

## Appendix 11A: TIMSS 2015 Within-Country Scoring Reliability for the Constructed Response Items

**TIMSS 2015 Within-Country Scoring Reliability for the Fourth Grade Constructed Response Mathematics Items**

Country	Correctness Score Agreement			Diagnostic Score Agreement		
	Average of Exact Percent Agreement Across Items	Range of Exact Percent Agreement		Average of Exact Percent Agreement Across Items	Range of Exact Percent Agreement	
		Minimum	Maximum		Minimum	Maximum
Australia	98	87	100	97	86	100
Bahrain	99	90	100	99	89	100
Belgium (Flemish)	98	90	100	97	80	100
Bulgaria	99	96	100	98	94	100
Canada	97	80	100	95	77	100
Chile	99	91	100	98	87	100
Chinese Taipei	99	89	100	99	88	100
Croatia	99	89	100	98	81	100
Cyprus	100	99	100	100	98	100
Czech Republic	98	89	100	97	86	100
Denmark	97	89	100	95	84	100
England	99	95	100	99	92	100
Finland	99	90	100	99	89	100
France	98	84	100	97	68	100
Georgia	99	96	100	98	85	100
Germany	98	78	100	98	78	100
Hong Kong SAR	100	98	100	100	98	100
Hungary	99	96	100	99	95	100
Indonesia	99	92	100	96	68	100
Iran, Islamic Rep. of	99	89	100	97	85	100
Ireland	99	94	100	99	94	100
Italy	98	92	100	97	86	100
Japan	99	96	100	99	96	100
Kazakhstan	93	84	99	93	82	98
Korea, Rep. of	100	95	100	99	95	100
Kuwait	99	96	100	98	93	100
Lithuania	100	98	100	100	97	100
Morocco	95	43	100	91	42	99

**TIMSS 2015 Within-Country Scoring Reliability for the Fourth Grade Constructed Response Mathematics Items (Continued)**

Country	Correctness Score Agreement			Diagnostic Score Agreement		
	Average of Exact Percent Agreement Across Items	Range of Exact Percent Agreement		Average of Exact Percent Agreement Across Items	Range of Exact Percent Agreement	
		Minimum	Maximum		Minimum	Maximum
Netherlands	98	83	100	96	76	100
New Zealand	99	88	100	98	81	100
Northern Ireland	99	90	100	98	88	100
Norway (5)	98	86	100	97	77	100
Oman	98	90	100	96	72	100
Poland	99	90	100	98	82	100
Portugal	100	99	100	100	97	100
Qatar	99	97	100	98	93	100
Russian Federation	99	97	100	99	97	100
Saudi Arabia	98	81	100	96	77	100
Serbia	97	79	100	94	66	100
Singapore	99	94	100	99	93	100
Slovak Republic	100	100	100	100	99	100
Slovenia	99	97	100	99	96	100
Spain	99	95	100	98	92	100
Sweden	98	86	100	97	81	100
Turkey	100	98	100	100	98	100
United Arab Emirates	98	85	100	96	80	100
United States	98	81	100	97	78	100
<b>International Avg.</b>	<b>99</b>	<b>90</b>	<b>100</b>	<b>98</b>	<b>85</b>	<b>100</b>
<b>Benchmarking Participants</b>						
Buenos Aires, Argentina	97	87	100	94	80	100
Ontario, Canada	96	69	100	94	69	100
Quebec, Canada	98	84	100	97	83	100
Norway (4)	98	86	100	97	74	100
Abu Dhabi, UAE	98	86	100	96	78	100
Dubai, UAE	97	85	100	96	79	100
Florida, US	98	83	100	97	80	100

**TIMSS Numeracy 2015 Within-Country Scoring Reliability for the Constructed Response Items**

Country	Correctness Score Agreement			Diagnostic Score Agreement		
	Average of Exact Percent Agreement Across Items	Range of Exact Percent Agreement		Average of Exact Percent Agreement Across Items	Range of Exact Percent Agreement	
		Minimum	Maximum		Minimum	Maximum
Bahrain	100	97	100	99	97	100
Indonesia	98	87	100	96	78	100
Iran, Islamic Rep. of	99	94	100	98	94	100
Jordan	99	98	100	98	93	100
Kuwait	99	95	100	98	95	100
Morocco	94	53	100	92	53	100
South Africa (5)	100	97	100	99	97	100
<b>Benchmarking Participants</b>						
Buenos Aires, Argentina	96	83	100	94	83	100

**TIMSS 2015 Within-Country Scoring Reliability for the Fourth Grade Constructed Response Science Items**

Country	Correctness Score Agreement			Diagnostic Score Agreement		
	Average of Exact Percent Agreement Across Items	Range of Exact Percent Agreement		Average of Exact Percent Agreement Across Items	Range of Exact Percent Agreement	
		Minimum	Maximum		Minimum	Maximum
Australia	95	85	100	94	85	100
Bahrain	92	80	99	90	71	98
Belgium (Flemish)	95	79	100	94	79	99
Bulgaria	97	80	100	97	78	100
Canada	95	82	100	94	82	99
Chile	95	86	100	94	79	100
Chinese Taipei	94	85	100	94	76	100
Croatia	97	91	100	96	82	100
Cyprus	99	97	100	99	97	100
Czech Republic	94	83	100	93	70	100
Denmark	93	81	99	91	73	98
England	97	78	100	97	78	100
Finland	96	87	100	95	87	100
France	94	59	100	93	56	100
Georgia	97	90	100	96	81	100
Germany	95	83	100	95	81	100
Hong Kong SAR	100	98	100	99	97	100
Hungary	98	91	100	97	88	100
Indonesia	95	66	100	93	64	100
Iran, Islamic Rep. of	98	92	100	96	86	100
Ireland	98	89	100	98	88	100
Italy	95	86	100	95	86	100
Japan	99	93	100	99	93	100
Kazakhstan	94	89	98	94	89	98
Korea, Rep. of	97	93	100	97	93	100
Kuwait	99	96	100	98	92	100
Lithuania	100	98	100	99	98	100
Morocco	91	65	100	88	61	99
Netherlands	92	78	99	91	69	99
New Zealand	96	82	100	95	81	100
Northern Ireland	95	86	100	94	86	99
Norway (5)	89	64	100	88	64	100

**TIMSS 2015 Within-Country Scoring Reliability for the Fourth Grade Constructed Response Science Items (Continued)**

Country	Correctness Score Agreement			Diagnostic Score Agreement		
	Average of Exact Percent Agreement Across Items	Range of Exact Percent Agreement		Average of Exact Percent Agreement Across Items	Range of Exact Percent Agreement	
		Minimum	Maximum		Minimum	Maximum
Oman	93	76	100	91	76	99
Poland	93	75	100	93	75	99
Portugal	99	97	100	99	96	100
Qatar	99	96	100	97	93	100
Russian Federation	98	94	100	98	94	100
Saudi Arabia	97	88	100	95	86	100
Serbia	90	72	99	88	70	98
Singapore	97	90	100	96	88	100
Slovak Republic	100	98	100	100	98	100
Slovenia	98	91	100	97	90	100
Spain	98	90	100	98	86	100
Sweden	93	81	100	93	81	100
Turkey	99	92	100	99	91	100
United Arab Emirates	92	80	99	90	78	98
United States	95	85	100	95	80	100
<b>International Avg.</b>	<b>96</b>	<b>85</b>	<b>100</b>	<b>95</b>	<b>82</b>	<b>100</b>

**Benchmarking Participants**

Buenos Aires, Argentina	93	76	100	90	75	98
Ontario, Canada	94	82	100	93	79	100
Quebec, Canada	96	81	100	95	81	100
Norway (4)	91	71	100	90	71	100
Abu Dhabi, UAE	93	80	99	91	77	98
Dubai, UAE	90	75	100	89	73	98
Florida, US	95	85	100	95	77	100

**TIMSS 2015 Within-Country Scoring Reliability for the Eighth Grade Constructed Response Mathematics Items**

Country	Correctness Score Agreement			Diagnostic Score Agreement		
	Average of Exact Percent Agreement Across Items	Range of Exact Percent Agreement		Average of Exact Percent Agreement Across Items	Range of Exact Percent Agreement	
		Minimum	Maximum		Minimum	Maximum
Australia	98	87	100	97	86	100
Bahrain	99	97	100	99	96	100
Botswana (9)	98	74	100	96	60	100
Canada	97	87	100	95	81	100
Chile	98	85	100	96	77	100
Chinese Taipei	98	87	100	97	63	100
Egypt	99	95	100	97	88	100
England	99	95	100	99	95	100
Georgia	99	93	100	98	88	100
Hong Kong SAR	100	98	100	100	98	100
Hungary	99	93	100	98	89	100
Iran, Islamic Rep. of	99	93	100	97	89	100
Ireland	98	87	100	98	84	100
Israel	98	92	100	96	87	100
Italy	98	86	100	97	85	100
Japan	100	93	100	100	93	100
Jordan	99	97	100	98	90	100
Kazakhstan	89	71	98	88	70	96
Korea, Rep. of	99	89	100	98	88	100
Kuwait	99	95	100	98	93	100
Lebanon	96	75	100	93	74	99
Lithuania	100	99	100	100	98	100
Malaysia	99	95	100	98	93	100
Malta	98	90	100	97	79	100
Morocco	97	45	100	93	44	100
New Zealand	98	91	100	97	86	100
Norway (9)	97	79	100	95	70	100
Oman	98	85	100	96	77	100
Qatar	99	96	100	98	92	100
Russian Federation	99	95	100	99	91	100
Saudi Arabia	100	97	100	99	90	100
Singapore	98	86	100	97	84	100

**TIMSS 2015 Within-Country Scoring Reliability for the Eighth Grade Constructed Response Mathematics Items (Continued)**

Country	Correctness Score Agreement			Diagnostic Score Agreement		
	Average of Exact Percent Agreement Across Items	Range of Exact Percent Agreement		Average of Exact Percent Agreement Across Items	Range of Exact Percent Agreement	
		Minimum	Maximum		Minimum	Maximum
Slovenia	99	97	100	99	96	100
South Africa (9)	100	94	100	99	89	100
Sweden	98	81	100	96	79	100
Thailand	100	99	100	99	85	100
Turkey	99	98	100	99	96	100
United Arab Emirates	98	87	100	96	75	100
United States	98	81	100	97	75	100
<b>International Avg.</b>	<b>98</b>	<b>89</b>	<b>100</b>	<b>97</b>	<b>84</b>	<b>100</b>

**Benchmarking Participants**

Buenos Aires, Argentina	99	96	100	98	93	100
Ontario, Canada	97	85	100	95	77	100
Quebec, Canada	97	79	100	96	76	100
Norway (8)	97	83	100	96	77	100
Abu Dhabi, UAE	98	86	100	96	81	100
Dubai, UAE	97	81	100	95	65	100
Florida, US	99	87	100	97	83	100

**TIMSS 2015 Within-Country Scoring Reliability for the Eighth Grade Constructed Response Science Items**

Country	Correctness Score Agreement			Diagnostic Score Agreement		
	Average of Exact Percent Agreement Across Items	Range of Exact Percent Agreement		Average of Exact Percent Agreement Across Items	Range of Exact Percent Agreement	
		Minimum	Maximum		Minimum	Maximum
Australia	95	82	100	94	80	100
Bahrain	92	72	100	88	60	100
Botswana (9)	91	72	100	88	62	100
Canada	94	73	100	92	69	99
Chile	94	85	100	92	78	99
Chinese Taipei	95	85	100	94	77	100
Egypt	99	93	100	97	87	100
England	98	93	100	98	93	100
Georgia	98	86	100	97	86	100
Hong Kong SAR	100	98	100	100	98	100
Hungary	97	93	100	97	91	100
Iran, Islamic Rep. of	98	91	100	97	86	100
Ireland	96	77	100	95	77	100
Israel	98	92	100	96	85	100
Italy	95	87	100	94	86	100
Japan	99	84	100	99	84	100
Jordan	98	94	100	96	81	100
Kazakhstan	89	73	97	89	73	97
Korea, Rep. of	96	87	100	95	87	100
Kuwait	99	94	100	97	91	100
Lebanon	93	78	100	88	57	99
Lithuania	100	98	100	99	96	100
Malaysia	98	94	100	97	91	100
Malta	92	71	100	89	71	100
Morocco	91	73	100	84	52	100
New Zealand	96	84	100	95	84	100
Norway (9)	92	63	100	91	63	100
Oman	93	78	100	91	72	100
Qatar	99	97	100	98	89	100
Russian Federation	98	92	100	97	79	100
Saudi Arabia	98	84	100	96	81	100
Singapore	96	82	100	95	81	100



**TIMSS 2015 Within-Country Scoring Reliability for the Eighth Grade Constructed Response Science Items (Continued)**

Country	Correctness Score Agreement			Diagnostic Score Agreement		
	Average of Exact Percent Agreement Across Items	Range of Exact Percent Agreement		Average of Exact Percent Agreement Across Items	Range of Exact Percent Agreement	
		Minimum	Maximum		Minimum	Maximum
Slovenia	99	97	100	99	93	100
South Africa (9)	98	87	100	97	79	100
Sweden	94	74	100	92	74	100
Thailand	100	99	100	99	92	100
Turkey	97	89	100	96	80	100
United Arab Emirates	92	74	99	90	71	99
United States	94	75	100	93	75	100
<b>International Avg.</b>	<b>96</b>	<b>85</b>	<b>100</b>	<b>94</b>	<b>80</b>	<b>100</b>

**Benchmarking Participants**

Buenos Aires, Argentina	99	96	100	98	92	100
Ontario, Canada	94	82	100	93	71	100
Quebec, Canada	94	71	100	92	69	100
Norway (8)	93	73	100	91	72	100
Abu Dhabi, UAE	93	77	100	91	70	99
Dubai, UAE	91	70	100	88	66	100
Florida, US	95	79	100	94	71	100