

School Climate

School Emphasis on Academic Success

The *School Emphasis on Academic Success* scale was administered to school principals of fourth and eighth grade students to collect information about the school's expectations toward academic achievement. As described in Exhibit 7.1, students were categorized on the scale according to their principals' responses to 11 items in the TIMSS 2019 School Questionnaire (see About the Scale). Consistent with previous TIMSS results, principals overall had positive attitudes about the degree of emphasis on academics in their schools, so the three regions were described as “very high,” “high,” and “medium.”

Exhibits 7.2 and 7.3 present the results for fourth grade students. The two exhibits include the same results for the *School Emphasis on Academic Success* scale, but Exhibit 7.2 presents results in relation to mathematics achievement and Exhibit 7.3 in relation to science achievement. Countries are ordered according to the percentage of students in the “very high emphasis” category. Across countries, on average, 7 percent of fourth grade students attended schools where the principal reported a “very high emphasis” on academic success, 55 percent attended schools with a “high emphasis,” and 37 percent attended schools with a “medium emphasis.” Attending schools with a higher emphasis on academic success was related to higher average mathematics achievement. Students in the “very high emphasis” category had the highest average mathematics achievement (515), followed by the “high emphasis” category (508), and then students in the “medium emphasis” category (486). The results were similar in relation to science, with average science achievement for students in the three categories at 508, 499, and 474 points, respectively.

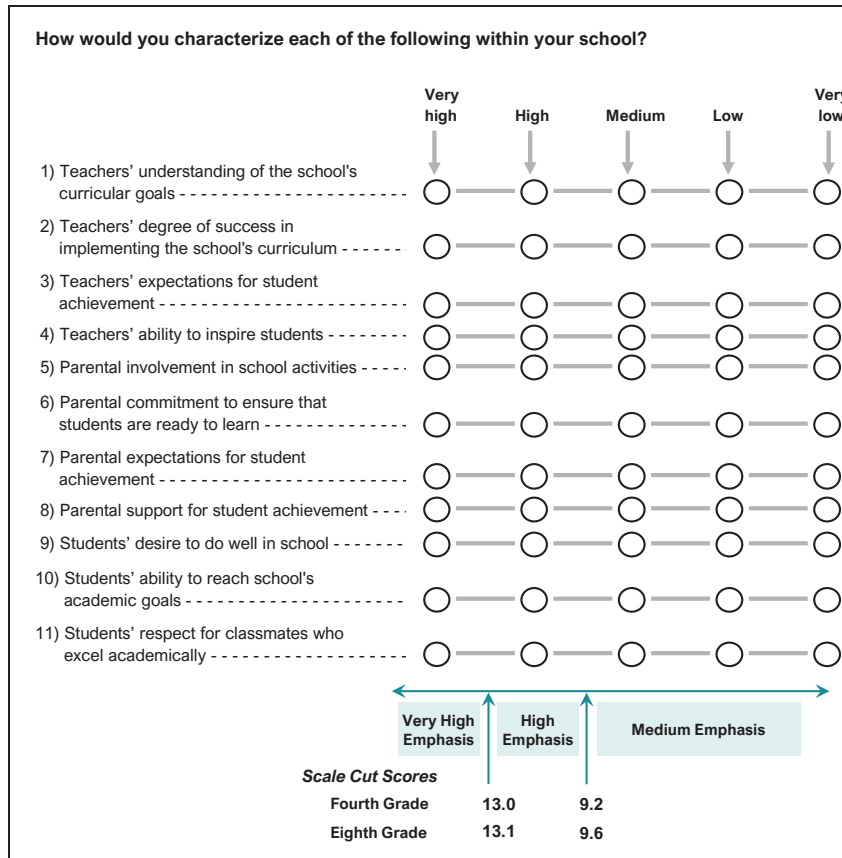
Exhibits 7.4 and 7.5 present the *School Emphasis on Academic Success* results for eighth grade students in relation to their mathematics achievement and science achievement, respectively. On average, the principals of eighth grade students reported a similar degree of emphasis on academic success compared with fourth grade—8 percent of eighth grade students attended schools with a “very high emphasis” on academic success, 49 percent attended schools with a “high emphasis,” and 43 percent attended schools with a “medium emphasis.” At the eighth grade, there was a greater achievement gap between the “very high emphasis” and “medium emphasis” categories than at the fourth grade (69 points vs. 29 points in mathematics, and 68 points vs. 34 points in science).

Exhibit 7.1: School Emphasis on Academic Success – Principals’ Reports

Students’ Results based on Principals’ Reports

About the Scale

Students were scored according to their principals’ responses characterizing eleven aspects on the *School Emphasis on Academic Success* scale. Cut scores divide the scale into three categories. Students in schools with a **Very High Emphasis** on academic success had a score at or above the cut score corresponding to their principals characterizing six of the eleven aspects as “very high” and the other five as “high,” on average. Students in schools with a **Medium Emphasis** on academic success had a score at or below the cut score corresponding to their principals characterizing six of the eleven aspects as “medium” and the other five as “high,” on average. All other students attended schools with a **High Emphasis** on academic success.



SOURCE: IEA’s Trends in International Mathematics and Science Study TIMSS 2019
Downloaded from <http://timss2019.org/download>

Exhibit 7.2: School Emphasis on Academic Success – Principals’ Reports

Students’ Results based on Principals’ Reports

Country	Very High Emphasis		High Emphasis		Medium Emphasis		Average Scale Score
	Percent of Students	Average Achievement	Percent of Students	Average Achievement	Percent of Students	Average Achievement	
Korea, Rep. of	33 (4.1)	613 (4.8)	54 (4.4)	596 (2.7)	13 (3.0)	580 (5.2)	12.0 (0.20)
Bahrain	28 (2.3)	486 (5.0)	55 (3.0)	481 (2.6)	17 (2.3)	468 (6.3)	11.7 (0.13)
Qatar	25 (3.9)	457 (8.5)	63 (4.2)	448 (4.3)	13 (2.4)	441 (10.7)	11.8 (0.18)
Saudi Arabia	22 (3.0)	423 (7.9)	61 (3.8)	396 (4.7)	17 (2.5)	379 (12.1)	11.3 (0.15)
United Arab Emirates	22 (1.8)	522 (3.9)	54 (2.1)	488 (2.4)	25 (1.4)	422 (3.2)	11.2 (0.08)
Ireland	21 (3.4)	562 (5.3)	63 (3.7)	552 (3.4)	16 (3.0)	520 (6.3)	11.5 (0.17)
Kuwait	18 (3.6)	421 (12.0)	56 (3.9)	383 (7.0)	25 (3.6)	354 (9.9)	11.0 (0.22)
Northern Ireland	r 15 (3.6)	590 (11.5)	68 (4.7)	569 (4.1)	17 (3.5)	537 (6.7)	11.1 (0.17)
Oman	15 (2.5)	458 (12.3)	69 (3.3)	429 (4.6)	15 (2.5)	408 (9.7)	11.1 (0.13)
Kazakhstan	14 (2.7)	525 (10.9)	71 (3.3)	510 (2.9)	15 (2.4)	514 (9.5)	11.2 (0.14)
England	s 12 (3.1)	605 (19.0)	68 (5.6)	556 (4.4)	20 (4.9)	534 (7.8)	10.9 (0.19)
United States	11 (2.0)	574 (6.9)	51 (3.1)	544 (4.0)	38 (2.7)	511 (4.0)	10.1 (0.13)
Pakistan	11 (4.0)	349 (24.7)	52 (7.1)	341 (18.6)	37 (6.4)	303 (10.9)	10.2 (0.28)
Philippines	10 (2.4)	307 (16.3)	66 (3.7)	300 (8.5)	24 (3.4)	282 (11.3)	10.8 (0.15)
New Zealand	10 (2.4)	519 (11.9)	67 (3.6)	497 (3.7)	23 (3.2)	446 (5.5)	10.9 (0.13)
Malta	9 (0.2)	527 (3.9)	65 (0.4)	517 (1.6)	26 (0.4)	483 (2.8)	10.5 (0.01)
Chinese Taipei	9 (2.0)	609 (7.1)	73 (3.3)	601 (2.0)	18 (2.7)	588 (5.1)	10.8 (0.13)
Canada	9 (1.9)	537 (7.7)	59 (2.6)	514 (1.8)	32 (2.9)	501 (6.8)	10.2 (0.13)
Singapore	9 (0.0)	648 (12.8)	70 (0.0)	628 (4.5)	21 (0.0)	607 (7.6)	10.6 (0.00)
Australia	9 (1.9)	556 (8.6)	53 (3.2)	521 (4.1)	38 (3.4)	496 (5.4)	10.2 (0.17)
Georgia	9 (2.7)	499 (15.5)	51 (4.3)	483 (5.0)	40 (4.2)	476 (5.7)	10.0 (0.16)
Cyprus	8 (2.9)	553 (8.4)	47 (4.7)	539 (3.7)	45 (4.4)	520 (5.1)	10.0 (0.19)
Kosovo	7 (2.5)	473 (9.4)	55 (4.2)	447 (4.3)	38 (3.8)	436 (4.5)	10.1 (0.13)
Sweden	6 (2.2)	543 (9.6)	47 (4.5)	535 (3.9)	47 (4.6)	503 (4.3)	9.7 (0.19)
Albania	6 (2.0)	528 (17.2)	62 (4.3)	501 (4.2)	32 (4.1)	475 (6.4)	10.2 (0.14)
Iran, Islamic Rep. of	5 (1.6)	481 (20.0)	56 (3.3)	451 (5.6)	38 (3.3)	426 (6.4)	10.0 (0.14)
Denmark	r 5 (1.6)	528 (6.7)	60 (4.5)	530 (3.2)	35 (4.1)	516 (3.8)	10.1 (0.16)
Hong Kong SAR	5 (2.4)	628 (21.1)	51 (4.5)	607 (4.3)	44 (3.9)	592 (5.5)	9.8 (0.19)
Bosnia and Herzegovina	5 (1.9)	447 (15.2)	51 (4.0)	458 (3.5)	44 (3.5)	444 (3.7)	9.8 (0.13)
Chile	5 (1.5)	481 (16.1)	39 (4.0)	456 (5.5)	56 (4.1)	428 (3.7)	8.9 (0.19)
Montenegro	5 (0.2)	464 (5.2)	73 (0.6)	454 (2.4)	22 (0.5)	448 (3.4)	10.3 (0.01)
Spain	5 (1.3)	519 (6.2)	67 (3.5)	510 (3.2)	28 (3.2)	483 (6.4)	10.1 (0.11)
Bulgaria	4 (1.7)	557 (15.7)	53 (4.3)	539 (3.7)	43 (3.9)	482 (8.9)	9.7 (0.16)
Austria	4 (1.4)	546 (10.6)	65 (3.5)	547 (2.5)	31 (3.1)	521 (3.9)	10.0 (0.10)
France	4 (1.7)	519 (13.1)	56 (4.0)	495 (3.5)	40 (3.6)	468 (5.2)	9.9 (0.12)
South Africa (5)	4 (1.2)	464 (29.1)	34 (3.3)	395 (8.1)	62 (3.5)	359 (3.4)	8.9 (0.15)
Finland	4 (1.4)	545 (9.6)	53 (4.1)	538 (3.2)	44 (4.4)	524 (3.7)	9.9 (0.14)
Poland	3 (1.7)	536 (7.1)	55 (4.0)	527 (3.7)	42 (4.3)	509 (3.8)	9.8 (0.14)
Turkey (5)	3 (1.3)	574 (10.7)	43 (3.9)	549 (7.7)	53 (3.8)	498 (5.4)	9.2 (0.13)
Morocco	3 (1.4)	417 (25.5)	34 (3.3)	409 (10.2)	63 (3.5)	368 (6.0)	8.9 (0.13)
Belgium (Flemish)	2 (1.4)	~ ~	52 (3.7)	537 (2.7)	45 (3.6)	526 (3.4)	9.5 (0.11)
Hungary	2 (1.3)	~ ~	32 (4.3)	541 (6.2)	66 (4.2)	512 (4.0)	8.9 (0.15)
Japan	2 (1.2)	~ ~	40 (3.9)	600 (2.7)	58 (4.1)	587 (2.2)	9.2 (0.14)
Czech Republic	2 (2.0)	~ ~	39 (4.3)	550 (4.1)	59 (4.5)	521 (3.8)	9.0 (0.15)
Armenia	2 (1.2)	~ ~	60 (4.3)	498 (3.2)	38 (4.0)	497 (4.3)	9.8 (0.12)
Italy	2 (1.1)	~ ~	42 (3.5)	515 (3.9)	56 (3.4)	515 (3.3)	9.3 (0.11)
Lithuania	2 (1.0)	~ ~	79 (3.0)	545 (3.4)	19 (2.8)	527 (7.9)	10.4 (0.12)
Germany	2 (1.1)	~ ~	57 (3.8)	534 (2.7)	42 (3.8)	503 (4.7)	9.6 (0.13)
North Macedonia	1 (0.8)	~ ~	54 (4.4)	486 (6.0)	45 (4.4)	456 (9.5)	9.3 (0.19)
Croatia	1 (0.8)	~ ~	68 (3.5)	512 (2.8)	30 (3.5)	505 (4.1)	10.0 (0.12)
Russian Federation	1 (0.5)	~ ~	54 (3.3)	578 (4.8)	46 (3.3)	555 (3.5)	9.5 (0.11)
Azerbaijan	0 (0.5)	~ ~	50 (3.6)	515 (4.6)	50 (3.5)	516 (3.9)	9.4 (0.12)
Portugal	0 (0.3)	~ ~	45 (3.7)	537 (3.9)	55 (3.7)	516 (3.3)	9.3 (0.12)
Latvia	0 (0.0)	~ ~	61 (4.0)	552 (3.0)	39 (4.0)	537 (4.6)	9.6 (0.08)
Netherlands	s 0 (0.0)	~ ~	40 (5.7)	546 (3.7)	60 (5.7)	531 (2.9)	8.9 (0.13)
Norway (5)	r 0 (0.0)	~ ~	57 (5.1)	549 (3.5)	43 (5.1)	536 (3.6)	9.7 (0.14)
Serbia	0 (0.0)	~ ~	59 (3.8)	518 (3.7)	41 (3.8)	492 (5.8)	9.6 (0.13)
Slovak Republic	0 (0.0)	~ ~	38 (3.6)	528 (4.5)	62 (3.6)	499 (4.4)	8.9 (0.12)
International Average	7 (0.3)	515 (2.1)	55 (0.5)	508 (0.7)	37 (0.5)	486 (0.8)	
Benchmarking Participants							
Dubai, UAE	r 31 (0.3)	564 (2.6)	58 (0.3)	541 (2.3)	12 (0.1)	507 (4.1)	12.2 (0.01)
Abu Dhabi, UAE	r 16 (1.5)	481 (8.1)	46 (1.8)	461 (3.2)	38 (0.9)	385 (3.7)	10.3 (0.07)
Ontario, Canada	8 (3.5)	542 (15.2)	52 (4.8)	513 (3.5)	40 (5.6)	504 (10.9)	9.8 (0.26)
Quebec, Canada	8 (2.3)	549 (9.2)	68 (4.6)	536 (2.4)	24 (4.5)	517 (5.0)	10.5 (0.16)
Madrid, Spain	7 (2.6)	542 (5.6)	64 (4.2)	525 (2.6)	29 (3.5)	498 (4.7)	10.4 (0.16)
Moscow City, Russian Fed.	4 (1.8)	592 (12.2)	80 (3.9)	594 (2.6)	16 (3.5)	587 (5.1)	10.6 (0.12)

This TIMSS context questionnaire scale was established in 2015 based on the combined response distribution of all countries that participated in TIMSS 2015. 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.

A tilde (~) indicates insufficient data to report achievement.

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.

SOURCE: IEA's Trends in International Mathematics and Science Study TIMSS 2019
Downloaded from <http://timss2019.org/download>

Exhibit 7.3: School Emphasis on Academic Success – Principals' Reports

Students' Results based on Principals' Reports

Country	Very High Emphasis		High Emphasis		Medium Emphasis		Average Scale Score
	Percent of Students	Average Achievement	Percent of Students	Average Achievement	Percent of Students	Average Achievement	
Korea, Rep. of	33 (4.1)	599 (4.2)	54 (4.4)	585 (2.5)	13 (3.0)	571 (4.9)	12.0 (0.20)
Bahrain	28 (2.3)	507 (6.7)	55 (3.0)	494 (3.9)	17 (2.3)	461 (8.5)	11.7 (0.13)
Qatar	25 (3.9)	461 (10.3)	63 (4.2)	448 (4.7)	13 (2.4)	435 (10.3)	11.8 (0.18)
Saudi Arabia	22 (3.0)	434 (8.1)	61 (3.8)	399 (5.1)	17 (2.5)	375 (13.7)	11.3 (0.15)
United Arab Emirates	22 (1.8)	525 (4.2)	54 (2.1)	483 (2.6)	25 (1.4)	399 (3.8)	11.2 (0.08)
Ireland	21 (3.4)	539 (5.5)	63 (3.7)	532 (4.6)	16 (3.0)	501 (6.9)	11.5 (0.17)
Kuwait	18 (3.6)	437 (15.8)	56 (3.9)	391 (7.6)	25 (3.6)	363 (10.9)	11.0 (0.22)
Northern Ireland	r 15 (3.6)	534 (8.3)	68 (4.7)	521 (3.1)	17 (3.5)	497 (5.6)	11.1 (0.17)
Oman	15 (2.5)	467 (12.6)	69 (3.3)	434 (5.4)	15 (2.5)	401 (6.7)	11.1 (0.13)
Kazakhstan	14 (2.7)	511 (13.8)	71 (3.3)	490 (3.9)	15 (2.4)	500 (11.6)	11.2 (0.14)
England	s 12 (3.1)	583 (13.7)	68 (5.6)	536 (4.2)	20 (4.9)	515 (8.1)	10.9 (0.19)
United States	11 (2.0)	577 (6.8)	51 (3.1)	549 (4.3)	38 (2.7)	514 (4.4)	10.1 (0.13)
Pakistan	11 (4.0)	314 (32.1)	52 (7.1)	311 (18.2)	37 (6.4)	255 (14.5)	10.2 (0.28)
Philippines	10 (2.4)	259 (18.9)	66 (3.7)	255 (9.9)	24 (3.4)	229 (13.8)	10.8 (0.15)
New Zealand	10 (2.4)	530 (9.8)	67 (3.6)	512 (3.4)	23 (3.2)	464 (5.2)	10.9 (0.13)
Malta	9 (0.2)	518 (4.2)	65 (0.4)	505 (1.4)	26 (0.4)	464 (2.5)	10.5 (0.01)
Chinese Taipei	9 (2.0)	566 (6.7)	73 (3.3)	560 (2.0)	18 (2.7)	547 (5.1)	10.8 (0.13)
Canada	9 (1.9)	543 (6.0)	59 (2.6)	526 (1.8)	32 (2.9)	513 (5.2)	10.2 (0.13)
Singapore	9 (0.0)	617 (11.4)	70 (0.0)	598 (4.0)	21 (0.0)	575 (6.8)	10.6 (0.00)
Australia	9 (1.9)	568 (7.8)	53 (3.2)	537 (3.7)	38 (3.4)	516 (4.5)	10.2 (0.17)
Georgia	9 (2.7)	471 (15.9)	51 (4.3)	455 (5.4)	40 (4.2)	448 (5.3)	10.0 (0.16)
Cyprus	8 (2.9)	532 (10.7)	47 (4.7)	517 (3.5)	45 (4.4)	501 (4.7)	10.0 (0.19)
Kosovo	7 (2.5)	446 (13.7)	55 (4.2)	417 (5.2)	38 (3.8)	402 (5.0)	10.1 (0.13)
Sweden	6 (2.2)	563 (9.2)	47 (4.5)	552 (3.8)	47 (4.6)	517 (5.3)	9.7 (0.19)
Albania	6 (2.0)	515 (17.4)	62 (4.3)	498 (4.3)	32 (4.1)	468 (7.2)	10.2 (0.14)
Iran, Islamic Rep. of	5 (1.6)	476 (18.5)	56 (3.3)	451 (5.6)	38 (3.3)	420 (6.6)	10.0 (0.14)
Denmark	r 5 (1.6)	519 (7.2)	60 (4.5)	527 (3.3)	35 (4.1)	515 (3.5)	10.1 (0.16)
Hong Kong SAR	5 (2.4)	567 (27.8)	51 (4.5)	539 (4.4)	44 (3.9)	519 (5.7)	9.8 (0.19)
Bosnia and Herzegovina	5 (1.9)	455 (14.2)	51 (4.0)	466 (4.0)	44 (3.5)	451 (4.1)	9.8 (0.13)
Chile	5 (1.5)	509 (14.5)	39 (4.0)	482 (5.0)	56 (4.1)	457 (3.4)	8.9 (0.19)
Montenegro	5 (0.2)	469 (8.5)	73 (0.6)	454 (2.9)	22 (0.5)	448 (4.0)	10.3 (0.01)
Spain	5 (1.3)	526 (5.4)	67 (3.5)	518 (2.8)	28 (3.2)	494 (5.8)	10.1 (0.11)
Bulgaria	4 (1.7)	575 (19.3)	53 (4.3)	554 (4.7)	43 (3.9)	476 (10.1)	9.7 (0.16)
Austria	4 (1.4)	534 (10.1)	65 (3.5)	534 (3.2)	31 (3.1)	495 (5.1)	10.0 (0.10)
France	4 (1.7)	524 (12.6)	56 (4.0)	498 (3.5)	40 (3.6)	470 (5.0)	9.9 (0.12)
South Africa (5)	4 (1.2)	443 (41.9)	34 (3.3)	352 (11.0)	62 (3.5)	305 (5.0)	8.9 (0.15)
Finland	4 (1.4)	570 (9.5)	53 (4.1)	561 (3.1)	44 (4.4)	546 (4.1)	9.9 (0.14)
Poland	3 (1.7)	546 (8.6)	55 (4.0)	538 (3.6)	42 (4.3)	521 (3.5)	9.8 (0.14)
Turkey (5)	3 (1.3)	567 (10.5)	43 (3.9)	550 (7.4)	53 (3.8)	505 (5.2)	9.2 (0.13)
Morocco	3 (1.4)	417 (28.0)	34 (3.3)	402 (11.1)	63 (3.5)	357 (6.9)	8.9 (0.13)
Belgium (Flemish)	2 (1.4)	~ ~	52 (3.7)	505 (2.6)	45 (3.6)	495 (4.1)	9.5 (0.11)
Hungary	2 (1.3)	~ ~	32 (4.3)	546 (5.8)	66 (4.2)	519 (4.0)	8.9 (0.15)
Japan	2 (1.2)	~ ~	40 (3.9)	568 (2.7)	58 (4.1)	556 (2.2)	9.2 (0.14)
Czech Republic	2 (2.0)	~ ~	39 (4.3)	548 (4.2)	59 (4.5)	523 (3.5)	9.0 (0.15)
Armenia	2 (1.2)	~ ~	60 (4.3)	465 (4.2)	38 (4.0)	467 (5.0)	9.8 (0.12)
Italy	2 (1.1)	~ ~	42 (3.5)	510 (4.8)	56 (3.4)	509 (3.3)	9.3 (0.11)
Lithuania	2 (1.0)	~ ~	79 (3.0)	541 (3.2)	19 (2.8)	523 (7.2)	10.4 (0.12)
Germany	2 (1.1)	~ ~	57 (3.8)	532 (2.6)	42 (3.8)	498 (4.7)	9.6 (0.13)
North Macedonia	1 (0.8)	~ ~	54 (4.4)	443 (6.7)	45 (4.4)	408 (11.1)	9.3 (0.19)
Croatia	1 (0.8)	~ ~	68 (3.5)	526 (2.6)	30 (3.5)	519 (3.7)	10.0 (0.12)
Russian Federation	1 (0.5)	~ ~	54 (3.3)	576 (4.4)	46 (3.3)	557 (3.4)	9.5 (0.11)
Azerbaijan	0 (0.5)	~ ~	50 (3.6)	428 (5.6)	50 (3.5)	426 (4.7)	9.4 (0.12)
Portugal	0 (0.3)	~ ~	45 (3.7)	513 (3.3)	55 (3.7)	497 (3.0)	9.3 (0.12)
Latvia	0 (0.0)	~ ~	61 (4.0)	548 (2.8)	39 (4.0)	532 (4.2)	9.6 (0.08)
Netherlands	s 0 (0.0)	~ ~	40 (5.7)	530 (4.8)	60 (5.7)	510 (3.4)	8.9 (0.13)
Norway (5)	r 0 (0.0)	~ ~	57 (5.1)	546 (3.7)	43 (5.1)	533 (3.5)	9.7 (0.14)
Serbia	0 (0.0)	~ ~	59 (3.8)	527 (3.6)	41 (3.8)	501 (6.5)	9.6 (0.13)
Slovak Republic	0 (0.0)	~ ~	38 (3.6)	541 (4.5)	62 (3.6)	509 (5.0)	8.9 (0.12)
International Average	7 (0.3)	508 (2.4)	55 (0.5)	499 (0.7)	37 (0.5)	474 (0.9)	
Benchmarking Participants							
Dubai, UAE	r 31 (0.3)	567 (2.5)	58 (0.3)	542 (2.7)	12 (0.1)	508 (3.5)	12.2 (0.01)
Abu Dhabi, UAE	r 16 (1.5)	476 (9.2)	46 (1.8)	444 (3.9)	38 (0.9)	347 (4.2)	10.3 (0.07)
Ontario, Canada	8 (3.5)	542 (11.0)	52 (4.8)	527 (3.3)	40 (5.6)	517 (7.9)	9.8 (0.26)
Quebec, Canada	8 (2.3)	530 (7.0)	68 (4.6)	527 (2.5)	24 (4.5)	506 (4.3)	10.5 (0.16)
Madrid, Spain	7 (2.6)	542 (4.9)	64 (4.2)	528 (2.3)	29 (3.5)	507 (4.3)	10.4 (0.16)
Moscow City, Russian Fed.	4 (1.8)	592 (11.9)	80 (3.9)	596 (2.5)	16 (3.5)	589 (5.3)	10.6 (0.12)

This TIMSS context questionnaire scale was established in 2015 based on the combined response distribution of all countries that participated in TIMSS 2015. 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.

A tilde (~) indicates insufficient data to report achievement.

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.

SOURCE: IEA's Trends in International Mathematics and Science Study TIMSS 2019
Downloaded from <http://timss2019.org/download>

Exhibit 7.4: School Emphasis on Academic Success – Principals’ Reports
Students’ Results based on Principals’ Reports

Country	Very High Emphasis		High Emphasis		Medium Emphasis		Average Scale Score
	Percent of Students	Average Achievement	Percent of Students	Average Achievement	Percent of Students	Average Achievement	
Korea, Rep. of	26 (3.3)	631 (4.7)	56 (3.6)	597 (3.6)	19 (3.0)	604 (7.5)	11.8 (0.18)
United Arab Emirates	22 (1.8)	519 (4.4)	56 (2.0)	474 (2.9)	22 (1.3)	416 (3.5)	11.4 (0.08)
Singapore	18 (0.0)	681 (6.5)	52 (0.0)	612 (6.0)	30 (0.0)	582 (7.5)	10.9 (0.00)
England	18 (3.6)	602 (14.8)	61 (4.9)	504 (7.7)	21 (3.8)	500 (11.5)	11.3 (0.16)
Australia	17 (2.8)	587 (8.8)	46 (3.5)	525 (5.4)	37 (3.0)	480 (5.6)	10.8 (0.16)
Ireland	16 (3.2)	554 (5.6)	58 (4.3)	531 (3.1)	26 (3.5)	494 (5.0)	11.2 (0.16)
Qatar	15 (2.8)	502 (17.0)	66 (3.8)	438 (4.6)	19 (2.9)	414 (9.0)	11.4 (0.14)
Bahrain	15 (0.2)	493 (7.5)	48 (0.2)	490 (2.2)	38 (0.2)	465 (2.3)	10.7 (0.01)
New Zealand	15 (3.4)	535 (7.4)	61 (5.0)	487 (4.7)	24 (4.1)	456 (6.9)	11.1 (0.18)
Saudi Arabia	15 (2.7)	417 (5.3)	61 (4.0)	394 (3.3)	24 (3.3)	379 (6.3)	11.2 (0.17)
Kazakhstan	10 (2.6)	496 (18.3)	70 (3.7)	489 (4.4)	20 (3.2)	480 (7.0)	11.1 (0.13)
United States	10 (2.0)	559 (10.2)	53 (3.1)	539 (5.9)	38 (3.1)	482 (7.5)	10.3 (0.14)
Chile	9 (1.5)	482 (9.7)	31 (3.9)	472 (6.2)	60 (4.0)	418 (3.6)	9.5 (0.17)
Chinese Taipei	9 (2.2)	649 (12.1)	56 (3.2)	625 (3.6)	36 (2.7)	584 (5.2)	10.4 (0.12)
Kuwait	8 (2.2)	451 (16.6)	53 (4.8)	412 (5.8)	39 (4.1)	378 (6.4)	10.3 (0.16)
Malaysia	8 (2.2)	500 (16.5)	52 (3.6)	476 (5.1)	39 (3.8)	432 (5.1)	10.5 (0.14)
Sweden	8 (2.4)	543 (12.2)	46 (4.0)	513 (3.8)	46 (3.9)	486 (3.5)	10.2 (0.14)
Oman	8 (1.8)	453 (13.2)	67 (3.4)	415 (3.5)	25 (3.1)	385 (5.7)	10.9 (0.12)
Cyprus	7 (0.3)	532 (8.4)	58 (0.5)	512 (2.5)	35 (0.5)	482 (2.8)	10.4 (0.01)
Romania	7 (1.8)	535 (21.4)	46 (4.0)	493 (7.1)	47 (4.1)	459 (5.4)	10.1 (0.13)
Israel	6 (1.9)	544 (23.0)	63 (3.8)	530 (6.1)	31 (3.8)	492 (11.1)	10.5 (0.13)
Egypt	5 (1.8)	431 (6.4)	51 (4.5)	427 (5.6)	44 (4.3)	396 (9.1)	10.0 (0.14)
France	5 (1.6)	538 (17.9)	46 (4.6)	491 (4.4)	49 (4.5)	474 (3.9)	9.8 (0.13)
Lebanon	5 (1.8)	467 (14.1)	51 (3.3)	445 (3.9)	44 (3.4)	404 (4.6)	10.1 (0.12)
Hong Kong SAR	5 (2.5)	674 (19.2)	46 (4.1)	605 (6.6)	50 (3.4)	546 (7.2)	9.9 (0.15)
Jordan	4 (1.6)	472 (12.1)	45 (4.3)	436 (6.4)	50 (4.3)	402 (4.8)	9.8 (0.14)
Turkey	4 (1.7)	579 (29.7)	40 (3.4)	521 (7.8)	56 (3.3)	472 (5.6)	9.7 (0.13)
Japan	3 (1.6)	689 (34.0)	45 (4.6)	601 (3.9)	51 (4.5)	582 (2.6)	9.7 (0.16)
Iran, Islamic Rep. of	3 (1.2)	562 (29.3)	44 (3.6)	467 (5.0)	53 (3.5)	422 (4.5)	9.6 (0.13)
Georgia	3 (1.3)	475 (32.1)	47 (4.1)	472 (7.3)	50 (4.0)	451 (4.2)	9.9 (0.12)
Finland	3 (1.3)	526 (12.2)	45 (4.1)	516 (3.4)	52 (4.3)	502 (3.7)	9.8 (0.11)
Norway (9)	3 (1.3)	539 (22.2)	53 (5.1)	510 (3.8)	45 (5.0)	496 (4.2)	10.1 (0.13)
Hungary	2 (1.2)	~ ~	28 (3.5)	564 (8.0)	70 (3.4)	496 (4.0)	9.3 (0.12)
South Africa (9)	2 (0.6)	~ ~	29 (2.4)	403 (5.8)	69 (2.4)	380 (2.5)	8.9 (0.10)
Portugal	1 (0.8)	~ ~	27 (3.5)	525 (5.4)	71 (3.7)	489 (3.6)	9.0 (0.13)
Morocco	1 (0.8)	~ ~	23 (2.9)	411 (6.4)	76 (3.1)	381 (2.8)	8.5 (0.13)
Lithuania	1 (0.9)	~ ~	65 (4.1)	525 (3.8)	34 (4.1)	506 (5.6)	10.3 (0.11)
Italy	0 (0.0)	~ ~	38 (4.2)	504 (4.6)	62 (4.2)	495 (3.3)	9.3 (0.11)
Russian Federation	0 (0.0)	~ ~	36 (3.8)	562 (6.6)	64 (3.8)	533 (5.4)	9.3 (0.09)
International Average	8 (0.3)	538 (3.0)	49 (0.6)	500 (0.8)	43 (0.6)	469 (0.9)	
Benchmarking Participants							
Dubai, UAE	r 30 (0.5)	562 (2.6)	58 (0.5)	533 (3.5)	11 (0.2)	479 (7.7)	12.2 (0.02)
Abu Dhabi, UAE	r 15 (1.8)	489 (8.0)	59 (1.9)	444 (5.2)	26 (0.9)	377 (6.3)	11.0 (0.09)
Quebec, Canada	7 (2.6)	598 (18.1)	64 (4.6)	553 (4.3)	29 (4.4)	520 (7.0)	10.6 (0.17)
Ontario, Canada	r 6 (2.2)	563 (8.3)	56 (4.6)	540 (7.1)	38 (4.5)	506 (6.6)	10.2 (0.19)
Western Cape, RSA (9)	5 (1.9)	564 (14.8)	25 (3.0)	492 (11.6)	70 (3.1)	414 (4.8)	9.0 (0.15)
Gauteng, RSA (9)	5 (2.0)	449 (26.9)	32 (3.6)	437 (7.2)	62 (3.7)	409 (4.4)	9.2 (0.16)
Moscow City, Russian Fed.	2 (1.1)	~ ~	59 (4.3)	579 (5.8)	39 (4.1)	571 (5.9)	10.1 (0.10)

This TIMSS context questionnaire scale was established in 2015 based on the combined response distribution of all countries that participated in TIMSS 2015. 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.

A tilde (~) indicates insufficient data to report achievement.

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.

SOURCE: IEA's Trends in International Mathematics and Science Study TIMSS 2019
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Exhibit 7.5: School Emphasis on Academic Success – Principals' Reports

Students' Results based on Principals' Reports

Country	Very High Emphasis		High Emphasis		Medium Emphasis		Average Scale Score	
	Percent of Students	Average Achievement	Percent of Students	Average Achievement	Percent of Students	Average Achievement		
Korea, Rep. of	26 (3.3)	578 (4.0)	56 (3.6)	553 (2.8)	19 (3.0)	561 (5.5)	11.8 (0.18)	
United Arab Emirates	22 (1.8)	526 (5.0)	56 (2.0)	477 (3.5)	22 (1.3)	401 (4.5)	11.4 (0.08)	
Singapore	18 (0.0)	671 (6.7)	52 (0.0)	604 (5.7)	30 (0.0)	576 (7.5)	10.9 (0.00)	
England	18 (3.6)	600 (13.3)	61 (4.9)	506 (7.5)	21 (3.8)	503 (11.0)	11.3 (0.16)	
Australia	17 (2.8)	581 (8.7)	46 (3.5)	537 (4.5)	37 (3.0)	497 (5.0)	10.8 (0.16)	
Ireland	16 (3.2)	556 (6.5)	58 (4.3)	531 (3.4)	26 (3.5)	492 (6.3)	11.2 (0.16)	
Qatar	15 (2.8)	524 (17.5)	66 (3.8)	471 (4.7)	19 (2.9)	448 (8.0)	11.4 (0.14)	
Bahrain	15 (0.2)	541 (7.1)	48 (0.2)	498 (2.1)	38 (0.2)	449 (2.5)	10.7 (0.01)	
New Zealand	15 (3.4)	549 (6.3)	61 (5.0)	504 (4.8)	24 (4.1)	474 (7.9)	11.1 (0.18)	
Saudi Arabia	15 (2.7)	462 (6.3)	61 (4.0)	433 (3.9)	24 (3.3)	410 (7.2)	11.2 (0.17)	
Kazakhstan	10 (2.6)	483 (17.8)	70 (3.7)	478 (4.2)	20 (3.2)	475 (8.3)	11.1 (0.13)	
United States	10 (2.0)	560 (9.5)	53 (3.1)	545 (5.1)	38 (3.1)	492 (8.1)	10.3 (0.14)	
Chile	9 (1.5)	507 (8.5)	31 (3.9)	491 (5.8)	60 (4.0)	441 (3.5)	9.5 (0.17)	
Chinese Taipei	9 (2.2)	600 (9.0)	56 (3.2)	583 (2.6)	36 (2.7)	554 (4.0)	10.4 (0.12)	
Kuwait	8 (2.2)	506 (10.9)	53 (4.8)	455 (6.0)	39 (4.1)	414 (7.4)	10.3 (0.16)	
Malaysia	8 (2.2)	511 (13.6)	52 (3.6)	474 (5.4)	39 (3.8)	431 (4.9)	10.5 (0.14)	
Sweden	8 (2.4)	570 (14.1)	46 (4.0)	536 (4.7)	46 (3.9)	500 (4.5)	10.2 (0.14)	
Oman	8 (1.8)	494 (13.8)	67 (3.4)	462 (3.7)	25 (3.1)	432 (6.7)	10.9 (0.12)	
Cyprus	7 (0.3)	505 (9.8)	58 (0.5)	494 (3.0)	35 (0.5)	465 (3.2)	10.4 (0.01)	
Romania	7 (1.8)	515 (19.7)	46 (4.0)	483 (6.4)	47 (4.1)	452 (4.9)	10.1 (0.13)	
Israel	6 (1.9)	542 (19.7)	63 (3.8)	525 (5.6)	31 (3.8)	484 (10.4)	10.5 (0.13)	
Egypt	5 (1.8)	417 (12.4)	51 (4.5)	407 (5.9)	44 (4.3)	367 (10.0)	10.0 (0.14)	
France	5 (1.6)	543 (17.2)	46 (4.6)	499 (4.9)	49 (4.5)	477 (4.4)	9.8 (0.13)	
Lebanon	5 (1.8)	420 (13.9)	51 (3.3)	405 (5.6)	44 (3.4)	336 (8.1)	10.1 (0.12)	
Hong Kong SAR	5 (2.5)	620 (13.1)	46 (4.1)	522 (8.3)	50 (3.4)	477 (8.0)	9.9 (0.15)	
Jordan	4 (1.6)	513 (13.5)	45 (4.3)	469 (6.9)	50 (4.3)	431 (5.9)	9.8 (0.14)	
Turkey	4 (1.7)	580 (25.8)	40 (3.4)	537 (6.8)	56 (3.3)	495 (5.0)	9.7 (0.13)	
Japan	3 (1.6)	642 (23.6)	45 (4.6)	574 (2.9)	51 (4.5)	561 (2.0)	9.7 (0.16)	
Iran, Islamic Rep. of	3 (1.2)	558 (25.5)	44 (3.6)	470 (4.6)	53 (3.5)	426 (4.4)	9.6 (0.13)	
Georgia	3 (1.3)	453 (25.5)	47 (4.1)	451 (6.3)	50 (4.0)	442 (4.1)	9.9 (0.12)	
Finland	3 (1.3)	561 (13.9)	45 (4.1)	550 (4.1)	52 (4.3)	535 (4.6)	9.8 (0.11)	
Norway (9)	3 (1.3)	533 (21.9)	53 (5.1)	502 (4.6)	45 (5.0)	489 (5.3)	10.1 (0.13)	
Hungary	2 (1.2)	~ ~	28 (3.5)	570 (6.6)	70 (3.4)	513 (3.8)	9.3 (0.12)	
South Africa (9)	2 (0.6)	~ ~	29 (2.4)	388 (7.9)	69 (2.4)	358 (3.4)	8.9 (0.10)	
Portugal	1 (0.8)	~ ~	27 (3.5)	539 (4.8)	71 (3.7)	510 (3.2)	9.0 (0.13)	
Morocco	1 (0.8)	~ ~	23 (2.9)	417 (7.0)	76 (3.1)	388 (3.6)	8.5 (0.13)	
Lithuania	1 (0.9)	~ ~	65 (4.1)	537 (3.6)	34 (4.1)	521 (5.2)	10.3 (0.11)	
Italy	0 (0.0)	~ ~	38 (4.2)	508 (4.1)	62 (4.2)	498 (3.4)	9.3 (0.11)	
Russian Federation	0 (0.0)	~ ~	36 (3.8)	557 (5.6)	64 (3.8)	535 (5.2)	9.3 (0.09)	
International Average	8 (0.3)	538 (2.6)	49 (0.6)	501 (0.8)	43 (0.6)	470 (1.0)		
Benchmarking Participants								
Dubai, UAE	r	30 (0.5)	571 (2.8)	58 (0.5)	545 (3.1)	11 (0.2)	488 (9.2)	12.2 (0.02)
Abu Dhabi, UAE	r	15 (1.8)	491 (9.6)	59 (1.9)	434 (6.7)	26 (0.9)	334 (7.8)	11.0 (0.09)
Quebec, Canada		7 (2.6)	580 (17.1)	64 (4.6)	548 (4.2)	29 (4.4)	514 (6.9)	10.6 (0.17)
Ontario, Canada	r	6 (2.2)	550 (9.9)	56 (4.6)	529 (4.3)	38 (4.5)	505 (5.1)	10.2 (0.19)
Western Cape, RSA (9)		5 (1.9)	590 (17.0)	25 (3.0)	503 (14.2)	70 (3.1)	405 (5.6)	9.0 (0.15)
Gauteng, RSA (9)		5 (2.0)	460 (33.6)	32 (3.6)	444 (9.2)	62 (3.7)	407 (5.6)	9.2 (0.16)
Moscow City, Russian Fed.		2 (1.1)	~ ~	59 (4.3)	570 (3.9)	39 (4.1)	562 (4.4)	10.1 (0.10)

This TIMSS context questionnaire scale was established in 2015 based on the combined response distribution of all countries that participated in TIMSS 2015. 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.

A tilde (~) indicates insufficient data to report achievement.

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.

SOURCE: IEA's Trends in International Mathematics and Science Study TIMSS 2019

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Parents' Perceptions of the School

The TIMSS 2019 Early Learning Survey (or “Home Questionnaire”) asked the parents of fourth grade students about the extent to which they are satisfied that their child’s school promotes academic standards and fosters a positive school climate. Students were categorized on the *Parents’ Perceptions of Their Child’s School* scale according to their parents’ responses to eight items listed in Exhibit 7.6 (see About the Scale).

Exhibit 7.7 presents the results for the *Parents’ Perceptions of Their Child’s School* in relationship to students’ mathematics achievement. Overall, parents reported positive perceptions about their child’s school. On average across countries, the majority of fourth grade students (64%) had parents who reported being “very satisfied,” but these percentages ranged from 90 percent in Albania to 15 percent in Korea and 9 percent in Japan. On average, 31 percent of students attended schools with which their parents were “somewhat satisfied.” Only 5 percent of students on average had parents who were “less than satisfied” with their child’s school. Average mathematics achievement was similar across the three categories of the scale, with students in the “very satisfied” category having only slightly higher achievement than students in the “somewhat satisfied” and “less than satisfied” categories (504 vs. 497 and 495, respectively).

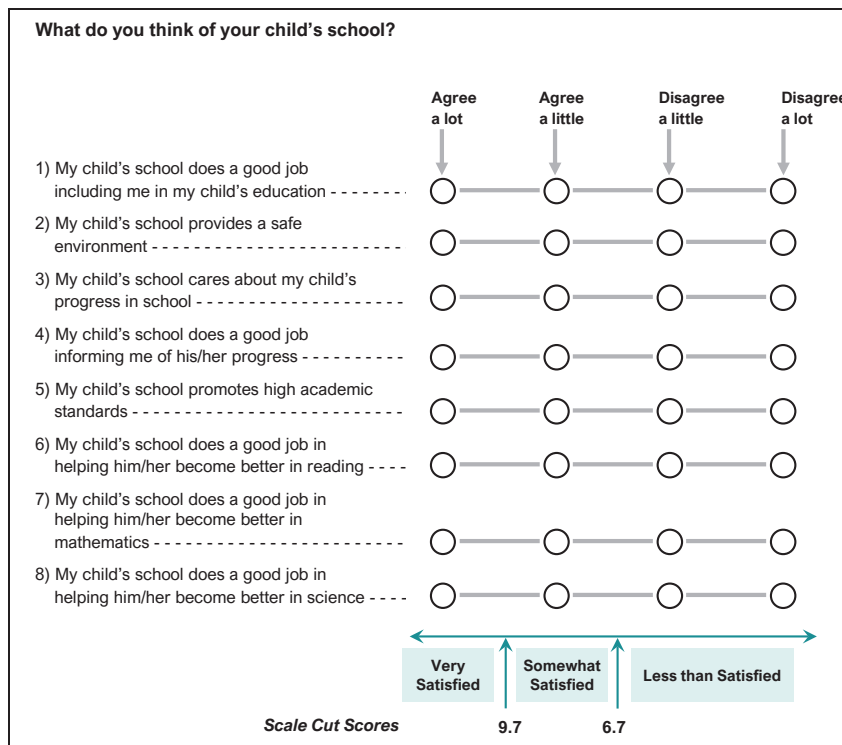
Exhibit 7.8 shows the same results for fourth grade students, but in relationship to science achievement. On average, students had very similar science achievement across the three scale categories (493, 487, and 491, respectively).

Exhibit 7.6: Parents' Perceptions of Their Child's School

Students' Results based on Parents' Reports

About the Scale

Students were scored according to their parents' responses to eight statements on the *Parents' Perceptions of Their Child's School* scale. Cut scores divide the scale into three categories. Students whose parents are **Very Satisfied** with their child's school had a score at or above the cut score corresponding to their parents "agreeing a lot" with four of the eight statements and "agreeing a little" with the other four, on average. Students whose parents are **Less than Satisfied** had a score at or below the cut score corresponding to their parents "disagreeing a little" with four of the eight statements and "agreeing a little" with the other four, on average. All other students had parents who are **Somewhat Satisfied**.



SOURCE: IEA's Trends in International Mathematics and Science Study TIMSS 2019
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Exhibit 7.7: Parents' Perceptions of Their Child's School
Students' Results based on Parents' Reports

Country	Very Satisfied		Somewhat Satisfied		Less than Satisfied		Average Scale Score
	Percent of Students	Average Achievement	Percent of Students	Average Achievement	Percent of Students	Average Achievement	
Albania	90 (0.8)	497 (3.4)	9 (0.7)	484 (8.6)	2 (0.4)	~ ~	11.5 (0.05)
Armenia	88 (1.0)	500 (2.6)	11 (0.9)	486 (5.5)	1 (0.1)	~ ~	11.5 (0.05)
Kazakhstan	87 (1.0)	513 (2.6)	12 (0.9)	514 (5.0)	1 (0.2)	~ ~	11.5 (0.05)
Malta	85 (0.7)	516 (1.7)	14 (0.7)	515 (3.5)	1 (0.2)	~ ~	11.2 (0.03)
Kosovo	84 (0.8)	448 (3.0)	14 (0.6)	440 (5.2)	2 (0.3)	~ ~	11.1 (0.04)
Saudi Arabia	80 (0.9)	404 (3.7)	17 (0.7)	390 (6.1)	3 (0.3)	393 (10.8)	11.0 (0.05)
Northern Ireland	79 (1.2)	590 (3.9)	19 (1.1)	566 (5.5)	2 (0.3)	~ ~	11.0 (0.06)
Georgia	79 (1.1)	482 (3.8)	19 (1.0)	490 (4.8)	2 (0.2)	~ ~	10.9 (0.05)
North Macedonia	79 (1.1)	473 (5.9)	18 (0.9)	482 (7.7)	3 (0.5)	473 (10.9)	10.8 (0.05)
Azerbaijan	78 (1.1)	524 (2.8)	19 (1.0)	514 (4.3)	3 (0.3)	514 (8.0)	10.9 (0.06)
Bulgaria	78 (1.4)	513 (4.0)	19 (1.1)	529 (7.0)	4 (0.4)	526 (15.3)	10.9 (0.07)
Montenegro	77 (0.8)	455 (2.2)	20 (0.8)	454 (3.4)	3 (0.3)	455 (10.3)	10.9 (0.03)
Ireland	77 (1.1)	552 (2.4)	21 (1.0)	552 (4.4)	2 (0.4)	~ ~	10.8 (0.05)
Turkey (5)	77 (1.7)	522 (4.8)	20 (1.5)	523 (7.6)	3 (0.4)	551 (14.1)	10.9 (0.08)
Oman	76 (1.0)	442 (4.1)	21 (0.8)	407 (4.7)	3 (0.3)	370 (8.3)	10.8 (0.05)
South Africa (5)	76 (0.9)	384 (3.7)	21 (0.7)	353 (4.3)	3 (0.3)	336 (9.7)	10.8 (0.04)
Bosnia and Herzegovina	76 (1.2)	452 (2.5)	21 (1.0)	453 (3.8)	3 (0.3)	449 (8.7)	10.8 (0.06)
Pakistan	76 (2.7)	340 (13.9)	22 (2.6)	301 (12.3)	2 (0.5)	~ ~	10.9 (0.10)
Philippines	75 (1.3)	308 (6.5)	23 (1.2)	271 (7.1)	2 (0.2)	~ ~	10.9 (0.06)
Serbia	75 (1.3)	506 (3.6)	22 (1.1)	520 (3.9)	3 (0.4)	521 (8.4)	10.8 (0.06)
Qatar	72 (1.4)	457 (3.4)	24 (1.2)	446 (5.6)	4 (0.5)	417 (12.3)	10.7 (0.07)
Morocco	72 (1.7)	392 (4.5)	25 (1.5)	367 (6.9)	4 (0.5)	351 (14.5)	10.5 (0.07)
Portugal	71 (1.1)	531 (2.8)	25 (1.0)	519 (3.0)	4 (0.4)	519 (7.0)	10.5 (0.05)
Iran, Islamic Rep. of	70 (1.4)	447 (4.3)	26 (1.2)	439 (5.8)	4 (0.4)	420 (10.1)	10.4 (0.06)
Italy	68 (1.4)	518 (2.7)	28 (1.3)	512 (3.1)	4 (0.4)	513 (8.0)	10.4 (0.06)
Spain	68 (1.3)	508 (3.0)	27 (1.0)	509 (2.6)	5 (0.5)	482 (6.7)	10.4 (0.06)
Lithuania	67 (1.3)	546 (3.3)	29 (1.1)	536 (4.0)	4 (0.5)	543 (8.3)	10.3 (0.06)
Cyprus	67 (1.4)	537 (3.1)	29 (1.1)	533 (3.0)	5 (0.5)	519 (9.2)	10.3 (0.06)
Bahrain	64 (1.1)	486 (3.0)	31 (0.9)	474 (3.1)	5 (0.5)	462 (6.7)	10.3 (0.05)
Singapore	63 (0.8)	632 (4.1)	33 (0.7)	620 (4.0)	4 (0.3)	592 (7.1)	10.3 (0.03)
Kuwait	63 (1.2)	397 (5.2)	30 (1.0)	378 (6.0)	8 (0.5)	342 (8.7)	10.2 (0.05)
Slovak Republic	61 (1.1)	510 (4.3)	34 (0.9)	513 (3.5)	5 (0.4)	519 (5.8)	10.2 (0.05)
Austria	60 (1.4)	545 (2.5)	34 (1.1)	539 (2.8)	6 (0.5)	520 (5.7)	10.0 (0.06)
Hungary	58 (1.4)	525 (3.1)	35 (1.1)	528 (3.5)	6 (0.5)	519 (5.9)	10.0 (0.06)
Canada	58 (0.9)	525 (2.7)	36 (0.8)	524 (2.3)	6 (0.4)	503 (5.7)	10.1 (0.04)
Finland	55 (1.3)	539 (2.8)	41 (1.2)	533 (2.7)	4 (0.4)	511 (8.3)	9.9 (0.05)
Hong Kong SAR	54 (1.2)	610 (3.7)	40 (1.2)	599 (3.7)	5 (0.6)	579 (6.4)	9.9 (0.05)
Russian Federation	52 (1.4)	566 (4.1)	42 (1.2)	571 (3.2)	6 (0.6)	555 (5.3)	9.7 (0.06)
Denmark	51 (1.6)	544 (2.9)	37 (1.3)	538 (3.8)	12 (1.0)	522 (5.7)	9.5 (0.08)
Belgium (Flemish)	50 (1.1)	536 (2.6)	46 (1.0)	533 (2.2)	4 (0.4)	519 (6.4)	9.7 (0.04)
Latvia	48 (1.1)	548 (3.2)	44 (0.9)	548 (2.7)	7 (0.6)	535 (5.0)	9.6 (0.05)
Chinese Taipei	46 (1.2)	598 (2.2)	48 (1.1)	600 (2.5)	6 (0.5)	603 (5.3)	9.6 (0.05)
Germany	45 (1.6)	539 (3.2)	45 (1.4)	531 (2.9)	11 (0.9)	514 (5.3)	9.3 (0.07)
Sweden	44 (1.7)	530 (4.0)	48 (1.5)	528 (2.8)	8 (0.8)	511 (5.2)	9.4 (0.07)
Chile	44 (1.5)	444 (3.3)	49 (1.2)	442 (3.2)	8 (0.7)	436 (6.7)	9.4 (0.07)
Croatia	43 (1.1)	512 (2.9)	50 (1.0)	508 (2.4)	7 (0.5)	514 (6.2)	9.5 (0.05)
Poland	42 (1.3)	520 (4.1)	52 (1.1)	523 (2.4)	6 (0.5)	524 (5.1)	9.5 (0.06)
France	37 (1.1)	493 (4.1)	55 (1.1)	487 (3.3)	8 (0.7)	472 (6.4)	9.1 (0.05)
Czech Republic	36 (1.9)	541 (3.9)	51 (1.5)	541 (2.8)	13 (1.0)	542 (4.0)	9.0 (0.09)
Korea, Rep. of	15 (0.9)	603 (4.3)	70 (0.9)	600 (2.4)	14 (0.7)	599 (3.3)	8.2 (0.04)
Japan	9 (0.8)	598 (5.2)	68 (0.9)	595 (1.7)	24 (0.9)	590 (2.8)	7.8 (0.04)
Australia	--	--	--	--	--	--	--
England	--	--	--	--	--	--	--
Netherlands	--	--	--	--	--	--	--
Norway (5)	--	--	--	--	--	--	--
United States	--	--	--	--	--	--	--
United Arab Emirates	71 (0.7)	507 (2.3)	25 (0.5)	491 (3.3)	5 (0.3)	472 (5.5)	10.6 (0.03)
New Zealand	64 (1.7)	513 (3.9)	31 (1.5)	511 (4.3)	5 (0.6)	490 (10.3)	10.3 (0.07)
International Average	64 (0.2)	504 (0.6)	31 (0.2)	497 (0.6)	5 (0.1)	495 (1.2)	
Benchmarking Participants							
Dubai, UAE	69 (1.2)	563 (2.2)	26 (1.2)	546 (3.6)	5 (0.3)	531 (7.0)	10.5 (0.05)
Madrid, Spain	66 (1.3)	523 (2.7)	28 (1.2)	519 (3.1)	6 (0.6)	505 (7.0)	10.3 (0.05)
Ontario, Canada	57 (1.5)	528 (5.4)	35 (1.3)	523 (3.6)	8 (0.7)	499 (8.3)	9.9 (0.07)
Quebec, Canada	51 (1.3)	540 (3.1)	45 (1.3)	537 (3.2)	4 (0.5)	528 (5.8)	9.8 (0.05)
Moscow City, Russian Fed.	38 (1.3)	589 (3.0)	49 (1.1)	597 (2.3)	13 (0.8)	588 (3.5)	9.1 (0.06)
Abu Dhabi, UAE	--	--	--	--	--	--	--

This TIMSS context questionnaire scale was established in 2015 based on the combined response distribution of all countries that participated in TIMSS 2015. 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.

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

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 at least 40% but less than 50% of the students—interpret with caution. A "y" indicates data are available for less than 40% of the students.

SOURCE: IEA's Trends in International Mathematics and Science Study TIMSS 2019
 Downloaded from <http://timss2019.org/download>

Exhibit 7.8: Parents' Perceptions of Their Child's School

Students' Results based on Parents' Reports

Country	Very Satisfied		Somewhat Satisfied		Less than Satisfied		Average Scale Score
	Percent of Students	Average Achievement	Percent of Students	Average Achievement	Percent of Students	Average Achievement	
Albania	90 (0.8)	492 (3.7)	9 (0.7)	480 (7.9)	2 (0.4)	~ ~	11.5 (0.05)
Armenia	88 (1.0)	468 (3.6)	11 (0.9)	457 (5.7)	1 (0.1)	~ ~	11.5 (0.05)
Kazakhstan	87 (1.0)	494 (3.2)	12 (0.9)	503 (5.9)	1 (0.2)	~ ~	11.5 (0.05)
Malta	85 (0.7)	501 (1.8)	14 (0.7)	509 (4.4)	1 (0.2)	~ ~	11.2 (0.03)
Kosovo	84 (0.8)	415 (4.0)	14 (0.6)	413 (5.7)	2 (0.3)	~ ~	11.1 (0.04)
Saudi Arabia	80 (0.9)	410 (4.6)	17 (0.7)	388 (6.8)	3 (0.3)	388 (10.9)	11.0 (0.05)
Northern Ireland	79 (1.2)	535 (2.9)	19 (1.1)	517 (5.1)	2 (0.3)	~ ~	11.0 (0.06)
Georgia	79 (1.1)	454 (4.2)	19 (1.0)	465 (5.3)	2 (0.2)	~ ~	10.9 (0.05)
North Macedonia	79 (1.1)	427 (7.0)	18 (0.9)	439 (8.6)	3 (0.5)	418 (12.6)	10.8 (0.05)
Azerbaijan	78 (1.1)	436 (3.3)	19 (1.0)	429 (5.2)	3 (0.3)	434 (10.3)	10.9 (0.06)
Bulgaria	78 (1.4)	518 (4.7)	19 (1.1)	541 (8.1)	4 (0.4)	544 (19.1)	10.9 (0.07)
Montenegro	77 (0.8)	456 (2.9)	20 (0.8)	456 (3.5)	3 (0.3)	464 (10.3)	10.9 (0.03)
Ireland	77 (1.1)	531 (2.8)	21 (1.0)	532 (5.0)	2 (0.4)	~ ~	10.8 (0.05)
Turkey (5)	77 (1.7)	524 (4.7)	20 (1.5)	529 (7.0)	3 (0.4)	551 (9.7)	10.9 (0.08)
Oman	76 (1.0)	447 (4.4)	21 (0.8)	411 (6.0)	3 (0.3)	363 (12.0)	10.8 (0.05)
South Africa (5)	76 (0.9)	336 (5.0)	21 (0.7)	297 (6.2)	3 (0.3)	284 (12.4)	10.8 (0.04)
Bosnia and Herzegovina	76 (1.2)	458 (3.2)	21 (1.0)	461 (3.8)	3 (0.3)	460 (8.3)	10.8 (0.06)
Pakistan	76 (2.7)	304 (14.8)	22 (2.6)	260 (12.8)	2 (0.5)	~ ~	10.9 (0.10)
Philippines	75 (1.3)	261 (7.8)	23 (1.2)	218 (9.0)	2 (0.2)	~ ~	10.9 (0.06)
Serbia	75 (1.3)	515 (4.0)	22 (1.1)	529 (3.9)	3 (0.4)	533 (8.6)	10.8 (0.06)
Qatar	72 (1.4)	462 (4.1)	24 (1.2)	441 (6.0)	4 (0.5)	413 (12.7)	10.7 (0.07)
Morocco	72 (1.7)	385 (5.9)	25 (1.5)	352 (9.4)	4 (0.5)	345 (17.9)	10.5 (0.07)
Portugal	71 (1.1)	507 (2.4)	25 (1.0)	503 (3.2)	4 (0.4)	487 (8.5)	10.5 (0.05)
Iran, Islamic Rep. of	70 (1.4)	443 (4.4)	26 (1.2)	439 (5.7)	4 (0.4)	426 (10.5)	10.4 (0.06)
Italy	68 (1.4)	514 (3.0)	28 (1.3)	507 (3.9)	4 (0.4)	506 (7.0)	10.4 (0.06)
Spain	68 (1.3)	516 (2.6)	27 (1.0)	516 (2.8)	5 (0.5)	497 (6.2)	10.4 (0.06)
Lithuania	67 (1.3)	541 (3.3)	29 (1.1)	533 (4.2)	4 (0.5)	535 (8.1)	10.3 (0.06)
Cyprus	67 (1.4)	515 (3.5)	29 (1.1)	513 (3.4)	5 (0.5)	504 (7.3)	10.3 (0.06)
Bahrain	64 (1.1)	506 (3.4)	31 (0.9)	483 (4.3)	5 (0.5)	458 (8.4)	10.3 (0.05)
Singapore	63 (0.8)	600 (3.5)	33 (0.7)	591 (3.7)	4 (0.3)	569 (7.0)	10.3 (0.03)
Kuwait	63 (1.2)	410 (6.3)	30 (1.0)	390 (7.3)	8 (0.5)	349 (10.1)	10.2 (0.05)
Slovak Republic	61 (1.1)	516 (4.7)	34 (0.9)	530 (3.2)	5 (0.4)	543 (7.0)	10.2 (0.05)
Austria	60 (1.4)	526 (3.3)	34 (1.1)	527 (3.2)	6 (0.5)	513 (5.0)	10.0 (0.06)
Hungary	58 (1.4)	530 (3.3)	35 (1.1)	534 (3.0)	6 (0.5)	530 (5.8)	10.0 (0.06)
Canada	58 (0.9)	533 (2.7)	36 (0.8)	532 (2.1)	6 (0.4)	528 (5.1)	10.1 (0.04)
Finland	55 (1.3)	560 (2.9)	41 (1.2)	557 (3.1)	4 (0.4)	537 (7.6)	9.9 (0.05)
Hong Kong SAR	54 (1.2)	540 (3.4)	40 (1.2)	524 (3.6)	5 (0.6)	514 (7.3)	9.9 (0.05)
Russian Federation	52 (1.4)	566 (3.6)	42 (1.2)	571 (3.3)	6 (0.6)	558 (4.6)	9.7 (0.06)
Denmark	51 (1.6)	537 (3.2)	37 (1.3)	534 (3.7)	12 (1.0)	523 (5.9)	9.5 (0.08)
Belgium (Flemish)	50 (1.1)	502 (2.6)	46 (1.0)	504 (2.7)	4 (0.4)	494 (6.1)	9.7 (0.04)
Latvia	48 (1.1)	543 (3.2)	44 (0.9)	544 (2.3)	7 (0.6)	531 (4.7)	9.6 (0.05)
Chinese Taipei	46 (1.2)	554 (2.1)	48 (1.1)	562 (2.4)	6 (0.5)	564 (5.2)	9.6 (0.05)
Germany	45 (1.6)	535 (3.6)	45 (1.4)	530 (2.9)	11 (0.9)	526 (5.3)	9.3 (0.07)
Sweden	44 (1.7)	542 (4.2)	48 (1.5)	544 (3.5)	8 (0.8)	534 (6.6)	9.4 (0.07)
Chile	44 (1.5)	470 (3.2)	49 (1.2)	470 (3.0)	8 (0.7)	470 (6.7)	9.4 (0.07)
Croatia	43 (1.1)	525 (2.8)	50 (1.0)	524 (2.5)	7 (0.5)	528 (5.8)	9.5 (0.05)
Poland	42 (1.3)	528 (4.0)	52 (1.1)	535 (2.4)	6 (0.5)	539 (5.5)	9.5 (0.06)
France	37 (1.1)	491 (4.1)	55 (1.1)	491 (3.6)	8 (0.7)	480 (6.4)	9.1 (0.05)
Czech Republic	36 (1.9)	538 (3.7)	51 (1.5)	543 (2.7)	13 (1.0)	540 (4.9)	9.0 (0.09)
Korea, Rep. of	15 (0.9)	587 (4.0)	70 (0.9)	588 (2.3)	14 (0.7)	590 (3.9)	8.2 (0.04)
Japan	9 (0.8)	571 (5.0)	68 (0.9)	564 (1.8)	24 (0.9)	557 (2.6)	7.8 (0.04)
Australia	--	--	--	--	--	--	--
England	--	--	--	--	--	--	--
Netherlands	--	--	--	--	--	--	--
Norway (5)	--	--	--	--	--	--	--
United States	--	--	--	--	--	--	--
United Arab Emirates	x	71 (0.7)	25 (0.5)	485 (3.6)	5 (0.3)	465 (6.4)	10.6 (0.03)
New Zealand	x	64 (1.7)	31 (1.5)	525 (4.0)	5 (0.6)	516 (8.3)	10.3 (0.07)
International Average	64 (0.2)	493 (0.6)	31 (0.2)	487 (0.7)	5 (0.1)	491 (1.3)	
Benchmarking Participants							
Dubai, UAE	s	69 (1.2)	26 (1.2)	547 (3.8)	5 (0.3)	533 (8.0)	10.5 (0.05)
Madrid, Spain		66 (1.3)	28 (1.2)	521 (3.1)	6 (0.6)	518 (6.3)	10.3 (0.05)
Ontario, Canada	s	57 (1.5)	35 (1.3)	536 (3.2)	8 (0.7)	529 (7.0)	9.9 (0.07)
Quebec, Canada	r	51 (1.3)	45 (1.3)	528 (3.2)	4 (0.5)	525 (5.6)	9.8 (0.05)
Moscow City, Russian Fed.		38 (1.3)	49 (1.1)	600 (2.4)	13 (0.8)	593 (3.7)	9.1 (0.06)
Abu Dhabi, UAE	y	--	--	--	--	--	--

This TIMSS context questionnaire scale was established in 2015 based on the combined response distribution of all countries that participated in TIMSS 2015. 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.

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

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 at least 40% but less than 50% of the students—interpret with caution. A "y" indicates data are available for less than 40% of the students.

SOURCE: IEA's Trends in International Mathematics and Science Study TIMSS 2019
Downloaded from <http://timss2019.org/download>

Students' Sense of School Belonging

The items forming the *Sense of School Belonging* scale asked students about their attitudes toward school, including the extent to which they like being in school, feel that they belong, and have good relationships with teachers. Both fourth and eighth grade students were asked how much they agreed or disagreed with the five statements listed in Exhibit 7.9 (see About the Scale).

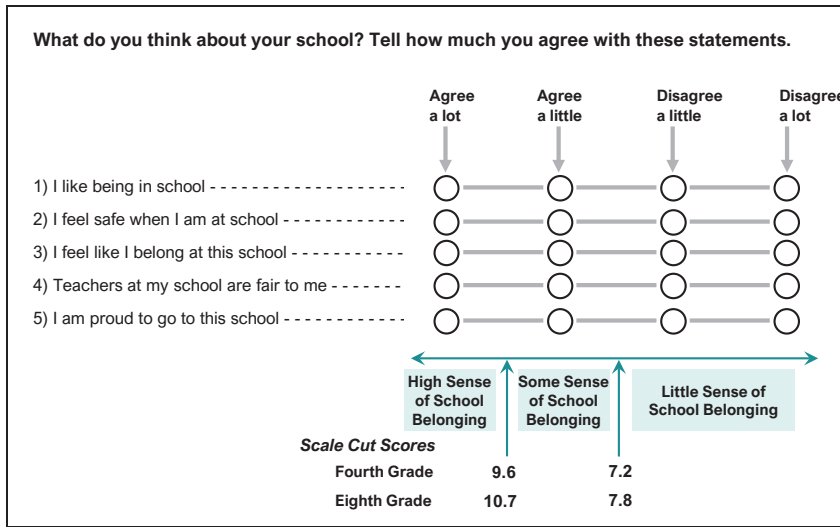
The percentages of fourth grade students assigned to the three categories on the TIMSS 2019 *Sense of School Belonging* scale are shown in Exhibit 7.10 in relation to mathematics achievement and in Exhibit 7.11 in relation to science achievement. Overall, the majority of fourth grade students had positive attitudes toward school, and each successive category of increased school belonging was related to an increase in average achievement. More than half of students (58%) reported having a “high sense of school belonging,” and these students had the highest average mathematics achievement (508) and average science achievement (497). On average, 34 percent of students had a “moderate sense of school belonging” with comparatively lower achievement (498 in mathematics and 487 in science). Only 8 percent of fourth grade students had “little sense of school belonging,” and these students had the lowest average achievement (484 in mathematics and 476 in science).

Exhibits 7.12 and 7.13 present the same results for eighth grade students in relation to mathematics achievement and science achievement, respectively. Compared with the fourth grade, smaller percentages of eighth grade students reported having a “high sense of school belonging,” and larger percentages reported having a “moderate sense of school belonging.” On average, across countries, 37 percent of eighth grade students reported a “high sense of school belonging,” and 49 percent had a “moderate sense of school belonging.” Like the fourth grade, there was a positive association between eighth grade students’ sense of school belonging and their average achievement in mathematics and science. The 14 percent of students with “little sense of school belonging” had the lowest average achievement (470 in both mathematics and science). Students in the “high sense of school belonging” and “moderate sense of school belonging” categories had comparatively higher average achievement (500 and 489, respectively, in mathematics, and 502 and 490, respectively, in science).

Exhibit 7.9: Students’ Sense of School Belonging
Students’ Reports

About the Scale

Students were scored according to their responses to five statements on the *Sense of School Belonging* scale. Cut scores divide the scale into three categories. Students with a **High Sense of School Belonging** had a score at or above the cut score corresponding to “agreeing a lot” with three of the five statements and “agreeing a little” with the other two statements, on average. Students with **Little Sense of School Belonging** had a score at or below the cut score corresponding to “disagreeing a little” to three of the five statements and “agreeing a little” with the other two statements, on average. All other students had **Some Sense of School Belonging**.



SOURCE: IEA's Trends in International Mathematics and Science Study TIMSS 2019
Downloaded from <http://timss2019.org/download>

Exhibit 7.10: Students' Sense of School Belonging
Students' Reports

Country	High Sense of School Belonging		Some Sense of School Belonging		Little Sense of School Belonging		Average Scale Score
	Percent of Students	Average Achievement	Percent of Students	Average Achievement	Percent of Students	Average Achievement	
Albania	96 (0.4)	496 (3.5)	4 (0.4)	482 (9.5)	0 (0.1)	~ ~	12.3 (0.03)
Kosovo	94 (0.5)	448 (2.8)	6 (0.5)	424 (9.4)	0 (0.1)	~ ~	12.2 (0.03)
North Macedonia	82 (1.1)	481 (5.1)	16 (1.1)	463 (10.3)	2 (0.2)	~ ~	11.4 (0.05)
Montenegro	81 (0.7)	456 (2.0)	16 (0.6)	449 (4.1)	3 (0.2)	443 (11.4)	11.2 (0.04)
Morocco	80 (1.1)	391 (4.7)	18 (0.9)	362 (6.3)	3 (0.4)	331 (13.4)	11.3 (0.06)
Azerbaijan	78 (1.1)	526 (2.4)	19 (0.9)	514 (4.6)	3 (0.4)	497 (8.9)	11.1 (0.06)
Portugal	76 (1.3)	526 (2.7)	21 (1.1)	522 (3.6)	3 (0.4)	518 (8.9)	10.9 (0.06)
Georgia	74 (1.3)	481 (4.1)	24 (1.3)	484 (5.2)	2 (0.3)	~ ~	11.0 (0.05)
Pakistan	74 (3.0)	333 (13.0)	21 (2.5)	328 (14.8)	6 (1.1)	294 (13.2)	11.0 (0.16)
Bulgaria	72 (1.4)	512 (4.0)	23 (1.1)	528 (7.1)	4 (0.5)	530 (10.1)	10.7 (0.07)
Armenia	72 (1.2)	506 (2.6)	24 (0.9)	496 (3.8)	4 (0.6)	493 (7.3)	10.8 (0.08)
Turkey (5)	71 (1.1)	533 (4.4)	25 (0.9)	500 (6.0)	4 (0.4)	497 (12.7)	10.7 (0.05)
Kazakhstan	68 (1.3)	517 (2.8)	29 (1.1)	507 (3.1)	3 (0.4)	498 (7.7)	10.6 (0.06)
Bosnia and Herzegovina	68 (1.2)	455 (2.6)	26 (1.0)	452 (3.5)	6 (0.4)	436 (5.2)	10.5 (0.06)
Spain	67 (1.3)	508 (2.6)	27 (1.1)	498 (3.6)	6 (0.5)	474 (6.9)	10.4 (0.06)
Saudi Arabia	65 (1.1)	409 (3.7)	27 (1.0)	393 (4.2)	8 (0.5)	383 (6.7)	10.5 (0.06)
Oman	64 (1.3)	443 (4.3)	28 (1.0)	418 (4.4)	8 (0.6)	406 (6.8)	10.4 (0.07)
Norway (5)	64 (1.4)	549 (2.5)	31 (1.2)	540 (3.6)	5 (0.7)	517 (7.8)	10.2 (0.06)
Serbia	63 (1.4)	506 (4.0)	32 (1.1)	514 (3.5)	5 (0.7)	504 (5.9)	10.1 (0.06)
Bahrain	62 (1.3)	484 (3.0)	30 (1.0)	477 (2.8)	8 (0.6)	469 (6.2)	10.2 (0.07)
Ireland	61 (1.4)	556 (3.1)	32 (1.1)	543 (3.7)	7 (0.8)	519 (6.2)	10.0 (0.06)
Finland	60 (1.0)	538 (2.3)	34 (0.8)	528 (3.7)	6 (0.6)	506 (4.9)	10.0 (0.05)
Northern Ireland	60 (1.7)	576 (3.4)	33 (1.3)	557 (3.9)	8 (0.7)	529 (8.2)	10.0 (0.07)
Lithuania	60 (1.5)	544 (2.9)	35 (1.4)	542 (4.1)	5 (0.4)	529 (7.5)	10.0 (0.06)
Netherlands	59 (1.4)	542 (2.3)	33 (1.2)	535 (3.2)	7 (0.7)	515 (7.0)	10.0 (0.06)
United Arab Emirates	59 (0.6)	495 (2.0)	31 (0.5)	470 (2.0)	10 (0.3)	451 (3.6)	10.1 (0.03)
New Zealand	59 (1.2)	495 (3.0)	33 (0.9)	481 (3.2)	9 (0.6)	466 (5.0)	10.0 (0.06)
Austria	58 (1.2)	545 (2.4)	34 (0.9)	534 (2.5)	7 (0.6)	523 (4.8)	9.9 (0.05)
Malta	57 (0.8)	513 (1.8)	33 (0.8)	508 (2.4)	10 (0.4)	493 (4.4)	10.0 (0.04)
Kuwait	57 (1.5)	398 (5.6)	31 (1.2)	380 (5.3)	12 (0.7)	373 (7.9)	10.0 (0.08)
Chile	57 (1.2)	450 (2.9)	36 (1.0)	437 (3.1)	7 (0.7)	407 (6.3)	10.0 (0.06)
Cyprus	56 (1.5)	534 (2.7)	31 (0.9)	535 (4.1)	13 (0.9)	519 (5.0)	9.8 (0.08)
England	56 (1.7)	565 (4.6)	35 (1.4)	550 (3.3)	9 (0.8)	527 (7.5)	9.8 (0.08)
South Africa (5)	56 (1.2)	388 (3.9)	36 (1.0)	364 (4.1)	8 (0.5)	351 (5.6)	10.0 (0.06)
Denmark	55 (1.1)	534 (2.4)	36 (1.1)	518 (3.1)	9 (0.7)	503 (6.0)	9.8 (0.05)
Iran, Islamic Rep. of	55 (1.6)	439 (4.0)	38 (1.4)	455 (4.5)	8 (0.6)	439 (7.3)	10.0 (0.07)
Hungary	54 (1.4)	527 (3.1)	37 (1.2)	522 (3.5)	9 (0.8)	510 (5.4)	9.8 (0.06)
Australia	54 (1.2)	526 (3.2)	36 (0.9)	509 (3.3)	10 (0.6)	490 (6.4)	9.8 (0.06)
Belgium (Flemish)	54 (1.3)	539 (2.0)	38 (1.1)	529 (2.4)	8 (0.5)	506 (4.7)	9.8 (0.06)
Canada	53 (0.8)	515 (2.4)	37 (0.7)	510 (2.1)	10 (0.4)	495 (4.2)	9.7 (0.03)
Italy	52 (1.1)	521 (3.0)	39 (0.9)	511 (3.2)	8 (0.6)	497 (4.8)	9.6 (0.05)
United States	52 (1.1)	549 (2.7)	34 (0.8)	530 (3.0)	14 (0.6)	502 (5.1)	9.6 (0.05)
Sweden	51 (1.9)	529 (3.6)	40 (1.4)	517 (2.9)	9 (0.9)	501 (6.0)	9.6 (0.08)
Qatar	50 (1.2)	461 (3.9)	36 (0.9)	445 (4.6)	14 (0.8)	433 (6.1)	9.6 (0.06)
Slovak Republic	49 (1.5)	507 (4.1)	42 (1.1)	515 (3.6)	10 (0.8)	506 (6.1)	9.5 (0.07)
Germany	47 (1.4)	535 (2.8)	41 (1.1)	517 (2.7)	12 (0.8)	505 (4.5)	9.4 (0.06)
Russian Federation	47 (1.3)	570 (4.5)	43 (1.1)	567 (3.1)	10 (0.7)	556 (4.2)	9.4 (0.06)
Philippines	46 (2.0)	320 (7.6)	44 (1.5)	289 (6.6)	10 (0.7)	257 (7.5)	9.5 (0.09)
Singapore	45 (0.9)	633 (4.1)	44 (0.6)	624 (4.1)	11 (0.5)	602 (4.9)	9.4 (0.04)
Latvia	42 (1.4)	552 (3.0)	47 (1.1)	546 (3.2)	11 (0.7)	531 (4.1)	9.2 (0.05)
France	40 (1.2)	491 (3.8)	52 (1.1)	485 (3.5)	8 (0.5)	458 (6.1)	9.3 (0.05)
Korea, Rep. of	40 (1.4)	610 (2.8)	54 (1.2)	595 (2.7)	6 (0.5)	575 (8.0)	9.4 (0.06)
Czech Republic	40 (1.7)	534 (3.8)	49 (1.4)	537 (2.6)	11 (0.8)	517 (5.0)	9.2 (0.07)
Croatia	38 (1.3)	512 (3.3)	54 (1.3)	509 (2.7)	9 (0.6)	506 (5.6)	9.2 (0.06)
Chinese Taipei	34 (1.2)	603 (3.0)	51 (1.1)	601 (2.3)	14 (0.8)	584 (3.5)	8.9 (0.05)
Poland	34 (1.1)	518 (4.1)	49 (0.9)	526 (2.7)	16 (0.9)	514 (4.1)	8.9 (0.05)
Hong Kong SAR	34 (1.5)	612 (5.1)	45 (1.5)	602 (3.3)	21 (1.3)	586 (4.6)	8.8 (0.08)
Japan	32 (1.3)	603 (2.7)	55 (1.0)	592 (2.2)	13 (0.9)	576 (3.8)	9.0 (0.06)
International Average	58 (0.2)	508 (0.5)	34 (0.1)	498 (0.6)	8 (0.1)	484 (0.9)	
Benchmarking Participants							
Madrid, Spain	68 (1.5)	519 (2.5)	26 (1.2)	520 (3.2)	6 (0.6)	508 (6.9)	10.4 (0.06)
Dubai, UAE	66 (0.6)	549 (1.6)	27 (0.6)	537 (2.7)	6 (0.3)	523 (5.4)	10.4 (0.03)
Ontario, Canada	53 (1.4)	519 (4.2)	37 (1.1)	509 (3.5)	10 (0.7)	495 (6.8)	9.7 (0.06)
Abu Dhabi, UAE	50 (1.0)	450 (2.5)	35 (0.7)	438 (2.8)	15 (0.7)	423 (5.1)	9.6 (0.05)
Quebec, Canada	47 (1.5)	535 (2.8)	41 (1.3)	533 (3.2)	12 (1.0)	511 (4.7)	9.4 (0.07)
Moscow City, Russian Fed.	40 (1.3)	597 (2.7)	46 (1.0)	593 (2.4)	14 (0.8)	582 (4.1)	9.1 (0.06)

This TIMSS context questionnaire scale was established in 2015 based on the combined response distribution of all countries that participated in TIMSS 2015. 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.
A tilde (~) indicates insufficient data to report achievement.

SOURCE: IEA's Trends in International Mathematics and Science Study TIMSS 2019
Downloaded from <http://timss2019.org/download>

Exhibit 7.11: Students' Sense of School Belonging

Students' Reports

Country	High Sense of School Belonging		Some Sense of School Belonging		Little Sense of School Belonging		Average Scale Score
	Percent of Students	Average Achievement	Percent of Students	Average Achievement	Percent of Students	Average Achievement	
Albania	96 (0.4)	492 (3.7)	4 (0.4)	473 (8.8)	0 (0.1)	~ ~	12.3 (0.03)
Kosovo	94 (0.5)	418 (3.6)	6 (0.5)	382 (11.8)	0 (0.1)	~ ~	12.2 (0.03)
North Macedonia	82 (1.1)	435 (6.2)	16 (1.1)	416 (10.3)	2 (0.2)	~ ~	11.4 (0.05)
Montenegro	81 (0.7)	456 (2.3)	16 (0.6)	454 (4.9)	3 (0.2)	454 (11.4)	11.2 (0.04)
Morocco	80 (1.1)	385 (6.4)	18 (0.9)	344 (7.6)	3 (0.4)	310 (15.1)	11.3 (0.06)
Azerbaijan	78 (1.1)	437 (2.9)	19 (0.9)	430 (5.5)	3 (0.4)	422 (11.3)	11.1 (0.06)
Portugal	76 (1.3)	505 (2.8)	21 (1.1)	502 (3.5)	3 (0.4)	497 (5.7)	10.9 (0.06)
Georgia	74 (1.3)	452 (4.4)	24 (1.3)	458 (5.8)	2 (0.3)	~ ~	11.0 (0.05)
Pakistan	74 (3.0)	294 (14.9)	21 (2.5)	294 (16.3)	6 (1.1)	261 (18.7)	11.0 (0.16)
Bulgaria	72 (1.4)	518 (4.9)	23 (1.1)	539 (7.6)	4 (0.5)	529 (12.7)	10.7 (0.07)
Armenia	72 (1.2)	476 (3.6)	24 (0.9)	462 (4.5)	4 (0.6)	447 (8.3)	10.8 (0.08)
Turkey (5)	71 (1.1)	536 (4.2)	25 (0.9)	507 (5.8)	4 (0.4)	509 (12.1)	10.7 (0.05)
Kazakhstan	68 (1.3)	501 (3.5)	29 (1.1)	484 (4.0)	3 (0.4)	479 (10.8)	10.6 (0.06)
Bosnia and Herzegovina	68 (1.2)	462 (3.4)	26 (1.0)	458 (3.6)	6 (0.4)	443 (5.7)	10.5 (0.06)
Spain	67 (1.3)	517 (2.0)	27 (1.1)	506 (3.5)	6 (0.5)	486 (6.7)	10.4 (0.06)
Saudi Arabia	65 (1.1)	416 (3.9)	27 (1.0)	395 (4.6)	8 (0.5)	381 (8.8)	10.5 (0.06)
Oman	64 (1.3)	450 (4.4)	28 (1.0)	421 (5.1)	8 (0.6)	407 (9.1)	10.4 (0.07)
Norway (5)	64 (1.4)	543 (2.6)	31 (1.2)	536 (3.4)	5 (0.7)	526 (6.9)	10.2 (0.06)
Serbia	63 (1.4)	514 (4.3)	32 (1.1)	525 (3.6)	5 (0.7)	513 (6.8)	10.1 (0.06)
Bahrain	62 (1.3)	502 (3.5)	30 (1.0)	484 (3.8)	8 (0.6)	470 (6.7)	10.2 (0.07)
Ireland	61 (1.4)	535 (4.0)	32 (1.1)	524 (3.7)	7 (0.8)	498 (6.7)	10.0 (0.06)
Finland	60 (1.0)	559 (2.5)	34 (0.8)	551 (3.5)	6 (0.6)	540 (5.6)	10.0 (0.05)
Northern Ireland	60 (1.7)	527 (2.7)	33 (1.3)	510 (3.1)	8 (0.7)	497 (6.1)	10.0 (0.07)
Lithuania	60 (1.5)	540 (2.8)	35 (1.4)	537 (3.5)	5 (0.4)	527 (7.6)	10.0 (0.06)
Netherlands	59 (1.4)	524 (2.9)	33 (1.2)	516 (3.4)	7 (0.7)	489 (8.3)	10.0 (0.06)
United Arab Emirates	59 (0.6)	490 (2.4)	31 (0.5)	459 (2.4)	10 (0.3)	431 (3.7)	10.1 (0.03)
New Zealand	59 (1.2)	510 (2.9)	33 (0.9)	496 (2.7)	9 (0.6)	485 (4.9)	10.0 (0.06)
Austria	58 (1.2)	528 (2.6)	34 (0.9)	517 (3.2)	7 (0.6)	507 (6.6)	9.9 (0.05)
Malta	57 (0.8)	498 (1.6)	33 (0.8)	498 (2.5)	10 (0.4)	482 (4.7)	10.0 (0.04)
Kuwait	57 (1.5)	412 (6.8)	31 (1.2)	388 (6.8)	12 (0.7)	367 (8.4)	10.0 (0.08)
Chile	57 (1.2)	477 (2.8)	36 (1.0)	467 (3.1)	7 (0.7)	436 (6.6)	10.0 (0.06)
Cyprus	56 (1.5)	514 (3.1)	31 (0.9)	512 (4.0)	13 (0.9)	498 (4.9)	9.8 (0.08)
England	56 (1.7)	544 (3.9)	35 (1.4)	533 (3.2)	9 (0.8)	517 (5.6)	9.8 (0.08)
South Africa (5)	56 (1.2)	343 (5.4)	36 (1.0)	313 (5.6)	8 (0.5)	293 (8.5)	10.0 (0.06)
Denmark	55 (1.1)	530 (2.8)	36 (1.1)	515 (3.3)	9 (0.7)	504 (5.6)	9.8 (0.05)
Iran, Islamic Rep. of	55 (1.6)	436 (4.3)	38 (1.4)	454 (4.8)	8 (0.6)	440 (7.5)	10.0 (0.07)
Hungary	54 (1.4)	532 (3.2)	37 (1.2)	529 (3.5)	9 (0.8)	518 (5.5)	9.8 (0.06)
Australia	54 (1.2)	541 (2.9)	36 (0.9)	528 (2.7)	10 (0.6)	510 (5.6)	9.8 (0.06)
Belgium (Flemish)	54 (1.3)	508 (2.2)	38 (1.1)	496 (2.6)	8 (0.5)	476 (5.1)	9.8 (0.06)
Canada	53 (0.8)	528 (2.3)	37 (0.7)	520 (2.2)	10 (0.4)	514 (3.4)	9.7 (0.03)
Italy	52 (1.1)	515 (3.3)	39 (0.9)	506 (3.7)	8 (0.6)	495 (5.1)	9.6 (0.05)
United States	52 (1.1)	551 (2.6)	34 (0.8)	536 (3.3)	14 (0.6)	509 (4.5)	9.6 (0.05)
Sweden	51 (1.9)	544 (4.1)	40 (1.4)	533 (3.6)	9 (0.9)	521 (6.3)	9.6 (0.08)
Qatar	50 (1.2)	467 (4.1)	36 (0.9)	443 (5.9)	14 (0.8)	422 (7.0)	9.6 (0.06)
Slovak Republic	49 (1.5)	514 (4.8)	42 (1.1)	529 (3.7)	10 (0.8)	525 (6.6)	9.5 (0.07)
Germany	47 (1.4)	533 (2.9)	41 (1.1)	514 (2.9)	12 (0.8)	507 (5.2)	9.4 (0.06)
Russian Federation	47 (1.3)	567 (4.2)	43 (1.1)	569 (2.7)	10 (0.7)	564 (3.9)	9.4 (0.06)
Philippines	46 (2.0)	272 (9.4)	44 (1.5)	242 (7.6)	10 (0.7)	205 (8.1)	9.5 (0.09)
Singapore	45 (0.9)	600 (3.7)	44 (0.6)	594 (3.5)	11 (0.5)	578 (4.9)	9.4 (0.04)
Latvia	42 (1.4)	546 (2.7)	47 (1.1)	542 (3.0)	11 (0.7)	529 (4.5)	9.2 (0.05)
France	40 (1.2)	494 (4.1)	52 (1.1)	487 (3.3)	8 (0.5)	462 (6.0)	9.3 (0.05)
Korea, Rep. of	40 (1.4)	596 (2.9)	54 (1.2)	584 (2.5)	6 (0.5)	568 (6.8)	9.4 (0.06)
Czech Republic	40 (1.7)	534 (3.3)	49 (1.4)	538 (3.0)	11 (0.8)	521 (4.9)	9.2 (0.07)
Croatia	38 (1.3)	529 (2.8)	54 (1.3)	522 (2.5)	9 (0.6)	514 (4.9)	9.2 (0.06)
Chinese Taipei	34 (1.2)	563 (2.4)	51 (1.1)	559 (2.1)	14 (0.8)	545 (4.2)	8.9 (0.05)
Poland	34 (1.1)	529 (3.7)	49 (0.9)	537 (2.4)	16 (0.9)	525 (4.4)	8.9 (0.05)
Hong Kong SAR	34 (1.5)	543 (4.3)	45 (1.5)	530 (3.6)	21 (1.3)	516 (5.9)	8.8 (0.08)
Japan	32 (1.3)	569 (2.5)	55 (1.0)	561 (2.4)	13 (0.9)	549 (3.5)	9.0 (0.06)
International Average	58 (0.2)	497 (0.6)	34 (0.1)	487 (0.7)	8 (0.1)	476 (1.0)	
Benchmarking Participants							
Madrid, Spain	68 (1.5)	524 (2.3)	26 (1.2)	524 (3.0)	6 (0.6)	511 (7.8)	10.4 (0.06)
Dubai, UAE	66 (0.6)	550 (1.8)	27 (0.6)	537 (2.5)	6 (0.3)	522 (5.2)	10.4 (0.03)
Ontario, Canada	53 (1.4)	530 (3.8)	37 (1.1)	521 (3.6)	10 (0.7)	518 (5.2)	9.7 (0.06)
Abu Dhabi, UAE	50 (1.0)	431 (3.5)	35 (0.7)	415 (3.2)	15 (0.7)	390 (5.6)	9.6 (0.05)
Quebec, Canada	47 (1.5)	525 (3.3)	41 (1.3)	522 (3.1)	12 (1.0)	509 (3.9)	9.4 (0.07)
Moscow City, Russian Fed.	40 (1.3)	596 (3.2)	46 (1.0)	596 (2.3)	14 (0.8)	588 (3.7)	9.1 (0.06)

This TIMSS context questionnaire scale was established in 2015 based on the combined response distribution of all countries that participated in TIMSS 2015. 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.

A tilde (~) indicates insufficient data to report achievement.

Exhibit 7.12: Students' Sense of School Belonging
Students' Reports

Country	High Sense of School Belonging		Some Sense of School Belonging		Little Sense of School Belonging		Average Scale Score
	Percent of Students	Average Achievement	Percent of Students	Average Achievement	Percent of Students	Average Achievement	
Egypt	66 (1.3)	417 (5.3)	27 (0.9)	410 (6.1)	7 (0.7)	418 (8.6)	11.1 (0.06)
Jordan	62 (1.3)	424 (3.9)	30 (0.9)	422 (5.1)	9 (0.8)	411 (8.1)	10.9 (0.07)
Morocco	58 (1.2)	387 (3.0)	34 (1.0)	389 (2.3)	8 (0.6)	397 (6.5)	10.8 (0.05)
Romania	54 (1.3)	484 (4.8)	35 (1.0)	480 (5.7)	10 (0.8)	465 (7.5)	10.5 (0.06)
Turkey	54 (1.3)	500 (4.1)	37 (1.0)	490 (5.4)	9 (0.7)	494 (8.9)	10.5 (0.06)
Kazakhstan	51 (1.4)	491 (4.0)	44 (1.2)	485 (3.5)	5 (0.5)	489 (6.2)	10.6 (0.06)
South Africa (9)	48 (0.7)	391 (2.4)	43 (0.5)	390 (2.4)	9 (0.4)	392 (3.5)	10.3 (0.03)
Georgia	47 (1.4)	463 (5.2)	44 (1.2)	463 (4.6)	10 (0.7)	457 (8.3)	10.2 (0.06)
Lebanon	46 (1.4)	440 (3.5)	42 (1.1)	426 (3.8)	12 (0.8)	411 (5.6)	10.2 (0.06)
Saudi Arabia	45 (1.2)	398 (3.2)	43 (0.9)	394 (2.7)	12 (0.6)	387 (4.2)	10.2 (0.05)
Oman	44 (1.1)	425 (3.0)	44 (0.9)	406 (3.5)	11 (0.6)	392 (4.9)	10.1 (0.05)
Finland	43 (1.1)	523 (3.2)	48 (0.9)	505 (2.5)	9 (0.6)	471 (5.5)	10.2 (0.05)
Israel	42 (1.3)	520 (5.2)	43 (1.0)	527 (4.9)	14 (0.9)	504 (7.1)	10.0 (0.06)
Kuwait	42 (1.2)	414 (5.4)	41 (1.0)	403 (5.0)	17 (1.1)	382 (6.2)	9.9 (0.06)
United Arab Emirates	41 (0.8)	493 (3.0)	42 (0.7)	472 (1.8)	16 (0.4)	439 (3.5)	9.9 (0.04)
Norway (9)	41 (1.4)	514 (3.1)	47 (1.2)	504 (3.1)	12 (0.8)	470 (5.7)	10.0 (0.06)
Bahrain	38 (1.0)	491 (3.0)	46 (0.9)	480 (1.9)	16 (0.8)	462 (4.2)	9.8 (0.05)
Malaysia	37 (1.1)	461 (3.6)	58 (1.0)	461 (3.6)	5 (0.5)	462 (8.3)	10.0 (0.04)
Iran, Islamic Rep. of	36 (1.1)	455 (4.6)	50 (0.9)	440 (3.9)	14 (0.9)	448 (6.1)	9.9 (0.06)
New Zealand	33 (0.9)	503 (3.8)	53 (0.7)	482 (3.7)	14 (0.8)	439 (5.6)	9.7 (0.04)
Ireland	33 (1.2)	545 (3.1)	51 (1.1)	523 (2.9)	17 (1.0)	489 (4.5)	9.6 (0.05)
Portugal	32 (1.4)	508 (3.9)	53 (1.0)	499 (3.5)	15 (1.0)	490 (5.1)	9.6 (0.06)
Lithuania	31 (1.4)	528 (3.8)	57 (1.2)	521 (3.1)	12 (0.8)	504 (5.8)	9.7 (0.06)
United States	31 (0.9)	547 (5.6)	48 (0.8)	518 (4.9)	22 (0.9)	476 (4.5)	9.4 (0.04)
Qatar	31 (1.3)	456 (6.3)	48 (0.8)	450 (4.4)	22 (1.1)	414 (4.4)	9.4 (0.08)
Chile	30 (1.1)	447 (3.7)	57 (1.1)	441 (3.2)	13 (0.8)	428 (4.4)	9.6 (0.04)
Australia	30 (0.9)	548 (4.6)	50 (0.8)	516 (4.1)	20 (0.9)	476 (4.1)	9.4 (0.05)
Hungary	30 (1.2)	536 (5.4)	52 (1.0)	514 (3.3)	18 (1.1)	492 (4.7)	9.5 (0.06)
Singapore	28 (0.8)	636 (4.4)	58 (0.8)	614 (4.2)	14 (0.5)	581 (5.6)	9.5 (0.03)
Sweden	28 (1.2)	515 (3.8)	57 (0.9)	505 (2.7)	15 (0.9)	475 (4.6)	9.5 (0.05)
England	27 (1.3)	544 (6.0)	53 (1.0)	521 (5.4)	19 (1.0)	470 (6.9)	9.3 (0.06)
Italy	27 (1.3)	500 (4.0)	58 (0.9)	500 (2.8)	15 (0.8)	485 (4.4)	9.4 (0.05)
Russian Federation	25 (1.2)	551 (5.9)	59 (1.0)	544 (4.7)	16 (0.8)	533 (5.2)	9.4 (0.05)
Chinese Taipei	23 (1.0)	624 (5.5)	60 (0.9)	613 (2.5)	17 (0.8)	596 (4.5)	9.3 (0.04)
Cyprus	22 (0.9)	520 (3.6)	48 (1.0)	504 (2.2)	30 (1.2)	482 (2.7)	8.9 (0.05)
Korea, Rep. of	22 (0.9)	627 (4.5)	65 (0.9)	606 (2.9)	14 (0.7)	577 (5.6)	9.3 (0.04)
Japan	21 (1.1)	602 (3.9)	59 (0.8)	598 (3.1)	19 (0.9)	574 (4.1)	9.2 (0.05)
Hong Kong SAR	21 (0.9)	593 (6.8)	57 (1.0)	586 (3.7)	23 (1.1)	548 (6.3)	9.1 (0.05)
France	20 (0.9)	490 (3.9)	68 (0.8)	485 (2.7)	12 (0.7)	459 (4.4)	9.3 (0.04)
International Average	37 (0.2)	500 (0.7)	49 (0.2)	489 (0.6)	14 (0.1)	470 (0.9)	
Benchmarking Participants							
Western Cape, RSA (9)	46 (1.3)	442 (5.1)	44 (0.8)	443 (4.6)	10 (0.8)	439 (5.8)	10.2 (0.06)
Dubai, UAE	43 (1.1)	550 (2.8)	44 (1.1)	534 (3.3)	12 (0.5)	500 (4.6)	10.1 (0.04)
Gauteng, RSA (9)	41 (1.2)	420 (3.8)	47 (0.9)	422 (3.3)	13 (0.9)	428 (4.3)	10.0 (0.05)
Ontario, Canada	38 (1.5)	543 (5.1)	47 (1.3)	530 (5.0)	15 (1.1)	498 (4.6)	9.9 (0.07)
Abu Dhabi, UAE	33 (1.1)	463 (3.9)	46 (0.8)	434 (3.1)	21 (0.7)	410 (5.4)	9.5 (0.06)
Quebec, Canada	29 (1.4)	562 (4.0)	55 (1.1)	544 (3.6)	16 (1.1)	513 (6.3)	9.5 (0.06)
Moscow City, Russian Fed.	17 (0.9)	586 (6.5)	60 (0.9)	577 (4.3)	23 (1.0)	564 (5.1)	9.0 (0.05)

This TIMSS context questionnaire scale was established in 2015 based on the combined response distribution of all countries that participated in TIMSS 2015. 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.

SOURCE: IEA's Trends in International Mathematics and Science Study TIMSS 2019
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Exhibit 7.13: Students' Sense of School Belonging

Students' Reports

Country	High Sense of School Belonging		Some Sense of School Belonging		Little Sense of School Belonging		Average Scale Score
	Percent of Students	Average Achievement	Percent of Students	Average Achievement	Percent of Students	Average Achievement	
Egypt	66 (1.3)	398 (5.6)	27 (0.9)	384 (6.1)	7 (0.7)	388 (9.2)	11.1 (0.06)
Jordan	62 (1.3)	458 (4.3)	30 (0.9)	456 (6.1)	9 (0.8)	435 (8.5)	10.9 (0.07)
Morocco	58 (1.2)	396 (3.5)	34 (1.0)	392 (2.8)	8 (0.6)	393 (5.5)	10.8 (0.05)
Romania	54 (1.3)	474 (4.8)	35 (1.0)	472 (5.2)	10 (0.8)	456 (6.0)	10.5 (0.06)
Turkey	54 (1.3)	518 (3.6)	37 (1.0)	512 (4.8)	9 (0.7)	515 (8.0)	10.5 (0.06)
Kazakhstan	51 (1.4)	480 (3.7)	44 (1.2)	476 (3.5)	5 (0.5)	488 (7.4)	10.6 (0.06)
South Africa (9)	48 (0.7)	370 (3.4)	43 (0.5)	371 (3.2)	9 (0.4)	380 (4.4)	10.3 (0.03)
Georgia	47 (1.4)	449 (4.7)	44 (1.2)	450 (4.2)	10 (0.7)	438 (7.8)	10.2 (0.06)
Lebanon	46 (1.4)	394 (4.9)	42 (1.1)	371 (6.4)	12 (0.8)	349 (8.7)	10.2 (0.06)
Saudi Arabia	45 (1.2)	436 (3.2)	43 (0.9)	434 (2.9)	12 (0.6)	421 (4.8)	10.2 (0.05)
Oman	44 (1.1)	473 (2.9)	44 (0.9)	452 (3.8)	11 (0.6)	433 (5.5)	10.1 (0.05)
Finland	43 (1.1)	558 (3.9)	48 (0.9)	538 (2.8)	9 (0.6)	498 (7.1)	10.2 (0.05)
Israel	42 (1.3)	517 (4.7)	43 (1.0)	519 (5.1)	14 (0.9)	499 (6.9)	10.0 (0.06)
Kuwait	42 (1.2)	459 (6.1)	41 (1.0)	447 (5.2)	17 (1.1)	415 (8.3)	9.9 (0.06)
United Arab Emirates	41 (0.8)	498 (3.6)	42 (0.7)	470 (2.2)	16 (0.4)	431 (3.9)	9.9 (0.04)
Norway (9)	41 (1.4)	508 (3.5)	47 (1.2)	495 (3.9)	12 (0.8)	459 (6.5)	10.0 (0.06)
Bahrain	38 (1.0)	501 (2.8)	46 (0.9)	487 (2.5)	16 (0.8)	453 (5.0)	9.8 (0.05)
Malaysia	37 (1.1)	465 (3.8)	58 (1.0)	460 (3.9)	5 (0.5)	436 (9.9)	10.0 (0.04)
Iran, Islamic Rep. of	36 (1.1)	456 (4.5)	50 (0.9)	444 (4.1)	14 (0.9)	453 (5.6)	9.9 (0.06)
New Zealand	33 (0.9)	521 (4.3)	53 (0.7)	497 (3.9)	14 (0.8)	463 (5.5)	9.7 (0.04)
Ireland	33 (1.2)	545 (3.2)	51 (1.1)	522 (3.1)	17 (1.0)	486 (5.0)	9.6 (0.05)
Portugal	32 (1.4)	525 (3.8)	53 (1.0)	518 (3.2)	15 (1.0)	507 (4.8)	9.6 (0.06)
Lithuania	31 (1.4)	541 (3.9)	57 (1.2)	534 (3.2)	12 (0.8)	519 (5.7)	9.7 (0.06)
United States	31 (0.9)	548 (5.1)	48 (0.8)	527 (4.6)	22 (0.9)	488 (4.9)	9.4 (0.04)
Qatar	31 (1.3)	489 (6.9)	48 (0.8)	481 (4.4)	22 (1.1)	445 (5.2)	9.4 (0.08)
Chile	30 (1.1)	469 (3.9)	57 (1.1)	463 (3.2)	13 (0.8)	449 (5.0)	9.6 (0.04)
Australia	30 (0.9)	557 (4.2)	50 (0.8)	529 (3.5)	20 (0.9)	487 (3.1)	9.4 (0.05)
Hungary	30 (1.2)	544 (4.8)	52 (1.0)	528 (2.9)	18 (1.1)	512 (4.2)	9.5 (0.06)
Singapore	28 (0.8)	626 (4.3)	58 (0.8)	606 (4.2)	14 (0.5)	577 (5.4)	9.5 (0.03)
Sweden	28 (1.2)	537 (4.5)	57 (0.9)	525 (3.5)	15 (0.9)	490 (6.0)	9.5 (0.05)
England	27 (1.3)	551 (5.4)	53 (1.0)	522 (4.8)	19 (1.0)	466 (7.4)	9.3 (0.06)
Italy	27 (1.3)	501 (4.0)	58 (0.9)	503 (2.5)	15 (0.8)	492 (5.2)	9.4 (0.05)
Russian Federation	25 (1.2)	545 (5.4)	59 (1.0)	543 (4.4)	16 (0.8)	540 (4.8)	9.4 (0.05)
Chinese Taipei	23 (1.0)	582 (4.1)	60 (0.9)	574 (1.9)	17 (0.8)	563 (3.9)	9.3 (0.04)
Cyprus	22 (0.9)	501 (3.8)	48 (1.0)	488 (2.7)	30 (1.2)	464 (3.0)	8.9 (0.05)
Korea, Rep. of	22 (0.9)	577 (3.5)	65 (0.9)	560 (2.1)	14 (0.7)	537 (4.7)	9.3 (0.04)
Japan	21 (1.1)	573 (2.9)	59 (0.8)	572 (2.5)	19 (0.9)	558 (3.3)	9.2 (0.05)
Hong Kong SAR	21 (0.9)	519 (7.5)	57 (1.0)	509 (4.9)	23 (1.1)	477 (8.0)	9.1 (0.05)
France	20 (0.9)	499 (4.4)	68 (0.8)	490 (2.7)	12 (0.7)	462 (5.6)	9.3 (0.04)
International Average	37 (0.2)	502 (0.7)	49 (0.2)	490 (0.6)	14 (0.1)	470 (1.0)	
Benchmarking Participants							
Western Cape, RSA (9)	46 (1.3)	437 (6.2)	44 (0.8)	442 (5.5)	10 (0.8)	447 (6.1)	10.2 (0.06)
Dubai, UAE	43 (1.1)	563 (3.2)	44 (1.1)	544 (3.1)	12 (0.5)	508 (5.0)	10.1 (0.04)
Gauteng, RSA (9)	41 (1.2)	418 (5.0)	47 (0.9)	424 (4.0)	13 (0.9)	437 (5.1)	10.0 (0.05)
Ontario, Canada	38 (1.5)	536 (4.1)	47 (1.3)	521 (3.5)	15 (1.1)	492 (4.5)	9.9 (0.07)
Abu Dhabi, UAE	33 (1.1)	454 (4.8)	46 (0.8)	416 (4.1)	21 (0.7)	390 (6.9)	9.5 (0.06)
Quebec, Canada	29 (1.4)	553 (3.7)	55 (1.1)	537 (3.8)	16 (1.1)	509 (6.0)	9.5 (0.06)
Moscow City, Russian Fed.	17 (0.9)	572 (4.9)	60 (0.9)	567 (3.1)	23 (1.0)	561 (3.5)	9.0 (0.05)

This TIMSS context questionnaire scale was established in 2015 based on the combined response distribution of all countries that participated in TIMSS 2015. 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.

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