

**Exhibit 9.10: 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 11.4, 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 7.4, 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	76 (3.1)	593 (2.6)	24 (3.1)	568 (4.1)	0 (0.0)	~ ~	12.5 (0.13)
Slovenia	53 (2.8)	528 (3.3)	43 (2.7)	503 (3.3)	3 (1.2)	510 (10.9)	11.3 (0.14)
Hungary	42 (3.5)	551 (4.7)	48 (3.5)	492 (5.1)	9 (2.3)	463 (17.3)	10.6 (0.15)
England	41 (4.0)	557 (7.0)	54 (4.1)	493 (6.4)	5 (1.6)	455 (14.5)	10.8 (0.17)
Kazakhstan	41 (4.2)	528 (8.0)	49 (3.9)	531 (7.6)	11 (2.5)	514 (16.4)	10.6 (0.21)
Ireland	41 (3.1)	546 (3.3)	53 (3.2)	514 (4.1)	6 (1.4)	449 (16.3)	10.7 (0.11)
Sweden	40 (3.7)	520 (3.8)	53 (3.7)	489 (3.9)	6 (2.1)	476 (9.2)	10.7 (0.18)
Singapore	38 (2.2)	646 (5.3)	58 (2.2)	606 (4.9)	4 (1.1)	576 (18.9)	10.7 (0.08)
Norway (9)	36 (4.2)	520 (4.2)	62 (4.2)	510 (2.9)	2 (1.0)	~ ~	10.7 (0.15)
United Arab Emirates	36 (2.0)	507 (4.8)	60 (2.1)	448 (3.5)	4 (0.9)	431 (18.8)	10.6 (0.08)
Hong Kong SAR	33 (4.4)	616 (5.9)	64 (4.7)	584 (6.7)	3 (1.5)	519 (52.0)	10.4 (0.14)
Malta	32 (0.1)	537 (1.9)	63 (0.1)	481 (1.4)	5 (0.1)	391 (4.8)	10.4 (0.01)
Lithuania	30 (3.8)	527 (7.9)	63 (4.0)	507 (3.2)	7 (1.8)	475 (9.6)	10.2 (0.14)
Israel	30 (2.6)	565 (6.3)	51 (3.5)	498 (6.7)	19 (2.2)	467 (11.3)	9.8 (0.11)
Qatar	29 (3.9)	498 (8.8)	59 (4.1)	419 (5.0)	11 (2.0)	392 (8.1)	10.2 (0.13)
Canada	29 (2.8)	552 (4.3)	63 (3.0)	524 (3.1)	8 (1.8)	500 (8.4)	10.2 (0.11)
New Zealand	29 (2.5)	540 (5.2)	67 (2.4)	477 (4.9)	5 (1.0)	433 (16.9)	10.3 (0.12)
Malaysia	29 (3.4)	506 (7.7)	60 (4.1)	458 (5.1)	12 (2.5)	413 (10.7)	9.9 (0.14)
Australia	28 (2.3)	563 (5.7)	64 (2.3)	493 (3.4)	8 (1.4)	458 (9.2)	10.3 (0.10)
Lebanon	27 (3.6)	436 (7.0)	68 (3.7)	442 (5.1)	5 (1.7)	466 (17.0)	10.2 (0.17)
Russian Federation	26 (4.2)	545 (7.8)	62 (4.4)	538 (5.8)	12 (2.3)	519 (8.9)	10.0 (0.18)
Korea, Rep. of	24 (3.2)	620 (6.3)	67 (3.2)	603 (2.8)	8 (2.2)	583 (9.7)	9.9 (0.16)
United States	23 (2.6)	553 (6.7)	68 (2.7)	512 (3.8)	8 (1.7)	471 (10.1)	9.9 (0.12)
Chinese Taipei	23 (3.4)	629 (8.0)	63 (3.9)	596 (2.8)	14 (2.5)	567 (10.2)	9.7 (0.15)
Italy	22 (3.4)	509 (5.2)	69 (3.6)	490 (3.2)	9 (2.3)	486 (11.7)	9.9 (0.14)
Oman	21 (2.8)	426 (6.9)	56 (3.4)	399 (3.5)	24 (2.6)	394 (5.8)	9.2 (0.12)
Georgia	20 (3.4)	460 (7.7)	75 (3.6)	454 (3.8)	5 (1.7)	415 (9.2)	9.8 (0.12)
Bahrain	18 (3.9)	481 (7.5)	68 (4.5)	450 (2.7)	14 (2.7)	446 (5.1)	9.6 (0.13)
Thailand	17 (3.1)	481 (14.0)	78 (3.6)	422 (4.4)	5 (1.8)	408 (23.5)	9.9 (0.12)
Kuwait	15 (3.2)	437 (16.8)	71 (3.8)	387 (6.3)	15 (2.7)	374 (6.9)	9.4 (0.14)
Botswana (9)	14 (3.3)	398 (7.3)	72 (3.9)	392 (2.6)	14 (3.3)	380 (7.9)	9.3 (0.15)
South Africa (9)	14 (2.8)	371 (16.1)	70 (3.8)	376 (5.5)	17 (2.8)	356 (9.9)	9.2 (0.13)
Chile	12 (2.8)	487 (9.9)	63 (4.4)	429 (5.0)	25 (4.1)	399 (6.2)	8.9 (0.18)
Jordan	11 (2.3)	404 (9.5)	70 (3.6)	389 (4.1)	19 (3.0)	367 (7.4)	9.1 (0.11)
Saudi Arabia	9 (2.4)	425 (18.8)	80 (3.7)	365 (4.4)	11 (3.2)	336 (11.8)	9.1 (0.13)
Egypt	8 (1.6)	409 (18.6)	76 (3.2)	393 (4.6)	17 (3.0)	378 (9.1)	9.1 (0.11)
Iran, Islamic Rep. of	7 (1.6)	504 (18.5)	62 (3.1)	436 (5.0)	31 (2.9)	425 (6.5)	8.5 (0.12)
Morocco	6 (1.5)	394 (12.7)	63 (3.2)	384 (2.8)	31 (3.0)	383 (4.2)	8.5 (0.09)
Turkey	5 (1.4)	527 (17.8)	70 (2.8)	462 (5.6)	25 (2.8)	433 (7.7)	8.7 (0.11)
International Avg.	27 (0.5)	510 (1.5)	62 (0.6)	475 (0.7)	11 (0.4)	446 (2.4)	

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 9.10: 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>							
Dubai, UAE	54 (3.3)	536 (3.7)	43 (2.6)	485 (4.9)	3 (1.9)	512 (17.5)	11.2 (0.16)
Quebec, Canada	40 (4.6)	571 (6.1)	53 (5.2)	535 (4.3)	7 (2.8)	531 (12.7)	10.6 (0.18)
Norway (8)	36 (3.8)	503 (3.4)	61 (3.8)	479 (2.2)	3 (1.2)	465 (16.7)	10.6 (0.14)
Abu Dhabi, UAE	r 28 (4.5)	483 (15.5)	66 (4.9)	432 (7.5)	7 (2.2)	404 (11.2)	10.3 (0.16)
Ontario, Canada	r 23 (3.1)	541 (4.9)	68 (3.5)	523 (3.9)	9 (2.6)	484 (8.0)	10.0 (0.14)
Florida, US	r 15 (5.6)	572 (18.7)	61 (6.4)	503 (8.8)	24 (4.2)	456 (12.4)	9.1 (0.32)
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

