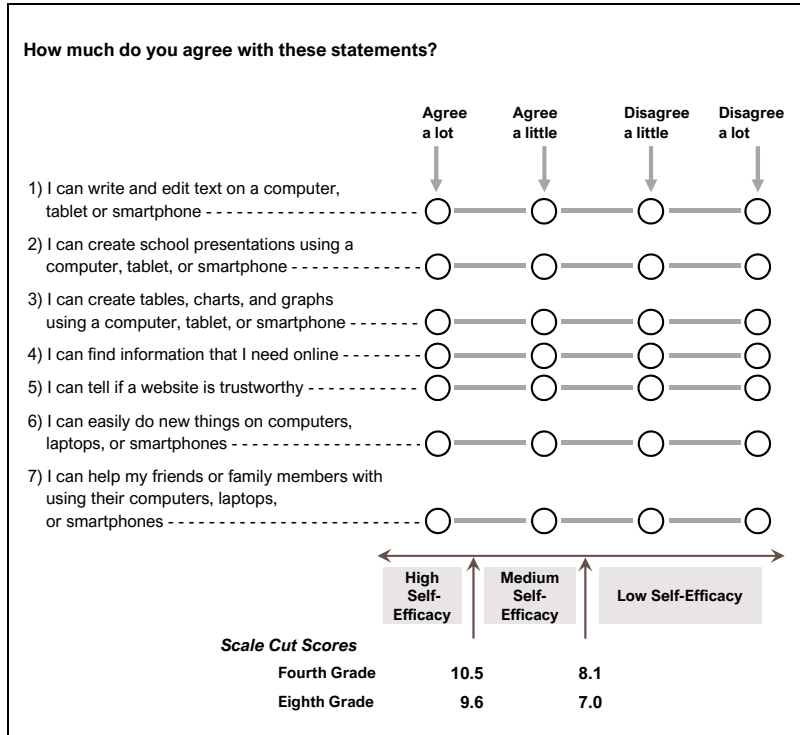


Exhibit 6.4.1: Students' Digital Self-Efficacy

About the Scale

Students were scored according to their responses to seven statements on the *Digital Self-Efficacy* scale. Cut scores divide the scale into three categories. Students with **High Digital Self-Efficacy** had a score at or above the cut score corresponding to “agreeing a lot” with four of the seven statements and “agreeing a little” with the other three, on average. Students with **Low Digital Self-Efficacy** had a score at or below the cut score corresponding to “disagreeing a little” with four of the seven statements and “agreeing a little” with the other three, on average. All other students had **Medium Digital Self-Efficacy**.



SOURCE: IEA's Trends in International Mathematics and Science Study - TIMSS 2023  
 Downloaded from <https://timss2023.org/results>

## Exhibit 6.4.2: Students' Digital Self-Efficacy

Country	High Digital Self-Efficacy		Medium Digital Self-Efficacy		Low Digital Self-Efficacy		Average Scale Score
	Percent of Students	Average Achievement	Percent of Students	Average Achievement	Percent of Students	Average Achievement	
Albania	34 (1.7)	520 (6.6)	52 (1.9)	513 (5.3)	14 (1.4)	509 (9.2)	9.9 (0.06)
Armenia	22 (0.9)	507 (4.6)	49 (1.0)	521 (2.6)	29 (1.0)	520 (3.8)	9.1 (0.05)
Australia	46 (1.1)	551 (2.8)	45 (0.9)	516 (3.2)	9 (0.6)	466 (6.8)	10.4 (0.05)
Azerbaijan	23 (0.9)	522 (4.4)	53 (1.0)	503 (3.4)	23 (1.0)	480 (4.4)	9.3 (0.05)
Bahrain	41 (1.1)	478 (5.0)	47 (1.0)	460 (4.1)	12 (0.8)	434 (7.4)	10.2 (0.05)
Belgium (Flemish)	36 (1.1)	529 (2.7)	54 (0.9)	521 (2.4)	11 (0.8)	510 (5.6)	10.0 (0.05)
Belgium (French)	24 (0.8)	501 (3.3)	55 (0.8)	489 (2.6)	21 (0.7)	484 (3.6)	9.4 (0.03)
Bosnia & Herzegovina	34 (1.1)	453 (3.9)	57 (1.2)	456 (3.6)	9 (0.7)	421 (6.3)	10.0 (0.03)
Brazil	29 (0.9)	427 (5.7)	50 (0.9)	410 (3.5)	22 (0.8)	389 (3.7)	9.4 (0.04)
Bulgaria	39 (1.4)	558 (3.5)	45 (1.3)	529 (4.1)	16 (1.4)	468 (12.4)	9.9 (0.08)
Canada	46 (0.8)	522 (2.1)	45 (0.6)	498 (2.3)	8 (0.4)	465 (4.3)	10.4 (0.03)
Chile	43 (1.0)	455 (2.8)	44 (1.0)	446 (3.4)	13 (0.6)	415 (4.7)	10.3 (0.04)
Chinese Taipei	58 (0.9)	611 (1.7)	36 (0.9)	604 (2.6)	6 (0.4)	596 (5.5)	11.1 (0.04)
Cyprus	33 (1.1)	529 (2.6)	50 (0.9)	516 (2.8)	17 (0.8)	496 (4.7)	9.8 (0.05)
Czech Republic	25 (0.8)	536 (3.3)	59 (0.7)	534 (2.2)	16 (0.6)	518 (3.6)	9.5 (0.03)
Denmark	43 (1.1)	539 (2.7)	50 (1.0)	519 (2.3)	7 (0.5)	481 (4.4)	10.2 (0.04)
England	50 (1.1)	574 (3.2)	44 (1.0)	540 (3.1)	7 (0.5)	501 (7.0)	10.5 (0.04)
Finland	53 (0.9)	536 (2.6)	42 (0.9)	528 (2.7)	4 (0.4)	484 (7.4)	10.8 (0.03)
France	23 (0.8)	489 (3.3)	57 (0.9)	487 (3.6)	20 (0.9)	480 (4.4)	9.4 (0.04)
Georgia	38 (1.3)	511 (3.3)	53 (1.2)	502 (3.4)	9 (0.6)	477 (7.4)	10.1 (0.05)
Germany	31 (1.0)	533 (3.0)	49 (0.8)	526 (2.3)	20 (0.8)	515 (4.1)	9.6 (0.04)
Hong Kong SAR	53 (1.1)	604 (4.5)	40 (1.0)	592 (4.5)	8 (0.4)	561 (6.8)	10.8 (0.06)
Hungary	27 (0.9)	539 (4.4)	54 (1.1)	524 (3.5)	19 (1.2)	497 (7.4)	9.5 (0.06)
Iran, Islamic Rep. of	30 (1.1)	432 (5.0)	51 (1.0)	425 (4.0)	19 (1.1)	399 (7.5)	9.6 (0.06)
Ireland	40 (1.1)	559 (3.2)	51 (1.3)	540 (3.5)	9 (0.8)	525 (6.4)	10.2 (0.04)
Italy	24 (0.9)	521 (3.7)	54 (0.8)	518 (3.3)	23 (0.9)	499 (4.0)	9.4 (0.04)
Japan	21 (1.0)	603 (3.5)	52 (1.0)	596 (2.6)	27 (1.1)	573 (2.9)	9.2 (0.05)
Jordan	22 (1.3)	441 (4.4)	38 (1.7)	425 (5.5)	39 (2.3)	427 (9.2)	8.7 (0.11)
Kazakhstan	24 (1.0)	514 (5.7)	58 (0.8)	489 (3.1)	18 (0.8)	464 (4.8)	9.5 (0.04)
Korea, Rep. of	30 (1.1)	613 (3.2)	49 (1.0)	594 (2.8)	21 (0.9)	570 (4.2)	9.6 (0.05)
Kosovo	31 (1.0)	468 (4.6)	53 (1.0)	454 (3.5)	17 (0.7)	430 (4.5)	9.7 (0.04)
Kuwait	29 (1.1)	394 (5.9)	55 (1.0)	386 (4.7)	15 (0.8)	377 (7.1)	9.7 (0.05)
Latvia	43 (1.1)	549 (3.5)	51 (1.0)	530 (3.2)	7 (0.5)	486 (7.1)	10.3 (0.04)
Lithuania	47 (1.1)	575 (3.3)	46 (1.0)	556 (2.9)	7 (0.5)	517 (5.6)	10.5 (0.04)
Macao SAR	36 (0.5)	593 (1.9)	51 (0.5)	578 (1.5)	14 (0.4)	567 (3.1)	10.0 (0.02)
Montenegro	33 (0.8)	485 (2.8)	51 (0.8)	478 (2.2)	16 (0.6)	479 (4.1)	9.8 (0.04)
Morocco	9 (0.9)	407 (8.0)	38 (1.6)	396 (4.9)	53 (1.9)	391 (6.9)	7.7 (0.10)
Netherlands	43 (1.2)	545 (2.8)	50 (1.0)	536 (2.3)	7 (0.7)	512 (6.6)	10.3 (0.04)
New Zealand	40 (1.1)	516 (3.3)	48 (0.9)	488 (2.9)	12 (0.7)	447 (5.4)	10.1 (0.05)
North Macedonia	35 (1.1)	485 (4.3)	50 (1.0)	483 (3.6)	16 (0.9)	463 (6.5)	9.9 (0.05)
Norway (5)	52 (1.1)	540 (2.6)	43 (1.0)	526 (2.0)	4 (0.4)	487 (5.8)	10.7 (0.04)
Oman	29 (0.7)	435 (5.0)	53 (0.7)	423 (3.9)	18 (0.7)	406 (6.2)	9.6 (0.03)
Poland	45 (0.9)	556 (2.4)	50 (1.0)	543 (2.6)	5 (0.4)	501 (6.3)	10.4 (0.03)
Portugal	43 (1.2)	533 (3.0)	48 (1.1)	511 (3.2)	9 (0.5)	480 (5.1)	10.2 (0.05)
Qatar	37 (1.0)	491 (3.9)	49 (0.9)	460 (3.5)	14 (0.6)	430 (5.0)	10.0 (0.04)
Romania	53 (1.7)	560 (4.7)	38 (1.4)	540 (5.3)	9 (1.0)	505 (9.7)	10.6 (0.07)
Saudi Arabia	37 (1.0)	441 (4.7)	48 (0.9)	421 (4.4)	15 (0.7)	400 (6.2)	10.0 (0.05)
Serbia	41 (1.3)	536 (3.8)	50 (1.2)	519 (3.6)	9 (0.8)	513 (8.7)	10.2 (0.06)
Singapore	49 (0.7)	635 (2.7)	43 (0.7)	602 (3.4)	8 (0.4)	567 (5.5)	10.6 (0.03)
Slovak Republic	32 (1.5)	534 (3.4)	52 (1.2)	520 (3.1)	16 (1.4)	470 (9.5)	9.7 (0.08)
Slovenia	34 (0.9)	515 (2.6)	52 (0.8)	516 (2.2)	14 (0.6)	513 (3.7)	9.9 (0.04)
South Africa (5)	19 (0.8)	419 (7.0)	51 (1.3)	361 (3.7)	30 (1.6)	328 (4.5)	8.9 (0.07)
Spain	38 (0.8)	510 (2.2)	51 (0.7)	497 (2.5)	12 (0.5)	476 (3.3)	10.0 (0.03)
Sweden	47 (1.3)	543 (2.9)	48 (1.3)	523 (3.2)	5 (0.4)	499 (7.1)	10.4 (0.04)
Türkiye (5)	57 (1.3)	576 (3.8)	38 (1.1)	533 (4.8)	5 (0.4)	462 (8.3)	10.8 (0.05)
United Arab Emirates	42 (0.5)	526 (1.6)	48 (0.4)	491 (1.4)	11 (0.3)	452 (3.1)	10.2 (0.02)
United States	38 (0.9)	543 (3.5)	51 (0.8)	515 (3.1)	11 (0.5)	466 (5.3)	10.1 (0.04)
Uzbekistan	20 (1.0)	446 (5.2)	55 (1.2)	451 (3.4)	25 (1.1)	439 (4.1)	9.2 (0.05)
<b>International Average</b>	<b>36 (0.1)</b>	<b>518 (0.5)</b>	<b>49 (0.1)</b>	<b>503 (0.4)</b>	<b>15 (0.1)</b>	<b>477 (0.8)</b>	
<b>Benchmarking Participants</b>							
Ontario, Canada	50 (1.3)	523 (3.3)	44 (1.2)	494 (4.1)	7 (0.6)	451 (8.9)	10.6 (0.04)
Quebec, Canada	40 (1.1)	525 (3.0)	49 (0.8)	514 (3.0)	11 (0.7)	493 (6.2)	10.2 (0.04)
Abu Dhabi, UAE	35 (0.9)	493 (2.9)	51 (0.6)	455 (2.1)	14 (0.6)	418 (4.2)	9.9 (0.04)
Dubai, UAE	50 (0.8)	574 (1.9)	44 (0.8)	547 (2.4)	6 (0.3)	510 (5.1)	10.6 (0.03)
Sharjah, UAE	41 (0.9)	523 (3.4)	48 (0.9)	498 (3.4)	11 (0.6)	474 (8.3)	10.2 (0.04)

This TIMSS context questionnaire scale was established in 2023 based on the combined response distribution of countries that participated in TIMSS 2023. 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.

An "r" indicates data are available for at least 70% but less than 85% of the students.

## Exhibit 6.4.3: Students' Digital Self-Efficacy

Country	High Digital Self-Efficacy		Medium Digital Self-Efficacy		Low Digital Self-Efficacy		Average Scale Score
	Percent of Students	Average Achievement	Percent of Students	Average Achievement	Percent of Students	Average Achievement	
Albania	34 (1.7)	502 (6.2)	52 (1.9)	494 (4.9)	14 (1.4)	484 (9.7)	9.9 (0.06)
Armenia	22 (0.9)	457 (4.0)	49 (1.0)	464 (2.6)	29 (1.0)	462 (3.6)	9.1 (0.05)
Australia	46 (1.1)	572 (2.8)	45 (0.9)	543 (2.8)	9 (0.6)	497 (7.1)	10.4 (0.05)
Azerbaijan	23 (0.9)	445 (4.0)	53 (1.0)	427 (3.2)	23 (1.0)	413 (4.5)	9.3 (0.05)
Bahrain	41 (1.1)	495 (5.1)	47 (1.0)	471 (3.9)	12 (0.8)	449 (7.4)	10.2 (0.05)
Belgium (Flemish)	36 (1.1)	500 (2.6)	54 (0.9)	487 (2.6)	11 (0.8)	473 (6.0)	10.0 (0.05)
Belgium (French)	24 (0.8)	495 (3.3)	55 (0.8)	479 (2.7)	21 (0.7)	476 (4.5)	9.4 (0.03)
Bosnia & Herzegovina	34 (1.1)	457 (4.3)	57 (1.2)	457 (4.1)	9 (0.7)	420 (6.2)	10.0 (0.03)
Brazil	29 (0.9)	460 (5.3)	50 (0.9)	436 (3.7)	22 (0.8)	412 (4.0)	9.4 (0.04)
Bulgaria	39 (1.4)	562 (3.8)	45 (1.3)	530 (5.0)	16 (1.4)	455 (17.5)	9.9 (0.08)
Canada	46 (0.8)	541 (2.1)	45 (0.6)	513 (2.2)	8 (0.4)	481 (4.1)	10.4 (0.03)
Chile	43 (1.0)	493 (3.0)	44 (1.0)	480 (3.3)	13 (0.6)	449 (4.2)	10.3 (0.04)
Chinese Taipei	58 (0.9)	578 (1.8)	36 (0.9)	568 (2.8)	6 (0.4)	557 (6.3)	11.1 (0.04)
Cyprus	33 (1.1)	504 (3.7)	50 (0.9)	486 (3.4)	17 (0.8)	461 (5.3)	9.8 (0.05)
Czech Republic	25 (0.8)	533 (3.1)	59 (0.7)	527 (2.4)	16 (0.6)	516 (3.4)	9.5 (0.03)
Denmark	43 (1.1)	537 (2.8)	50 (1.0)	517 (2.9)	7 (0.5)	488 (5.7)	10.2 (0.04)
England	50 (1.1)	574 (3.1)	44 (1.0)	547 (3.0)	7 (0.5)	515 (8.2)	10.5 (0.04)
Finland	53 (0.9)	549 (3.0)	42 (0.9)	541 (3.2)	4 (0.4)	507 (7.3)	10.8 (0.03)
France	23 (0.8)	498 (3.3)	57 (0.9)	489 (3.6)	20 (0.9)	484 (5.4)	9.4 (0.04)
Georgia	38 (1.3)	481 (3.8)	53 (1.2)	467 (3.7)	9 (0.6)	442 (6.7)	10.1 (0.05)
Germany	31 (1.0)	527 (4.3)	49 (0.8)	517 (2.8)	20 (0.8)	506 (4.4)	9.6 (0.04)
Hong Kong SAR	53 (1.1)	558 (4.3)	40 (1.0)	541 (4.4)	8 (0.4)	501 (7.3)	10.8 (0.06)
Hungary	27 (0.9)	540 (3.8)	54 (1.1)	528 (3.1)	19 (1.2)	502 (7.5)	9.5 (0.06)
Iran, Islamic Rep. of	30 (1.1)	447 (6.0)	51 (1.0)	438 (4.1)	19 (1.1)	407 (7.7)	9.6 (0.06)
Ireland	40 (1.1)	547 (3.6)	51 (1.3)	526 (3.7)	9 (0.8)	506 (6.8)	10.2 (0.04)
Italy	24 (0.9)	519 (3.6)	54 (0.8)	514 (2.6)	23 (0.9)	497 (3.4)	9.4 (0.04)
Japan	21 (1.0)	571 (3.7)	52 (1.0)	559 (3.0)	27 (1.1)	537 (3.0)	9.2 (0.05)
Jordan	22 (1.3)	439 (5.5)	38 (1.7)	416 (4.7)	39 (2.3)	414 (8.8)	8.7 (0.11)
Kazakhstan	24 (1.0)	505 (5.3)	58 (0.8)	465 (3.2)	18 (0.8)	437 (4.4)	9.5 (0.04)
Korea, Rep. of	30 (1.1)	602 (3.0)	49 (1.0)	583 (2.8)	21 (0.9)	557 (4.0)	9.6 (0.05)
Kosovo	31 (1.0)	418 (4.5)	53 (1.0)	404 (4.2)	17 (0.7)	388 (4.3)	9.7 (0.04)
Kuwait	29 (1.1)	381 (6.7)	55 (1.0)	381 (5.6)	15 (0.8)	375 (8.2)	9.7 (0.05)
Latvia	43 (1.1)	541 (3.8)	51 (1.0)	520 (3.3)	7 (0.5)	486 (7.2)	10.3 (0.04)
Lithuania	47 (1.1)	551 (3.3)	46 (1.0)	531 (2.8)	7 (0.5)	496 (6.1)	10.5 (0.04)
Macao SAR	36 (0.5)	552 (2.4)	51 (0.5)	530 (1.5)	14 (0.4)	518 (3.4)	10.0 (0.02)
Montenegro	33 (0.8)	473 (2.6)	51 (0.8)	462 (2.6)	16 (0.6)	459 (3.2)	9.8 (0.04)
Morocco	9 (0.9)	407 (9.7)	38 (1.6)	393 (5.7)	53 (1.9)	388 (7.6)	7.7 (0.10)
Netherlands	43 (1.2)	525 (3.6)	50 (1.0)	516 (3.4)	7 (0.7)	489 (7.1)	10.3 (0.04)
New Zealand	40 (1.1)	540 (3.2)	48 (0.9)	516 (2.9)	12 (0.7)	477 (6.5)	10.1 (0.05)
North Macedonia	35 (1.1)	456 (4.2)	50 (1.0)	449 (3.8)	16 (0.9)	428 (6.5)	9.9 (0.05)
Norway (5)	52 (1.1)	542 (3.1)	43 (1.0)	525 (2.4)	4 (0.4)	487 (8.4)	10.7 (0.04)
Oman	29 (0.7)	450 (5.2)	53 (0.7)	436 (4.0)	18 (0.7)	411 (6.5)	9.6 (0.03)
Poland	45 (0.9)	558 (2.5)	50 (1.0)	547 (2.8)	5 (0.4)	519 (7.7)	10.4 (0.03)
Portugal	43 (1.2)	526 (2.9)	48 (1.1)	504 (2.5)	9 (0.5)	477 (4.4)	10.2 (0.05)
Qatar	37 (1.0)	503 (3.9)	49 (0.9)	468 (3.7)	14 (0.6)	433 (5.3)	10.0 (0.04)
Romania	53 (1.7)	548 (4.6)	38 (1.4)	522 (5.0)	9 (1.0)	486 (9.2)	10.6 (0.07)
Saudi Arabia	37 (1.0)	456 (4.5)	48 (0.9)	429 (4.0)	15 (0.7)	404 (6.7)	10.0 (0.05)
Serbia	41 (1.3)	524 (4.0)	50 (1.2)	505 (3.2)	9 (0.8)	500 (8.0)	10.2 (0.06)
Singapore	49 (0.7)	629 (2.4)	43 (0.7)	593 (3.1)	8 (0.4)	560 (5.9)	10.6 (0.03)
Slovak Republic	32 (1.5)	542 (3.4)	52 (1.2)	528 (3.1)	16 (1.4)	465 (11.9)	9.7 (0.08)
Slovenia	34 (0.9)	529 (3.0)	52 (0.8)	527 (2.8)	14 (0.6)	525 (4.3)	9.9 (0.04)
South Africa (5)	19 (0.8)	386 (9.5)	51 (1.3)	305 (4.9)	30 (1.6)	260 (5.9)	8.9 (0.07)
Spain	38 (0.8)	516 (2.3)	51 (0.7)	502 (2.2)	12 (0.5)	484 (3.8)	10.0 (0.03)
Sweden	47 (1.3)	548 (3.2)	48 (1.3)	525 (3.7)	5 (0.4)	492 (7.8)	10.4 (0.04)
Türkiye (5)	57 (1.3)	588 (3.2)	38 (1.1)	554 (4.0)	5 (0.4)	496 (8.6)	10.8 (0.05)
United Arab Emirates	42 (0.5)	530 (2.1)	48 (0.4)	486 (2.1)	11 (0.3)	440 (3.3)	10.2 (0.02)
United States	38 (0.9)	560 (3.3)	51 (0.8)	530 (2.8)	11 (0.5)	485 (5.1)	10.1 (0.04)
Uzbekistan	20 (1.0)	415 (5.2)	55 (1.2)	418 (3.8)	25 (1.1)	410 (4.6)	9.2 (0.05)
<b>International Average</b>	<b>36 (0.1)</b>	<b>512 (0.5)</b>	<b>49 (0.1)</b>	<b>493 (0.5)</b>	<b>15 (0.1)</b>	<b>468 (0.9)</b>	
<b>Benchmarking Participants</b>							
Ontario, Canada	50 (1.3)	546 (3.2)	44 (1.2)	516 (3.6)	7 (0.6)	471 (7.6)	10.6 (0.04)
Quebec, Canada	40 (1.1)	521 (2.8)	49 (0.8)	504 (3.1)	11 (0.7)	487 (6.0)	10.2 (0.04)
Abu Dhabi, UAE	35 (0.9)	489 (3.6)	51 (0.6)	442 (3.0)	14 (0.6)	397 (4.4)	9.9 (0.04)
Dubai, UAE	50 (0.8)	584 (2.3)	44 (0.8)	551 (2.4)	6 (0.3)	509 (5.8)	10.6 (0.03)
Sharjah, UAE	41 (0.9)	526 (4.1)	48 (0.9)	496 (3.8)	11 (0.6)	469 (8.6)	10.2 (0.04)

This TIMSS context questionnaire scale was established in 2023 based on the combined response distribution of countries that participated in TIMSS 2023. 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.  
An "r" indicates data are available for at least 70% but less than 85% of the students.

Exhibit 6.4.4: Students' Digital Self-Efficacy

Country	High Digital Self-Efficacy		Medium Digital Self-Efficacy		Low Digital Self-Efficacy		Average Scale Score
	Percent of Students	Average Achievement	Percent of Students	Average Achievement	Percent of Students	Average Achievement	
Australia	74 (0.9)	524 (3.2)	24 (0.8)	484 (5.7)	2 ~	~ ~	10.6 (0.04)
Austria	69 (1.1)	520 (2.4)	29 (1.0)	502 (3.3)	2 ~	~ ~	10.4 (0.04)
Azerbaijan	43 (1.1)	503 (4.1)	47 (0.9)	481 (4.2)	10 (0.6)	452 (8.3)	9.2 (0.05)
Bahrain	51 (0.8)	453 (3.2)	41 (0.7)	415 (3.0)	7 (0.5)	372 (5.6)	9.6 (0.04)
Brazil	44 (0.8)	406 (3.7)	46 (0.8)	375 (2.7)	10 (0.4)	348 (3.8)	9.3 (0.03)
Chile	61 (1.0)	431 (2.9)	35 (0.8)	403 (3.8)	4 (0.4)	363 (9.0)	10.1 (0.04)
Chinese Taipei	72 (0.9)	614 (3.1)	26 (0.8)	581 (4.1)	2 ~	~ ~	10.7 (0.04)
Cote d'Ivoire	17 (1.8)	303 (15.8)	43 (1.6)	268 (4.3)	41 (2.5)	242 (2.4)	7.3 (0.14)
Cyprus	72 (0.8)	514 (2.8)	25 (0.8)	466 (4.1)	3 (0.3)	409 (9.4)	10.6 (0.03)
Czech Republic	51 (0.9)	529 (2.3)	46 (0.8)	511 (2.7)	3 (0.2)	476 (6.4)	9.6 (0.03)
England	71 (1.2)	541 (4.4)	27 (1.1)	502 (6.2)	2 ~	~ ~	10.5 (0.05)
Finland	72 (0.6)	513 (2.6)	25 (0.6)	494 (3.0)	2 ~	~ ~	10.6 (0.03)
France	59 (1.0)	487 (2.9)	39 (1.0)	475 (3.9)	2 ~	~ ~	10.0 (0.03)
Georgia	59 (1.2)	481 (3.0)	38 (1.1)	456 (4.7)	3 (0.4)	444 (11.9)	9.9 (0.04)
Hong Kong SAR	63 (1.6)	594 (6.1)	32 (1.4)	553 (5.5)	5 (0.5)	507 (11.4)	10.3 (0.07)
Hungary	58 (1.2)	526 (3.2)	38 (1.1)	485 (4.5)	4 (0.4)	433 (12.0)	9.9 (0.05)
Iran, Islamic Rep. of	47 (1.1)	450 (3.7)	46 (0.9)	406 (3.8)	7 (0.5)	374 (6.3)	9.4 (0.04)
Ireland	74 (0.8)	530 (2.8)	25 (0.8)	508 (3.0)	1 ~	~ ~	10.5 (0.04)
Israel	56 (1.0)	509 (4.6)	38 (0.8)	470 (3.5)	6 (0.4)	444 (7.1)	9.9 (0.04)
Italy	58 (1.1)	513 (2.7)	39 (1.0)	491 (4.0)	4 (0.3)	457 (9.4)	9.9 (0.04)
Japan	32 (1.0)	604 (4.6)	55 (0.9)	597 (3.2)	12 (0.6)	567 (5.1)	8.8 (0.04)
Jordan	47 (1.1)	407 (3.7)	43 (1.0)	385 (3.7)	9 (0.5)	345 (6.7)	9.4 (0.04)
Kazakhstan	32 (1.0)	477 (5.2)	58 (0.9)	450 (3.2)	10 (0.6)	422 (6.1)	8.9 (0.04)
Korea, Rep. of	61 (0.8)	610 (3.1)	34 (0.8)	584 (4.0)	5 (0.3)	526 (8.6)	10.2 (0.04)
Kuwait	49 (1.4)	420 (7.2)	45 (1.3)	387 (4.8)	6 (0.4)	349 (7.7)	9.5 (0.06)
Lithuania	67 (0.8)	529 (3.2)	30 (0.8)	488 (4.1)	3 (0.3)	463 (7.2)	10.3 (0.03)
Malaysia	27 (1.1)	451 (4.8)	61 (0.8)	402 (3.1)	12 (0.6)	370 (4.3)	8.7 (0.04)
Malta	72 (0.7)	517 (1.5)	26 (0.7)	476 (3.0)	3 (0.3)	417 (9.7)	10.4 (0.03)
Morocco	31 (0.9)	389 (3.1)	54 (0.8)	377 (3.3)	15 (0.8)	368 (4.7)	8.7 (0.05)
Norway (9)	78 (0.8)	513 (2.3)	20 (0.7)	476 (3.3)	2 ~	~ ~	10.9 (0.04)
Oman	43 (0.8)	438 (3.0)	49 (0.8)	404 (3.0)	8 (0.4)	356 (4.9)	9.3 (0.03)
Palestinian Nat'l Auth.	38 (0.8)	406 (3.2)	49 (0.8)	384 (2.9)	14 (0.6)	353 (5.7)	9.0 (0.04)
Portugal	74 (0.8)	487 (2.5)	24 (0.8)	450 (3.5)	2 ~	~ ~	10.6 (0.04)
Qatar	62 (1.3)	477 (4.5)	32 (1.2)	424 (4.3)	6 (0.5)	383 (8.8)	10.1 (0.06)
Romania	76 (1.1)	515 (4.6)	21 (1.0)	467 (6.1)	3 (0.4)	435 (16.9)	10.8 (0.05)
Saudi Arabia	62 (0.8)	412 (3.5)	33 (0.7)	388 (3.5)	4 (0.3)	357 (6.2)	10.1 (0.03)
Singapore	74 (1.2)	620 (5.1)	24 (1.0)	567 (8.7)	2 ~	~ ~	10.7 (0.05)
South Africa (9)	22 (0.7)	425 (6.0)	61 (0.7)	389 (2.9)	16 (0.6)	380 (4.5)	8.4 (0.03)
Sweden	69 (0.9)	532 (2.5)	29 (0.8)	501 (3.1)	2 ~	~ ~	10.4 (0.04)
Türkiye	61 (1.0)	527 (4.3)	36 (1.0)	488 (5.6)	4 (0.3)	430 (12.9)	10.0 (0.04)
United Arab Emirates	69 (0.4)	512 (1.9)	27 (0.4)	459 (1.9)	4 (0.2)	403 (4.2)	10.5 (0.02)
United States	70 (1.1)	507 (4.0)	27 (0.9)	461 (4.1)	3 (0.3)	404 (9.1)	10.5 (0.05)
Uzbekistan	42 (1.3)	436 (5.3)	50 (1.1)	419 (4.1)	9 (0.6)	405 (7.4)	9.2 (0.05)
<b>International Average</b>	<b>56 (0.2)</b>	<b>492 (0.7)</b>	<b>37 (0.1)</b>	<b>459 (0.6)</b>	<b>6 (0.1)</b>	<b>408 (1.5)</b>	
<b>Benchmarking Participants</b>							
Abu Dhabi, UAE	63 (0.9)	484 (2.6)	31 (0.8)	431 (2.9)	6 (0.4)	377 (5.0)	10.1 (0.03)
Dubai, UAE	77 (0.8)	561 (2.7)	21 (0.7)	512 (3.3)	2 ~	~ ~	10.8 (0.04)
Sharjah, UAE	71 (1.0)	510 (5.7)	26 (0.9)	469 (4.2)	3 (0.3)	437 (7.6)	10.6 (0.06)

This TIMSS context questionnaire scale was established in 2023 based on the combined response distribution of countries that participated in TIMSS 2023. 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 result.

## Exhibit 6.4.5: Students' Digital Self-Efficacy

Country	High Digital Self-Efficacy		Medium Digital Self-Efficacy		Low Digital Self-Efficacy		Average Scale Score
	Percent of Students	Average Achievement	Percent of Students	Average Achievement	Percent of Students	Average Achievement	
Australia	74 (0.9)	538 (2.9)	24 (0.8)	493 (5.5)	2 ~	~ ~	10.6 (0.04)
Austria	69 (1.1)	520 (2.4)	29 (1.0)	500 (4.0)	2 ~	~ ~	10.4 (0.04)
Azerbaijan	43 (1.1)	437 (3.3)	47 (0.9)	412 (3.2)	10 (0.6)	382 (6.0)	9.2 (0.05)
Bahrain	51 (0.8)	484 (3.3)	41 (0.7)	439 (3.2)	7 (0.5)	379 (5.3)	9.6 (0.04)
Brazil	44 (0.8)	448 (3.1)	46 (0.8)	418 (2.4)	10 (0.4)	387 (3.9)	9.3 (0.03)
Chile	61 (1.0)	472 (2.6)	35 (0.8)	442 (3.1)	4 (0.4)	397 (7.6)	10.1 (0.04)
Chinese Taipei	72 (0.9)	582 (2.4)	26 (0.8)	551 (3.4)	2 ~	~ ~	10.7 (0.04)
Cote d'Ivoire	17 (1.8)	258 (25.3)	43 (1.6)	190 (7.2)	41 (2.5)	147 (4.2)	7.3 (0.14)
Cyprus	72 (0.8)	486 (3.1)	25 (0.8)	432 (4.6)	3 (0.3)	377 (10.0)	10.6 (0.03)
Czech Republic	51 (0.9)	539 (2.1)	46 (0.8)	519 (2.5)	3 (0.2)	492 (6.8)	9.6 (0.03)
England	71 (1.2)	548 (4.1)	27 (1.1)	506 (6.0)	2 ~	~ ~	10.5 (0.05)
Finland	72 (0.6)	542 (3.2)	25 (0.6)	521 (3.9)	2 ~	~ ~	10.6 (0.03)
France	59 (1.0)	495 (3.0)	39 (1.0)	482 (3.7)	2 ~	~ ~	10.0 (0.03)
Georgia	59 (1.2)	464 (2.7)	38 (1.1)	438 (4.6)	3 (0.4)	421 (9.9)	9.9 (0.04)
Hong Kong SAR	63 (1.6)	548 (5.3)	32 (1.4)	504 (4.9)	5 (0.5)	464 (11.0)	10.3 (0.07)
Hungary	58 (1.2)	541 (2.8)	38 (1.1)	501 (4.0)	4 (0.4)	452 (10.6)	9.9 (0.05)
Iran, Islamic Rep. of	47 (1.1)	449 (3.5)	46 (0.9)	401 (3.9)	7 (0.5)	358 (6.3)	9.4 (0.04)
Ireland	74 (0.8)	535 (3.9)	25 (0.8)	512 (3.6)	1 ~	~ ~	10.5 (0.04)
Israel	56 (1.0)	504 (4.4)	38 (0.8)	462 (3.4)	6 (0.4)	423 (6.1)	9.9 (0.04)
Italy	58 (1.1)	514 (3.3)	39 (1.0)	491 (3.6)	4 (0.3)	445 (8.9)	9.9 (0.04)
Japan	32 (1.0)	567 (5.3)	55 (0.9)	559 (3.1)	12 (0.6)	531 (4.8)	8.8 (0.04)
Jordan	47 (1.1)	438 (4.0)	43 (1.0)	407 (4.2)	9 (0.5)	357 (6.2)	9.4 (0.04)
Kazakhstan	32 (1.0)	473 (4.4)	58 (0.9)	434 (2.7)	10 (0.6)	403 (4.7)	8.9 (0.04)
Korea, Rep. of	61 (0.8)	559 (2.3)	34 (0.8)	532 (2.8)	5 (0.3)	474 (8.6)	10.2 (0.04)
Kuwait	49 (1.4)	444 (7.3)	45 (1.3)	409 (5.1)	6 (0.4)	362 (8.6)	9.5 (0.06)
Lithuania	67 (0.8)	534 (3.0)	30 (0.8)	496 (3.8)	3 (0.3)	467 (6.2)	10.3 (0.03)
Malaysia	27 (1.1)	466 (4.6)	61 (0.8)	420 (3.6)	12 (0.6)	375 (4.9)	8.7 (0.04)
Malta	72 (0.7)	521 (2.1)	26 (0.7)	474 (3.3)	3 (0.3)	403 (10.8)	10.4 (0.03)
Morocco	31 (0.9)	340 (3.8)	54 (0.8)	326 (3.6)	15 (0.8)	313 (6.4)	8.7 (0.05)
Norway (9)	78 (0.8)	502 (2.6)	20 (0.7)	463 (3.3)	2 ~	~ ~	10.9 (0.04)
Oman	43 (0.8)	491 (2.8)	49 (0.8)	448 (3.0)	8 (0.4)	391 (5.6)	9.3 (0.03)
Palestinian Nat'l Auth.	38 (0.8)	422 (3.1)	49 (0.8)	395 (3.1)	14 (0.6)	356 (4.8)	9.0 (0.04)
Portugal	74 (0.8)	515 (2.2)	24 (0.8)	486 (3.3)	2 ~	~ ~	10.6 (0.04)
Qatar	62 (1.3)	509 (4.5)	32 (1.2)	453 (4.5)	6 (0.5)	403 (10.5)	10.1 (0.06)
Romania	76 (1.1)	484 (3.7)	21 (1.0)	447 (5.0)	3 (0.4)	414 (11.6)	10.8 (0.05)
Saudi Arabia	62 (0.8)	442 (3.6)	33 (0.7)	407 (4.1)	4 (0.3)	361 (7.0)	10.1 (0.03)
Singapore	74 (1.2)	623 (4.6)	24 (1.0)	564 (8.0)	2 ~	~ ~	10.7 (0.05)
South Africa (9)	22 (0.7)	409 (7.2)	61 (0.7)	351 (4.0)	16 (0.6)	336 (4.1)	8.4 (0.03)
Sweden	69 (0.9)	539 (3.0)	29 (0.8)	504 (3.8)	2 ~	~ ~	10.4 (0.04)
Türkiye	61 (1.0)	547 (3.4)	36 (1.0)	509 (4.8)	4 (0.3)	448 (9.1)	10.0 (0.04)
United Arab Emirates	69 (0.4)	516 (2.1)	27 (0.4)	449 (2.4)	4 (0.2)	370 (4.5)	10.5 (0.02)
United States	70 (1.1)	534 (3.4)	27 (0.9)	483 (4.3)	3 (0.3)	420 (8.8)	10.5 (0.05)
Uzbekistan	42 (1.3)	411 (4.4)	50 (1.1)	396 (3.9)	9 (0.6)	373 (6.9)	9.2 (0.05)
<b>International Average</b>	<b>56 (0.2)</b>	<b>493 (0.8)</b>	<b>37 (0.1)</b>	<b>456 (0.6)</b>	<b>6 (0.1)</b>	<b>396 (1.3)</b>	
<b>Benchmarking Participants</b>							
Abu Dhabi, UAE	63 (0.9)	485 (3.6)	31 (0.8)	412 (4.1)	6 (0.4)	331 (5.3)	10.1 (0.03)
Dubai, UAE	77 (0.8)	566 (2.9)	21 (0.7)	506 (3.6)	2 ~	~ ~	10.8 (0.04)
Sharjah, UAE	71 (1.0)	518 (6.0)	26 (0.9)	467 (4.1)	3 (0.3)	417 (8.1)	10.6 (0.06)

This TIMSS context questionnaire scale was established in 2023 based on the combined response distribution of countries that participated in TIMSS 2023. 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 result.