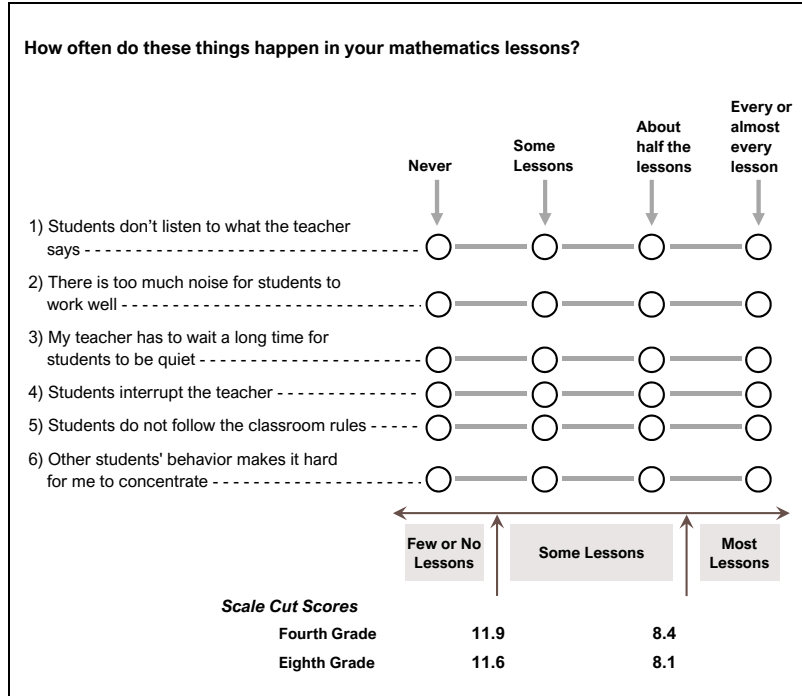


Exhibit 5.2.4: Disorderly Behavior During Mathematics Lessons

About the Scale

Students were scored according to their responses to six statements on the *Disorderly Behavior During Mathematics Lessons* scale. Cut scores divide the scale into three categories. Students who reported disorderly behavior in **Few or No Lessons** had a score at or above the cut score corresponding to reporting that three of the six situations “never” happened in their mathematics lessons and the other three happened in “some lessons,” on average. Students who reported disorderly behavior in **Most Lessons** had a score at or below the cut score corresponding to reporting that three of the six situations happened in “every or almost every lesson” and the other three happened in “about half the lessons,” on average. All other students reported disorderly behavior in **Some Lessons**.



SOURCE: IEA's Trends in International Mathematics and Science Study - TIMSS 2023
 Downloaded from <https://timss2023.org/results>

Exhibit 5.2.5: Disorderly Behavior During Mathematics Lessons

Country	Few or No Lessons		Some Lessons		Most Lessons		Average Scale Score
	Percent of Students	Average Achievement	Percent of Students	Average Achievement	Percent of Students	Average Achievement	
Albania	41 (2.2)	526 (6.1)	46 (1.7)	513 (5.3)	13 (1.3)	486 (8.1)	11.3 (0.13)
Armenia	35 (1.6)	527 (3.1)	49 (1.3)	519 (3.0)	16 (0.9)	493 (4.3)	10.9 (0.08)
Australia	5 (0.4)	556 (7.8)	70 (1.0)	536 (2.8)	24 (1.1)	506 (4.3)	9.4 (0.05)
Azerbaijan	24 (1.2)	516 (4.8)	60 (1.1)	503 (3.4)	17 (0.8)	482 (3.9)	10.4 (0.07)
Bahrain	22 (1.4)	486 (5.5)	55 (1.0)	464 (5.1)	23 (1.2)	450 (5.4)	10.1 (0.09)
Belgium (Flemish)	6 (0.5)	533 (5.1)	80 (0.9)	525 (2.1)	13 (0.9)	509 (4.9)	9.8 (0.04)
Belgium (French)	7 (0.6)	500 (6.7)	73 (1.1)	497 (2.5)	20 (1.1)	469 (3.7)	9.6 (0.05)
Bosnia & Herzegovina	12 (1.3)	458 (6.1)	59 (1.3)	463 (3.5)	29 (1.6)	432 (5.1)	9.5 (0.10)
Brazil	5 (0.5)	394 (7.6)	62 (0.9)	415 (4.2)	33 (0.9)	408 (4.0)	9.1 (0.04)
Bulgaria	40 (2.4)	544 (4.9)	54 (2.1)	530 (4.6)	6 (0.8)	457 (11.9)	11.4 (0.11)
Canada	7 (0.4)	525 (5.4)	71 (0.9)	511 (2.2)	21 (1.0)	489 (2.7)	9.6 (0.04)
Chile	7 (0.6)	448 (6.0)	60 (1.1)	456 (3.0)	33 (1.2)	428 (3.1)	9.2 (0.06)
Chinese Taipei	18 (1.1)	599 (3.5)	63 (1.2)	612 (1.8)	20 (1.3)	605 (3.2)	10.1 (0.07)
Cyprus	12 (1.1)	525 (5.6)	66 (1.1)	522 (2.4)	22 (1.1)	503 (3.9)	9.7 (0.06)
Czech Republic	8 (0.7)	542 (5.5)	68 (1.1)	537 (2.4)	25 (1.2)	514 (3.2)	9.5 (0.06)
Denmark	7 (0.6)	541 (5.3)	82 (0.6)	526 (2.1)	11 (0.7)	511 (4.7)	10.0 (0.04)
England	7 (0.6)	582 (8.1)	71 (1.2)	561 (3.3)	22 (1.4)	529 (4.0)	9.6 (0.06)
Finland	16 (1.0)	540 (3.8)	75 (0.9)	533 (2.5)	9 (0.6)	505 (5.9)	10.4 (0.05)
France	9 (0.9)	497 (5.2)	72 (1.1)	492 (3.1)	20 (1.0)	461 (4.2)	9.7 (0.05)
Georgia	20 (1.3)	511 (5.2)	62 (1.3)	507 (2.9)	18 (0.9)	478 (4.6)	10.2 (0.07)
Germany	7 (0.6)	531 (5.8)	76 (0.9)	530 (2.3)	17 (0.9)	509 (4.2)	9.7 (0.04)
Hong Kong SAR	24 (1.3)	595 (4.1)	61 (1.2)	598 (4.3)	15 (1.4)	590 (9.3)	10.5 (0.09)
Hungary	15 (1.0)	542 (5.0)	69 (1.1)	526 (3.5)	17 (1.0)	500 (6.1)	10.0 (0.06)
Iran, Islamic Rep. of	15 (1.1)	424 (6.4)	60 (1.1)	424 (4.8)	26 (1.1)	419 (4.8)	9.7 (0.07)
Ireland	11 (1.1)	558 (5.8)	73 (1.4)	552 (2.7)	16 (1.5)	512 (5.6)	10.0 (0.08)
Italy	9 (0.8)	529 (6.7)	74 (0.9)	518 (2.9)	17 (1.0)	499 (4.1)	9.8 (0.05)
Japan	37 (1.8)	597 (3.0)	55 (1.6)	593 (2.6)	7 (0.7)	562 (7.7)	11.2 (0.08)
Jordan	27 (2.1)	457 (9.0)	51 (1.5)	421 (5.5)	22 (1.4)	415 (5.9)	10.4 (0.14)
Kazakhstan	28 (1.2)	507 (4.6)	56 (1.1)	491 (3.6)	16 (0.7)	462 (4.5)	10.6 (0.06)
Korea, Rep. of	24 (1.6)	595 (3.6)	67 (1.4)	595 (3.0)	10 (0.9)	591 (5.0)	10.7 (0.08)
Kosovo	25 (1.1)	464 (4.4)	57 (1.2)	460 (4.1)	18 (1.1)	427 (4.6)	10.4 (0.06)
Kuwait	15 (1.0)	404 (7.2)	61 (1.1)	395 (4.6)	24 (1.3)	380 (7.0)	9.8 (0.08)
Latvia	8 (0.9)	542 (5.2)	68 (1.2)	540 (2.9)	25 (1.3)	521 (4.3)	9.5 (0.07)
Lithuania	12 (0.9)	570 (5.6)	70 (1.1)	567 (2.9)	18 (1.1)	540 (4.4)	9.9 (0.06)
Macao SAR	17 (0.5)	595 (2.9)	67 (0.6)	582 (1.5)	17 (0.4)	572 (3.0)	10.2 (0.02)
Montenegro	17 (0.7)	497 (2.9)	58 (0.8)	481 (2.7)	25 (0.9)	469 (2.6)	9.8 (0.05)
Morocco	24 (2.1)	433 (9.1)	63 (1.9)	386 (4.5)	13 (0.9)	370 (4.9)	10.5 (0.09)
Netherlands	8 (0.8)	536 (5.4)	80 (0.9)	541 (2.2)	12 (1.0)	522 (4.3)	10.0 (0.06)
New Zealand	3 (0.3)	512 (8.8)	69 (1.1)	501 (3.0)	27 (1.2)	475 (3.5)	9.2 (0.04)
North Macedonia	27 (1.2)	495 (4.5)	54 (1.1)	483 (4.0)	20 (1.1)	455 (5.5)	10.4 (0.07)
Norway (5)	7 (0.7)	528 (6.2)	80 (0.9)	535 (2.1)	14 (0.8)	516 (4.0)	10.0 (0.05)
Oman	17 (0.9)	455 (8.1)	58 (1.0)	422 (4.0)	25 (0.9)	411 (4.4)	9.8 (0.05)
Poland	11 (0.9)	550 (5.1)	70 (1.1)	551 (2.1)	19 (1.2)	530 (4.4)	9.8 (0.07)
Portugal	10 (0.7)	530 (6.0)	71 (1.1)	523 (2.9)	20 (1.2)	493 (4.3)	9.8 (0.06)
Qatar	18 (0.9)	467 (4.9)	58 (1.0)	472 (3.8)	24 (0.9)	460 (4.7)	10.0 (0.05)
Romania	18 (1.4)	547 (7.0)	60 (1.5)	554 (4.9)	22 (1.6)	531 (5.9)	10.1 (0.09)
Saudi Arabia	24 (1.2)	453 (6.0)	53 (1.0)	422 (4.3)	23 (0.8)	416 (4.7)	10.2 (0.07)
Serbia	17 (1.4)	528 (7.9)	62 (1.3)	529 (3.3)	21 (1.2)	512 (3.8)	10.1 (0.09)
Slovak Republic	13 (1.5)	504 (11.6)	67 (1.5)	522 (3.4)	20 (1.2)	507 (5.5)	9.9 (0.08)
Slovenia	10 (0.8)	528 (4.4)	71 (1.0)	522 (1.9)	19 (0.9)	489 (2.8)	9.8 (0.05)
South Africa (5)	8 (0.7)	358 (9.6)	68 (1.0)	358 (4.4)	24 (1.0)	376 (5.5)	9.5 (0.05)
Spain	4 (0.4)	501 (6.7)	71 (1.0)	506 (2.3)	25 (1.1)	484 (2.8)	9.3 (0.04)
Sweden	11 (0.9)	558 (4.3)	75 (1.0)	532 (2.6)	15 (1.2)	509 (5.4)	10.0 (0.07)
Türkiye (5)	12 (0.8)	565 (6.1)	68 (0.9)	553 (4.3)	20 (1.0)	550 (5.9)	9.8 (0.06)
United Arab Emirates	19 (0.5)	524 (2.4)	58 (0.5)	505 (1.4)	23 (0.5)	480 (2.3)	10.1 (0.03)
United States	8 (0.5)	528 (6.1)	68 (0.8)	529 (3.3)	24 (0.9)	498 (3.7)	9.5 (0.04)
Uzbekistan	35 (1.5)	468 (3.7)	48 (1.3)	442 (3.1)	17 (0.9)	416 (4.9)	10.9 (0.08)
International Average	16 (0.1)	514 (0.8)	65 (0.2)	507 (0.4)	19 (0.1)	486 (0.7)	
Singapore	--	--	--	--	--	--	--
Benchmarking Participants							
Ontario, Canada	6 (0.6)	515 (8.0)	70 (1.7)	511 (3.7)	25 (1.7)	493 (3.7)	9.4 (0.06)
Quebec, Canada	9 (0.8)	532 (5.0)	74 (0.9)	520 (2.8)	16 (1.2)	495 (4.3)	9.9 (0.06)
Abu Dhabi, UAE	12 (0.6)	487 (4.7)	61 (0.7)	467 (2.0)	27 (0.8)	448 (3.4)	9.6 (0.05)
Dubai, UAE	18 (0.8)	572 (3.2)	63 (1.0)	563 (1.9)	19 (0.9)	536 (3.2)	10.1 (0.05)
Sharjah, UAE	27 (1.6)	529 (4.9)	53 (1.2)	503 (3.1)	20 (1.0)	490 (4.5)	10.5 (0.09)

This TIMSS context questionnaire scale was established in 2023 based on the combined response distribution of countries that participated in TIMSS 2023. 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.

An "r" indicates data are available for at least 70% but less than 85% of the students.

A dash (-) indicates comparable data not available.

Exhibit 5.2.6: Disorderly Behavior During Mathematics Lessons

Country	Few or No Lessons		Some Lessons		Most Lessons		Average Scale Score
	Percent of Students	Average Achievement	Percent of Students	Average Achievement	Percent of Students	Average Achievement	
Australia	10 (0.7)	532 (6.7)	66 (1.0)	517 (3.6)	25 (1.2)	495 (4.5)	9.3 (0.06)
Austria	22 (1.4)	526 (3.9)	65 (1.3)	512 (2.4)	13 (1.1)	503 (4.6)	10.1 (0.07)
Azerbaijan	29 (1.1)	506 (4.7)	56 (0.9)	482 (4.4)	16 (0.8)	471 (5.8)	10.3 (0.06)
Bahrain	24 (1.0)	452 (4.3)	57 (1.0)	432 (3.0)	19 (0.9)	407 (4.0)	10.0 (0.05)
Brazil	6 (0.5)	392 (9.0)	59 (0.9)	389 (3.9)	35 (1.0)	377 (3.8)	8.8 (0.04)
Chile	7 (0.6)	421 (7.3)	68 (1.1)	422 (3.5)	25 (1.2)	411 (4.0)	9.2 (0.05)
Chinese Taipei	34 (1.7)	596 (4.7)	55 (1.3)	607 (3.1)	11 (1.0)	607 (6.3)	10.8 (0.09)
Cote d'Ivoire	19 (1.3)	264 (8.1)	69 (1.1)	263 (4.9)	12 (0.8)	263 (5.0)	9.9 (0.07)
Cyprus	15 (1.0)	514 (5.4)	61 (0.9)	498 (3.1)	23 (1.1)	493 (3.8)	9.5 (0.06)
Czech Republic	18 (1.0)	528 (3.6)	67 (0.9)	520 (2.5)	15 (0.9)	505 (3.8)	9.9 (0.06)
England	19 (1.4)	567 (6.7)	63 (1.2)	528 (4.5)	18 (1.3)	493 (8.0)	9.9 (0.08)
Finland	17 (0.9)	515 (4.5)	71 (0.9)	509 (2.6)	12 (0.7)	494 (3.9)	10.0 (0.05)
France	20 (1.6)	499 (4.6)	62 (1.3)	484 (3.1)	18 (1.4)	460 (5.1)	9.9 (0.09)
Georgia	21 (1.1)	481 (6.1)	63 (1.1)	470 (3.6)	16 (0.9)	456 (5.2)	10.0 (0.06)
Hong Kong SAR	26 (1.2)	574 (5.1)	61 (1.2)	577 (5.9)	13 (0.9)	577 (8.4)	10.3 (0.07)
Hungary	23 (1.5)	518 (5.0)	65 (1.4)	507 (4.0)	12 (0.9)	482 (6.3)	10.2 (0.07)
Iran, Islamic Rep. of	14 (0.8)	436 (5.5)	64 (0.8)	427 (3.8)	22 (1.0)	409 (4.1)	9.5 (0.05)
Ireland	35 (1.4)	540 (2.7)	54 (1.3)	518 (4.0)	10 (0.9)	495 (6.1)	10.6 (0.07)
Israel	19 (1.1)	517 (6.3)	62 (1.0)	490 (4.1)	19 (0.8)	468 (5.5)	9.8 (0.06)
Italy	18 (1.2)	501 (4.4)	70 (1.2)	504 (3.3)	12 (0.9)	493 (4.7)	10.0 (0.06)
Japan	62 (2.0)	599 (4.0)	36 (1.9)	590 (3.3)	2 ~	~	11.9 (0.07)
Jordan	24 (0.9)	410 (4.4)	55 (0.8)	391 (3.4)	22 (0.8)	377 (4.5)	9.9 (0.05)
Kazakhstan	32 (1.3)	464 (5.2)	58 (1.1)	454 (3.2)	10 (0.7)	438 (6.4)	10.6 (0.06)
Korea, Rep. of	34 (1.6)	587 (4.1)	56 (1.4)	600 (3.4)	9 (0.7)	609 (7.1)	10.7 (0.07)
Kuwait	21 (1.0)	410 (7.0)	62 (1.0)	403 (5.2)	17 (0.9)	386 (7.1)	9.9 (0.06)
Lithuania	20 (1.2)	516 (4.9)	64 (1.0)	517 (3.4)	16 (1.0)	510 (5.3)	10.0 (0.06)
Malaysia	20 (0.8)	434 (4.1)	71 (0.7)	408 (3.5)	9 (0.5)	381 (5.6)	10.2 (0.04)
Malta	16 (0.6)	525 (3.4)	61 (0.7)	510 (1.9)	23 (0.6)	475 (3.0)	9.6 (0.03)
Morocco	18 (0.7)	386 (4.1)	63 (0.7)	377 (3.4)	20 (0.7)	380 (3.8)	9.7 (0.04)
Norway (9)	15 (1.0)	506 (4.5)	73 (0.9)	508 (2.3)	12 (0.8)	488 (4.7)	10.0 (0.06)
Oman	15 (0.7)	433 (4.1)	65 (0.8)	415 (2.8)	20 (0.7)	404 (3.9)	9.5 (0.04)
Palestinian Nat'l Auth.	24 (1.0)	407 (3.7)	55 (0.9)	385 (3.1)	21 (0.7)	381 (3.9)	9.9 (0.05)
Portugal	9 (0.8)	488 (4.8)	68 (1.2)	477 (2.8)	24 (1.2)	471 (3.8)	9.3 (0.06)
Qatar	24 (1.4)	472 (7.8)	56 (1.2)	455 (4.3)	20 (1.1)	439 (5.3)	10.0 (0.07)
Romania	29 (1.8)	525 (5.1)	54 (1.5)	495 (4.8)	17 (1.4)	487 (8.3)	10.3 (0.10)
Saudi Arabia	28 (1.1)	416 (4.5)	54 (0.9)	403 (3.4)	18 (0.8)	383 (3.8)	10.2 (0.05)
South Africa (9)	7 (0.5)	417 (6.2)	71 (0.8)	394 (3.3)	22 (0.9)	396 (4.4)	9.2 (0.04)
Sweden	16 (1.3)	530 (6.0)	69 (1.3)	524 (2.5)	15 (1.2)	511 (4.8)	9.9 (0.07)
Türkiye	14 (0.9)	521 (7.5)	64 (1.0)	510 (4.4)	22 (1.1)	501 (6.5)	9.6 (0.06)
United Arab Emirates	27 (0.7)	512 (2.9)	52 (0.5)	495 (1.8)	21 (0.5)	468 (2.5)	10.1 (0.04)
United States	22 (1.3)	517 (6.1)	64 (1.3)	490 (4.4)	15 (0.9)	468 (4.8)	10.0 (0.06)
Uzbekistan	36 (1.5)	439 (6.4)	51 (1.2)	418 (3.9)	13 (0.8)	404 (4.7)	10.7 (0.07)
International Average	22 (0.2)	486 (0.8)	61 (0.2)	473 (0.6)	17 (0.1)	456 (0.8)	
Singapore	--	--	--	--	--	--	--
Benchmarking Participants							
Abu Dhabi, UAE	20 (0.8)	486 (4.1)	55 (0.8)	463 (2.8)	25 (0.9)	441 (3.4)	9.7 (0.05)
Dubai, UAE	26 (1.2)	574 (3.8)	58 (1.0)	546 (2.8)	16 (0.7)	520 (5.4)	10.2 (0.05)
Sharjah, UAE	35 (2.4)	507 (7.0)	47 (1.5)	498 (5.0)	18 (1.2)	482 (5.0)	10.4 (0.12)

This TIMSS context questionnaire scale was established in 2023 based on the combined response distribution of countries that participated in TIMSS 2023. 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 result.