## TIMSS <br> Science

2015 4th Grade

## Exhibit 6.10: Students' Sense of School Belonging

## Reported by Students

Students were scored according to their agreement to seven statements about their Sense of School Belonging. Students with a High Sense of School Belonging had a score on the scale of at least 9.1, which corresponds to their "agreeing a lot" to four of the seven statements and "agreeing a little" to each of the other three statements, on average. Students with Little Sense of School Belonging had a score no higher than 6.8, which corresponds to their "disagreeing a little" to four of the seven statements and "agreeing a little" to each of the other three statements, on average. All other students had a Sense of School Belonging.

| Country | High Sense of School Belonging |  | Sense of School Belonging |  | Little Sense of School Belonging |  | Average Scale Score |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Percent of Students | Average Achievement | Percent of Students | Average Achievement | Percent of Students | Average Achievement |  |
| Indonesia | 92 (0.6) | 404 (4.7) | 7 (0.6) | 366 (11.1) | 1 (0.2) | ~ ~ | 11.5 (0.04) |
| Portugal | 88 (0.9) | 509 (2.3) | 11 (0.8) | 506 (4.4) | 1 (0.2) | $\sim$ | 11.3 (0.05) |
| Morocco | 87 (1.0) | 366 (4.8) | 11 (0.8) | 311 (10.6) | 2 (0.3) | $\sim \sim$ | 11.3 (0.06) |
| Bulgaria | 82 (1.2) | 539 (6.0) | 16 (1.1) | 535 (6.9) | 2 (0.3) | $\sim \sim$ | 10.9 (0.06) |
| Turkey | 81 (1.0) | 493 (3.1) | 18 (0.9) | 451 (6.0) | 1 (0.2) | ~ | 10.8 (0.05) |
| Kazakhstan | 80 (1.3) | 556 (4.5) | 19 (1.3) | 526 (5.6) | 1 (0.1) | ~ ~ | 10.9 (0.07) |
| Oman | 79 (0.9) | 440 (3.4) | 18 (0.7) | 411 (4.4) | 4 (0.3) | 367 (8.5) | 10.7 (0.05) |
| Spain | 78 (1.1) | 521 (2.4) | 19 (0.9) | 515 (3.8) | 3 (0.3) | 491 (8.6) | 10.5 (0.06) |
| Norway (5) | 75 (1.1) | 540 (2.6) | 22 (1.0) | 531 (4.1) | 2 (0.3) | ~ | 10.5 (0.05) |
| Ireland | 73 (1.2) | 533 (2.7) | 23 (1.1) | 521 (3.3) | 4 (0.4) | 513 (8.3) | 10.2 (0.05) |
| Serbia | 73 (1.2) | 524 (4.2) | 24 (1.1) | 533 (4.0) | 3 (0.3) | 510 (10.5) | 10.3 (0.06) |
| Northern Ireland | 71 (1.3) | 523 (2.5) | 25 (1.1) | 515 (4.2) | 3 (0.5) | 494 (8.4) | 10.2 (0.06) |
| Lithuania | 71 (1.1) | 532 (2.7) | 26 (1.0) | 521 (3.3) | 3 (0.3) | 492 (9.6) | 10.1 (0.05) |
| Saudi Arabia | 71 (1.3) | 408 (5.2) | 23 (1.0) | 371 (5.2) | 6 (0.7) | 347 (13.8) | 10.4 (0.07) |
| Iran, Islamic Rep. of | 71 (1.3) | 417 (4.7) | 26 (1.3) | 443 (5.2) | 3 (0.3) | 384 (19.0) | 10.2 (0.07) |
| England | 71 (1.4) | 540 (2.8) | 25 (1.2) | 530 (3.9) | 4 (0.4) | 503 (6.1) | 10.2 (0.06) |
| Kuwait | 71 (1.3) | 343 (6.6) | 25 (1.2) | 335 (8.8) | 5 (0.4) | 277 (13.7) | 10.3 (0.07) |
| Chile | 70 (1.2) | 484 (2.6) | 24 (0.9) | 469 (4.1) | 6 (0.5) | 455 (7.6) | 10.2 (0.06) |
| Finland | 68 (1.3) | 556 (2.3) | 28 (1.1) | 552 (3.4) | 3 (0.4) | 527 (5.9) | 10.0 (0.05) |
| Russian Federation | 68 (1.3) | 568 (3.3) | 29 (1.2) | 566 (4.2) | 3 (0.3) | 566 (10.1) | 10.0 (0.06) |
| Netherlands | 68 (1.4) | 522 (2.5) | 28 (1.2) | 507 (4.0) | 4 (0.4) | 499 (7.3) | 10.0 (0.06) |
| New Zealand | 67 (1.0) | 508 (3.3) | 29 (0.9) | 507 (3.0) | 4 (0.3) | 481 (9.3) | 10.0 (0.05) |
| Bahrain | 67 (0.9) | 468 (2.4) | 27 (0.9) | 452 (4.2) | 6 (0.5) | 418 (10.9) | 10.0 (0.04) |
| Hungary | 66 (1.0) | 545 (3.3) | 31 (0.9) | 540 (4.1) | 4 (0.3) | 521 (9.3) | 9.9 (0.05) |
| Canada | 66 (0.9) | 530 (2.5) | 30 (0.8) | 520 (2.9) | 5 (0.3) | 506 (6.3) | 10.0 (0.04) |
| Sweden | 65 (1.2) | 544 (3.7) | 32 (1.1) | 536 (4.4) | 3 (0.3) | 508 (11.6) | 9.9 (0.06) |
| United States | 64 (0.8) | 554 (2.3) | 29 (0.6) | 539 (2.6) | 7 (0.4) | 518 (4.8) | 9.9 (0.04) |
| Belgium (Flemish) | 64 (1.2) | 516 (2.3) | 33 (1.1) | 507 (3.3) | 4 (0.3) | 479 (6.1) | 9.8 (0.06) |
| United Arab Emirates | 64 (0.8) | 468 (2.8) | 31 (0.7) | 431 (4.0) | 6 (0.3) | 403 (6.1) | 9.9 (0.04) |
| Italy | 63 (1.3) | 518 (2.8) | 33 (1.0) | 519 (3.3) | 5 (0.5) | 495 (9.1) | 9.7 (0.05) |
| Cyprus | 62 (1.3) | 486 (2.5) | 30 (0.9) | 481 (3.2) | 8 (0.7) | 473 (6.3) | 9.8 (0.06) |
| Denmark | 62 (1.3) | 533 (2.3) | 33 (1.1) | 520 (2.5) | 4 (0.4) | 506 (7.5) | 9.8 (0.06) |
| Australia | 62 (1.2) | 529 (3.3) | 33 (1.0) | 520 (3.6) | 5 (0.4) | 493 (6.0) | 9.8 (0.05) |
| Slovak Republic | 61 (1.3) | 517 (3.3) | 35 (1.1) | 530 (2.8) | 4 (0.4) | 508 (7.1) | 9.7 (0.05) |
| Qatar | 60 (1.1) | 451 (3.6) | 30 (0.9) | 427 (5.8) | 9 (0.8) | 396 (7.7) | 9.7 (0.06) |
| Germany | 57 (1.3) | 535 (2.7) | 36 (1.1) | 532 (2.9) | 7 (0.6) | 518 (5.4) | 9.5 (0.06) |
| Croatia | 57 (1.5) | 535 (2.6) | 40 (1.3) | 532 (2.7) | 3 (0.4) | 519 (7.4) | 9.5 (0.06) |
| Singapore | 56 (0.8) | 593 (3.7) | 39 (0.7) | 590 (4.0) | 6 (0.4) | 573 (7.1) | 9.5 (0.03) |
| Slovenia | 55 (1.5) | 542 (2.8) | 39 (1.1) | 545 (2.8) | 6 (0.6) | 541 (6.5) | 9.5 (0.06) |
| Georgia | 55 (1.3) | 458 (4.5) | 43 (1.3) | 452 (3.8) | 1 (0.3) | $\sim \sim$ | 9.7 (0.06) |
| Korea, Rep. of | 52 (1.3) | 591 (2.3) | 45 (1.2) | 588 (2.3) | 3 (0.4) | 578 (8.0) | 9.5 (0.06) |
| France | 51 (1.3) | 492 (2.8) | 45 (1.2) | 485 (3.3) | 3 (0.3) | 456 (7.6) | 9.3 (0.05) |
| Czech Republic | 50 (1.4) | 531 (2.9) | 45 (1.3) | 540 (3.0) | 5 (0.7) | 525 (6.3) | 9.2 (0.05) |
| Poland | 47 (1.4) | 545 (2.8) | 46 (1.2) | 551 (2.8) | 7 (0.6) | 543 (5.4) | 9.1 (0.05) |
| Chinese Taipei | 46 (1.1) | 559 (2.3) | 46 (0.9) | 554 (2.3) | 8 (0.5) | 539 (5.0) | 9.1 (0.04) |
| Hong Kong SAR | 46 (1.6) | 565 (3.9) | 43 (1.2) | 552 (3.1) | 11 (0.9) | 540 (4.7) | 9.0 (0.07) |
| Japan | 41 (1.2) | 578 (2.4) | 52 (1.0) | 566 (2.0) | 8 (0.6) | 547 (5.2) | 8.9 (0.05) |
| International Avg. | 66 (0.2) | 511 (0.5) | 30 (0.2) | 501 (0.7) | 4 (0.1) | 487 (1.4) |  |

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## Exhibit 6.10: Students' Sense of School Belonging (Continued)

| Country | High Sense of School Belonging |  | Sense of School Belonging |  | Little Sense of School Belonging |  | Average Scale Score |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Percent of Students | Average Achievement | Percent of Students | Average Achievement | Percent of Students | Average Achievement |  |
| Benchmarking Participants |  |  |  |  |  |  |  |
| Norway (4) | 80 (1.4) | 497 (2.1) | 18 (1.3) | 482 (4.9) | 2 (0.4) | ~ ~ | 10.7 (0.07) |
| Dubai, UAE | 69 (0.8) | 531 (1.9) | 26 (0.8) | 498 (3.0) | 4 (0.3) | 450 (6.1) | 10.2 (0.03) |
| Florida, US | 65 (1.5) | 558 (5.2) | 29 (1.2) | 538 (6.0) | 6 (0.7) | 518 (8.6) | 10.0 (0.08) |
| Ontario, Canada | 64 (1.4) | 536 (2.7) | 30 (1.3) | 524 (3.1) | 6 (0.5) | 514 (6.3) | 9.9 (0.06) |
| Buenos Aires, Argentina | 63 (1.2) | 424 (4.6) | 30 (1.0) | 427 (6.1) | 7 (0.7) | 413 (12.5) | 9.8 (0.05) |
| Quebec, Canada | 63 (1.4) | 528 (4.2) | 33 (1.2) | 521 (5.3) | 4 (0.6) | 509 (12.2) | 9.8 (0.06) |
| Abu Dhabi, UAE | 58 (1.8) | 431 (6.7) | 35 (1.4) | 400 (7.4) | 7 (0.6) | 376 (8.6) | 9.7 (0.08) |




[^0]:    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 ( $\sim$ ) indicates insufficient data to report achievement.
    An " r " indicates data are available for at least $70 \%$ but less than $85 \%$ of the students.

