

### Exhibit 9.13: 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	73 (3.7)	571 (2.0)	27 (3.7)	563 (2.9)	0 (0.0)	~ ~	12.0 (0.14)
Czech Republic	60 (3.7)	540 (3.0)	40 (3.7)	526 (3.4)	0 (0.0)	~ ~	11.1 (0.11)
Indonesia	58 (3.3)	403 (6.7)	41 (3.3)	388 (8.6)	0 (0.2)	~ ~	10.9 (0.09)
Poland	55 (3.8)	551 (3.2)	44 (3.7)	542 (3.2)	1 (0.7)	~ ~	11.0 (0.13)
Slovak Republic	54 (3.2)	535 (3.5)	40 (3.2)	505 (4.8)	6 (1.7)	484 (17.9)	10.8 (0.14)
Serbia	51 (4.0)	527 (4.5)	45 (4.1)	520 (6.7)	4 (1.6)	538 (9.8)	10.6 (0.15)
Norway (5)	r 51 (4.4)	544 (3.4)	45 (4.6)	534 (2.8)	5 (1.7)	520 (10.4)	10.7 (0.17)
Belgium (Flemish)	49 (3.4)	521 (3.2)	49 (3.4)	503 (3.2)	2 (0.7)	~ ~	10.6 (0.11)
Singapore	48 (2.7)	614 (4.7)	49 (2.6)	572 (5.2)	3 (0.9)	532 (31.8)	10.6 (0.11)
Ireland	48 (3.8)	541 (3.1)	48 (3.8)	520 (3.1)	4 (1.6)	491 (8.3)	10.7 (0.14)
Kazakhstan	47 (3.5)	562 (6.0)	45 (4.0)	538 (6.5)	8 (2.1)	543 (16.1)	10.3 (0.15)
Spain	46 (3.5)	528 (2.4)	50 (3.8)	512 (4.4)	4 (1.5)	477 (8.1)	10.4 (0.14)
Hong Kong SAR	45 (4.6)	567 (5.3)	53 (4.6)	549 (4.6)	2 (1.0)	~ ~	10.7 (0.15)
Sweden	44 (3.9)	556 (4.4)	51 (3.9)	526 (5.4)	5 (1.7)	546 (12.6)	10.3 (0.17)
Bulgaria	43 (3.7)	552 (5.8)	53 (3.4)	524 (9.5)	4 (1.4)	519 (20.2)	10.5 (0.12)
Northern Ireland	r 43 (4.5)	535 (2.9)	55 (4.6)	511 (3.4)	2 (1.1)	~ ~	10.5 (0.16)
Finland	43 (3.1)	564 (2.6)	55 (3.1)	548 (2.9)	2 (0.9)	~ ~	10.5 (0.11)
Korea, Rep. of	42 (4.1)	592 (3.1)	51 (4.0)	586 (2.5)	7 (1.8)	598 (7.3)	10.3 (0.18)
Hungary	41 (4.1)	557 (6.0)	56 (4.1)	535 (4.6)	3 (1.0)	469 (25.2)	10.5 (0.16)
United Arab Emirates	39 (2.4)	488 (5.9)	57 (2.5)	438 (4.8)	4 (0.7)	356 (14.0)	10.3 (0.08)
Croatia	39 (3.7)	536 (3.3)	56 (3.6)	533 (2.7)	5 (1.8)	520 (6.6)	10.2 (0.16)
Chinese Taipei	39 (3.7)	554 (3.4)	55 (4.1)	557 (2.5)	6 (1.9)	551 (5.2)	10.2 (0.16)
Germany	39 (3.6)	541 (3.2)	55 (3.6)	523 (3.4)	6 (1.6)	483 (9.8)	10.1 (0.12)
Georgia	38 (3.7)	468 (7.2)	61 (3.8)	442 (4.6)	1 (0.6)	~ ~	10.3 (0.14)
Australia	38 (3.4)	544 (4.4)	57 (3.5)	517 (3.3)	5 (1.6)	495 (12.9)	10.1 (0.13)
Bahrain	36 (1.7)	471 (4.4)	55 (1.5)	454 (2.9)	9 (1.5)	443 (7.7)	9.9 (0.06)
England	r 35 (4.3)	552 (5.3)	60 (4.2)	532 (4.0)	4 (1.7)	506 (4.4)	10.3 (0.18)
New Zealand	34 (2.6)	533 (3.5)	60 (2.8)	495 (3.7)	6 (1.4)	460 (12.1)	10.0 (0.10)
Netherlands	r 34 (4.7)	531 (4.0)	62 (5.1)	511 (3.4)	4 (1.8)	501 (14.2)	10.0 (0.14)
Italy	33 (3.2)	522 (5.2)	56 (3.8)	513 (2.8)	11 (2.5)	514 (6.8)	9.8 (0.14)
Qatar	33 (3.3)	462 (8.3)	63 (3.3)	429 (5.3)	4 (1.6)	381 (24.1)	10.1 (0.12)
Denmark	30 (3.5)	537 (4.5)	61 (3.3)	522 (3.0)	9 (2.1)	520 (9.4)	9.7 (0.14)
Lithuania	28 (3.4)	537 (4.3)	62 (3.5)	523 (3.6)	10 (1.6)	532 (8.4)	9.5 (0.12)
Kuwait	28 (2.8)	365 (15.1)	67 (2.7)	331 (6.5)	5 (1.2)	285 (16.1)	9.6 (0.12)
Russian Federation	27 (3.7)	579 (5.1)	58 (4.0)	567 (4.9)	15 (2.7)	548 (9.0)	9.3 (0.15)
Portugal	26 (3.4)	519 (4.1)	63 (3.6)	505 (2.9)	12 (2.1)	501 (4.9)	9.5 (0.14)
Oman	24 (2.4)	438 (7.7)	57 (3.4)	427 (4.4)	19 (2.4)	437 (8.5)	9.1 (0.11)
United States	24 (2.2)	569 (6.2)	67 (2.5)	544 (2.8)	9 (1.4)	500 (6.5)	9.4 (0.10)
Cyprus	23 (3.0)	486 (4.6)	61 (3.7)	481 (3.0)	16 (3.3)	477 (8.1)	9.1 (0.16)
Canada	22 (2.0)	541 (3.3)	68 (2.3)	524 (2.7)	9 (1.6)	488 (12.7)	9.5 (0.10)
Iran, Islamic Rep. of	21 (2.9)	447 (8.9)	57 (4.1)	419 (6.3)	22 (2.9)	401 (10.6)	8.8 (0.12)
France	21 (2.7)	509 (4.8)	68 (3.1)	484 (3.5)	11 (2.5)	477 (6.3)	9.3 (0.14)
Slovenia	18 (2.8)	547 (4.6)	69 (3.3)	542 (2.9)	13 (2.4)	544 (5.1)	9.1 (0.12)
Saudi Arabia	17 (2.7)	422 (10.6)	73 (3.5)	387 (5.7)	10 (2.4)	362 (18.6)	9.2 (0.14)
Chile	17 (3.1)	515 (6.9)	57 (4.2)	477 (4.1)	25 (3.6)	456 (6.7)	8.7 (0.16)
Turkey	13 (2.6)	510 (9.6)	70 (3.1)	482 (4.1)	17 (2.4)	468 (8.6)	8.7 (0.12)
Morocco	13 (1.7)	406 (10.3)	70 (2.3)	349 (6.2)	17 (2.0)	329 (9.3)	8.8 (0.09)
International Avg.	37 (0.5)	521 (0.8)	56 (0.5)	500 (0.7)	7 (0.3)	480 (2.1)	

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 data are available for less than 50% of students.

Exhibit 9.13: 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	53 (2.2)	544 (3.0)	47 (2.2)	499 (4.5)	0 (0.2)	~ ~	10.8 (0.08)
Norway (4)	47 (4.3)	499 (3.0)	48 (4.2)	490 (2.9)	4 (1.7)	462 (19.8)	10.5 (0.16)
Abu Dhabi, UAE	32 (4.2)	455 (13.9)	62 (4.5)	404 (9.7)	6 (2.0)	333 (26.0)	9.9 (0.16)
Quebec, Canada	24 (4.6)	543 (5.9)	74 (4.6)	518 (4.5)	2 (1.1)	~ ~	9.7 (0.16)
Ontario, Canada	23 (2.6)	543 (4.4)	67 (3.6)	530 (3.3)	10 (2.3)	512 (9.3)	9.5 (0.10)
Florida, US	12 (3.7)	566 (15.4)	75 (4.5)	552 (5.6)	12 (3.8)	524 (13.4)	9.2 (0.21)
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

