

Exhibit 10.2: Students Like Reading

Considerable research indicates that positive attitudes toward reading and high achievement are related, and in a bidirectional way. That is, because better readers enjoy reading more than poorer readers, they may read more often than poorer readers, and thereby develop more advanced comprehension skills and strategies. Exhibit 10.2 presents the results for PIRLS 2016 *Students Like Reading* scale. On average, 43 percent of the fourth grade students reported that they liked to read **Very Much** and another 41 percent reported that they liked it **Somewhat**, although 16 percent reported they **Do Not Like** reading. On average and in almost every country, students who liked reading **Very Much** had higher average reading achievement (523) than those who only **Somewhat** liked reading (507); and in particular, those students who reported they **Do Not Like** reading had the lowest average reading achievement (486). Students who **Very Much Like** to read had a 37-point advantage compared to students who **Do Not Like** reading.

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Students' Reports

Students were scored on the *Students Like Reading* scale according to their degree of agreement with eight statements and how often they did two reading activities outside of school. Students who **Very Much Like Reading** had a score on the scale of at least 10.3, which corresponds to their “agreeing a lot” with four of the eight statements and “agreeing a little” with the other four, as well as doing both reading activities outside of school “every day or almost everyday,” on average. Students who **Do Not Like Reading** had a score no higher than 8.3, which corresponds to their “disagreeing a little” with four of the eight statements and “agreeing a little” with the other four, as well as doing both reading activities only “once or twice a month,” on average. All other students **Somewhat Like Reading**.

Country	Very Much Like Reading		Somewhat Like Reading		Do Not Like Reading		Average Scale Score
	Percent of Students	Average Achievement	Percent of Students	Average Achievement	Percent of Students	Average Achievement	
Portugal	72 (1.1)	530 (2.4)	23 (1.0)	526 (3.2)	5 (0.4)	513 (5.3)	11.4 (0.05)
Kazakhstan	71 (1.2)	536 (2.7)	25 (1.0)	535 (3.0)	3 (0.4)	536 (7.8)	11.4 (0.06)
Iran, Islamic Rep. of	70 (1.8)	441 (4.5)	26 (1.4)	405 (7.5)	4 (0.7)	344 (30.4)	11.2 (0.08)
Oman	65 (1.0)	437 (3.3)	29 (0.8)	391 (4.2)	5 (0.4)	359 (7.7)	11.2 (0.05)
Azerbaijan	64 (1.3)	485 (3.6)	32 (1.2)	456 (5.7)	4 (0.4)	443 (8.7)	10.9 (0.05)
Georgia	64 (1.3)	496 (2.9)	31 (1.0)	483 (3.5)	5 (0.6)	460 (8.9)	10.9 (0.05)
Saudi Arabia	57 (1.5)	446 (3.9)	36 (1.2)	417 (6.2)	7 (0.6)	399 (9.0)	10.7 (0.07)
Kuwait	57 (1.5)	411 (4.1)	36 (1.3)	382 (5.2)	7 (0.7)	352 (11.1)	10.6 (0.06)
Morocco	56 (1.6)	380 (4.1)	39 (1.5)	333 (5.0)	5 (0.5)	306 (8.1)	10.8 (0.06)
Spain	56 (0.8)	534 (1.5)	34 (0.7)	523 (3.5)	10 (0.5)	512 (3.7)	10.7 (0.04)
Egypt	56 (2.0)	361 (5.8)	35 (1.5)	308 (6.4)	9 (1.2)	245 (14.3)	10.6 (0.09)
South Africa	55 (1.2)	340 (3.7)	36 (0.9)	302 (5.6)	9 (0.6)	282 (9.1)	10.6 (0.06)
Bulgaria	55 (1.9)	558 (4.7)	33 (1.2)	557 (4.6)	12 (1.3)	511 (11.8)	10.6 (0.10)
Bahrain	54 (1.2)	463 (3.1)	36 (1.1)	429 (3.0)	10 (0.6)	426 (5.5)	10.6 (0.05)
United Arab Emirates	54 (0.7)	471 (3.2)	37 (0.6)	433 (4.2)	9 (0.3)	409 (6.3)	10.6 (0.03)
Malta	51 (0.8)	470 (2.4)	37 (0.7)	442 (2.4)	12 (0.4)	418 (4.7)	10.4 (0.03)
Trinidad and Tobago	50 (1.3)	492 (3.7)	40 (1.1)	467 (4.1)	11 (0.8)	459 (8.6)	10.4 (0.06)
Qatar	48 (0.9)	463 (2.3)	39 (0.8)	432 (2.8)	12 (0.5)	412 (5.3)	10.3 (0.03)
Russian Federation	46 (1.4)	582 (2.9)	44 (1.1)	581 (2.5)	10 (0.7)	572 (3.4)	10.2 (0.06)
Ireland	46 (1.1)	580 (3.0)	40 (1.0)	565 (2.9)	15 (0.8)	534 (4.6)	10.0 (0.04)
New Zealand	44 (1.0)	535 (2.6)	42 (0.7)	520 (2.9)	14 (0.7)	508 (4.2)	10.1 (0.04)
Israel	43 (1.3)	531 (3.5)	36 (0.8)	527 (3.7)	21 (1.1)	538 (3.9)	9.9 (0.07)
Australia	43 (1.1)	558 (3.3)	41 (0.8)	543 (3.0)	16 (0.7)	517 (3.0)	10.0 (0.05)
Lithuania	42 (1.2)	551 (2.9)	46 (1.0)	550 (3.1)	13 (0.7)	535 (4.2)	10.0 (0.05)
Italy	41 (1.1)	554 (2.5)	44 (1.0)	546 (2.7)	16 (0.8)	539 (3.7)	9.9 (0.04)
France	40 (1.0)	519 (3.0)	46 (1.0)	510 (3.0)	14 (0.9)	497 (3.4)	10.0 (0.04)
Northern Ireland	39 (1.3)	580 (2.9)	42 (1.0)	567 (2.7)	19 (0.9)	531 (3.8)	9.7 (0.05)
Chinese Taipei	37 (1.0)	571 (2.5)	44 (0.8)	558 (2.2)	19 (0.7)	538 (2.9)	9.8 (0.05)
Chile	37 (1.1)	500 (3.3)	39 (0.8)	495 (3.1)	24 (1.0)	486 (3.3)	9.7 (0.06)
Austria	37 (1.1)	550 (3.1)	45 (0.8)	541 (2.6)	18 (0.8)	524 (3.4)	9.8 (0.05)
Canada	37 (0.7)	555 (2.2)	45 (0.6)	543 (2.1)	18 (0.5)	525 (2.9)	9.7 (0.03)
United States	36 (1.2)	557 (3.8)	42 (0.9)	553 (3.4)	22 (0.9)	538 (3.8)	9.7 (0.05)
Hong Kong SAR	36 (1.0)	583 (3.1)	44 (0.9)	567 (3.3)	21 (1.2)	549 (3.7)	9.7 (0.05)
England	35 (1.0)	575 (2.5)	45 (0.9)	559 (2.2)	20 (0.9)	530 (3.3)	9.7 (0.04)
Hungary	35 (1.4)	570 (3.7)	46 (1.0)	552 (3.5)	19 (1.2)	530 (3.7)	9.7 (0.05)
Latvia	33 (1.2)	563 (2.8)	47 (1.2)	559 (2.0)	21 (1.0)	548 (2.9)	9.6 (0.05)
Belgium (French)	33 (1.1)	504 (3.4)	44 (0.9)	500 (2.8)	23 (1.2)	484 (3.3)	9.6 (0.06)
Poland	32 (1.1)	570 (3.2)	45 (1.0)	567 (2.8)	23 (1.0)	553 (2.7)	9.6 (0.05)
Germany	32 (1.3)	563 (2.9)	43 (1.0)	548 (2.7)	25 (1.2)	510 (5.0)	9.4 (0.06)
Singapore	31 (0.8)	598 (3.6)	50 (0.6)	574 (3.3)	19 (0.6)	548 (3.7)	9.6 (0.03)
Macao SAR	31 (0.6)	564 (2.0)	50 (0.6)	543 (1.5)	19 (0.5)	522 (2.6)	9.5 (0.02)
Slovak Republic	30 (1.1)	546 (4.0)	47 (0.8)	538 (3.6)	23 (1.0)	513 (5.4)	9.5 (0.05)
Czech Republic	30 (0.8)	549 (3.2)	50 (0.8)	548 (2.2)	20 (0.8)	524 (2.7)	9.5 (0.04)
Slovenia	29 (1.1)	551 (3.2)	53 (1.2)	545 (2.7)	18 (1.1)	523 (3.2)	9.5 (0.04)
Finland	28 (0.9)	584 (2.3)	49 (0.8)	568 (2.3)	23 (0.7)	540 (2.5)	9.4 (0.04)
Belgium (Flemish)	24 (1.0)	536 (3.0)	45 (0.8)	529 (2.0)	31 (1.1)	513 (2.6)	9.1 (0.04)
Netherlands	24 (0.9)	560 (2.4)	46 (0.9)	550 (2.0)	31 (1.1)	527 (2.5)	9.1 (0.05)
Norway (5)	22 (0.9)	575 (3.2)	51 (1.0)	565 (2.4)	27 (1.2)	536 (2.8)	9.1 (0.04)
Denmark	20 (0.8)	569 (2.9)	53 (1.0)	551 (2.4)	27 (1.2)	528 (3.2)	9.1 (0.04)
Sweden	18 (1.0)	572 (4.3)	50 (1.0)	563 (2.5)	31 (1.1)	535 (3.2)	8.9 (0.05)
International Avg.	43 (0.2)	523 (0.5)	41 (0.1)	507 (0.5)	16 (0.1)	486 (1.0)	

SOURCE: IEA's Progress in International Reading Literacy Study – PIRLS 2016

This PIRLS questionnaire scale was established in 2016 based on the combined response distribution of all countries that participated in PIRLS 2016. 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.

() Standard errors appear in parentheses. Because of rounding some results may appear inconsistent.

Exhibit 10.2: Students Like Reading (Continued)

Country	Very Much Like Reading		Somewhat Like Reading		Do Not Like Reading		Average Scale Score
	Percent of Students	Average Achievement	Percent of Students	Average Achievement	Percent of Students	Average Achievement	
Benchmarking Participants							
Andalusia, Spain	63 (1.2)	530 (2.1)	28 (0.9)	520 (3.1)	9 (0.8)	507 (5.7)	11.0 (0.07)
Madrid, Spain	57 (1.4)	553 (2.1)	33 (1.1)	546 (2.6)	10 (0.8)	536 (4.6)	10.7 (0.06)
Dubai, UAE	54 (1.0)	527 (2.2)	37 (0.9)	507 (2.4)	8 (0.4)	485 (5.3)	10.6 (0.04)
Eng/Afr/Zulu - RSA (5)	53 (1.4)	413 (5.4)	38 (1.0)	400 (7.7)	9 (0.6)	409 (11.4)	10.5 (0.06)
Abu Dhabi, UAE	50 (1.3)	439 (4.2)	40 (1.0)	396 (6.0)	10 (0.6)	378 (9.4)	10.4 (0.06)
Buenos Aires, Argentina	44 (1.4)	476 (3.6)	36 (1.0)	490 (3.5)	19 (1.1)	489 (5.0)	10.1 (0.07)
Moscow City, Russian Fed.	39 (1.3)	619 (2.4)	48 (1.1)	611 (2.6)	12 (0.7)	596 (3.8)	10.0 (0.05)
Quebec, Canada	36 (1.2)	557 (3.8)	48 (1.2)	547 (3.0)	16 (0.8)	531 (3.9)	9.8 (0.05)
Ontario, Canada	35 (1.0)	559 (4.3)	44 (1.0)	542 (3.6)	21 (0.9)	527 (4.6)	9.6 (0.04)
Norway (4)	26 (1.0)	527 (3.2)	52 (1.1)	521 (2.3)	23 (1.0)	500 (3.6)	9.3 (0.04)
Denmark (3)	21 (0.9)	522 (4.5)	52 (1.1)	503 (2.9)	27 (1.2)	483 (4.2)	9.1 (0.04)

SOURCE: IEA's Progress in International Reading Literacy Study – PIRLS 2016

What do you think about reading? Tell how much you agree with each of these statements.

Agree a lot Agree a little Disagree a little Disagree a lot
 ↓ ↓ ↓ ↓

- I like talking about what I read with other people ----- ○ ————— ○ ————— ○ ————— ○
- I would be happy if someone gave me a book as a present ----- ○ ————— ○ ————— ○ ————— ○
- I think reading is boring* ----- ○ ————— ○ ————— ○ ————— ○
- I would like to have more time for reading ----- ○ ————— ○ ————— ○ ————— ○
- I enjoy reading ----- ○ ————— ○ ————— ○ ————— ○
- I learn a lot from reading ----- ○ ————— ○ ————— ○ ————— ○
- I like to read things that make me think ----- ○ ————— ○ ————— ○ ————— ○
- I like it when a book helps me imagine other worlds ----- ○ ————— ○ ————— ○ ————— ○

* Reverse coded

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Very Much Like Reading **Somewhat Like Reading** **Do Not Like Reading**

10.3
8.3

How often do you do these things outside of school?

Every day or almost every day Once or twice a week Once or twice a month Never or almost never
 ↓ ↓ ↓ ↓

- I read for fun ----- ○ ————— ○ ————— ○ ————— ○
- I read to find out about things I want to learn ----- ○ ————— ○ ————— ○ ————— ○

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↑
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Very Much Like Reading **Somewhat Like Reading** **Do Not Like Reading**

10.3
8.3