

Exhibit 10.7: Students Value Mathematics

Reported by Students

Students were scored according to their degree of agreement with nine statements on the *Students Value Mathematics* scale. Students who **Strongly Value Mathematics** had a score on the scale of at least 10.3, which corresponds to their “agreeing a lot” with five of the nine statements and “agreeing a little” with the other four, on average. Students who **Do Not Value Mathematics** had a score no higher than 7.7, which corresponds to their “disagreeing a little” with five of the nine statements and “agreeing a little” with the other four, on average. All other students **Value Mathematics**.

Country	Strongly Value Mathematics		Value Mathematics		Do Not Value Mathematics		Average Scale Score	Difference in Average Scale Score from 2011
	Percent of Students	Average Achievement	Percent of Students	Average Achievement	Percent of Students	Average Achievement		
South Africa (9)	72 (0.8)	382 (4.6)	24 (0.7)	360 (5.7)	4 (0.3)	329 (7.5)	11.1 (0.04)	-0.1 (0.05)
Botswana (9)	72 (0.8)	411 (1.9)	25 (0.7)	359 (3.4)	3 (0.3)	312 (6.9)	11.2 (0.04)	0.1 (0.05)
Morocco	68 (0.8)	395 (2.4)	27 (0.7)	368 (2.8)	5 (0.3)	349 (4.9)	11.1 (0.04)	-0.4 (0.05) ▼
Jordan	65 (0.9)	399 (3.3)	29 (0.8)	372 (3.8)	6 (0.4)	350 (7.2)	11.0 (0.04)	0.0 (0.06)
Egypt	61 (1.2)	409 (4.0)	32 (1.0)	374 (4.7)	7 (0.5)	365 (8.1)	10.8 (0.06)	◊ ◊
Oman	59 (0.9)	421 (2.6)	35 (0.7)	384 (2.8)	6 (0.4)	359 (6.3)	10.7 (0.04)	-0.2 (0.05) ▼
Israel	58 (1.0)	524 (4.4)	34 (0.8)	505 (4.3)	8 (0.5)	462 (7.1)	10.5 (0.05)	-0.1 (0.06)
Lebanon	58 (1.4)	453 (3.9)	34 (1.1)	438 (4.7)	9 (0.6)	425 (7.0)	10.7 (0.07)	0.3 (0.09) ●
Iran, Islamic Rep. of	53 (1.0)	446 (5.3)	38 (0.9)	431 (4.6)	9 (0.5)	407 (6.4)	10.4 (0.04)	0.0 (0.06)
Canada	51 (0.8)	540 (2.2)	42 (0.6)	522 (2.3)	7 (0.5)	483 (3.7)	10.3 (0.03)	◊ ◊
Thailand	50 (1.2)	446 (5.3)	45 (1.1)	421 (4.9)	5 (0.4)	390 (6.9)	10.3 (0.04)	0.1 (0.06)
Turkey	47 (1.1)	472 (5.4)	41 (0.8)	449 (5.1)	12 (0.6)	436 (6.0)	10.1 (0.05)	0.1 (0.07)
England	46 (1.1)	526 (4.4)	46 (0.9)	518 (4.5)	8 (0.6)	490 (6.5)	10.1 (0.05)	0.0 (0.06)
Kuwait	46 (1.4)	405 (5.7)	42 (1.1)	388 (5.1)	12 (0.8)	366 (6.2)	10.0 (0.06)	◊ ◊
Chile	46 (1.0)	436 (3.6)	42 (0.9)	424 (3.6)	12 (0.8)	412 (5.2)	10.0 (0.04)	-0.3 (0.05) ▼
Qatar	45 (1.0)	465 (3.5)	41 (0.8)	429 (3.3)	13 (0.6)	386 (5.4)	10.0 (0.04)	-0.1 (0.07)
United Arab Emirates	45 (0.8)	487 (2.7)	45 (0.6)	456 (2.3)	11 (0.4)	420 (3.9)	10.0 (0.04)	-0.3 (0.05) ▼
Georgia	44 (1.1)	466 (4.2)	46 (1.0)	451 (3.6)	9 (0.7)	423 (6.8)	10.1 (0.05)	-0.5 (0.06) ▼
United States	44 (0.8)	531 (3.6)	45 (0.6)	516 (3.1)	11 (0.4)	488 (3.8)	10.0 (0.03)	-0.2 (0.04) ▼
Malta	44 (0.7)	509 (2.2)	45 (0.8)	492 (1.8)	11 (0.5)	458 (4.6)	10.0 (0.03)	◊ ◊
Australia	43 (0.9)	524 (3.1)	46 (0.8)	501 (3.3)	12 (0.7)	464 (3.9)	9.9 (0.04)	-0.1 (0.06)
Saudi Arabia	42 (1.4)	379 (5.4)	42 (1.0)	369 (4.8)	15 (0.9)	344 (7.2)	9.8 (0.07)	-0.3 (0.09) ▼
New Zealand	42 (0.8)	505 (4.1)	48 (0.8)	491 (3.2)	10 (0.4)	458 (5.3)	9.9 (0.03)	-0.1 (0.05)
Bahrain	41 (0.9)	473 (2.4)	43 (0.9)	450 (2.6)	16 (0.9)	424 (4.6)	9.8 (0.05)	-0.2 (0.07) ▼
Ireland	41 (0.9)	534 (3.3)	48 (0.8)	520 (3.1)	11 (0.5)	501 (4.6)	9.8 (0.04)	◊ ◊
Norway (9)	41 (1.0)	527 (2.7)	48 (0.9)	509 (2.5)	12 (0.5)	476 (3.7)	9.8 (0.04)	◊ ◊
Kazakhstan	40 (1.2)	538 (5.7)	52 (0.9)	522 (5.8)	8 (0.5)	523 (6.9)	10.0 (0.05)	-0.3 (0.07) ▼
Malaysia	39 (0.9)	487 (3.5)	53 (0.7)	458 (4.0)	8 (0.7)	425 (6.2)	9.8 (0.04)	-0.2 (0.07) ▼
Lithuania	37 (1.1)	523 (4.5)	53 (0.9)	507 (2.7)	11 (0.6)	490 (4.8)	9.7 (0.04)	-0.3 (0.05) ▼
Singapore	34 (0.8)	629 (3.5)	58 (0.7)	621 (3.4)	8 (0.4)	590 (5.8)	9.7 (0.03)	-0.3 (0.04) ▼
Russian Federation	31 (1.2)	547 (6.4)	52 (1.1)	538 (4.8)	17 (0.7)	522 (5.2)	9.4 (0.05)	-0.4 (0.07) ▼
Hungary	28 (0.9)	537 (6.2)	54 (0.9)	511 (3.6)	19 (0.9)	492 (5.0)	9.3 (0.05)	-0.2 (0.06) ▼
Sweden	28 (1.2)	518 (3.8)	58 (1.2)	501 (2.9)	14 (0.8)	471 (4.5)	9.4 (0.05)	-0.1 (0.06)
Italy	19 (0.8)	513 (3.8)	57 (0.9)	496 (3.0)	24 (0.8)	477 (3.4)	8.9 (0.03)	-0.1 (0.05)
Slovenia	19 (0.8)	532 (4.5)	64 (1.0)	516 (2.3)	17 (0.8)	499 (2.9)	9.0 (0.03)	-0.2 (0.05) ▼
Hong Kong SAR	19 (0.8)	617 (5.4)	52 (1.0)	602 (4.3)	29 (1.0)	567 (5.6)	8.7 (0.05)	-0.5 (0.06) ▼
Korea, Rep. of	13 (0.6)	656 (4.4)	63 (0.9)	614 (2.8)	24 (0.8)	557 (3.7)	8.6 (0.04)	0.0 (0.05)
Japan	11 (0.6)	614 (4.4)	59 (0.7)	595 (2.5)	29 (0.9)	560 (3.6)	8.5 (0.03)	0.0 (0.05)
Chinese Taipei	10 (0.5)	650 (4.8)	49 (0.9)	621 (2.8)	41 (1.0)	561 (2.8)	8.1 (0.04)	-0.1 (0.06)
International Avg.	42 (0.2)	498 (0.7)	45 (0.1)	477 (0.6)	13 (0.1)	449 (0.9)		

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

This TIMSS questionnaire scale was established in 2011 based on the combined response distribution of all countries that participated in TIMSS 2011. 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 diamond (◊) indicates the country did not participate in the 2011 assessment.

Significantly higher than 2011 ●
Significantly lower than 2011 ▼

Exhibit 10.7: Students Value Mathematics (Continued)

Country	Strongly Value Mathematics		Value Mathematics		Do Not Value Mathematics		Average Scale Score	Difference in Average Scale Score from 2011
	Percent of Students	Average Achievement	Percent of Students	Average Achievement	Percent of Students	Average Achievement		
Benchmarking Participants								
Ontario, Canada	57 (1.0)	536 (2.6)	37 (0.8)	512 (3.0)	6 (0.4)	477 (4.8)	10.5 (0.04)	0.2 (0.06)
Norway (8)	49 (1.0)	497 (2.5)	44 (1.0)	484 (2.1)	8 (0.4)	452 (4.3)	10.2 (0.04)	0.3 (0.06) ▲
Dubai, UAE	48 (1.0)	530 (2.7)	41 (0.9)	504 (3.0)	10 (0.5)	462 (4.5)	10.2 (0.04)	0.0 (0.06)
Abu Dhabi, UAE	43 (1.4)	464 (5.7)	46 (1.2)	435 (5.5)	11 (0.8)	399 (8.3)	10.0 (0.07)	-0.3 (0.08) ▼
Buenos Aires, Argentina	41 (1.3)	401 (5.4)	46 (0.9)	395 (5.1)	13 (0.9)	394 (5.9)	9.8 (0.05)	◊ ◊
Quebec, Canada	40 (1.3)	559 (3.8)	53 (1.0)	541 (3.7)	7 (0.9)	503 (7.8)	9.9 (0.06)	-0.1 (0.07)
Florida, US	37 (1.2)	500 (8.3)	48 (1.1)	495 (6.4)	15 (1.0)	485 (7.3)	9.7 (0.06)	-0.3 (0.09) ▼

Significantly higher than 2011 ▲
Significantly lower than 2011 ▼

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

