Alpha Reliability Coefficient	Percent of Variance Explained	Factor Loadings for Each Item						
			ASBR08A	ASBR08B	ASBR08C*	ASBR08D	ASBR08E*	ASBR08F	ASBR08G*
Australia	0.72	40	0.73	0.78	0.71	0.46	0.61	0.34	0.69
Austria	0.75	43	0.78	0.81	0.68	0.39	0.51	0.63	0.71
Azerbaijan	0.58	29	0.39	0.53	0.69	0.28	0.61	0.49	0.68
Belgium (French)	0.66	35	0.71	0.71	0.64	0.32	0.55	0.47	0.66
Bulgaria	0.78	46	0.77	0.83	0.70	0.48	0.51	0.68	0.71
Canada	0.71	40	0.72	0.77	0.73	0.34	0.60	0.39	0.73
Chinese Taipei	0.72	39	0.79	0.81	0.56	0.60	0.27	0.62	0.57
Colombia	0.48	26	0.55	0.57	0.62	0.24	0.45	0.42	0.61
Croatia	0.75	44	0.79	0.78	0.72	0.33	0.44	0.74	0.69
Czech Republic	0.77	44	0.73	0.82	0.72	0.38	0.56	0.64	0.71
Denmark	0.73	41	0.76	0.79	0.75	0.38	0.69	0.41	0.59
England	0.73	42	0.74	0.80	0.75	0.38	0.66	0.26	0.73
Finland	0.69	40	0.76	0.75	0.71	0.24	0.58	0.46	0.75
France	0.69	38	0.73	0.71	0.71	0.29	0.55	0.53	0.66
Georgia	0.63	35	0.69	0.70	0.63	0.20	0.51	0.63	0.61
Germany	0.76	44	0.78	0.80	0.74	0.33	0.54	0.64	0.70
Hong Kong SAR	0.69	36	0.77	0.75	0.56	0.60	0.41	0.48	0.57
Hungary	0.77	46	0.76	0.81	0.73	0.31	0.52	0.76	0.71

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

Country	Cronbach's Alpha Reliability Coefficient	Percent of Variance Explained	Factor Loadings for Each Item						
			ASBR08A	ASBR08B	ASBR08C*	ASBR08D	ASBR08E*	ASBR08F	ASBR08G*
Indonesia	0.53	27	0.21	0.28	0.82	0.08	0.65	0.24	0.77
Iran, Islamic Rep. of	0.54	29	0.56	0.64	0.65	0.17	0.52	0.48	0.62
Ireland	0.71	40	0.73	0.78	0.72	0.37	0.62	0.34	0.71
Israel	0.66	35	0.52	0.70	0.69	0.38	0.55	0.57	0.66
Italy	0.66	35	0.69	0.73	0.64	0.27	0.54	0.61	0.58
Lithuania	0.74	43	0.80	0.82	0.70	0.25	0.49	0.67	0.66
Malta	0.71	39	0.68	0.76	0.67	0.39	0.53	0.58	0.66
Morocco	0.38	24	0.04	0.61	0.62	0.25	0.32	0.59	0.62
Netherlands	0.78	46	0.77	0.82	0.76	0.24	0.61	0.60	0.77
New Zealand	0.67	36	0.69	0.74	0.65	0.39	0.53	0.44	0.64
Northern Ireland	0.71	39	0.71	0.75	0.70	0.39	0.64	0.31	0.70
Norway	0.67	37	0.73	0.75	0.64	0.37	0.59	0.42	0.62
Oman	0.54	29	0.60	0.69	0.59	0.20	0.39	0.58	0.57
Poland	0.76	44	0.76	0.79	0.71	0.23	0.66	0.63	0.70
Portugal	0.73	41	0.77	0.77	0.62	0.37	0.58	0.70	0.54
Qatar	0.52	30	0.34	0.56	0.75	-0.07	0.61	0.41	0.74
Romania	0.74	42	0.76	0.78	0.65	0.40	0.52	0.69	0.66
Russian Federation	0.64	40	0.76	0.71	0.71	-0.06	0.48	0.68	0.71
Saudi Arabia	0.58	29	0.38	0.58	0.68	0.34	0.59	0.48	0.65
Singapore	0.69	37	0.72	0.77	0.65	0.48	0.51	0.39	0.65
Slovak Republic	0.77	45	0.76	0.81	0.67	0.33	0.63	0.66	0.70
Slovenia	0.77	45	0.77	0.80	0.67	0.29	0.68	0.70	0.67
Spain	0.61	32	0.70	0.69	0.59	0.43	0.27	0.62	0.55
Sweden	0.74	42	0.74	0.80	0.71	0.36	0.63	0.44	0.75
Trinidad and Tobago	0.68	37	0.69	0.74	0.66	0.35	0.50	0.57	0.65
United Arab Emirates	0.57	30	0.50	0.65	0.67	0.24	0.54	0.43	0.66
United States	0.71	39	0.72	0.77	0.73	0.34	0.55	0.41	0.72
<b>Sixth Grade Participants</b>									
Botswana	0.53	28	0.53	0.59	0.73	0.28	0.34	0.40	0.68
Honduras	0.47	26	-0.02	0.03	0.79	-0.20	0.70	-0.21	0.79
Kuwait	0.59	30	0.15	0.59	0.71	0.35	0.63	0.43	0.73
Morocco	0.40	26	-0.19	0.58	0.69	0.22	0.45	0.50	0.69
<b>Benchmarking Participants</b>									
Alberta, Canada	0.71	40	0.71	0.78	0.75	0.33	0.63	0.31	0.73
Ontario, Canada	0.71	39	0.73	0.76	0.71	0.33	0.60	0.39	0.72
Quebec, Canada	0.71	40	0.72	0.78	0.74	0.30	0.58	0.41	0.72
Maltese - Malta	0.73	40	0.75	0.79	0.63	0.50	0.51	0.64	0.55
Eng/Afr (5) - RSA <sup>o</sup>	0.60	30	0.50	0.59	0.67	0.36	0.58	0.38	0.67

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

Country	Cronbach's Alpha Reliability Coefficient	Percent of Variance Explained	Factor Loadings for Each Item						
			ASBR08A	ASBR08B	ASBR08C*	ASBR08D	ASBR08E*	ASBR08F	ASBR08G*
Andalusia, Spain	0.59	31	0.71	0.69	0.55	0.43	0.25	0.62	0.53
Abu Dhabi, UAE	0.56	29	0.48	0.65	0.65	0.25	0.52	0.47	0.64
Dubai, UAE	0.61	32	0.59	0.66	0.69	0.26	0.57	0.41	0.67
Florida, US	0.72	41	0.74	0.79	0.75	0.34	0.52	0.42	0.75
<b>prePIRLS Participants</b>									
Botswana	0.45	24	0.57	0.60	0.47	0.36	0.19	0.65	0.41
Colombia	0.48	26	0.54	0.56	0.63	0.23	0.45	0.42	0.62
South Africa	0.45	29	0.53	0.53	-0.50	0.52	-0.55	0.56	-0.55

\* 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 Students Confident in 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	0.45	0.21	0.20
Austria	0.36	0.13	0.12
Azerbaijan	0.27	0.07	0.07
Belgium (French)	0.40	0.16	0.15
Bulgaria	0.41	0.17	0.17
Canada	0.40	0.16	0.14
Chinese Taipei	0.34	0.12	0.10
Colombia	0.34	0.12	0.08
Croatia	0.37	0.14	0.13
Czech Republic	0.38	0.15	0.15
Denmark	0.44	0.20	0.18
England	0.42	0.18	0.16
Finland	0.37	0.14	0.14
France	0.40	0.16	0.14
Georgia	0.35	0.12	0.10
Germany	0.39	0.15	0.14
Hong Kong SAR	0.34	0.12	0.10
Hungary	0.49	0.24	0.22
Indonesia	0.29	0.08	0.08
Iran, Islamic Rep. of	0.33	0.11	0.11
Ireland	0.37	0.14	0.13
Israel	0.41	0.17	0.16
Italy	0.30	0.09	0.08

**Exhibit 6: Relationship Between the PIRLS 2011 Students Confident in 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> )	
Lithuania	0.43	0.19	0.17
Malta	0.46	0.21	0.21
Morocco	0.30	0.09	0.08
Netherlands	0.31	0.10	0.09
New Zealand	0.44	0.19	0.17
Northern Ireland	0.37	0.14	0.13
Norway	0.35	0.12	0.13
Oman	0.41	0.17	0.16
Poland	0.45	0.20	0.22
Portugal	0.40	0.16	0.15
Qatar	0.49	0.24	0.20
Romania	0.47	0.22	0.22
Russian Federation	0.37	0.14	0.13
Saudi Arabia	0.43	0.19	0.18
Singapore	0.38	0.15	0.14
Slovak Republic	0.41	0.17	0.15
Slovenia	0.43	0.19	0.18
Spain	0.35	0.12	0.11
Sweden	0.39	0.15	0.14
Trinidad and Tobago	0.50	0.25	0.23
United Arab Emirates	0.42	0.18	0.16
United States	0.40	0.16	0.15
<b>International Median</b>	<b>0.40</b>	<b>0.16</b>	<b>0.14</b>
<b>Sixth Grade Participants</b>			
Botswana	0.49	0.24	0.21
Honduras	0.32	0.10	0.07
Kuwait	0.39	0.15	0.13
Morocco	0.31	0.10	0.08
<b>Benchmarking Participants</b>			
Alberta, Canada	0.40	0.16	0.16
Ontario, Canada	0.39	0.15	0.14
Quebec, Canada	0.40	0.16	0.13
Maltese - Malta	0.36	0.13	0.12
Eng/Afr (5) - RSA <sup>o</sup>	0.44	0.20	0.17
Andalusia, Spain	0.34	0.12	0.11
Abu Dhabi, UAE	0.45	0.20	0.18
Dubai, UAE	0.39	0.16	0.15
Florida, US	0.43	0.19	0.16

**Exhibit 6: Relationship Between the PIRLS 2011 Students Confident in 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> )	
<b>prePIRLS Participants</b>			
Botswana	0.44	0.19	0.17
Colombia	0.36	0.13	0.09
South Africa	0.43	0.19	0.16

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