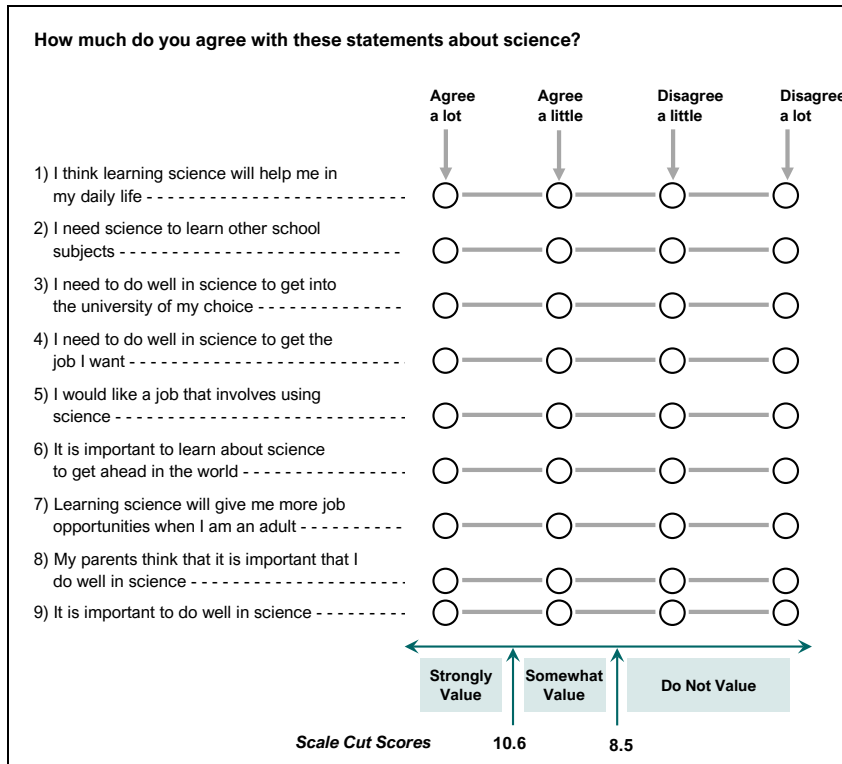


Exhibit 11.15: Students Value Science

Students' Reports

About the Scale

Students were scored according to their responses to nine statements on the *Students Value Science* scale. Cut scores divide the scale into three categories. Students who **Strongly Value Science** had a score at or above the cut score corresponding to “agreeing a lot” with five of the nine statements and “agreeing a little” with the other four, on average. Students who **Do Not Value Science** had a score at or below the cut score corresponding to “disagreeing a little” with five of the nine statements and “agreeing a little” with the other four, on average. All other students **Somewhat Value Science**.



SOURCE: IEA's Trends in International Mathematics and Science Study - TIMSS 2019
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Exhibit 11.16: Students Value Science

Students' Reports

Country	Strongly Value Science		Somewhat Value Science		Do Not Value Science		Average Scale Score
	Percent of Students	Average Achievement	Percent of Students	Average Achievement	Percent of Students	Average Achievement	
Egypt	67 (1.1)	412 (5.2)	26 (0.9)	362 (6.7)	7 (0.5)	344 (7.8)	11.3 (0.05)
Jordan	64 (1.2)	468 (4.4)	29 (0.9)	438 (4.8)	7 (0.5)	418 (8.6)	11.2 (0.05)
Oman	57 (0.9)	483 (3.0)	35 (0.8)	440 (3.7)	8 (0.6)	409 (7.9)	10.8 (0.04)
Iran, Islamic Rep. of	57 (1.2)	462 (4.3)	33 (1.0)	434 (3.8)	11 (0.6)	436 (7.3)	10.8 (0.05)
United Arab Emirates	55 (0.7)	501 (2.6)	34 (0.6)	453 (2.8)	11 (0.3)	417 (4.4)	10.7 (0.02)
Saudi Arabia	55 (1.3)	442 (3.3)	34 (0.9)	427 (3.4)	11 (0.7)	414 (4.5)	10.7 (0.06)
Kuwait	54 (1.2)	460 (5.5)	34 (1.1)	439 (5.9)	12 (0.7)	419 (7.3)	10.7 (0.05)
South Africa (9)	54 (0.7)	380 (3.5)	34 (0.5)	353 (3.1)	12 (0.4)	387 (4.4)	10.6 (0.03)
Bahrain	51 (0.9)	507 (1.8)	36 (0.7)	479 (3.5)	13 (0.6)	445 (5.9)	10.5 (0.04)
Morocco	49 (0.9)	409 (2.7)	39 (0.7)	383 (3.2)	12 (0.6)	386 (4.0)	10.5 (0.03)
Qatar	49 (1.0)	495 (5.4)	37 (0.8)	467 (5.0)	15 (0.9)	436 (5.8)	10.4 (0.05)
Lebanon	49 (1.1)	404 (5.3)	39 (0.9)	360 (5.0)	12 (0.6)	350 (9.2)	10.5 (0.04)
Turkey	46 (1.2)	529 (4.1)	38 (0.8)	506 (4.4)	15 (0.9)	499 (5.8)	10.3 (0.05)
Malaysia	45 (1.2)	492 (3.0)	46 (0.9)	445 (4.2)	9 (0.7)	384 (6.9)	10.4 (0.04)
Georgia	43 (1.2)	457 (4.2)	43 (1.1)	445 (4.3)	14 (0.9)	430 (5.6)	10.3 (0.05)
Singapore	42 (1.0)	632 (3.5)	48 (0.8)	598 (4.1)	11 (0.6)	557 (6.3)	10.3 (0.03)
United States	36 (0.9)	540 (5.9)	43 (0.7)	526 (4.7)	21 (0.6)	503 (4.3)	9.9 (0.03)
Israel	36 (1.3)	531 (5.2)	36 (0.9)	518 (4.7)	29 (1.2)	498 (5.6)	9.7 (0.06)
England	33 (1.1)	540 (5.3)	45 (1.1)	523 (5.6)	22 (1.0)	491 (5.5)	9.8 (0.05)
Cyprus	33 (1.0)	510 (2.9)	43 (1.2)	485 (2.5)	24 (0.9)	458 (3.4)	9.7 (0.04)
Russian Federation	32 (1.0)	548 (4.8)	50 (0.8)	540 (4.7)	18 (0.9)	545 (4.5)	9.9 (0.04)
Romania	31 (1.3)	487 (5.3)	41 (1.1)	468 (4.6)	28 (1.2)	462 (4.5)	9.6 (0.06)
Kazakhstan	30 (1.0)	487 (4.0)	51 (0.9)	477 (3.4)	19 (0.8)	471 (5.1)	9.9 (0.04)
Australia	28 (0.9)	561 (4.1)	42 (0.6)	530 (3.5)	29 (0.8)	501 (3.1)	9.5 (0.04)
Portugal	27 (1.1)	542 (4.2)	44 (1.1)	517 (3.4)	28 (1.1)	503 (3.0)	9.6 (0.05)
Lithuania	27 (1.0)	549 (4.3)	51 (1.1)	531 (3.4)	21 (0.8)	526 (4.0)	9.7 (0.03)
New Zealand	26 (0.9)	520 (5.0)	47 (0.8)	503 (3.9)	28 (1.0)	479 (4.2)	9.5 (0.04)
Chile	25 (0.9)	471 (3.8)	48 (0.8)	462 (3.4)	27 (1.0)	459 (3.9)	9.5 (0.04)
Ireland	25 (1.0)	555 (3.9)	42 (1.1)	534 (2.8)	33 (1.1)	500 (3.7)	9.3 (0.05)
Hong Kong SAR	23 (0.9)	526 (7.6)	49 (1.1)	509 (5.5)	29 (1.1)	478 (6.4)	9.4 (0.05)
Norway (9)	21 (0.9)	516 (5.4)	48 (0.9)	501 (3.1)	31 (1.1)	478 (4.4)	9.3 (0.04)
Hungary	21 (1.1)	553 (4.8)	47 (0.9)	527 (3.5)	33 (1.1)	519 (3.0)	9.3 (0.05)
Sweden	20 (0.9)	541 (5.7)	48 (1.1)	527 (3.9)	32 (1.0)	510 (3.6)	9.3 (0.03)
Italy	19 (0.8)	515 (4.0)	45 (1.0)	506 (2.9)	35 (1.1)	487 (2.9)	9.2 (0.04)
France	19 (0.8)	516 (4.5)	47 (0.9)	496 (3.2)	34 (1.1)	465 (2.7)	9.2 (0.04)
Finland	18 (0.9)	586 (4.3)	48 (0.9)	550 (3.2)	35 (1.1)	514 (3.0)	9.1 (0.04)
Korea, Rep. of	16 (0.7)	611 (4.2)	50 (0.9)	573 (2.6)	34 (1.1)	519 (2.7)	9.1 (0.04)
Chinese Taipei	14 (0.7)	609 (4.4)	41 (0.8)	589 (2.5)	45 (1.0)	551 (2.4)	8.9 (0.04)
Japan	11 (0.6)	598 (4.9)	48 (1.0)	581 (2.5)	41 (1.1)	550 (2.5)	8.8 (0.04)
International Average	36 (0.2)	511 (0.7)	42 (0.1)	487 (0.6)	22 (0.1)	467 (0.8)	
Benchmarking Participants							
Dubai, UAE	56 (1.0)	563 (2.6)	34 (0.9)	535 (3.2)	10 (0.5)	505 (6.1)	10.8 (0.04)
Gauteng, RSA (9)	53 (1.2)	424 (4.1)	31 (0.7)	411 (4.6)	15 (0.8)	448 (6.3)	10.5 (0.05)
Abu Dhabi, UAE	49 (1.1)	461 (4.1)	38 (0.9)	396 (4.4)	13 (0.7)	358 (7.3)	10.5 (0.05)
Western Cape, RSA (9)	42 (1.2)	446 (6.4)	38 (0.8)	432 (5.7)	19 (0.9)	456 (5.7)	10.1 (0.05)
Ontario, Canada	38 (1.0)	540 (4.5)	43 (1.0)	519 (3.3)	19 (1.1)	495 (4.9)	10.0 (0.04)
Quebec, Canada	32 (1.3)	558 (4.0)	45 (1.0)	538 (3.6)	24 (1.3)	508 (4.9)	9.7 (0.06)
Moscow City, Russian Fed.	24 (1.0)	570 (3.7)	46 (0.9)	565 (3.7)	30 (1.1)	567 (3.6)	9.4 (0.05)

This TIMSS context 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.

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