

### Exhibit 8.4: Teacher Time Spent on Professional Development Related to Reading in the Past Two Years

In general, teachers did not spend very much time on professional development related to reading. Exhibit 8.4 shows the results for teachers' reports about how much time they had spent on professional development related to reading in the past two years. Sixteen percent of the fourth grade students had teachers who had spent no time and another 22 percent had teachers who had spent less than 6 hours (38% in total). Twenty-seven percent of the students had teachers who had spent 6 to 15 hours and 36 percent had teachers who had spent 16 hours or more on professional development related to reading. Consistent with considerable research showing little impact from small amounts of time spent on professional development, students had essentially the same average reading achievement for the different amounts of their teachers' professional development.

**Exhibit 8.4: Teacher Time Spent on Professional Development Related to Reading in the Past Two Years**

*Students Categorized by Teachers' Reports*

Country	16 Hours or More		6–15 Hours		Less Than 6 Hours		None	
	Percent of Students	Average Achievement	Percent of Students	Average Achievement	Percent of Students	Average Achievement	Percent of Students	Average Achievement
Australia	49 (3.8)	542 (3.8)	27 (3.6)	544 (5.2)	21 (2.7)	556 (5.7)	3 (0.9)	536 (12.8)
Austria	28 (3.2)	542 (4.3)	49 (3.4)	539 (3.5)	16 (2.4)	547 (5.3)	7 (1.9)	544 (5.2)
Azerbaijan	67 (3.7)	477 (4.7)	22 (3.1)	468 (12.9)	6 (1.7)	455 (16.4)	5 (1.4)	455 (18.9)
Bahrain	42 (3.1)	460 (5.2)	27 (3.1)	433 (6.1)	20 (2.5)	439 (7.5)	11 (2.2)	422 (13.8)
Belgium (Flemish)	6 (1.5)	516 (9.7)	20 (3.2)	527 (4.8)	39 (3.5)	522 (3.5)	35 (3.6)	530 (3.4)
Belgium (French)	8 (1.8)	496 (7.3)	24 (3.4)	505 (6.0)	30 (3.3)	491 (4.8)	38 (3.7)	499 (4.2)
Bulgaria	33 (3.3)	556 (6.3)	35 (3.7)	552 (7.2)	18 (3.0)	550 (10.6)	13 (2.7)	540 (11.5)
Canada	34 (2.0)	537 (3.3)	30 (2.1)	545 (3.1)	29 (2.2)	546 (3.1)	8 (1.3)	556 (4.5)
Chile	49 (4.4)	496 (5.2)	28 (3.7)	495 (5.0)	15 (3.5)	490 (7.6)	9 (2.8)	518 (9.3)
Chinese Taipei	39 (4.1)	562 (2.9)	31 (3.9)	559 (4.1)	26 (3.6)	554 (2.8)	4 (1.7)	565 (11.6)
Czech Republic	12 (2.4)	543 (5.8)	36 (3.3)	542 (3.3)	30 (3.3)	546 (3.3)	22 (2.7)	542 (5.7)
Denmark	26 (3.2)	549 (5.0)	17 (3.3)	552 (4.7)	14 (2.7)	548 (6.9)	43 (3.6)	545 (2.7)
Egypt	52 (4.3)	328 (7.7)	29 (3.6)	328 (13.2)	14 (3.1)	342 (14.8)	5 (1.8)	328 (13.8)
England	20 (2.9)	551 (5.8)	29 (3.5)	560 (5.3)	34 (3.4)	556 (3.5)	18 (2.9)	566 (4.5)
Finland	5 (1.1)	549 (5.5)	12 (2.2)	563 (5.3)	24 (3.0)	562 (4.3)	59 (3.1)	569 (2.1)
France	6 (1.4)	502 (12.0)	18 (3.1)	515 (4.2)	38 (3.8)	509 (4.4)	38 (4.3)	514 (3.1)
Georgia	68 (3.9)	489 (3.5)	19 (2.9)	487 (6.9)	6 (2.1)	492 (11.9)	7 (2.0)	490 (11.0)
Germany	5 (1.8)	563 (9.4)	26 (3.3)	530 (9.4)	41 (3.8)	539 (4.3)	27 (3.4)	539 (5.4)
Hong Kong SAR	22 (3.7)	573 (7.7)	35 (4.0)	562 (4.5)	31 (4.1)	572 (4.7)	12 (2.8)	576 (9.3)
Hungary	25 (3.4)	551 (6.6)	15 (2.5)	567 (5.8)	25 (3.6)	564 (6.9)	36 (3.4)	544 (6.8)
Iran, Islamic Rep. of	58 (3.5)	426 (6.4)	15 (2.5)	417 (11.8)	13 (2.7)	439 (11.4)	14 (2.9)	435 (8.6)
Ireland	34 (3.3)	564 (5.9)	22 (3.3)	567 (4.8)	35 (3.6)	567 (4.2)	10 (2.2)	572 (6.2)
Israel	54 (3.5)	522 (5.0)	19 (3.4)	528 (10.8)	16 (2.9)	544 (7.5)	11 (2.5)	553 (7.2)
Italy	25 (3.7)	549 (4.1)	26 (3.2)	549 (4.7)	23 (3.3)	551 (4.9)	26 (3.4)	546 (5.4)
Kazakhstan	60 (3.5)	540 (3.6)	25 (3.3)	532 (4.4)	11 (2.4)	526 (8.4)	3 (1.4)	547 (19.0)
Kuwait	24 (3.2)	388 (12.1)	34 (5.8)	395 (11.5)	29 (4.4)	396 (10.6)	13 (4.0)	395 (18.9)
Latvia	48 (3.9)	558 (3.2)	33 (4.0)	552 (3.4)	14 (2.7)	570 (4.3)	5 (1.6)	564 (9.8)
Lithuania	27 (3.7)	544 (6.0)	48 (3.5)	550 (3.5)	21 (2.8)	552 (7.6)	5 (1.7)	538 (10.7)
Macao SAR	62 (0.1)	550 (1.3)	21 (0.1)	545 (2.0)	14 (0.1)	532 (2.9)	2 (0.0)	~ ~
Malta	29 (0.1)	442 (3.1)	38 (0.1)	460 (2.2)	29 (0.1)	449 (3.1)	5 (0.1)	463 (5.5)
Morocco	7 (1.7)	393 (21.6)	6 (1.4)	396 (17.3)	21 (2.9)	359 (11.1)	66 (3.0)	350 (5.2)
Netherlands	28 (3.9)	539 (4.1)	30 (4.0)	546 (3.8)	33 (4.4)	546 (4.0)	10 (2.0)	560 (4.1)
New Zealand	41 (2.7)	517 (4.0)	30 (2.5)	529 (3.8)	22 (2.2)	534 (5.5)	7 (1.4)	547 (8.3)
Northern Ireland	25 (4.4)	566 (5.6)	31 (4.8)	559 (5.1)	34 (4.9)	565 (4.2)	10 (2.7)	568 (8.5)
Norway (5)	32 (3.5)	561 (3.6)	32 (3.5)	559 (4.0)	18 (3.1)	560 (4.7)	18 (2.7)	553 (4.0)
Oman	52 (3.0)	420 (4.8)	26 (2.6)	425 (5.5)	17 (2.6)	411 (6.2)	5 (1.5)	407 (8.8)
Poland	23 (3.7)	561 (5.2)	27 (2.9)	556 (4.6)	33 (3.5)	570 (2.9)	17 (3.4)	573 (6.4)
Portugal	33 (2.9)	531 (4.5)	20 (2.4)	529 (4.8)	20 (2.8)	529 (5.6)	28 (2.8)	523 (3.3)
Qatar	57 (2.6)	432 (3.2)	27 (2.7)	454 (6.3)	12 (1.5)	457 (7.9)	4 (1.0)	476 (20.3)
Russian Federation	59 (3.3)	582 (3.5)	16 (2.5)	577 (6.1)	15 (2.4)	581 (5.7)	10 (1.7)	580 (5.9)
Saudi Arabia	46 (4.0)	432 (6.5)	37 (3.9)	433 (8.2)	13 (2.2)	414 (13.9)	4 (1.5)	436 (15.8)
Singapore	46 (2.8)	584 (5.0)	31 (2.5)	571 (5.6)	16 (1.9)	573 (8.7)	7 (1.2)	562 (10.8)
Slovak Republic	24 (3.2)	523 (8.7)	15 (2.3)	544 (3.7)	24 (3.3)	540 (8.2)	37 (3.1)	535 (5.8)
Slovenia	13 (2.2)	542 (3.7)	39 (3.6)	542 (3.6)	32 (3.6)	541 (3.2)	15 (2.9)	544 (5.5)
South Africa	r 43 (3.8)	322 (7.6)	25 (3.0)	315 (13.7)	24 (3.3)	323 (9.1)	9 (1.9)	326 (21.2)
Spain	48 (2.9)	527 (2.1)	21 (2.0)	526 (5.8)	15 (2.4)	528 (4.4)	17 (2.3)	535 (3.3)
Sweden	37 (3.9)	555 (3.8)	25 (3.6)	556 (5.3)	24 (3.8)	557 (4.6)	15 (2.9)	554 (5.7)
Trinidad and Tobago	49 (4.1)	471 (5.8)	26 (3.5)	473 (6.7)	16 (3.0)	494 (10.5)	9 (2.6)	519 (17.7)
United Arab Emirates	50 (2.6)	437 (4.9)	31 (2.6)	457 (7.2)	17 (2.3)	484 (8.6)	2 (0.6)	~ ~
United States	55 (4.2)	539 (4.3)	28 (3.9)	566 (5.0)	15 (2.4)	556 (8.2)	2 (0.8)	~ ~
International Avg.	36 (0.5)	510 (0.9)	27 (0.5)	512 (1.0)	22 (0.4)	513 (1.1)	16 (0.4)	514 (1.5)

SOURCE: IEA's Progress in International Reading Literacy Study – PIRLS 2016

( ) Standard errors appear in parentheses. Because of rounding some results may appear inconsistent.

A tilde (~) indicates insufficient data to report achievement.

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

**Exhibit 8.4: Teacher Time Spent on Professional Development Related to Reading in the Past Two Years (Continued)**

Country	16 Hours or More		6–15 Hours		Less Than 6 Hours		None	
	Percent of Students	Average Achievement	Percent of Students	Average Achievement	Percent of Students	Average Achievement	Percent of Students	Average Achievement
<b>Benchmarking Participants</b>								
Buenos Aires, Argentina	39 (3.9)	477 (6.3)	26 (3.6)	473 (5.8)	20 (3.4)	490 (7.9)	15 (2.8)	488 (10.6)
Ontario, Canada	32 (4.1)	538 (5.7)	27 (3.7)	548 (6.1)	33 (4.4)	544 (5.5)	9 (2.6)	562 (7.8)
Quebec, Canada	16 (3.4)	548 (5.4)	39 (4.6)	540 (5.7)	36 (4.8)	555 (4.0)	9 (2.0)	544 (7.4)
Denmark (3)	19 (3.4)	501 (6.1)	18 (3.2)	505 (6.7)	16 (3.2)	509 (7.4)	47 (3.7)	497 (4.1)
Norway (4)	27 (3.2)	521 (3.9)	35 (3.8)	515 (3.5)	25 (3.3)	519 (4.1)	14 (2.9)	512 (4.5)
Moscow City, Russian Fed.	64 (4.2)	612 (2.7)	20 (3.5)	618 (4.9)	10 (2.4)	608 (6.1)	6 (2.2)	602 (11.7)
Eng/Afr/Zulu - RSA (5)	33 (5.6)	397 (8.6)	44 (5.0)	430 (10.2)	17 (4.0)	410 (20.6)	6 (2.7)	429 (35.2)
Andalusia, Spain	55 (3.9)	521 (3.2)	22 (3.0)	531 (4.2)	11 (2.4)	521 (5.3)	13 (2.9)	528 (4.8)
Madrid, Spain	42 (4.1)	546 (3.3)	21 (2.9)	551 (3.2)	16 (3.1)	558 (5.4)	21 (3.7)	547 (4.0)
Abu Dhabi, UAE	63 (4.5)	407 (6.5)	23 (4.1)	415 (13.4)	12 (2.5)	470 (17.3)	2 (1.1)	~ ~
Dubai, UAE	42 (2.4)	501 (4.1)	32 (3.6)	523 (5.8)	22 (3.1)	532 (6.1)	3 (0.7)	535 (8.3)

SOURCE: IEA's Progress in International Reading Literacy Study – PIRLS 2016