

Exhibit 3.1: Achievement in Reading Purposes

The <u>PIRLS 2016 Assessment Framework</u> focuses on two overarching purposes for reading that account for most of the reading done by young students both in and out of school: for literary experience, and to acquire and use information.

In literary reading, readers engage with the text to become involved in events, settings, actions, consequences, characters, atmosphere, feeling, and ideas as well as to enjoy language itself. The PIRLS and PIRLS Literacy assessments use narrative fiction as the main form of literary texts because it works well in an international context. For example, given the differences in languages and curricula across the participating countries, it is difficult for PIRLS to include poetry because it is difficult to translate and plays are not widely taught in the primary grades.

Informational texts are both written and read for a wide variety of functions. While the primary function of informational text is to provide information, writers often address the subject matter with different objectives and perspectives. Many informational texts are straightforward presentations of facts, but they also can be subjective such as an argument or expository essay. Informational texts often contain information presented via lists, charts, graphs, and diagrams. In addition, words need not be in the form of continuous text and may be in sidebars, timelines, text boxes, or other various forms of depicting information.

Exhibit 3.1 presents the fourth grade reading achievement results for the two reading purposes assessed by PIRLS 2016—literary and informational. To examine relative performance in the purposes, PIRLS used item response theory (IRT) scaling to place achievement in the two purposes on the PIRLS 2016 achievement scale. Exhibit 3.1 provides the overall average PIRLS achievement score from Exhibit 1.1, as well as the average scale score for each purpose together with the difference between reading achievement overall and achievement in the purpose. Up and down arrows are used to indicate whether a country's average score in a purpose is significantly higher or lower than its overall PIRLS average score. Generally, the higher performing countries overall had higher achievement in the purposes and the lower performing countries had lower achievement. However, most countries demonstrated a relative strength in one of the purposes, often accompanied by a relative weakness in the other purpose. Sixteen countries performed higher in literary reading than on PIRLS overall, and 11 countries performed lower than they did overall. Similarly, 16 countries had higher achievement in informational reading than on PIRLS overall, while 15 countries had lower results. Often (in 23 countries) a strength in literary reading was accompanied by a weakness in informational reading or vice versa, but not always. Some countries had only a strength or weakness in one purpose for reading or the other.



Exhibit 3.1: Achievement in Reading Purposes

Country	Overall PIRLS Average Scale Score	Literary			Informational			Difference	
		Average Scale Score	Difference from Overal PIRLS Score		Average Scale Score	Difference from Overa PIRLS Scor	ill	Purpose Score Lower than Overall PIRLS Score	Purpose Score Higher than Overa PIRLS Score
Russian Federation	581 (2.2)	579 (2.2)	-2 (1.1)		584 (2.3)	4 (1.0)	٥	_	
³ Singapore	576 (3.2)	575 (3.3)	-2 (1.3)		579 (3.3)	2 (1.1)	٥	_	
† Hong Kong SAR	569 (2.7)	562 (3.0)	-6 (1.3)	◉	576 (2.8)	8 (1.1)	٥		
Ireland	567 (2.5)	571 (2.7)	5 (1.4)	٥	565 (2.7)	-2 (1.1)			_
Finland	566 (1.8)	565 (1.9)	-1 (1.0)		569 (2.0)	3 (0.7)	٥		
Poland	565 (2.1)	567 (2.2)	2 (1.3)		564 (2.6)	0 (1.5)			-
Northern Ireland	565 (2.2)	570 (2.5)	6 (1.4)	٥	561 (2.3)	-4 (1.4)	€		
Norway (5)	559 (2.3)	560 (2.5)	1 (1.5)		559 (2.4)	0 (1.0)			•
Chinese Taipei	559 (2.0)	548 (2.0)	-11 (1.2)	◉	569 (2.2)	10 (1.5)	٥		
England	559 (1.9)	563 (2.2)	4 (1.4)	٥	556 (2.1)	-2 (0.9)	•		_
² Latvia	558 (1.7)	555 (1.9)	-3 (1.5)		561 (1.8)	4 (0.9)	٥	_	
Sweden	555 (2.4)	556 (2.4)	1 (0.8)		555 (2.6)	0 (1.3)			•
Hungary	554 (2.9)	558 (2.8)	3 (1.0)	٥	551 (3.3)	-4 (1.6)	€		_
Bulgaria	552 (4.2)	551 (4.5)	0 (1.1)		554 (4.2)	2 (1.0)	٥		
† United States	549 (3.1)	557 (3.0)	8 (1.4)	٥	543 (3.1)	-6 (1.1)	•		
Lithuania	548 (2.6)	547 (2.7)	-1 (1.6)		551 (2.6)	2 (1.5)			
Italy	548 (2.2)	549 (2.1)	1 (1.8)		549 (2.2)	1 (0.9)			•
² Denmark	547 (2.1)	551 (2.2)	4 (1.5)	٥	543 (2.5)	-4 (1.3)	•		_
Macao SAR	546 (1.0)	536 (1.7)	-10 (1.7)	◉	556 (1.3)	10 (1.1)	٥		
[†] Netherlands	545 (1.7)	546 (1.7)	1 (1.0)		545 (1.9)	0 (1.1)			•
Australia	544 (2.5)	547 (2.4)	3 (1.3)	٥	543 (2.6)	-2 (1.0)			_
Czech Republic	543 (2.1)	545 (2.1)	2 (1.0)		541 (2.3)	-2 (1.4)			-
² Canada	543 (1.8)	547 (1.9)	4 (0.8)	٥	540 (1.9)	-3 (0.8)	€		_
Slovenia	542 (2.0)	541 (2.4)	-1 (1.3)		544 (2.1)	2 (0.8)	٥		
² Austria	541 (2.4)	544 (2.3)	4 (1.1)	٥	539 (2.4)	-2 (0.9)	€	_	_
Germany	537 (3.2)	542 (3.3)	5 (1.0)	٥	533 (3.3)	-4 (1.2)	•		
Kazakhstan	536 (2.5)	527 (2.5)	-9 (1.2)	◉	544 (2.8)	8 (1.5)	٥		
Slovak Republic	535 (3.1)	539 (3.0)	4 (1.2)	٥	531 (3.1)	-4 (1.3)	•		
³ Israel	530 (2.5)	532 (2.6)	2 (1.1)		529 (2.5)	-2 (1.0)			-
² Portugal	528 (2.3)	528 (2.5)	0 (1.2)		528 (2.3)	1 (0.8)			•
Spain	528 (1.7)	530 (1.9)	2 (0.7)	٥	527 (1.6)	-1 (0.6)			-
Belgium (Flemish)	525 (1.9)	524 (1.9)	-1 (1.1)		526 (1.9)	1 (0.8)			
New Zealand	523 (2.2)	525 (2.3)	3 (1.1)	٥	520 (2.4)	-2 (0.9)	€		_
France	511 (2.2)	513 (2.4)	1 (0.9)		510 (2.4)	-1 (0.8)			•
² Belgium (French)	497 (2.6)	504 (2.2)	6 (1.2)	٥	490 (2.4)	-7 (1.2)	◉		
Chile	494 (2.5)	500 (2.5)	7 (1.2)	٥	485 (2.7)	-9 (1.1)	•		
¹ Georgia	488 (2.8)	490 (2.6)	2 (1.1)		486 (3.1)	-2 (1.0)	◉	_	-
Trinidad and Tobago	479 (3.3)	478 (3.3)	-1 (0.9)		480 (3.5)	1 (1.1)			-
Azerbaijan	472 (4.2)	466 (3.9)	-6 (1.3)	◉	477 (4.6)	5 (1.3)	٥		
² Malta	452 (1.8)	452 (2.0)	0 (1.3)		451 (2.0)	-1 (1.5)			
United Arab Emirates	450 (3.2)	440 (3.4)	-10 (0.7)	◉	460 (3.2)	10 (0.6)	٥		
Bahrain	446 (2.3)	437 (2.8)	-9 (1.1)	•	453 (2.1)	7 (1.1)	٥		
Qatar	442 (1.8)	434 (2.3)	-8 (1.0)	€	450 (1.9)	7 (1.0)	٥		
Saudi Arabia	430 (4.2)	430 (4.0)	0 (1.1)		429 (4.5)	-1 (1.5)			
Iran, Islamic Rep. of	428 (4.0)	430 (3.8)	2 (1.3)		425 (3.8)	-3 (1.2)	•	_	_
Oman	418 (3.3)	411 (3.3)	-8 (0.9)	•	425 (3.3)	7 (0.8)	٥		
Kuwait	393 (4.1)	388 (4.3)	-6 (1.2)	€	398 (4.3)	5 (1.5)	٥		
Morocco	358 (3.9)	353 (4.0)	-5 (0.9)	•	359 (4.0)	1 (1.3)			
Egypt	330 (5.6)	328 (5.5)	-2 (1.2)		332 (5.8)	1 (0.9)		_	
South Africa	320 (4.4)	323 (4.7)	3 (1.4)	٥	314 (4.5)	-6 (1.0)	♥		_

See Appendix C.1 for target population coverage notes 1, 2, and 3. See Appendix C.4 for sampling guidelines and sampling participation notes \dagger , \dagger , and \equiv . () Standard errors appear in parentheses. Because of rounding some results may appear inconsistent.

Scale score significantly lower than overall PIRLS score $\cite{f \odot}$



Informational Reading

Exhibit 3.1: Achievement in Reading Purposes (Continued)

Average Scale Score 613 (2.2) 551 (2.2) 550 (2.9) 549 (3.2) 526 (2.1)	Difference from Overall PIRLS Score 1 (1.2) 1 (1.3) 2 (1.6) 5 (1.4)	Average Scale Score 613 (2.5) 549 (2.0) 547 (3.0) 539 (3.4)	Difference from Overall PIRLS Score 1 (1.4) 0 (0.9) -1 (1.0)	•	Purpose Score Lower than Overall PIRLS Score	Purpose Score Higher than Overall PIRLS Score
551 (2.2) 550 (2.9) 549 (3.2)	1 (1.3) 2 (1.6) 5 (1.4)	549 (2.0) 547 (3.0)	0 (0.9) -1 (1.0)	•		
551 (2.2) 550 (2.9) 549 (3.2)	1 (1.3) 2 (1.6) 5 (1.4)	549 (2.0) 547 (3.0)	0 (0.9) -1 (1.0)	•		
550 (2.9) 549 (3.2)	2 (1.6) 5 (1.4)	547 (3.0)	-1 (1.0)	•		
549 (3.2)	5 (1.4)			•		-
		539 (3.4)	-4 (1.5)	€		
526 (2.1)			1 (1.5)	·		
	1 (1.1)	524 (2.2)	-1 (0.8)			•
520 (2.1)	4 (0.8)	514 (2.2)	-3 (1.1)	•		_
508 (2.1)	-7 (1.2) ⊙	523 (2.1)	8 (1.0)	٥		
505 (2.5)	4 (2.0)	498 (2.4)	-3 (2.4)			_
484 (3.1)	4 (1.0)	475 (3.3)	-5 (1.7)	•		_
406 (4.8)	-9 (1.4)	422 (5.0)	8 (1.6)	٥		
402 (6.3)	-4 (1.2) ⊙	407 (6.0)	1 (1.2)			
	484 (3.1) 406 (4.8) 402 (6.3) y higher than ov	484 (3.1) 4 (1.0) △ 406 (4.8) -9 (1.4) ⊙	484 (3.1) 4 (1.0) ◆ 475 (3.3) 406 (4.8) -9 (1.4) ◆ 422 (5.0) 402 (6.3) -4 (1.2) ◆ 407 (6.0) y higher than overall PIRLS score ◆	484 (3.1) 4 (1.0) 475 (3.3) -5 (1.7) (406 (4.8) -9 (1.4) 140 422 (5.0) 8 (1.6) 402 (6.3) -4 (1.2) 140 407 (6.0) 1 (1.2)	484 (3.1) 4 (1.0) ◆ 475 (3.3) -5 (1.7) ◆ 406 (4.8) -9 (1.4) ◆ 422 (5.0) 8 (1.6) ◆ 402 (6.3) -4 (1.2) ◆ 407 (6.0) 1 (1.2)	484 (3.1) 4 (1.0) 475 (3.3) -5 (1.7) 406 (4.8) -9 (1.4) 422 (5.0) 8 (1.6) 402 (6.3) -4 (1.2) 407 (6.0) 1 (1.2) 20 10 409 (1.4)