## Exhibit 9.9: Classroom Instruction Limited by Student Attributes

Exhibit 9.9 presents teachers' reports about the extent to which their fourth grade classroom instruction in reading was limited by students' preparedness and readiness to learn (i.e., lacking skills, sleep deprived, poor nutrition, absent, disruptive, uninterested, or with learning impairments). The results have been summarized on the Classroom Instruction Limited by Student Attributes scale. On average, across the PIRLS countries, about one third (34\%) of the fourth grade students had classroom teachers who reported Very Little impact on their teaching due to students' lack of preparedness or readiness to learn. Most of the rest of the students (63\%) had teachers who reported that these student attributes led to Some limitations in their teaching. Unfortunately, 4 percent of students were in classrooms where teachers reported instruction was limited A Lot. As would be anticipated, there was a direct relationship between the degree that teaching was limited and average reading achievement, with successively lower achievement for each category of increased impact on teaching ( 528,504 , and 473 , respectively). On average, reading achievement was 55 points higher for students whose teachers reported that teaching was limited Very Little compared to students whose teachers reported their teaching was limited A Lot.

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## Students Categorized by Teachers' Reports

Students were scored according to their teachers' responses about seven attributes of their students that could limit how they teach their class on the Classroom Instruction Limited by Student Attributes scale. Students with teachers who felt their teaching was limited Very Little had a score on the scale of at least 11.0, which corresponds to their teachers feeling "not at all" limited by four of the seven student attributes and to "some" extent by the other three, on average. Students with teachers who felt limited A Lot had a score no higher than 6.2, which corresponds to their teachers feeling limited "a lot" by four of the seven attributes and to "some" extent by the other three, on average. All other students had teachers who felt their teaching was limited to Some extent.

| Country | Very Little |  | Some |  | A Lot |  | Average Scale Score |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Percent of Students | Average Achievement | Percent of Students | Average <br> Achievement | Percent of Students | Average Achievement |  |
| Italy | 63 (3.9) | 550 (3.1) | 37 (3.9) | 546 (3.8) | 0 (0.0) | $\sim \sim$ | 11.3 (0.12) |
| Netherlands | 57 (4.2) | 551 (2.2) | 41 (4.2) | 540 (2.8) | 2 (0.7) | ~ | 11.0 (0.16) |
| Slovak Republic | 57 (3.6) | 548 (3.1) | 42 (3.8) | 521 (5.3) | 1 (0.4) | ~ ~ | 11.3 (0.13) |
| Czech Republic | 56 (3.1) | 549 (2.4) | 44 (3.1) | 536 (3.9) | 0 (0.0) | $\sim \sim$ | 11.0 (0.09) |
| Kazakhstan | 55 (3.0) | 530 (3.7) | 43 (3.2) | 543 (4.6) | 3 (1.1) | 558 (9.1) | 10.9 (0.15) |
| Belgium (Flemish) | 53 (3.9) | 535 (2.2) | 47 (3.8) | 514 (3.2) | 1 (0.4) | ~~ | 10.8 (0.13) |
| Finland | 50 (3.6) | 572 (2.3) | 50 (3.6) | 560 (2.5) | 0 (0.1) | $\sim \sim$ | 10.9 (0.12) |
| Norway (5) | 48 (4.4) | 569 (2.7) | 52 (4.4) | 549 (2.8) | 0 (0.0) | $\sim \sim$ | 10.6 (0.16) |
| Poland | 47 (3.7) | 573 (3.3) | 52 (3.8) | 557 (2.8) | 1 (0.5) | $\sim \sim$ | 10.7 (0.13) |
| Ireland | 47 (3.6) | 579 (3.0) | 52 (3.6) | 557 (3.2) | 1 (0.8) | $\sim \sim$ | 10.6 (0.14) |
| Northern Ireland | 45 (4.5) | 575 (4.1) | 54 (4.6) | 556 (3.3) | 1 (1.0) | ~ ~ | 10.7 (0.19) |
| Azerbaijan | 44 (3.3) | 475 (5.8) | 55 (3.3) | 471 (6.6) | 0 (0.3) | ~ ~ | 10.6 (0.10) |
| Spain | 43 (3.1) | 537 (2.0) | 54 (3.0) | 521 (2.6) | 3 (0.8) | 524 (5.9) | 10.4 (0.11) |
| Macao SAR | 43 (0.1) | 554 (1.4) | 55 (0.1) | 540 (1.5) | $2(0.0)$ | ~ ~ | 10.4 (0.00) |
| Germany | 42 (3.3) | 557 (3.0) | 57 (3.4) | 521 (5.3) | 2 (1.0) | $\sim$ | 10.2 (0.14) |
| Austria | 41 (3.7) | 551 (2.9) | 57 (3.6) | 535 (3.2) | 2 (0.9) | ~ ~ | 10.3 (0.16) |
| Sweden | 40 (4.2) | 562 (3.0) | 59 (4.3) | 551 (3.6) | 1 (0.7) | $\sim \sim$ | 10.5 (0.15) |
| Singapore | 38 (2.7) | 610 (4.7) | 59 (2.8) | 555 (4.0) | 3 (0.8) | 563 (21.8) | 10.2 (0.12) |
| Bulgaria | 38 (4.0) | 575 (5.7) | 60 (4.0) | 538 (5.2) | 1 (0.9) | ~ ~ | 10.4 (0.13) |
| England | 38 (3.5) | 572 (3.1) | 61 (3.7) | 550 (2.8) | 1 (0.9) | $\sim \sim$ | 10.3 (0.12) |
| New Zealand | 37 (2.8) | 551 (3.1) | 61 (2.7) | 516 (3.4) | 3 (0.9) | 489 (23.3) | 10.1 (0.09) |
| Hong Kong SAR | 36 (4.6) | 579 (5.3) | 63 (4.7) | 562 (3.2) | 1 (0.8) | ~ | 10.2 (0.12) |
| Israel | 35 (3.3) | 556 (6.0) | 50 (3.9) | 525 (4.6) | 14 (2.8) | 486 (10.9) | 9.5 (0.18) |
| Hungary | 35 (4.1) | 574 (4.9) | 64 (4.2) | 545 (4.0) | 2 (1.1) | $\sim \sim$ | 10.1 (0.18) |
| Georgia | 34 (3.6) | 496 (5.0) | 61 (3.7) | 484 (3.7) | 6 (1.7) | 495 (12.3) | 9.9 (0.15) |
| United Arab Emirates | 34 (2.1) | 498 (6.1) | 63 (2.1) | 435 (4.4) | 3 (0.8) | 382 (12.3) | 9.9 (0.08) |
| Malta | 33 (0.1) | 469 (2.3) | 57 (0.1) | 444 (2.6) | 10 (0.1) | 450 (4.2) | 9.6 (0.01) |
| Denmark | 32 (3.4) | 553 (3.4) | 66 (3.6) | 546 (2.7) | 2 (1.0) | ~ ~ | 10.1 (0.16) |
| Australia | 31 (3.5) | 571 (4.8) | 65 (3.6) | 533 (3.2) | 4 (1.2) | 531 (9.7) | 9.9 (0.15) |
| Latvia | 30 (3.5) | 560 (3.2) | 64 (3.6) | 555 (2.4) | 6 (1.6) | 577 (4.9) | 9.8 (0.14) |
| Portugal | 28 (2.7) | 538 (5.7) | 68 (2.6) | 524 (2.2) | 4 (1.2) | 528 (12.0) | 9.8 (0.12) |
| France | 27 (3.2) | 529 (3.5) | 66 (3.6) | 505 (2.9) | 6 (1.9) | 506 (9.6) | 9.4 (0.14) |
| Qatar | 27 (2.1) | 479 (5.9) | 70 (2.3) | 430 (2.9) | 3 (0.7) | 411 (17.8) | 9.8 (0.07) |
| Bahrain | 25 (3.8) | 470 (7.2) | 72 (4.1) | 440 (3.7) | 3 (1.4) | 432 (21.9) | 9.5 (0.10) |
| Belgium (French) | 24 (3.5) | 516 (4.6) | 73 (3.5) | 494 (3.3) | 3 (0.8) | 454 (9.2) | 9.7 (0.11) |
| Saudi Arabia | 24 (3.7) | 465 (8.3) | 76 (3.7) | 420 (4.7) | 0 (0.0) | $\sim \sim$ | 9.6 (0.13) |
| Chinese Taipei | 24 (3.6) | 558 (3.6) | 76 (3.6) | 559 (2.5) | 1 (0.6) | ~ ~ | 9.9 (0.10) |
| Lithuania | 21 (3.1) | 557 (4.8) | 69 (3.8) | 547 (3.5) | 9 (2.2) | 534 (12.2) | 9.2 (0.13) |
| Oman | 21 (2.4) | 436 (7.0) | 64 (3.1) | 415 (4.4) | 15 (2.4) | 410 (7.9) | 8.8 (0.13) |
| Trinidad and Tobago | 20 (2.7) | 524 (7.3) | 76 (2.9) | 469 (4.1) | 3 (1.5) | 475 (24.0) | 9.6 (0.15) |
| Canada | 20 (2.1) | 561 (3.9) | 76 (2.3) | 540 (2.2) | 4 (0.8) | 515 (8.8) | 9.3 (0.09) |
| Iran, Islamic Rep. of | 19 (2.9) | 441 (9.5) | 75 (3.2) | 423 (5.6) | 6 (1.6) | 442 (14.7) | 9.1 (0.13) |
| Russian Federation | 19 (2.5) | 590 (6.2) | 65 (3.0) | 583 (2.8) | 17 (2.5) | 563 (5.9) | 8.6 (0.15) |
| United States | 19 (3.0) | 581 (4.8) | 76 (3.4) | 545 (3.4) | 5 (1.8) | 506 (12.3) | 9.3 (0.13) |
| Kuwait | 17 (3.8) | 414 (16.5) | 80 (4.9) | 388 (6.6) | 3 (3.0) | 440 (88.4) | 9.4 (0.17) |
| Slovenia | 15 (2.9) | 543 (3.6) | 73 (3.6) | 542 (2.5) | 12 (2.5) | 545 (6.1) | 8.8 (0.16) |
| Chile | 13 (2.8) | 537 (5.7) | 79 (3.7) | 494 (3.3) | 8 (2.8) | 461 (13.4) | 8.7 (0.16) |
| South Africa | 13 (2.4) | 342 (17.4) | 83 (2.9) | 318 (5.8) | 4 (1.4) | 309 (16.5) | 9.0 (0.10) |
| Morocco | 12 (2.0) | 419 (12.8) | 82 (2.3) | 350 (4.4) | 6 (1.2) | 332 (9.0) | 8.8 (0.09) |
| Egypt | 9 (2.1) | 384 (16.0) | 85 (2.4) | 326 (6.3) | 6 (1.6) | 323 (26.8) | 8.7 (0.12) |
| International Avg. | 34 (0.5) | 528 (0.9) | 63 (0.5) | 504 (0.5) | 4 (0.2) | 473 (4.1) |  |

This PIRLS questionnaire scale was established in 2016 based on the combined response distribution of all countries that participated in PIRLS 2016. 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.

Exhibit 9.9: Classroom Instruction Limited by Student Attributes (Continued)

| Country | Very Little |  | Some |  | A Lot |  | Average Scale Score |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Percent of Students | Average Achievement | Percent of Students | Average Achievement | Percent of Students | Average Achievement |  |
| Benchmarking Participants |  |  |  |  |  |  |  |
| Madrid, Spain | 56 (4.6) | 556 (2.6) | 44 (4.6) | 540 (2.6) | 0 (0.0) | ~ ~ | 10.8 (0.13) |
| Dubai, UAE | 51 (1.9) | 541 (3.1) | 46 (1.9) | 496 (3.6) | 2 (0.7) | $\sim$ | 10.8 (0.09) |
| Norway (4) | 40 (4.1) | 522 (2.7) | 59 (4.1) | 514 (2.9) | 1 (0.5) | $\sim \sim$ | 10.4 (0.14) |
| Andalusia, Spain | 39 (3.6) | 540 (2.3) | 59 (3.7) | 515 (3.0) | 2 (1.1) | $\sim \sim$ | 10.4 (0.13) |
| Denmark (3) | 38 (3.9) | 510 (4.4) | 59 (4.1) | 498 (3.7) | 3 (1.3) | 469 (14.4) | 10.1 (0.14) |
| Abu Dhabi, UAE | 27 (3.1) | 460 (11.9) | 71 (3.4) | 407 (6.1) | 2 (1.2) | ~ | 9.4 (0.13) |
| Buenos Aires, Argentina | 23 (3.7) | 506 (6.9) | 57 (4.4) | 473 (4.9) | 20 (3.2) | 467 (8.5) | 8.7 (0.19) |
| Ontario, Canada | 23 (4.1) | 554 (7.2) | 74 (4.4) | 544 (3.4) | 3 (1.4) | 473 (16.3) | 9.6 (0.17) |
| Quebec, Canada | 19 (4.0) | 573 (6.6) | 73 (4.7) | 541 (2.6) | 8 (2.8) | 535 (8.5) | 9.2 (0.19) |
| Moscow City, Russian Fed. | 18 (2.9) | 619 (5.2) | 73 (3.6) | 612 (2.5) | 9 (2.3) | 596 (6.3) | 8.8 (0.15) |
| Eng/Afr/Zulu - RSA (5) | 10 (2.9) | 431 (23.5) | 86 (3.5) | 413 (6.8) | 4 (2.1) | 424 (33.3) | 9.2 (0.17) |

In your view, to what extent do the following limit how you teach this class?

