

PIRLS 2011

The PIRLS 2011 Teacher Career Satisfaction Scale

The Teacher Career Satisfaction (TCS) scale was created based on teachers’ degree of agreement with six 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 Teacher Career Satisfaction Scale

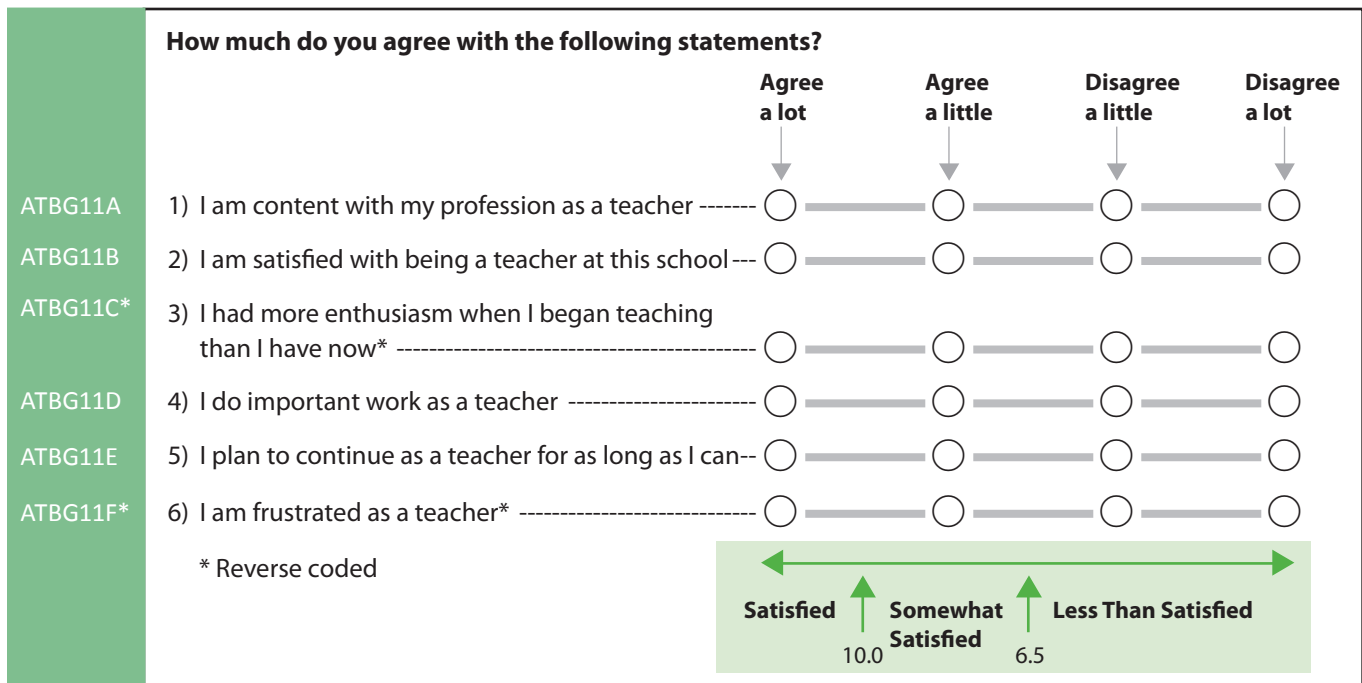


Exhibit 2: Item Parameters for the PIRLS 2011 Teacher Career Satisfaction Scale¹

Item	delta	tau_1	tau_2	tau_3
ATBG11A	-1.92006	-0.98235	0.98235	
ATBG11B	-1.89620	-0.84277	0.84277	
ATBG11C*	0.00356	-0.71306	0.21638	0.49668
ATBG11D	-3.41458	-0.82861	0.82861	
ATBG11E	-1.41263	-0.46647	0.46647	
ATBG11F*	-0.64107	0.05710	-0.05710	

* Reverse coded

¹ For the purpose of scaling, the categories “Disagree a little” and “Disagree a lot” were combined for variables ATBG11A, ATBG11B, ATBG11D, ATBG11E, and ATBG11F because there were very few respondents in each of these categories.

Exhibit 3: Scale Transformation Constants

Scale Transformation Constants

$$A = 10.10103$$

$$B = 1.62634$$

$$\text{Transformed Scale Score} = 10.10103 + 1.62634 \cdot \text{Logit Scale Score}$$

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	1.12441		7	8.35301	
1	3.35783		8	8.92240	
2	4.63078		9	9.49001	
3	5.59550		10	10.08132	10.0
4	6.40750	6.5	11	10.74327	
5	7.11832		12	11.59619	
6	7.75894		13	13.22944	

Exhibit 5: Cronbach's Alpha Reliability Coefficient and Principal Components Analysis of the Items in the PIRLS 2011 Teacher Career Satisfaction Scale

Country	Cronbach's Alpha Reliability Coefficient	Percent of Variance Explained	Factor Loadings for Each Item					
			ATBG11A	ATBG11B	ATBG11C*	ATBG11D	ATBG11E	ATBG11F*
Australia	0.75	48	0.85	0.76	0.68	0.40	0.66	0.71
Austria	0.73	46	0.85	0.68	0.68	0.09	0.67	0.82
Azerbaijan	0.42	34	0.67	0.81	0.01	0.52	0.64	0.48
Belgium (French)	0.76	48	0.83	0.67	0.73	0.59	0.68	0.64
Bulgaria	0.68	42	0.80	0.68	0.68	0.26	0.62	0.72
Canada	0.70	43	0.80	0.69	0.70	0.46	0.59	0.65
Chinese Taipei	0.62	44	0.85	0.81	0.03	0.65	0.74	0.57
Colombia	0.35	28	0.65	0.34	0.66	-0.01	0.66	0.50
Croatia	0.46	35	0.61	0.68	0.45	0.36	0.59	0.75
Czech Republic	0.68	44	0.82	0.68	0.41	0.45	0.76	0.73
Denmark	0.71	45	0.84	0.68	0.63	0.37	0.67	0.72
England	0.75	48	0.83	0.74	0.63	0.37	0.76	0.71
Finland	0.76	48	0.85	0.71	0.58	0.46	0.74	0.76
France	0.71	43	0.81	0.67	0.71	0.14	0.69	0.67
Georgia	0.58	39	0.82	0.76	0.61	-0.02	0.48	0.69
Germany	0.71	43	0.81	0.62	0.71	0.46	0.60	0.70
Hong Kong SAR	0.68	44	0.83	0.79	0.23	0.44	0.73	0.72
Hungary	0.63	40	0.74	0.73	0.43	0.48	0.69	0.64
Indonesia	0.05	27	0.73	0.79	-0.12	0.66	0.15	-0.06
Iran, Islamic Rep. of	0.54	36	0.78	0.46	0.40	0.34	0.77	0.69

Exhibit 5: Cronbach's Alpha Reliability Coefficient and Principal Components Analysis of the Items in the PIRLS 2011 Teacher Career Satisfaction Scale (Continued)

Country	Cronbach's Alpha Reliability Coefficient	Percent of Variance Explained	Factor Loadings for Each Item					
			ATBG11A	ATBG11B	ATBG11C*	ATBG11D	ATBG11E	ATBG11F*
Ireland	0.68	43	0.76	0.72	0.63	0.56	0.62	0.65
Israel	0.67	44	0.84	0.77	0.49	0.28	0.77	0.63
Italy	0.70	43	0.79	0.70	0.67	0.57	0.57	0.60
Lithuania	0.67	42	0.79	0.75	0.64	0.42	0.55	0.67
Malta	0.72	46	0.84	0.70	0.70	0.33	0.69	0.69
Morocco	0.67	41	0.79	0.71	0.39	0.55	0.67	0.66
Netherlands	0.70	43	0.77	0.71	0.74	0.30	0.64	0.65
New Zealand	0.69	43	0.81	0.73	0.57	0.37	0.66	0.71
Northern Ireland	0.72	45	0.86	0.67	0.71	0.32	0.68	0.68
Norway	0.72	47	0.80	0.76	0.60	0.38	0.74	0.73
Oman	0.65	40	0.83	0.57	0.58	0.42	0.61	0.71
Poland	0.59	36	0.69	0.71	0.63	0.41	0.50	0.60
Portugal	0.73	46	0.82	0.72	0.76	0.17	0.62	0.75
Qatar	0.70	45	0.83	0.70	0.45	0.57	0.73	0.68
Romania	0.61	38	0.78	0.62	0.49	0.47	0.70	0.55
Russian Federation	0.74	49	0.80	0.77	0.66	0.50	0.70	0.72
Saudi Arabia	0.51	32	0.71	0.34	0.50	0.12	0.64	0.80
Singapore	0.71	48	0.82	0.80	0.20	0.66	0.78	0.68
Slovak Republic	0.74	46	0.79	0.65	0.54	0.39	0.80	0.79
Slovenia	0.69	43	0.83	0.72	0.50	0.50	0.70	0.61
Spain	0.72	47	0.78	0.74	0.58	0.62	0.70	0.65
Sweden	0.75	48	0.88	0.80	0.54	0.52	0.74	0.61
Trinidad and Tobago	0.73	47	0.78	0.78	0.65	0.50	0.69	0.68
United Arab Emirates	0.71	45	0.81	0.65	0.59	0.41	0.77	0.73
United States	0.68	41	0.80	0.73	0.60	0.36	0.62	0.64
Sixth Grade Participants								
Botswana	0.53	30	0.50	0.75	0.51	0.26	0.54	0.63
Honduras	0.30	31	0.25	0.25	0.66	0.51	0.45	0.76
Kuwait	0.76	53	0.88	0.71	0.54	0.53	0.85	0.79
Morocco	0.67	43	0.85	0.79	0.31	0.44	0.70	0.68
Benchmarking Participants								
Alberta, Canada	0.71	43	0.84	0.61	0.69	0.37	0.64	0.68
Ontario, Canada	0.70	43	0.78	0.73	0.72	0.47	0.57	0.62
Quebec, Canada	0.72	44	0.83	0.70	0.76	0.45	0.61	0.58
Maltese - Malta	0.70	44	0.83	0.73	0.64	0.48	0.66	0.62
Eng/Afr (5) - RSA ^o	0.67	39	0.74	0.66	0.59	0.01	0.61	0.81

Exhibit 5: Cronbach's Alpha Reliability Coefficient and Principal Components Analysis of the Items in the PIRLS 2011 Teacher Career Satisfaction Scale (Continued)

Country	Cronbach's Alpha Reliability Coefficient	Percent of Variance Explained	Factor Loadings for Each Item					
			ATBG11A	ATBG11B	ATBG11C*	ATBG11D	ATBG11E	ATBG11F*
Andalusia, Spain	0.73	48	0.77	0.75	0.60	0.69	0.69	0.63
Abu Dhabi, UAE	0.68	44	0.83	0.63	0.64	0.26	0.79	0.69
Dubai, UAE	0.70	45	0.79	0.63	0.50	0.50	0.76	0.79
Florida, US	0.73	45	0.83	0.62	0.73	0.25	0.75	0.68
prePIRLS Participants								
Botswana	0.64	38	0.66	0.67	0.51	0.56	0.66	0.60
Colombia	0.35	28	0.65	0.34	0.66	-0.01	0.66	0.50
South Africa	0.59	38	0.77	0.74	0.32	0.16	0.76	0.65

* Reverse coded.

∩ No variance among respondents—item excluded from principal components analysis.

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

Exhibit 6: Relationship Between the PIRLS 2011 Fourth Grade Students Instruction Affected by Teacher Career Satisfaction Scale and PIRLS 2011 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	0.06	0.00	0.01
Austria	0.02	0.00	0.00
Azerbaijan	0.05	0.00	0.00
Belgium (French)	-0.01	0.00	0.00
Bulgaria	0.03	0.00	0.00
Canada	0.01	0.00	0.00
Chinese Taipei	0.04	0.00	0.00
Colombia	0.16	0.03	0.00
Croatia	-0.04	0.00	0.00
Czech Republic	0.10	0.01	0.01
Denmark	0.04	0.00	0.00
England	-0.01	0.00	0.00
Finland	0.01	0.00	0.00
France	0.02	0.00	0.00
Georgia	-0.02	0.00	0.00
Germany	0.06	0.00	0.00
Hong Kong SAR	0.02	0.00	0.01
Hungary	0.18	0.03	0.02
Indonesia	0.14	0.02	0.00
Iran, Islamic Rep. of	0.09	0.01	0.01
Ireland	0.03	0.00	0.00

Exhibit 6: Relationship Between the PIRLS 2011 Fourth Grade Students Instruction Affected by Teacher Career Satisfaction Scale and PIRLS 2011 Reading Achievement (Continued)

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)	
Israel	0.06	0.00	0.00
Italy	0.01	0.00	0.00
Lithuania	0.05	0.00	0.00
Malta	0.10	0.01	0.01
Morocco	0.14	0.02	0.02
Netherlands	0.01	0.00	0.00
New Zealand	0.01	0.00	0.00
Northern Ireland	0.05	0.00	0.00
Norway	0.02	0.00	0.00
Oman	0.14	0.02	0.01
Poland	0.02	0.00	0.00
Portugal	0.05	0.00	0.01
Qatar	0.11	0.01	0.01
Romania	0.14	0.02	0.01
Russian Federation	0.06	0.00	0.00
Saudi Arabia	0.13	0.02	0.03
Singapore	-0.01	0.00	0.01
Slovak Republic	-0.07	0.01	0.01
Slovenia	0.01	0.00	0.00
Spain	0.12	0.01	0.02
Sweden	-0.03	0.00	0.00
Trinidad and Tobago	0.09	0.01	0.01
United Arab Emirates	0.12	0.01	0.01
United States	0.03	0.00	0.00
International Median	0.04	0.00	0.00
Sixth Grade Participants			
Botswana	0.04	0.00	0.00
Honduras	0.05	0.00	0.00
Kuwait	0.10	0.01	0.01
Morocco	0.11	0.01	0.00
Benchmarking Participants			
Alberta, Canada	0.02	0.00	0.00
Ontario, Canada	-0.07	0.00	0.00
Quebec, Canada	0.02	0.00	0.00
Maltese - Malta	0.06	0.00	0.00
Eng/Afr (5) - RSA ^o	0.15	0.02	0.01

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)	
Andalusia, Spain	-0.02	0.00	0.01
Abu Dhabi, UAE	0.13	0.02	0.01
Dubai, UAE	0.14	0.02	0.02
Florida, US	0.09	0.01	0.01
prePIRLS Participants			
Botswana	0.12	0.01	0.01
Colombia	0.15	0.02	0.00
South Africa	-0.05	0.00	0.03

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