

## Exhibit 4.4: Parents Like Reading

Young students who see adults and older children reading or using texts in different ways are learning to appreciate and use materials. Exhibit 4.4 presents the PIRLS 2016 *Parents Like Reading* scale. As described in the exhibit, students' parents were asked a series of questions about their reading enjoyment and students were scored according to their parents' responses. Exhibit 4.4 shows students' average reading achievement in relation to how much their parents like to read. Across the PIRLS 2016 countries, the students whose parents **Very Much Like** to read (32%) had higher average achievement than the 51 percent of the students whose parents only like to read **Somewhat** (535 vs. 508). In turn, the students with parents who **Do Not Like** to read (17%) had the lowest achievement (488).

Compared to PIRLS 2011, parental attitudes toward reading in 2016 were less positive on average in 31 countries, and more positive in only 2 countries.

1th Grade



## Students Categorized by Parents' Reports

Students were scored on the *Parents Like Reading* scale according to their parents' responses to eight statements about reading as well as how often they read for enjoyment. Students whose parents **Very Much Like** reading had a score on the scale of at least 10.5, which corresponds to their parents "agreeing a lot" with four of the eight statements and "agreeing a little" with the other four, as well as reading for enjoyment "every day or almost every day," on average. Students whose parents **Do Not Like** reading had a score no higher than 8.1, which corresponds to their parents "disagreeing a little" with four of the eight statements and "agreeing a little" with the other four, as well as reading for enjoyment only "once or twice a month," on average. All other students had parents who **Somewhat Like** reading.

Country	Very Much Like			Somewhat Like		Do N	ot Like	Average	Difference i	n
		Percent Average		Percent	Average	Percent	Average	Average Scale Score	Average Scale Scor	
		of Students	Achievement	of Students	Achievement	of Students	Achievement	Scale Score	from 2011	
Ireland		47 (1.1)	588 (2.9)	40 (1.0)	560 (2.9)	13 (0.7)	544 (5.2)	10.3 (0.05)	-0.4 (0.07)	
Netherlands	S	46 (1.5)	566 (2.8)	39 (1.2)	548 (3.1)	16 (0.9)	525 (4.3)	10.0 (0.05)	s -0.4 (0.08)	
Malta		45 (0.8)	471 (2.3)	42 (0.9)	451 (2.6)	13 (0.5)	439 (3.9)	10.2 (0.03)	-0.4 (0.05)	
Denmark		44 (1.1)	564 (2.3)	38 (1.0)	542 (2.7)	17 (0.7)	530 (3.6)	10.1 (0.05)	-0.6 (0.06)	
Sweden		44 (1.1)	576 (2.9)	42 (1.1)	551 (3.0)	13 (0.8)	529 (4.4)	10.1 (0.05)	-0.8 (0.07)	
Azerbaijan		44 (1.3)	481 (5.1)	46 (1.1)	470 (4.4)	10 (0.9)	453 (6.8)	10.4 (0.06)	0.7 (0.08)	
Norway (5)		42 (1.0)	574 (2.6)	44 (0.9)	556 (2.5)	15 (0.9)	532 (3.9)	10.1 (0.05)		
Trinidad and Tobago		41 (1.0)	499 (3.6)	49 (0.9)	478 (4.3)	10 (0.6)	468 (6.1)	10.2 (0.04)	-0.5 (0.06)	
Finland		41 (1.0)	585 (2.2)	43 (0.9)	563 (2.5)	16 (0.7)	542 (3.4)	10.0 (0.05)	-0.5 (0.07)	
Spain		41 (0.8)	545 (2.1)	43 (0.7)	524 (2.3)	16 (0.7)	512 (2.5)	10.0 (0.04)	0.0 (0.05)	
Israel		40 (1.1)	554 (3.1)	47 (0.9)	522 (3.2)	13 (0.6)	519 (6.4)	10.0 (0.04)	r -0.5 (0.06)	
Austria		40 (1.1)	564 (2.3)	42 (0.8)	534 (2.7)	18 (0.8)	516 (3.7)	9.9 (0.05)	-0.4 (0.08)	
Canada	r	40 (0.8)	566 (2.1)	46 (0.7)	540 (2.5)	15 (0.5)	531 (3.3)	10.0 (0.03)	r -0.5 (0.05)	
Bulgaria		39 (1.4)	587 (3.1)	43 (1.4)	548 (4.2)	19 (1.7)	493 (9.1)	9.8 (0.09)	-0.2 (0.13)	
Hungary		38 (1.4)	583 (3.0)	45 (1.2)	547 (3.3)	17 (1.0)	516 (4.6)	9.8 (0.06)	-0.1 (0.08)	
Czech Republic		37 (1.0)	565 (2.4)	45 (0.7)	540 (2.2)	18 (0.8)	514 (4.2)	9.8 (0.05)	-0.2 (0.06)	
Italy		37 (1.0)	566 (2.5)	47 (0.9)	546 (2.7)	16 (0.8)	530 (3.8)	9.9 (0.04)	0.1 (0.06)	
Germany	r	36 (1.1)	578 (2.7)	44 (0.9)	540 (3.3)	20 (0.9)	509 (5.0)	9.7 (0.05)	r -0.4 (0.08)	
Poland		35 (0.8)	581 (2.9)	50 (0.8)	561 (2.3)	14 (0.8)	540 (4.3)	9.9 (0.04)		
Slovak Republic		35 (1.0)	566 (2.6)	46 (1.0)	532 (3.2)	19 (1.0)	489 (9.5)	9.6 (0.06)	-0.3 (0.08)	
Portugal		35 (0.9)	546 (3.0)	50 (0.9)	522 (2.4)	15 (0.7)	510 (5.4)	9.8 (0.04)	0.2 (0.05)	
Georgia		32 (1.0)	512 (2.9)	60 (1.1)	482 (2.9)	8 (0.8)	460 (11.3)	9.9 (0.04)	-0.2 (0.06)	
Belgium (French)		29 (0.9)	526 (2.8)	48 (0.9)	495 (3.2)	23 (0.8)	473 (3.6)	9.4 (0.04)	-0.4 (0.07)	
Belgium (Flemish)		28 (0.8)	546 (2.0)	48 (0.8)	527 (2.1)	24 (0.7)	509 (2.9)	9.3 (0.04)		
Lithuania		27 (1.0)	572 (3.2)	48 (1.3)	546 (3.5)	25 (1.1)	530 (3.9)	9.3 (0.04)	-0.3 (0.06)	
Slovenia		27 (0.9)	571 (3.0)	58 (1.1)	539 (2.2)	16 (0.7)	517 (3.6)	9.5 (0.03)	-0.3 (0.05)	
Bahrain		26 (0.7)	471 (3.2)	60 (0.9)	444 (2.9)	14 (0.6)	417 (4.3)	9.6 (0.02)		
Kazakhstan		26 (1.1)	545 (3.2)	67 (1.1)	533 (2.9)	7 (0.5)	531 (4.7)	9.9 (0.04)		
Latvia		26 (0.8)	579 (2.6)	52 (0.9)	557 (2.2)	22 (0.8)	541 (3.3)	9.4 (0.04)		
Kuwait		25 (1.0)	425 (6.1)	57 (1.0)	395 (4.5)	18 (0.8)	378 (7.5)	9.5 (0.04)		
Russian Federation		25 (0.8)	602 (2.5)	56 (0.8)	578 (2.3)	20 (0.7)	560 (3.6)	9.4 (0.03)	-0.2 (0.05)	
Singapore		25 (0.6)	603 (3.3)	57 (0.7)	572 (3.2)	18 (0.6)	561 (4.0)	9.4 (0.02)	-0.3 (0.03)	
Iran, Islamic Rep. of		25 (1.1)	459 (4.9)	62 (1.1)	429 (3.5)	14 (1.0)	374 (11.2)	9.5 (0.05)	-0.3 (0.06)	
South Africa	S	24 (0.7)	359 (7.0)	63 (1.1)	322 (5.3)	13 (0.9)	307 (7.0)	9.7 (0.03)	s -0.2 (0.05)	
Qatar		24 (0.7)	489 (3.3)	62 (0.8)	441 (2.0)	14 (0.4)	428 (4.3)	9.5 (0.02)	-0.2 (0.05)	
France		22 (0.8)	539 (3.2)	56 (0.8)	513 (2.2)	21 (0.9)	491 (4.0)	9.3 (0.04)	-0.2 (0.06)	
United Arab Emirates		22 (0.5)	496 (3.6)	65 (0.5)	445 (3.4)	13 (0.4)	436 (4.5)	9.5 (0.02)	-0.1 (0.03)	
Morocco		22 (0.9)	397 (4.3)	47 (1.5)	365 (4.4)	31 (1.8)	330 (6.0)	9.0 (0.06)	-0.3 (0.10)	
Chile		21 (0.8)	529 (3.3)	52 (0.9)	491 (2.8)	27 (0.9)	480 (3.7)	9.2 (0.04)		
Oman		21 (0.5)	450 (4.7)	67 (0.6)	418 (3.3)	12 (0.5)	380 (5.3)	9.5 (0.02)	0.0 (0.03)	
Saudi Arabia		21 (0.9)	454 (4.7)	62 (1.0)	428 (4.8)	17 (0.8)	414 (6.2)	9.4 (0.04)	-0.2 (0.06)	
Chinese Taipei		19 (0.8)	584 (2.9)	61 (0.7)	556 (2.5)	20 (0.8)	548 (2.8)	9.2 (0.03)	-0.2 (0.05)	
Hong Kong SAR		17 (0.8)	580 (3.1)	61 (0.9)	569 (3.2)	22 (0.8)	562 (3.5)	9.1 (0.03)	-0.2 (0.04)	
Macao SAR		17 (0.6)	563 (2.4)	62 (0.8)	544 (1.4)	22 (0.6)	538 (2.7)	9.1 (0.02)		
Egypt		13 (1.0)	385 (8.1)	54 (1.6)	345 (5.0)	33 (1.8)	286 (8.4)	8.7 (0.07)		
England										
United States										
Northern Ireland	Х	49 (1.5)	602 (3.9)	36 (1.5)	577 (5.1)	15 (1.0)	568 (6.0)	10.3 (0.07)	x -0.4 (0.08)	Ī
Australia	Х	48 (1.4)	582 (3.5)	40 (1.3)	551 (3.6)	12 (0.9)	535 (5.3)	10.3 (0.06)	x -0.4 (0.09)	
New Zealand	X	47 (1.6)	567 (3.0)	40 (1.5)	524 (4.0)	13 (0.7)	511 (6.2)	10.3 (0.06)	x -0.6 (0.07)	
International Avg.		32 (0.1)	535 (0.5)	51 (0.1)	508 (0.5)	17 (0.1)	488 (0.8)	()	,,	

This PIRLS questionnaire scale was established in 2011 based on the combined response distribution of all countries that participated in PIRLS 2011. To provide a point of reference for country comparisons, the scale centerpoint of 10 was located at the mean of the combined distribution. The units of the scale were chosen so that 2 scale score points corresponded to the standard deviation of the distribution.

An "r" indicates data are available for at least 70% but less than 85% of the students. An "s" indicates data are available for at least 50% but less than 70% of the students. An "x" indicates data are available for less than 50% of the students—interpret with caution.



Significantly higher than 2011 ◆ Significantly lower than 2011 ◆

<sup>()</sup> Standard errors appear in parentheses. Because of rounding some results may appear inconsistent.

A dash (-) indicates comparable data not available. A tilde (~) indicates insufficient data to report achievement.

## **Exhibit 4.4: Parents Like Reading (Continued)**

Country	Very Much Like		Somewhat Like		Do Not Like		A	Difference in	
	Percent	Average Achievement	Percent of Students	Average Achievement	Percent of Students	Average Achievement	Average Scale Score	Average Scale Score	
	of Students							from 2011	
nchmarking Participants									
Madrid, Spain	48 (1.2)	562 (2.3)	41 (1.0)	544 (2.0)	12 (0.6)	534 (4.5)	10.4 (0.05)		_
Ontario, Canada r	42 (1.2)	567 (3.8)	45 (1.0)	540 (3.7)	13 (0.8)	533 (4.7)	10.1 (0.06)	r -0.5 (0.08)	•
Denmark (3)	42 (1.2)	518 (3.4)	41 (1.1)	497 (3.2)	17 (0.7)	480 (4.2)	10.0 (0.05)		
Andalusia, Spain	41 (1.0)	543 (1.9)	42 (0.8)	524 (2.7)	17 (1.0)	504 (3.8)	10.0 (0.05)	0.2 (0.07)	
Norway (4)	40 (0.9)	536 (2.5)	45 (0.9)	513 (2.2)	15 (0.6)	489 (3.5)	9.9 (0.03)	-0.6 (0.08)	€
Moscow City, Russian Fed.	38 (1.1)	626 (2.5)	51 (0.9)	606 (2.4)	10 (0.6)	586 (4.0)	10.0 (0.04)		
Buenos Aires, Argentina s	34 (1.1)	515 (3.6)	51 (1.1)	475 (3.9)	15 (0.8)	474 (5.7)	9.9 (0.05)		
Quebec, Canada	31 (1.3)	564 (3.3)	51 (1.2)	547 (3.5)	17 (1.0)	536 (3.7)	9.6 (0.06)	-0.3 (0.08)	•
Eng/Afr/Zulu - RSA (5) s	30 (1.1)	446 (7.5)	58 (1.1)	406 (7.9)	12 (0.6)	401 (9.9)	9.8 (0.04)		
Dubai, UAE	28 (0.6)	552 (2.7)	59 (0.8)	508 (2.4)	12 (0.6)	497 (3.5)	9.7 (0.02)	-0.2 (0.03)	•
Abu Dhabi, UAE	21 (0.8)	461 (6.7)	66 (1.0)	414 (4.3)	13 (0.7)	400 (7.0)	9.4 (0.03)	-0.1 (0.05)	•

Significantly higher than 2011 OSignificantly lower than 2011 OS

