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

TIMES Science

Exhibit 5.9: Problems with School Conditions and Resources – Teachers' Reports

Reported by Teachers

Students were scored according to their teachers' responses concerning seven conditions and resources on the *Problems with School Conditions and Resources* scale. Students whose teachers reported **Hardly Any Problems** with their school conditions and resources had a score on the scale of at least 10.9, which corresponds to their teachers reporting "not a problem" for four of seven conditions and resources and "minor problem" for the other three, on average. Students whose teachers reported **Moderate to Severe Problems** had a score no higher than 8.5, which corresponds to their teachers reporting "moderate problem" for four of seven conditions and resources and "minor problem" for the other three, on average. All other students had teachers that reported **Minor Problems** with their school conditions and resources.

		Hardly An	Hardly Any Problems		Minor Problems		Moderate to Severe Problems	
Country		Percent	Average	Percent	Average	Percent	Average	Average Scale Scor
		of Students	Achievement	of Students	Achievement	of Students	Achievement	
Qatar		67 (3.0)	449 (4.8)	25 (3.0)	473 (8.0)	8 (0.5)	463 (9.7)	11.6 (0.
United Arab Emirates	r	57 (2.4)	489 (3.8)	33 (2.3)	458 (7.5)	10 (1.9)	463 (9.6)	11.1 (0.
Singapore		53 (2.6)	607 (4.7)	41 (2.8)	587 (6.5)	5 (1.2)	569 (15.2)	11.0 (0.
Australia		50 (2.5)	524 (3.2)	40 (3.0)	508 (5.7)	10 (2.0)	503 (8.0)	10.8 (0.
Lebanon		50 (4.6)	412 (10.7)	36 (3.9)	394 (7.8)	14 (3.1)	358 (13.3)	10.6 (0.
England	r	47 (3.4)	545 (5.1)	40 (2.9)	531 (6.7)	13 (2.6)	534 (15.8)	10.6 (0
Chile	r	45 (3.9)	470 (5.7)	41 (3.9)	446 (6.2)	15 (3.1)	442 (10.1)	10.4 (0
Slovenia		44 (2.9)	554 (2.7)	44 (2.4)	550 (2.8)	11 (1.5)	545 (6.6)	10.7 (0
Kuwait		43 (4.1)	424 (9.1)	33 (4.0)	394 (9.7)	24 (3.7)	403 (12.2)	10.3 (0
Canada		42 (3.2)	535 (3.0)	48 (3.3)	523 (3.6)	10 (1.9)	518 (10.9)	10.6 (0
Bahrain		42 (3.0)	477 (4.3)	44 (3.2)	459 (4.3)	14 (2.3)	451 (7.8)	10.5 (0
Oman		42 (3.8)	460 (3.9)	43 (3.4)	455 (5.6)	15 (2.3)	442 (9.6)	10.5 (0
Korea, Rep. of		41 (3.8)	557 (2.5)	47 (3.9)	554 (3.5)	11 (2.6)	555 (8.1)	10.5 (0
Kazakhstan		40 (2.9)	540 (5.7)	40 (2.9)	534 (6.4)	20 (2.6)	519 (12.5)	10.3 (0
United States	r	40 (2.7)	543 (4.0)	46 (2.9)	528 (4.6)	14 (2.0)	514 (7.9)	10.4 (0
Malta		39 (0.5)	493 (2.1)	46 (0.5)	477 (1.9)	15 (0.3)	459 (3.1)	10.4 (0
Chinese Taipei		39 (3.5)	579 (3.9)	49 (4.0)	562 (3.4)	12 (2.6)	566 (5.5)	10.3 (0
Hong Kong SAR		38 (4.8)	552 (6.5)	49 (5.3)	537 (6.3)	13 (3.1)	549 (9.7)	10.3 (0
Ireland		38 (3.2)	537 (4.5)	47 (3.5)	527 (4.5)	16 (2.4)	530 (6.3)	10.3 (0
New Zealand		37 (3.4)	529 (4.5)	47 (3.1)	507 (6.0)	16 (3.2)	507 (8.2)	10.1 (0
Norway (9)		36 (3.1)	510 (4.5)	50 (3.7)	511 (3.9)	14 (2.7)	507 (6.1)	10.2 (0
Russian Federation		35 (2.6)	551 (4.6)	48 (2.3)	543 (5.2)	16 (2.0)	533 (7.6)	10.1 (0
Lithuania		33 (3.1)	519 (4.5)	52 (2.7)	517 (3.1)	15 (1.8)	524 (6.3)	10.2 (0
Israel		28 (3.2)	498 (9.6)	46 (3.4)	521 (6.1)	26 (2.8)	496 (8.0)	9.8 (0
Hungary		26 (2.1)	518 (5.9)	47 (2.5)	527 (4.4)	26 (2.6)	530 (5.6)	9.7 (0
Jordan		25 (3.0)	455 (8.4)	39 (3.9)	423 (5.3)	36 (4.0)	407 (5.3)	9.3 (0
Thailand		25 (3.4)	472 (9.8)	50 (3.9)	458 (6.1)	26 (3.2)	437 (8.4)	9.7 (0
Japan		24 (3.7)	573 (4.4)	62 (3.9)	572 (2.2)	14 (2.6)	564 (6.0)	9.9 (0
Sweden		23 (3.7)	521 (8.7)	50 (3.9)	528 (4.2)	26 (3.4)	514 (6.7)	9.6 (0
Egypt		22 (2.7)	398 (8.7)	40 (3.7)	374 (7.3)	38 (3.6)	351 (7.3)	9.1 (0
Saudi Arabia		22 (4.1)	424 (8.8)	48 (4.8)	394 (7.6)	31 (4.4)	380 (7.6)	9.3 (0
Georgia		21 (2.5)	454 (5.0)	45 (2.5)	442 (3.7)	34 (2.9)	439 (5.3)	9.4 (0
Iran, Islamic Rep. of		21 (2.6)	481 (12.1)	52 (3.2)	461 (4.7)	27 (3.1)	428 (5.2)	9.5 (0
Italy		16 (3.0)	490 (8.3)	52 (4.2)	506 (3.6)	32 (3.5)	489 (5.8)	9.4 (0
Turkey		16 (2.6)	522 (11.2)	39 (3.5)	497 (6.7)	45 (3.7)	480 (5.1)	8.9 (0
South Africa (9)		15 (2.6)	452 (13.9)	29 (3.5)	364 (10.8)	56 (3.6)	329 (6.0)	8.5 (0
Malaysia		13 (2.7)	465 (13.4)	42 (4.1)	483 (7.2)	45 (4.0)	455 (8.2)	8.9 (0
Morocco		12 (1.4)	420 (8.0)	43 (2.5)	394 (3.6)	44 (2.6)	386 (2.8)	8.9 (0
Botswana (9)		2 (0.7)	~ ~	15 (3.4)	421 (6.9)	82 (3.3)	387 (3.4)	7.4 (0
International Avg.		34 (0.5)	500 (1.2)	43 (0.5)	486 (0.9)	23 (0.5)	475 (1.3)	

This TIMSS 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.

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 less than 50% of students.



 $^{() \ \} Standard\ errors\ appear\ in\ parentheses.\ Because\ of\ rounding\ some\ results\ may\ appear\ inconsistent.$

Exhibit 5.9: Problems with School Conditions and Resources – Teachers' Reports (Continued)

Country		Hardly Any Problems		Minor Problems		Moderate to Severe Problems		Average	
		Percent of Students	Average Achievement	Percent of Students	Average Achievement	Percent of Students	Average Achievement	Scale Score	
enchmarking Participants									
Dubai, UAE	r	71 (1.9)	537 (3.3)	25 (1.8)	487 (5.8)	4 (1.4)	492 (27.0)	11.7 (0.06)	
Abu Dhabi, UAE		47 (5.0)	451 (8.5)	39 (4.9)	446 (15.0)	13 (3.3)	465 (14.6)	10.7 (0.20)	
Ontario, Canada	r	44 (4.3)	530 (3.6)	46 (4.1)	523 (4.5)	10 (2.7)	523 (8.9)	10.6 (0.15)	
Quebec, Canada		38 (4.0)	541 (5.9)	53 (3.9)	524 (7.2)	9 (1.4)	510 (30.2)	10.5 (0.15)	
Florida, US	S	33 (6.9)	532 (13.8)	48 (6.5)	521 (10.5)	20 (5.5)	493 (14.1)	10.0 (0.26)	
Norway (8)		29 (3.6)	493 (4.4)	55 (3.8)	490 (3.1)	16 (3.1)	489 (6.1)	10.0 (0.14)	
Buenos Aires, Argentina		хх	хх	хх	хх	хх	хх	хх	

In your current school, how severe is each problen	1?			
	Not a problem	Minor problem	Moderate problem	Serious problem
1) The school building needs significant repair		_ŏ_	ŏ	_ <u></u>
Teachers do not have adequate workspace (e.g., for preparation, collaboration, or meeting with students)		_0_		_0
 Teachers do not have adequate instructional materials and supplies 	\(\)	_0_		
The school classrooms are not cleaned often enough				
5) The school classrooms need maintenance work		$-\circ-$	$-\circ-$	-
i) Teachers do not have adequate technological resources	()	_0_		
7) Teachers do not have adequate support for using technology				_0
	Hardly Any Problems 10	Minor Problems	Moderat to Severe 8.5 Problem	e