

**Exhibit 9.9: Teaching Limited by Student Needs**

*Reported by Teachers*

Students were scored according to their teachers' responses concerning six needs on the *Teaching Limited by Student Needs* scale. Students with teachers who felt **Not Limited** by student needs had a score on the scale of at least 11.0, which corresponds to their teachers feeling "not at all" limited by three of the six needs and to "some" extent limited by the other three needs, on average. Students with teachers who felt **Very Limited** by student needs had a score no higher than 6.9, which corresponds to their teachers reporting feeling limited "a lot" by three of the six needs and to "some" extent limited by the other three needs, on average. All other students had teachers who felt **Somewhat Limited** by student needs.

Country	Not Limited		Somewhat Limited		Very Limited		Average Scale Score
	Percent of Students	Average Achievement	Percent of Students	Average Achievement	Percent of Students	Average Achievement	
Japan	71 (3.0)	595 (2.1)	28 (3.0)	586 (2.9)	1 (0.6)	~ ~	11.8 (0.13)
Indonesia	58 (3.0)	407 (4.8)	42 (2.9)	385 (6.7)	0 (0.3)	~ ~	10.8 (0.09)
Czech Republic	57 (3.3)	534 (3.0)	42 (3.3)	520 (3.7)	0 (0.3)	~ ~	11.1 (0.11)
Slovak Republic	54 (2.8)	509 (3.2)	38 (2.9)	487 (4.6)	8 (1.8)	477 (13.9)	10.8 (0.13)
Serbia	51 (4.0)	521 (4.5)	45 (4.1)	514 (6.4)	4 (1.6)	526 (10.5)	10.6 (0.15)
Belgium (Flemish)	49 (3.4)	554 (3.0)	49 (3.4)	538 (3.1)	2 (0.7)	~ ~	10.6 (0.11)
Poland	48 (3.3)	543 (3.1)	50 (3.2)	528 (3.0)	1 (0.6)	~ ~	10.6 (0.11)
Ireland	48 (3.8)	559 (2.9)	48 (3.8)	538 (3.1)	4 (1.6)	516 (9.5)	10.7 (0.14)
Hong Kong SAR	47 (4.0)	628 (4.8)	51 (4.0)	602 (4.7)	2 (1.1)	~ ~	10.7 (0.12)
Kazakhstan	47 (3.5)	557 (6.1)	45 (4.0)	533 (6.6)	8 (2.1)	537 (14.8)	10.3 (0.15)
Norway (5)	47 (4.2)	554 (3.9)	50 (4.2)	547 (2.6)	4 (1.5)	527 (7.2)	10.5 (0.15)
Singapore	44 (3.0)	649 (4.5)	52 (2.9)	598 (5.4)	4 (1.0)	538 (18.0)	10.4 (0.11)
Finland	44 (3.4)	545 (2.8)	54 (3.4)	528 (2.2)	2 (0.9)	~ ~	10.6 (0.10)
Spain	44 (3.6)	515 (2.3)	53 (3.7)	499 (4.1)	3 (1.3)	460 (8.4)	10.3 (0.14)
Northern Ireland	43 (4.5)	592 (4.1)	55 (4.6)	558 (4.3)	2 (1.1)	~ ~	10.5 (0.16)
Bulgaria	41 (3.8)	534 (5.9)	55 (3.4)	519 (7.2)	4 (1.4)	504 (14.7)	10.4 (0.12)
Sweden	41 (3.9)	534 (4.0)	55 (3.8)	508 (3.9)	5 (1.6)	520 (7.9)	10.3 (0.16)
Hungary	39 (4.0)	544 (6.5)	56 (4.0)	521 (5.0)	4 (1.2)	471 (20.1)	10.3 (0.14)
Korea, Rep. of	39 (3.8)	612 (3.9)	53 (3.7)	604 (2.9)	8 (1.9)	615 (5.9)	10.2 (0.16)
Croatia	39 (3.7)	505 (3.4)	56 (3.6)	502 (2.6)	5 (1.8)	493 (5.5)	10.2 (0.16)
Georgia	38 (4.1)	480 (6.6)	59 (4.2)	455 (4.7)	2 (1.2)	~ ~	10.3 (0.14)
England	38 (4.3)	568 (6.8)	58 (4.2)	537 (3.9)	5 (2.0)	510 (8.7)	10.3 (0.17)
Germany	36 (3.2)	530 (2.7)	59 (3.4)	519 (2.9)	5 (1.5)	481 (7.8)	10.0 (0.11)
New Zealand	36 (2.6)	520 (3.8)	58 (2.8)	479 (3.3)	6 (1.4)	436 (10.3)	10.1 (0.10)
United Arab Emirates	35 (2.4)	486 (5.7)	61 (2.5)	441 (4.0)	4 (0.7)	370 (7.1)	10.1 (0.08)
Netherlands	34 (4.7)	539 (2.9)	62 (5.1)	526 (2.2)	4 (1.8)	514 (10.5)	10.0 (0.14)
Australia	34 (3.4)	547 (5.3)	58 (3.3)	508 (3.3)	8 (3.0)	474 (13.0)	9.9 (0.15)
Italy	33 (3.3)	517 (4.9)	54 (3.8)	501 (2.9)	14 (2.7)	503 (6.4)	9.7 (0.15)
Denmark	32 (4.0)	550 (5.6)	61 (4.0)	533 (3.6)	6 (1.6)	520 (11.5)	9.9 (0.15)
Qatar	31 (2.8)	462 (7.4)	67 (3.0)	430 (4.2)	2 (1.1)	~ ~	10.1 (0.11)
Lithuania	28 (3.4)	547 (4.3)	62 (3.5)	530 (3.8)	10 (1.6)	541 (8.9)	9.5 (0.12)
Bahrain	27 (1.5)	458 (3.8)	63 (2.4)	452 (2.0)	9 (1.8)	431 (5.6)	9.6 (0.10)
Russian Federation	27 (3.6)	576 (6.1)	58 (4.0)	563 (5.0)	15 (2.7)	545 (10.1)	9.3 (0.15)
Portugal	26 (3.4)	557 (5.5)	63 (3.6)	537 (3.5)	12 (2.1)	530 (7.1)	9.5 (0.14)
Oman	26 (2.8)	418 (6.2)	55 (3.4)	430 (3.9)	19 (2.5)	429 (6.3)	9.1 (0.14)
Cyprus	24 (3.2)	534 (3.7)	60 (3.4)	521 (3.3)	17 (2.4)	513 (5.9)	9.1 (0.14)
Canada	22 (2.0)	531 (3.7)	69 (2.1)	511 (2.0)	9 (1.4)	460 (12.7)	9.5 (0.10)
Iran, Islamic Rep. of	21 (2.9)	457 (10.5)	57 (4.1)	429 (5.3)	22 (2.9)	413 (9.1)	8.8 (0.12)
United States	21 (2.0)	564 (6.5)	70 (2.3)	536 (2.6)	9 (1.2)	498 (7.4)	9.3 (0.09)
Chinese Taipei	21 (3.3)	599 (4.3)	68 (3.9)	599 (2.2)	12 (2.8)	576 (6.5)	9.3 (0.15)
France	19 (2.8)	506 (5.4)	72 (3.0)	485 (3.5)	9 (2.3)	478 (7.0)	9.3 (0.14)
Chile	19 (3.3)	491 (7.2)	54 (4.6)	457 (3.9)	27 (3.8)	444 (6.6)	8.6 (0.17)
Kuwait	19 (3.7)	379 (9.5)	73 (3.9)	350 (5.8)	9 (1.5)	311 (5.3)	9.3 (0.13)
Slovenia	18 (2.8)	524 (4.2)	69 (3.3)	520 (2.3)	13 (2.4)	521 (4.2)	9.1 (0.12)
South Africa (5)	18 (2.5)	403 (14.1)	73 (3.1)	373 (4.5)	9 (2.1)	371 (17.9)	9.3 (0.14)
Saudi Arabia	14 (2.5)	423 (8.0)	77 (2.9)	377 (4.7)	9 (2.1)	368 (18.4)	9.2 (0.11)
Jordan	13 (2.7)	415 (13.8)	68 (3.4)	387 (4.2)	19 (3.2)	377 (10.4)	8.7 (0.14)
Turkey	13 (2.6)	510 (10.3)	70 (3.1)	483 (4.0)	17 (2.4)	464 (9.3)	8.7 (0.12)
Morocco	10 (1.8)	395 (13.5)	72 (2.7)	378 (4.9)	18 (2.3)	358 (5.7)	8.6 (0.10)
International Avg.	34 (0.5)	520 (0.9)	58 (0.5)	499 (0.6)	8 (0.3)	477 (1.7)	

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.

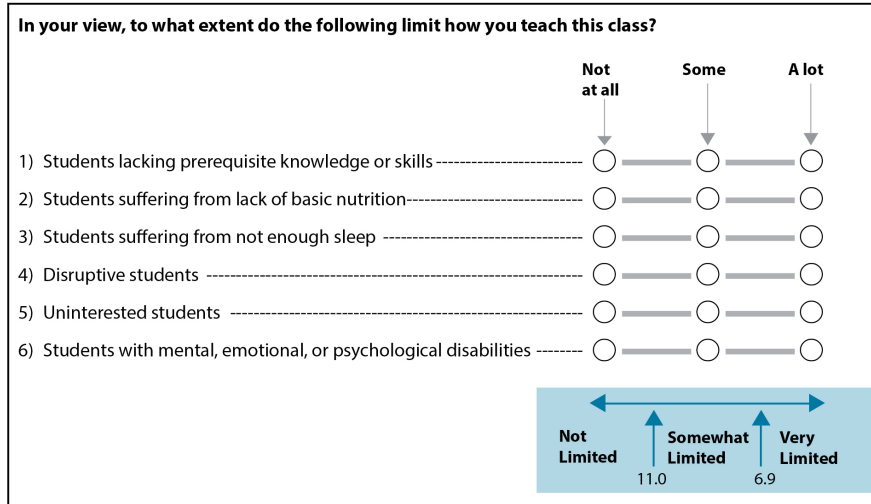
( ) Standard errors appear in parentheses. Because of rounding some results may appear inconsistent.

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 "x" indicates that data are available for less than 50% of students.

**Exhibit 9.9: Teaching Limited by Student Needs (Continued)**

Country	Not Limited		Somewhat Limited		Very Limited		Average Scale Score
	Percent of Students	Average Achievement	Percent of Students	Average Achievement	Percent of Students	Average Achievement	
<b>Benchmarking Participants</b>							
Norway (4)	47 (4.7)	502 (2.9)	49 (4.6)	490 (3.3)	3 (1.4)	468 (28.7)	10.6 (0.16)
Dubai, UAE	46 (3.2)	539 (4.5)	53 (3.2)	495 (3.6)	2 (0.4)	~ ~	10.7 (0.12)
Abu Dhabi, UAE	29 (4.3)	458 (13.6)	64 (4.6)	411 (8.0)	6 (1.9)	336 (10.3)	9.8 (0.16)
Ontario, Canada	23 (2.8)	529 (4.3)	68 (3.4)	512 (2.7)	9 (2.0)	485 (7.3)	9.5 (0.11)
Quebec, Canada	23 (4.6)	557 (5.4)	74 (4.7)	530 (4.1)	3 (1.5)	509 (11.2)	9.7 (0.17)
Florida, US	16 (5.1)	569 (12.6)	72 (4.6)	548 (5.6)	12 (3.7)	509 (12.1)	9.4 (0.28)
Buenos Aires, Argentina	x x	x x	x x	x x	x x	x x	x x



SOURCE: IEA's Trends in International Mathematics and Science Study – TIMSS 2015