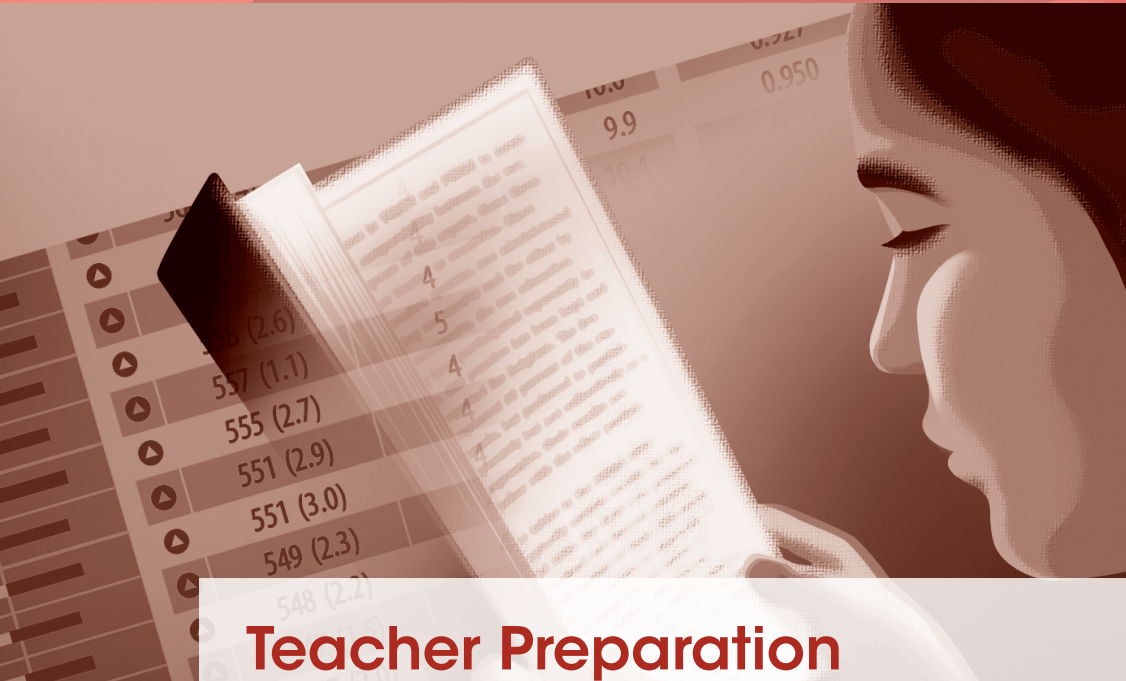


# Chapter 7



## Teacher Preparation

Higher average reading achievement was associated with specialized education in language or reading. Achievement also was related to teachers' having more experience and being satisfied with their careers.

In view of the importance of a well prepared teaching force to an effective education system, PIRLS 2011 collected a range of information about teacher education. In the *PIRLS 2011 Encyclopedia*, each country chapter describes the educational route to teacher certification, including any additional requirements such as passing an examination or completing an induction year. Each chapter also addresses the requirements and practices for ongoing teacher professional development. Chapter 7 provides information about teachers' education, experience, professional development, and satisfaction with their teaching careers.

### *Reading Teachers' Formal Education*

There is growing evidence that teacher preparation is a powerful predictor of students' achievement, perhaps even overcoming socioeconomic and language background factors (Darling-Hammond, 2000).

Exhibit 7.1 presents teachers' reports about their highest level of formal education. On average, internationally, across the fourth grade countries, 26 percent of the students had reading teachers with a postgraduate university degree, 53 percent had teachers with a bachelor's degree, 15 percent had teachers who had completed post-secondary education (usually a 3-year teacher education program), and 6 percent had teachers with an upper secondary degree. However, it is clear from examining the country-by-country results across the fourth grade, sixth grade, benchmarking, and prePIRLS participants that different countries have different educational paths for becoming a primary level reading teacher.

### *Teachers' Educational Emphasis on Language and Reading Areas*

In addition to the importance of a college or university degree or advanced degree, the literature reports widespread agreement that teachers should have solid mastery of the content in the subject to be taught. Content knowledge may be obtained through a university major in the subject to be taught, although teacher education also needs to teach the skills of the craft (Tucker, 2011).

Exhibit 7.2 shows the percentages of students whose teachers had various areas of specialization in their formal education and training. Internationally, on average, across the fourth grade countries, 72 percent of the students had reading teachers with an emphasis on language, 62 percent had teachers with an emphasis on pedagogy/teaching reading, and 33 percent had teachers with

an emphasis on reading theory. In all three instances, although differences were small, higher average reading achievement was associated with teachers having specialized education. This pattern can be detected for the sixth grade and prePIRLS participants to some extent, but was less consistent for the benchmarking participants.

### *Teachers' Years of Experience*

It is difficult to examine the effects of teacher experience on student achievement, because sometimes more experienced teachers are assigned to students of higher ability and fewer discipline problems, and other times the more experienced teachers are assigned to the lower-achieving students in need of more help. However, some research has addressed this selection bias problem; and experience can have a large positive impact primarily in the first few years of teaching, although the benefits can continue beyond the first five years of teacher's career (Harris & Sass, 2011; Leigh, 2010).

Exhibit 7.3 presents teachers' reports about their years of experience. Internationally, on average, across countries, the fourth grade reading teachers had been teaching for an average of 17 years. Forty-one percent of the students, on average, had very experienced reading teachers with 20 years or more of experience, and another 31 percent had teachers with at least ten years of experience. Taken together, close to three-fourths of the students had very experienced teachers.

Average reading achievement was highest for students whose teachers had 20 or more years of experience and lowest for the 12 percent of students whose teachers had less than five years of experience. This achievement gap most likely is a reflection of more senior teachers receiving the preferred assignments, but also could reflect the fact that the newer teachers still are learning the most effective instructional approaches. There was variation in the results from country to country, including those at the sixth grade and in prePIRLS, as well as for the benchmarking participants.

Reported by Teachers

Country	Percent of Students by Teacher Educational Level			
	Completed Postgraduate University Degree**	Completed Bachelor's Degree or Equivalent but Not a Postgraduate Degree	Completed Post-secondary Education but Not a Bachelor's Degree	No Further than Upper-secondary Education
Australia	64 (3.3)	29 (3.1)	5 (1.8)	1 (1.1)
Austria	4 (1.3)	2 (0.9)	93 (1.6)	0 (0.3)
Azerbaijan	8 (1.9)	55 (3.9)	35 (3.7)	2 (0.8)
Belgium (French)	0 (0.0)	99 (0.5)	0 (0.0)	0 (0.0)
Bulgaria	67 (3.2)	24 (2.8)	9 (2.0)	0 (0.0)
Canada	15 (1.9)	84 (1.9)	1 (0.2)	0 (0.0)
Chinese Taipei	26 (3.7)	72 (3.7)	2 (1.1)	0 (0.0)
Colombia	35 (4.1)	59 (4.3)	6 (1.9)	1 (1.1)
Croatia	1 (0.6)	30 (3.3)	69 (3.2)	1 (0.4)
Czech Republic	93 (2.2)	1 (0.5)	3 (1.6)	3 (1.4)
Denmark	4 (1.2)	75 (2.9)	19 (2.7)	1 (0.8)
England	28 (4.3)	71 (4.3)	1 (0.5)	0 (0.0)
Finland	82 (2.5)	17 (2.3)	0 (0.0)	2 (0.9)
France	75 (3.0)	14 (2.6)	3 (1.1)	8 (1.9)
Georgia	75 (3.4)	21 (3.1)	4 (1.5)	0 (0.0)
Germany	1 (0.7)	83 (2.1)	9 (1.7)	7 (1.7)
Hong Kong SAR	33 (4.1)	59 (4.2)	7 (2.6)	0 (0.0)
Hungary	3 (1.0)	95 (1.5)	2 (1.1)	0 (0.0)
Indonesia	1 (0.6)	56 (4.6)	31 (4.3)	13 (2.9)
Iran, Islamic Rep. of	1 (0.8)	37 (3.4)	49 (3.4)	13 (2.2)
Ireland	18 (2.8)	79 (2.7)	3 (1.3)	0 (0.0)
Israel	13 (3.1)	78 (3.8)	9 (2.5)	0 (0.0)
Italy	4 (1.3)	17 (2.7)	3 (1.3)	76 (3.2)
Lithuania	15 (2.4)	76 (2.7)	8 (1.8)	0 (0.0)
Malta	10 (0.1)	69 (0.1)	11 (0.1)	10 (0.1)
Morocco	0 (0.2)	40 (3.9)	0 (0.0)	60 (4.0)
Netherlands	5 (1.3)	89 (2.2)	5 (1.6)	1 (0.0)
New Zealand	13 (2.0)	69 (2.9)	18 (2.1)	0 (0.0)
Northern Ireland	28 (4.1)	69 (4.3)	3 (1.5)	0 (0.0)
Norway	1 (0.5)	96 (1.3)	3 (1.3)	0 (0.0)
Oman	5 (0.9)	63 (3.0)	31 (3.0)	1 (0.6)
Poland	96 (1.4)	3 (1.2)	1 (0.7)	0 (0.0)
Portugal	3 (0.9)	91 (1.8)	6 (1.6)	0 (0.0)
Qatar	23 (4.5)	70 (4.8)	6 (2.0)	1 (0.5)
Romania	7 (2.1)	30 (3.5)	29 (4.0)	34 (3.5)
Russian Federation	79 (2.6)	0 (0.0)	21 (2.6)	0 (0.0)
Saudi Arabia	0 (0.0)	69 (3.7)	30 (3.7)	1 (0.8)
Singapore	12 (2.1)	56 (2.8)	29 (2.4)	2 (0.8)
Slovak Republic	99 (0.6)	0 (0.2)	1 (0.5)	0 (0.0)
Slovenia	1 (0.5)	57 (3.9)	42 (3.9)	0 (0.0)
Spain	2 (0.8)	98 (0.8)	0 (0.0)	0 (0.1)
Sweden	--	--	--	--
Trinidad and Tobago	4 (1.6)	39 (4.1)	46 (4.3)	10 (2.7)
United Arab Emirates	24 (2.2)	67 (2.2)	9 (1.2)	0 (0.0)
United States	65 (2.8)	35 (2.8)	0 (0.0)	0 (0.0)
<b>International Avg.</b>	<b>26 (0.3)</b>	<b>53 (0.4)</b>	<b>15 (0.3)</b>	<b>6 (0.2)</b>

SOURCE: IEA's Progress in International Reading Literacy Study – PIRLS 2011

\* Based on countries' categorizations according to UNESCO's International Standard Classification of Education (Operational Manual for ISCED-1997).

\*\* For example, doctorate, master's, or other postgraduate degree or diploma.

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

A dash (–) indicates comparable data not available.

An "r" indicates data are available for at least 70% but less than 85% of the students. An "s" indicates data are available for at least 50% but less than 70% of the students.

**Exhibit 7.1: Reading Teachers' Formal Education\* (Continued)**

Country	Percent of Students by Teacher Educational Level			
	Completed Postgraduate University Degree**	Completed Bachelor's Degree or Equivalent but Not a Postgraduate Degree	Completed Post-secondary Education but Not a Bachelor's Degree	No Further than Upper-secondary Education
<b>Sixth Grade Participants</b>				
Botswana	1 (0.0)	16 (3.6)	81 (3.7)	1 (1.0)
Honduras	0 (0.0)	45 (3.7)	21 (3.7)	34 (4.1)
Kuwait	5 (2.5)	92 (3.2)	1 (0.1)	2 (1.6)
Morocco	0 (0.0)	27 (4.1)	0 (0.0)	73 (4.1)
<b>Benchmarking Participants<sup>◊</sup></b>				
Alberta, Canada	5 (1.7)	94 (2.0)	1 (0.9)	0 (0.0)
Ontario, Canada	13 (3.1)	87 (3.1)	0 (0.0)	0 (0.0)
Quebec, Canada	14 (3.3)	86 (3.4)	0 (0.1)	0 (0.0)
Maltese – Malta	12 (0.1)	70 (0.1)	9 (0.1)	10 (0.1)
Eng/Afr (5) – RSA	15 (4.4)	39 (5.8)	37 (4.3)	9 (3.8)
Andalusia, Spain	1 (0.8)	98 (1.0)	0 (0.0)	1 (0.0)
Abu Dhabi, UAE	23 (3.9)	68 (4.0)	9 (2.0)	0 (0.0)
Dubai, UAE	33 (2.0)	58 (2.4)	8 (1.6)	0 (0.0)
Florida, US	45 (5.4)	55 (5.4)	0 (0.0)	0 (0.0)

<sup>◊</sup> Republic of South Africa (RSA) tested 5th grade students receiving instruction in English (ENG) or Afrikaans (AFR).

SOURCE: IEA's Progress in International Reading Literacy Study – PIRLS 2011

Country	Percent of Students by Teacher Educational Level			
	Completed Postgraduate University Degree**	Completed Bachelor's Degree or Equivalent but Not a Postgraduate Degree	Completed Post-secondary Education but Not a Bachelor's Degree	No Further than Upper-secondary Education
Botswana	2 (1.2)	18 (3.2)	80 (3.5)	1 (0.0)
Colombia	35 (4.1)	59 (4.3)	6 (1.9)	1 (1.1)
South Africa	12 (2.0)	32 (3.4)	41 (3.7)	15 (3.1)

**Exhibit 7.2: Teachers Emphasized Language and Reading Areas in Their Formal Education and Training**

Reported by Teachers

Country	Language			Pedagogy / Teaching Reading			Reading Theory		
	Percent of Students	Average Achievement		Percent of Students	Average Achievement		Percent of Students	Average Achievement	
	Area Emphasized	Area Emphasized	Area Not Emphasized	Area Emphasized	Area Emphasized	Area Not Emphasized	Area Emphasized	Area Emphasized	Area Not Emphasized
Australia	r 75 (3.4)	537 (3.7)	515 (4.4)	r 62 (4.1)	534 (4.5)	527 (4.8)	r 28 (4.2)	539 (5.6)	528 (3.6)
Austria	63 (3.3)	530 (2.4)	527 (3.3)	47 (3.3)	530 (2.8)	528 (2.6)	37 (3.2)	531 (3.1)	527 (2.4)
Azerbaijan	72 (3.7)	467 (3.9)	461 (7.6)	66 (3.7)	464 (4.1)	467 (6.5)	58 (4.0)	465 (4.0)	466 (5.5)
Belgium (French)	66 (3.1)	507 (3.5)	507 (4.6)	33 (3.7)	510 (4.5)	506 (3.6)	12 (3.1)	510 (7.5)	507 (3.3)
Bulgaria	97 (1.4)	534 (4.0)	482 (32.4)	97 (1.3)	533 (4.2)	488 (18.0)	50 (3.8)	536 (5.8)	529 (5.9)
Canada	53 (2.6)	545 (2.0)	552 (2.8)	45 (2.9)	548 (3.3)	549 (2.0)	24 (2.5)	551 (4.7)	547 (1.9)
Chinese Taipei	22 (3.3)	547 (3.7)	555 (2.2)	31 (4.2)	555 (3.5)	552 (2.4)	9 (2.4)	552 (6.2)	553 (2.0)
Colombia	55 (4.2)	457 (6.1)	439 (6.1)	42 (4.5)	457 (6.4)	442 (6.3)	29 (3.8)	449 (7.5)	447 (5.2)
Croatia	90 (2.3)	554 (1.9)	548 (4.7)	87 (2.2)	553 (2.1)	555 (4.2)	34 (3.6)	551 (3.1)	555 (2.4)
Czech Republic	87 (2.4)	547 (2.2)	535 (9.9)	67 (3.9)	547 (2.5)	543 (4.6)	31 (3.8)	546 (3.1)	545 (3.0)
Denmark	65 (3.3)	555 (2.3)	553 (2.5)	49 (3.1)	558 (2.2)	551 (2.3)	43 (3.5)	556 (2.6)	554 (2.2)
England	74 (3.5)	553 (3.3)	545 (6.4)	48 (4.4)	552 (4.8)	549 (3.7)	17 (3.1)	551 (7.6)	551 (3.0)
Finland	24 (3.0)	568 (3.9)	568 (2.1)	28 (3.1)	568 (3.3)	568 (2.1)	8 (1.7)	566 (7.5)	568 (1.9)
France	65 (3.3)	521 (3.3)	519 (4.1)	38 (3.3)	521 (4.3)	518 (3.4)	19 (2.4)	520 (7.0)	520 (2.8)
Georgia	92 (2.3)	488 (3.2)	491 (7.1)	88 (2.2)	485 (3.3)	511 (8.3)	53 (3.6)	482 (4.4)	496 (3.9)
Germany	56 (3.2)	541 (3.2)	541 (4.0)	39 (3.3)	537 (3.7)	544 (3.1)	18 (2.9)	545 (5.9)	540 (2.5)
Hong Kong SAR	83 (4.1)	570 (2.7)	574 (7.6)	71 (4.4)	568 (2.8)	576 (4.7)	22 (4.0)	572 (6.0)	570 (2.8)
Hungary	88 (2.1)	538 (3.5)	543 (8.3)	88 (1.9)	537 (3.3)	549 (6.0)	33 (3.4)	533 (6.4)	541 (3.1)
Indonesia	55 (5.3)	429 (4.5)	430 (7.4)	62 (4.8)	437 (4.0)	416 (8.1)	57 (4.9)	431 (4.6)	427 (8.2)
Iran, Islamic Rep. of	55 (3.3)	455 (5.0)	461 (3.7)	62 (3.8)	457 (4.0)	458 (4.8)	19 (2.7)	451 (8.4)	459 (3.2)
Ireland	85 (2.6)	550 (2.5)	565 (5.3)	76 (3.2)	553 (2.8)	548 (4.2)	36 (3.7)	555 (3.7)	550 (3.0)
Israel	85 (2.9)	543 (3.2)	543 (10.5)	66 (3.9)	542 (4.4)	547 (6.4)	48 (4.2)	535 (5.1)	550 (4.5)
Italy	87 (2.1)	542 (2.4)	538 (6.4)	44 (3.6)	541 (3.9)	542 (2.9)	21 (3.2)	536 (5.6)	544 (2.6)
Lithuania	81 (2.8)	530 (2.7)	520 (4.8)	71 (3.2)	528 (2.8)	529 (3.8)	49 (3.1)	529 (3.0)	529 (3.2)
Malta	65 (0.1)	470 (1.6)	487 (2.5)	62 (0.1)	474 (1.9)	478 (2.4)	16 (0.1)	492 (3.4)	473 (1.7)
Morocco	81 (3.9)	314 (4.6)	298 (10.8)	66 (4.3)	315 (5.4)	301 (6.9)	40 (4.6)	308 (7.3)	313 (5.3)
Netherlands	46 (3.9)	544 (3.1)	549 (2.6)	45 (3.7)	541 (2.8)	550 (2.7)	25 (3.5)	544 (4.2)	547 (2.3)
New Zealand	70 (3.2)	538 (2.7)	522 (5.2)	66 (3.0)	534 (3.5)	532 (4.2)	30 (2.5)	528 (5.2)	536 (2.9)
Northern Ireland	r 62 (4.5)	560 (4.2)	561 (3.4)	r 44 (4.9)	563 (4.2)	557 (4.0)	r 20 (3.6)	563 (8.0)	559 (3.2)
Norway	48 (4.5)	509 (2.7)	504 (3.0)	48 (4.7)	506 (3.2)	507 (2.8)	15 (3.1)	506 (4.7)	506 (2.3)
Oman	64 (3.1)	394 (3.4)	389 (5.1)	66 (2.7)	394 (3.2)	388 (5.3)	22 (2.2)	400 (5.1)	390 (3.4)
Poland	61 (3.9)	527 (2.6)	525 (3.7)	70 (3.5)	524 (2.5)	529 (4.4)	38 (3.2)	528 (3.2)	524 (3.0)
Portugal	72 (4.5)	541 (3.0)	541 (5.8)	61 (4.3)	544 (3.4)	535 (4.3)	29 (3.6)	546 (5.0)	538 (3.3)
Qatar	87 (2.9)	424 (4.5)	430 (16.9)	77 (3.9)	429 (5.2)	414 (10.3)	48 (4.2)	433 (7.3)	419 (6.5)
Romania	90 (2.6)	500 (4.8)	505 (12.0)	83 (2.7)	502 (4.4)	492 (11.5)	42 (4.3)	503 (7.4)	499 (5.5)
Russian Federation	95 (1.7)	569 (2.7)	552 (21.0)	95 (1.3)	569 (2.6)	559 (20.5)	76 (3.4)	567 (3.0)	574 (6.7)
Saudi Arabia	87 (3.6)	430 (4.7)	432 (13.2)	71 (4.5)	431 (5.7)	426 (8.8)	39 (4.0)	447 (7.4)	416 (6.3)
Singapore	77 (2.4)	567 (4.0)	565 (6.5)	73 (2.6)	569 (4.0)	562 (6.5)	25 (2.6)	574 (7.0)	564 (3.9)
Slovak Republic	93 (1.6)	534 (2.8)	542 (8.3)	84 (2.6)	533 (2.7)	543 (6.2)	47 (3.4)	535 (3.4)	534 (3.7)
Slovenia	83 (3.0)	530 (2.0)	530 (5.5)	50 (3.8)	532 (2.4)	529 (3.1)	27 (3.4)	534 (3.6)	529 (2.4)
Spain	88 (2.1)	517 (2.5)	493 (8.0)	53 (3.7)	519 (3.1)	507 (3.7)	21 (3.1)	516 (5.7)	513 (3.0)
Sweden	r 81 (3.4)	543 (2.5)	542 (5.4)	r 58 (4.2)	546 (3.4)	539 (2.8)	r 36 (4.0)	544 (3.4)	543 (3.1)
Trinidad and Tobago	82 (3.1)	472 (4.4)	462 (9.2)	72 (3.9)	470 (5.1)	470 (8.5)	55 (4.4)	466 (6.2)	474 (6.0)
United Arab Emirates	90 (1.4)	436 (2.8)	457 (10.6)	r 63 (2.8)	434 (3.6)	446 (6.6)	r 34 (2.4)	432 (5.1)	441 (3.2)
United States	r 52 (2.6)	556 (3.0)	556 (2.6)	r 63 (2.5)	555 (2.3)	557 (3.5)	r 36 (2.1)	552 (2.8)	558 (2.6)
<b>International Avg.</b>	<b>72 (0.5)</b>	<b>513 (0.5)</b>	<b>510 (1.3)</b>	<b>62 (0.5)</b>	<b>513 (0.6)</b>	<b>511 (1.0)</b>	<b>33 (0.5)</b>	<b>514 (0.8)</b>	<b>512 (0.6)</b>

( ) 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. An "s" indicates data are available for at least 50% but less than 70% of the students.

SOURCE: IEA's Progress in International Reading Literacy Study – PIRLS 2011

**Exhibit 7.2: Teachers Emphasized Language and Reading Areas in Their Formal Education and Training (Continued)**

Country	Language			Pedagogy / Teaching Reading			Reading Theory			
	Percent of Students	Average Achievement		Percent of Students	Average Achievement		Percent of Students	Average Achievement		
	Area Emphasized	Area Emphasized	Area Not Emphasized	Area Emphasized	Area Emphasized	Area Not Emphasized	Area Emphasized	Area Emphasized	Area Not Emphasized	
<b>Sixth Grade Participants</b>										
Botswana	53 (4.4)	434 (7.0)	407 (5.1)	r 45 (5.2)	439 (8.3)	405 (5.1)	32 (4.5)	445 (10.3)	409 (4.4)	
Honduras	49 (5.1)	443 (9.1)	453 (6.9)	r 37 (4.8)	447 (9.1)	446 (7.5)	r 26 (3.7)	450 (9.7)	446 (7.2)	
Kuwait	s 94 (2.8)	417 (7.5)	428 (46.1)	s 69 (4.5)	417 (8.6)	418 (14.8)	s 25 (4.7)	411 (15.8)	418 (8.5)	
Morocco	r 85 (3.5)	420 (5.3)	427 (7.4)	r 70 (4.4)	421 (5.1)	420 (9.8)	r 37 (4.6)	424 (7.6)	418 (6.8)	
<b>Benchmarking Participants<sup>o</sup></b>										
Alberta, Canada	55 (3.4)	545 (4.5)	552 (3.9)	43 (3.7)	551 (4.5)	545 (3.7)	23 (3.1)	550 (5.0)	547 (3.3)	
Ontario, Canada	47 (4.4)	547 (4.5)	555 (3.5)	52 (3.9)	545 (3.4)	558 (3.8)	28 (3.8)	549 (5.3)	552 (3.0)	
Quebec, Canada	56 (4.3)	536 (3.3)	538 (3.0)	34 (4.0)	536 (3.1)	538 (2.7)	17 (3.8)	536 (4.1)	537 (2.4)	
Maltese - Malta	s 67 (0.2)	456 (2.0)	465 (2.9)	s 61 (0.2)	460 (2.2)	457 (3.0)	s 15 (0.1)	465 (4.2)	458 (1.8)	
Eng/Afr (5) - RSA	r 75 (5.2)	430 (8.3)	430 (17.4)	r 52 (6.9)	423 (13.5)	447 (15.0)	r 35 (5.9)	403 (14.5)	449 (13.2)	
Andalusia, Spain	88 (2.7)	517 (2.7)	505 (6.0)	62 (3.8)	516 (3.0)	511 (3.7)	20 (3.0)	519 (6.8)	513 (2.6)	
Abu Dhabi, UAE	90 (2.6)	422 (5.2)	449 (22.5)	r 64 (4.7)	416 (5.7)	436 (11.8)	r 43 (4.6)	413 (7.5)	431 (7.7)	
Dubai, UAE	r 88 (2.3)	477 (2.8)	476 (10.7)	r 57 (4.6)	479 (6.1)	477 (7.8)	r 28 (3.3)	479 (7.0)	477 (3.8)	
Florida, US	r 55 (4.2)	563 (5.5)	578 (5.1)	r 76 (4.0)	567 (4.3)	576 (8.6)	r 49 (4.8)	557 (5.3)	582 (5.4)	

<sup>o</sup> Republic of South Africa (RSA) tested 5th grade students receiving instruction in English (ENG) or Afrikaans (AFR).

Country	Language			Pedagogy / Teaching Reading			Reading Theory		
	Percent of Students	Average Achievement		Percent of Students	Average Achievement		Percent of Students	Average Achievement	
	Area Emphasized	Area Emphasized	Area Not Emphasized	Area Emphasized	Area Emphasized	Area Not Emphasized	Area Emphasized	Area Emphasized	Area Not Emphasized
Botswana	54 (4.3)	470 (6.5)	455 (4.2)	44 (4.5)	474 (8.2)	455 (4.0)	33 (3.9)	482 (9.7)	454 (3.3)
Colombia	55 (4.2)	584 (5.0)	570 (4.9)	42 (4.5)	584 (5.2)	572 (5.0)	29 (3.8)	578 (6.3)	577 (4.0)
South Africa	63 (3.3)	471 (5.8)	445 (8.5)	r 55 (3.9)	464 (6.5)	463 (7.5)	r 36 (3.6)	452 (7.1)	468 (6.4)

**Exhibit 7.3: Teachers' Years of Experience**
*Reported by Teachers*

Country	20 Years or More		At Least 10 but Less than 20 Years		At Least 5 but Less than 10 Years		Less than 5 Years		Average Years of Experience
	Percent of Students	Average Achievement	Percent of Students	Average Achievement	Percent of Students	Average Achievement	Percent of Students	Average Achievement	
Australia	42 (4.0)	530 (5.1)	22 (3.5)	533 (5.7)	19 (2.9)	529 (6.3)	17 (3.2)	534 (7.2)	17 (1.0)
Austria	55 (2.8)	532 (2.4)	25 (2.7)	526 (4.0)	11 (1.9)	532 (3.9)	10 (1.9)	513 (6.8)	21 (0.6)
Azerbaijan	60 (4.5)	466 (3.8)	26 (3.1)	456 (8.6)	11 (2.7)	440 (10.4)	4 (2.0)	484 (33.4)	23 (1.1)
Belgium (French)	40 (3.9)	516 (3.9)	32 (3.8)	502 (4.9)	16 (3.4)	504 (6.7)	12 (2.5)	498 (12.5)	16 (0.7)
Bulgaria	72 (3.3)	533 (5.2)	24 (3.0)	532 (7.8)	2 (1.0)	~ ~	2 (1.2)	~ ~	24 (0.6)
Canada	30 (2.2)	546 (2.5)	33 (2.6)	552 (3.7)	25 (1.9)	547 (3.4)	12 (1.3)	545 (4.3)	14 (0.4)
Chinese Taipei	26 (3.3)	558 (3.9)	50 (3.8)	551 (2.5)	17 (3.3)	559 (5.1)	7 (2.0)	536 (6.1)	15 (0.6)
Colombia	43 (4.5)	447 (6.0)	35 (4.4)	442 (5.9)	16 (3.3)	451 (15.8)	7 (1.6)	496 (19.4)	18 (0.7)
Croatia	56 (3.4)	557 (2.5)	30 (2.9)	545 (3.2)	9 (2.0)	559 (6.1)	5 (1.4)	552 (6.5)	21 (0.7)
Czech Republic	48 (4.0)	543 (3.3)	27 (3.6)	544 (3.5)	12 (2.4)	551 (5.4)	13 (2.9)	554 (7.7)	18 (0.8)
Denmark	35 (3.7)	557 (2.4)	25 (3.1)	552 (3.6)	22 (2.6)	554 (2.5)	18 (2.8)	553 (4.5)	16 (0.9)
England	14 (3.1)	566 (8.0)	27 (3.7)	550 (6.3)	29 (3.7)	558 (5.0)	30 (4.1)	538 (5.7)	10 (0.7)
Finland	40 (3.1)	567 (3.1)	35 (3.1)	570 (2.5)	12 (2.0)	571 (4.4)	13 (2.0)	564 (4.2)	17 (0.6)
France	34 (3.4)	530 (3.7)	36 (3.0)	516 (3.8)	19 (2.5)	520 (3.5)	11 (2.1)	506 (8.0)	16 (0.7)
Georgia	59 (3.4)	486 (3.3)	29 (3.5)	489 (6.2)	8 (1.9)	497 (18.8)	4 (1.6)	471 (16.4)	22 (0.7)
Germany	44 (3.8)	539 (3.6)	25 (3.2)	542 (4.8)	14 (2.7)	546 (6.4)	16 (2.6)	540 (5.4)	19 (0.9)
Hong Kong SAR	21 (3.5)	564 (6.4)	53 (4.0)	569 (3.8)	15 (3.3)	573 (5.9)	12 (2.5)	582 (5.1)	14 (0.7)
Hungary	73 (3.0)	544 (3.1)	16 (2.8)	525 (12.8)	7 (1.7)	537 (11.7)	4 (1.4)	505 (10.9)	24 (0.6)
Indonesia	52 (4.9)	438 (5.4)	16 (3.7)	432 (10.3)	19 (3.8)	429 (10.6)	12 (3.1)	395 (15.3)	18 (1.0)
Iran, Islamic Rep. of	41 (3.6)	476 (5.3)	41 (3.5)	449 (5.0)	10 (1.9)	447 (13.3)	9 (1.8)	421 (10.8)	17 (0.6)
Ireland	24 (3.0)	551 (4.5)	21 (3.1)	555 (5.7)	27 (3.3)	550 (4.0)	27 (2.9)	553 (4.6)	12 (0.7)
Israel	30 (3.8)	545 (5.7)	36 (3.9)	546 (7.0)	16 (2.7)	537 (9.6)	18 (3.0)	531 (11.3)	15 (0.8)
Italy	69 (3.6)	543 (2.8)	24 (3.4)	539 (3.4)	6 (1.7)	539 (7.4)	1 (0.8)	~ ~	24 (0.7)
Lithuania	71 (2.5)	527 (2.6)	26 (2.3)	534 (3.6)	2 (1.0)	~ ~	1 (0.5)	~ ~	24 (0.6)
Malta	18 (0.1)	491 (2.8)	38 (0.1)	475 (2.5)	29 (0.1)	472 (2.4)	15 (0.1)	477 (4.1)	12 (0.0)
Morocco	56 (4.2)	309 (5.3)	31 (4.4)	294 (8.9)	8 (1.6)	336 (17.4)	5 (1.4)	394 (16.4)	21 (0.6)
Netherlands	28 (3.1)	549 (3.0)	29 (3.4)	542 (3.2)	24 (3.2)	549 (3.4)	19 (3.0)	545 (5.3)	14 (0.8)
New Zealand	20 (2.5)	542 (5.3)	26 (2.6)	533 (5.1)	28 (2.5)	540 (4.6)	27 (2.5)	521 (5.4)	11 (0.6)
Northern Ireland	34 (4.7)	556 (3.8)	36 (4.0)	563 (4.8)	24 (4.2)	561 (6.2)	7 (2.3)	564 (20.2)	16 (1.0)
Norway	31 (4.4)	506 (4.1)	40 (4.6)	510 (2.7)	15 (3.3)	507 (4.9)	15 (2.4)	509 (5.9)	16 (1.0)
Oman	12 (1.9)	409 (6.7)	36 (2.8)	396 (4.6)	31 (2.9)	385 (5.2)	21 (2.1)	385 (6.4)	11 (0.4)
Poland	83 (2.2)	526 (2.4)	11 (2.1)	529 (7.4)	4 (1.5)	518 (10.7)	2 (0.9)	~ ~	23 (0.4)
Portugal	36 (3.2)	549 (3.4)	46 (3.6)	532 (4.2)	14 (2.5)	535 (6.5)	4 (1.6)	566 (11.9)	17 (0.6)
Qatar	20 (4.3)	450 (14.6)	25 (4.3)	447 (9.1)	30 (4.1)	422 (8.6)	25 (3.5)	388 (9.0)	11 (0.7)
Romania	57 (3.7)	511 (4.8)	31 (3.5)	487 (8.2)	9 (2.3)	478 (13.4)	2 (1.0)	~ ~	23 (0.8)
Russian Federation	73 (3.0)	571 (3.0)	22 (2.7)	567 (6.3)	3 (1.1)	526 (16.2)	3 (1.5)	559 (12.0)	24 (0.7)
Saudi Arabia	16 (3.1)	422 (14.5)	50 (4.5)	439 (5.3)	18 (3.0)	428 (15.2)	17 (3.5)	412 (12.9)	13 (0.7)
Singapore	17 (1.8)	570 (7.4)	27 (2.6)	563 (6.9)	24 (2.5)	575 (5.5)	32 (2.1)	564 (5.7)	11 (0.5)
Slovak Republic	55 (3.0)	536 (4.4)	28 (2.9)	531 (3.4)	10 (2.1)	546 (5.9)	7 (1.8)	530 (8.4)	20 (0.5)
Slovenia	57 (3.8)	532 (2.3)	27 (3.1)	532 (3.9)	10 (2.2)	517 (6.4)	6 (1.5)	523 (8.0)	21 (0.7)
Spain	59 (4.1)	519 (3.0)	19 (3.4)	502 (7.1)	8 (1.3)	510 (7.3)	14 (2.6)	502 (6.9)	21 (0.8)
Sweden	29 (4.2)	546 (3.8)	45 (4.0)	543 (3.8)	18 (2.7)	529 (4.3)	8 (1.9)	551 (6.3)	16 (0.9)
Trinidad and Tobago	43 (4.0)	487 (6.5)	35 (4.0)	459 (7.1)	9 (2.4)	459 (15.4)	12 (2.5)	452 (13.8)	18 (1.0)
United Arab Emirates	12 (1.6)	434 (9.1)	30 (2.3)	441 (7.3)	33 (2.3)	439 (6.2)	25 (2.0)	436 (6.0)	10 (0.3)
United States	28 (2.2)	569 (3.8)	38 (2.1)	553 (3.1)	19 (2.0)	550 (4.3)	15 (1.9)	552 (5.2)	14 (0.5)
International Avg.	41 (0.5)	517 (0.8)	31 (0.5)	511 (0.9)	16 (0.4)	510 (1.4)	12 (0.3)	507 (1.7)	17 (0.1)

SOURCE: IEA's Progress in International Reading Literacy Study – PIRLS 2011

( ) 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. An "s" indicates data are available for at least 50% but less than 70% of the students.



**Exhibit 7.3: Teachers' Years of Experience (Continued)**

Country	20 Years or More		At Least 10 but Less than 20 Years		At Least 5 but Less than 10 Years		Less than 5 Years		Average Years of Experience
	Percent of Students	Average Achievement	Percent of Students	Average Achievement	Percent of Students	Average Achievement	Percent of Students	Average Achievement	
<b>Sixth Grade Participants</b>									
Botswana	29 (4.0)	434 (9.2)	32 (4.1)	421 (10.4)	23 (3.7)	401 (8.4)	16 (3.0)	420 (9.8)	14 (0.8)
Honduras	29 (4.2)	465 (6.4)	37 (4.6)	436 (7.9)	17 (3.7)	458 (7.2)	17 (4.0)	459 (20.6)	14 (0.9)
Kuwait	9 (2.9)	419 (7.2)	23 (4.5)	412 (16.5)	16 (3.8)	429 (21.7)	52 (4.9)	419 (12.8)	7 (0.7)
Morocco	53 (4.4)	422 (7.4)	38 (4.3)	407 (9.3)	7 (2.0)	468 (14.8)	2 (0.9)	~ ~	21 (0.7)
<b>Benchmarking Participants<sup>◇</sup></b>									
Alberta, Canada	33 (3.8)	544 (4.2)	23 (3.2)	560 (5.8)	23 (3.6)	554 (6.2)	21 (3.1)	533 (5.5)	14 (0.8)
Ontario, Canada	20 (2.9)	549 (6.3)	31 (4.0)	550 (5.1)	33 (3.5)	553 (4.9)	17 (2.7)	551 (7.3)	12 (0.5)
Quebec, Canada	33 (4.2)	538 (3.7)	40 (4.6)	539 (3.2)	20 (3.6)	533 (6.7)	7 (1.9)	537 (6.4)	16 (0.7)
Maltese - Malta	17 (0.1)	467 (3.7)	35 (0.1)	456 (2.3)	34 (0.1)	454 (2.6)	14 (0.1)	460 (3.7)	12 (0.0)
Eng/Afr (5) - RSA	43 (5.0)	415 (15.3)	24 (4.6)	420 (14.8)	15 (3.5)	450 (25.3)	17 (4.7)	455 (22.5)	17 (1.1)
Andalusia, Spain	58 (3.9)	521 (3.2)	16 (3.1)	520 (5.7)	11 (2.6)	501 (8.7)	15 (2.8)	498 (7.2)	21 (1.0)
Abu Dhabi, UAE	15 (3.2)	397 (12.8)	31 (4.4)	428 (13.5)	28 (4.1)	419 (10.4)	26 (3.7)	438 (9.7)	10 (0.6)
Dubai, UAE	13 (2.6)	492 (10.3)	28 (3.6)	477 (9.7)	38 (4.3)	482 (8.8)	21 (2.6)	470 (8.5)	11 (0.6)
Florida, US	26 (4.3)	572 (8.6)	33 (4.3)	576 (6.1)	30 (3.9)	566 (6.6)	11 (3.5)	563 (8.0)	15 (0.9)

<sup>◇</sup> Republic of South Africa (RSA) tested 5th grade students receiving instruction in English (ENG) or Afrikaans (AFR).

Country	20 Years or More		At Least 10 but Less than 20 Years		At Least 5 but Less than 10 Years		Less than 5 Years		Average Years of Experience
	Percent of Students	Average Achievement	Percent of Students	Average Achievement	Percent of Students	Average Achievement	Percent of Students	Average Achievement	
Botswana	26 (4.0)	473 (10.9)	33 (4.3)	474 (7.8)	11 (3.0)	444 (8.1)	30 (4.3)	451 (6.4)	14 (0.9)
Colombia	43 (4.5)	576 (5.5)	35 (4.4)	570 (5.4)	16 (3.3)	580 (11.8)	7 (1.6)	617 (10.0)	18 (0.7)
South Africa	40 (3.6)	471 (8.8)	31 (2.9)	463 (8.4)	13 (2.1)	440 (10.5)	16 (2.7)	455 (11.6)	17 (0.8)

### *Teachers' Professional Development*

Although a number of studies have been unable to detect an effect on student achievement associated with professional development, recent research shows a positive relationship between teacher professional development and student literacy achievement (Biancarosa, Bryk, & Dexter, 2010). A meta-analysis of nine studies indicated that the amount of professional development (more than 14 hours) was an important factor (Yoon, Duncan, Lee, Scarloss, & Shapley, 2007).

Exhibit 7.4 presents teachers' reports about the time spent on professional development related to reading. In general, the teachers were not spending large amounts of time on reading professional development. On average, across the fourth grade countries, 24 percent of the students had teachers that had spent 16 hours or more in professional development in the past two years, 50 percent had teachers that had spent some time but less than 16 hours, and 25 percent had teachers that had not spent any time in professional development for 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 professional development from 0 to 16 hours or more. However, it should be emphasized that there was considerable variation across the countries including the fourth grade, sixth grade, benchmarking, and prePIRLS participants.

### *Teachers' Career Satisfaction*

Teachers who are satisfied with their profession and the working conditions at their school are more motivated to teach and prepare their instruction. Further, having teachers that can provide leadership is a dimension of teacher quality. However, developing master teachers requires retention in the profession. Teachers need to be committed to the profession and like it enough to continue teaching. It may be that some subject areas and locales would benefit from policies to reduce teacher attrition in order to improve student achievement (Boyd, Grossman, Lankford, Loeb, & Wyckoff, 2009).

Exhibit 7.5 shows the results for the PIRLS 2011 Teacher Career Satisfaction scale, based on how much teachers agreed with each of the following six statements:

- ◆ I am content with my profession as a teacher;
- ◆ I am satisfied with being a teacher at this school;
- ◆ I had more enthusiasm when I began teaching than I have now (reverse coded);
- ◆ I do important work as a teacher;
- ◆ I plan to continue as a teacher for as long as I can; and
- ◆ I am frustrated as a teacher (reverse coded).

Students were scored according to their teachers responses, with **Satisfied** teachers “agreeing a lot” with three of the six statements and “agreeing a little” with the other three, on average. Internationally, on average, the majority of the fourth grade students had teachers **Satisfied** with their careers. Another 40 percent of the students, on average, had teachers that reported being **Somewhat Satisfied** (mostly agreed “a little” instead of “a lot”). Despite the fact that satisfaction could be relative, and dependent on the teaching situation, very few fourth grade students had reading teachers that expressed any dissatisfaction except in a small number of countries.

The Teacher Career Satisfaction scale was positively related to average reading achievement. On average, reading achievement was higher for the fourth grade students of **Satisfied** teachers than for students of somewhat or less than satisfied teachers. However, looking across the countries at the fourth grade, sixth grade, benchmarking, and prePIRLS participants, it is clear that there are differences from country to country. That is, the across-county patterns are less consistent than the within-country patterns, with some high-performing and low-performing countries having large percentages of students taught by **Satisfied** teachers as well as some high-performing and low-performing countries having large percentages of students taught by teachers reporting to be only **Somewhat Satisfied**.

**Exhibit 7.4: Teacher Time Spent on Professional Development Related to Reading in the Past Two Years**

Reported by Teachers

Country	16 Hours or More		Some Time but Less than 16 Hours		No Time		Percent of Students Whose Teachers Read Children's Books At Least Once a Month for Professional Development
	Percent of Students	Average Achievement	Percent of Students	Average Achievement	Percent of Students	Average Achievement	
Australia	r 30 (4.0)	525 (5.1)	57 (3.8)	532 (4.7)	13 (3.2)	546 (10.9)	r 72 (3.7)
Austria	17 (2.4)	530 (4.2)	76 (3.0)	529 (2.2)	7 (1.7)	525 (6.9)	63 (2.8)
Azerbaijan	40 (3.9)	461 (5.1)	44 (3.7)	464 (5.1)	16 (2.8)	473 (5.8)	99 (0.4)
Belgium (French)	9 (2.2)	506 (7.9)	51 (4.1)	504 (4.1)	41 (4.0)	512 (4.6)	64 (4.7)
Bulgaria	8 (2.1)	544 (10.2)	38 (3.4)	537 (6.7)	54 (3.4)	527 (5.2)	87 (2.4)
Canada	30 (2.2)	550 (2.6)	62 (2.3)	548 (2.3)	7 (1.1)	548 (4.2)	83 (1.8)
Chinese Taipei	25 (3.5)	556 (2.6)	64 (3.9)	552 (2.5)	11 (1.9)	554 (5.2)	85 (2.8)
Colombia	34 (3.8)	453 (7.2)	38 (3.8)	454 (7.4)	28 (4.4)	433 (7.1)	96 (1.3)
Croatia	11 (2.6)	548 (5.9)	75 (3.5)	552 (2.0)	14 (2.9)	562 (6.0)	92 (2.2)
Czech Republic	9 (2.2)	530 (12.5)	52 (4.1)	543 (2.7)	40 (4.0)	551 (3.2)	45 (3.8)
Denmark	25 (2.6)	562 (2.7)	49 (2.8)	550 (2.5)	26 (2.6)	554 (3.7)	69 (3.3)
England	7 (2.3)	539 (11.2)	66 (3.9)	550 (3.5)	27 (3.7)	556 (6.6)	72 (3.8)
Finland	4 (1.3)	578 (11.8)	28 (3.5)	570 (3.2)	68 (3.3)	567 (2.1)	43 (3.8)
France	2 (1.1)	~ ~	38 (2.9)	518 (4.6)	60 (2.9)	520 (3.0)	64 (3.8)
Georgia	42 (3.4)	488 (4.3)	32 (3.8)	493 (6.1)	25 (3.4)	480 (6.2)	93 (1.9)
Germany	4 (1.4)	540 (7.7)	71 (3.2)	543 (2.7)	25 (2.8)	534 (4.8)	50 (3.2)
Hong Kong SAR	29 (4.2)	568 (5.0)	63 (4.6)	572 (3.2)	8 (2.3)	570 (8.7)	65 (4.8)
Hungary	31 (3.2)	542 (4.6)	48 (3.7)	537 (4.5)	21 (2.9)	537 (8.2)	68 (3.5)
Indonesia	19 (4.8)	444 (8.8)	33 (4.2)	418 (8.3)	48 (4.4)	429 (5.5)	95 (2.3)
Iran, Islamic Rep. of	47 (3.2)	451 (4.7)	25 (2.7)	467 (7.1)	28 (3.4)	461 (7.3)	70 (3.1)
Ireland	11 (2.3)	540 (8.5)	52 (3.8)	550 (3.4)	37 (3.5)	558 (3.5)	44 (3.7)
Israel	72 (3.8)	545 (3.5)	14 (3.2)	532 (13.8)	14 (3.1)	540 (13.2)	79 (3.7)
Italy	21 (3.1)	537 (5.8)	48 (3.7)	544 (2.8)	30 (3.6)	542 (4.1)	73 (3.2)
Lithuania	14 (2.3)	538 (4.2)	68 (2.9)	526 (2.6)	18 (2.9)	528 (5.5)	78 (2.8)
Malta	19 (0.1)	478 (3.4)	58 (0.1)	471 (1.9)	23 (0.1)	493 (3.3)	73 (0.1)
Morocco	4 (1.2)	305 (17.9)	24 (2.4)	342 (8.1)	71 (2.3)	301 (4.9)	69 (3.9)
Netherlands	20 (2.9)	540 (4.6)	60 (3.8)	548 (2.3)	21 (3.2)	546 (4.8)	48 (3.5)
New Zealand	27 (3.0)	526 (5.1)	60 (3.3)	539 (3.1)	13 (2.2)	525 (8.7)	70 (3.0)
Northern Ireland	r 12 (2.4)	562 (12.6)	69 (4.1)	556 (2.8)	19 (3.6)	575 (7.1)	r 59 (4.6)
Norway	18 (3.3)	514 (4.5)	49 (4.6)	507 (2.8)	32 (4.7)	502 (3.5)	46 (4.9)
Oman	33 (2.9)	399 (3.5)	50 (2.9)	392 (4.0)	17 (2.6)	378 (6.5)	76 (2.6)
Poland	15 (2.8)	533 (5.7)	69 (3.7)	525 (2.5)	16 (2.9)	523 (6.3)	90 (2.4)
Portugal	45 (4.6)	545 (3.7)	36 (4.7)	537 (5.7)	19 (3.1)	536 (4.0)	93 (1.6)
Qatar	32 (4.0)	422 (8.8)	55 (4.2)	423 (6.6)	14 (2.6)	434 (21.5)	85 (3.3)
Romania	51 (4.1)	498 (5.9)	39 (4.0)	503 (6.9)	11 (2.4)	504 (15.5)	93 (1.7)
Russian Federation	39 (3.3)	565 (4.7)	43 (3.2)	571 (4.0)	18 (2.8)	569 (6.7)	95 (1.4)
Saudi Arabia	22 (3.6)	433 (8.1)	64 (4.5)	430 (7.1)	14 (3.6)	431 (11.1)	69 (3.7)
Singapore	31 (2.5)	571 (6.9)	51 (2.8)	567 (4.2)	18 (2.2)	556 (7.6)	72 (2.6)
Slovak Republic	13 (2.1)	532 (9.8)	38 (3.1)	539 (3.9)	49 (3.3)	533 (3.2)	63 (3.6)
Slovenia	16 (2.7)	530 (4.4)	66 (3.4)	529 (2.4)	18 (2.5)	534 (5.4)	83 (2.7)
Spain	33 (3.7)	518 (4.0)	29 (3.9)	518 (4.8)	38 (3.1)	505 (4.0)	62 (3.8)
Sweden	r 32 (3.7)	543 (4.1)	44 (4.3)	540 (3.2)	23 (3.8)	548 (3.7)	r 46 (4.5)
Trinidad and Tobago	33 (4.2)	467 (7.2)	46 (4.5)	473 (5.9)	21 (2.9)	474 (11.5)	92 (2.3)
United Arab Emirates	24 (2.2)	425 (5.7)	59 (2.6)	437 (3.4)	17 (2.0)	467 (6.8)	r 89 (1.8)
United States	41 (2.3)	551 (3.3)	55 (2.4)	559 (2.5)	4 (1.1)	567 (11.4)	r 78 (2.0)
<b>International Avg.</b>	<b>24 (0.5)</b>	<b>512 (1.1)</b>	<b>50 (0.5)</b>	<b>513 (0.7)</b>	<b>25 (0.5)</b>	<b>513 (1.1)</b>	<b>73 (0.5)</b>

( ) 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. An "s" indicates data are available for at least 50% but less than 70% of the students.

SOURCE: IEA's Progress in International Reading Literacy Study – PIRLS 2011

**Exhibit 7.4: Teacher Time Spent on Professional Development Related to Reading in the Past Two Years (Continued)**

Country	16 Hours or More		Some Time but Less than 16 Hours		No Time		Percent of Students Whose Teachers Read Children's Books At Least Once a Month for Professional Development
	Percent of Students	Average Achievement	Percent of Students	Average Achievement	Percent of Students	Average Achievement	
<b>Sixth Grade Participants</b>							
Botswana	10 (2.4)	440 (15.8)	41 (4.1)	417 (5.4)	49 (4.1)	418 (7.3)	r 95 (2.0)
Honduras	37 (4.8)	445 (12.3)	46 (4.8)	455 (6.8)	17 (3.7)	442 (8.4)	r 86 (3.6)
Kuwait	s 22 (4.6)	423 (11.7)	63 (5.4)	420 (8.9)	14 (3.6)	398 (27.3)	s 83 (4.4)
Morocco	r 7 (1.5)	464 (10.5)	32 (4.6)	435 (13.0)	62 (4.5)	410 (5.7)	r 61 (5.2)
<b>Benchmarking Participants<sup>◇</sup></b>							
Alberta, Canada	37 (3.5)	548 (4.4)	54 (3.5)	545 (4.3)	9 (2.5)	569 (8.8)	r 84 (3.1)
Ontario, Canada	38 (3.7)	553 (4.8)	58 (3.6)	550 (3.5)	4 (1.8)	541 (8.2)	r 90 (2.3)
Quebec, Canada	14 (2.9)	532 (4.5)	70 (4.0)	538 (2.8)	15 (3.2)	539 (7.0)	r 73 (4.2)
Maltese - Malta	s 18 (0.1)	451 (4.7)	52 (0.2)	459 (2.3)	30 (0.2)	460 (3.4)	s 72 (0.1)
Eng/Afr (5) - RSA	16 (3.9)	389 (29.9)	53 (5.3)	433 (11.8)	31 (4.8)	441 (15.2)	r 77 (4.5)
Andalusia, Spain	40 (4.2)	511 (4.1)	27 (3.6)	518 (5.3)	33 (4.1)	517 (4.2)	r 65 (4.0)
Abu Dhabi, UAE	25 (3.6)	402 (10.5)	54 (4.7)	422 (7.8)	21 (4.1)	457 (7.8)	r 90 (2.9)
Dubai, UAE	r 22 (2.3)	466 (7.9)	64 (2.4)	473 (3.2)	14 (2.0)	521 (8.0)	r 87 (2.3)
Florida, US	r 57 (5.7)	565 (6.4)	43 (5.6)	575 (5.3)	1 (0.0)	~ ~	r 87 (3.0)

<sup>◇</sup> Republic of South Africa (RSA) tested 5th grade students receiving instruction in English (ENG) or Afrikaans (AFR).

Country	16 Hours or More		Some Time but Less than 16 Hours		No Time		Percent of Students Whose Teachers Read Children's Books At Least Once a Month for Professional Development
	Percent of Students	Average Achievement	Percent of Students	Average Achievement	Percent of Students	Average Achievement	
Botswana	11 (2.6)	463 (14.5)	41 (4.0)	466 (5.7)	49 (4.3)	461 (6.1)	r 97 (1.6)
Colombia	34 (3.8)	579 (6.0)	38 (3.8)	580 (5.8)	28 (4.4)	567 (6.6)	r 96 (1.3)
South Africa	21 (2.9)	471 (11.0)	52 (3.8)	457 (7.0)	27 (3.8)	464 (11.3)	r 87 (1.9)

## Exhibit 7.5: Teacher Career Satisfaction

Reported by Teachers

Students were scored according to their teachers' degree of agreement with six statements on the *Teacher Career Satisfaction* scale. Students with **Satisfied** teachers had a score on the scale of at least 10.0, which corresponds to their teachers "agreeing a lot" with three of the six statements and "agreeing a little" with the other three, on average. Students with **Less Than Satisfied** teachers had a score no higher than 6.5, which corresponds to their teachers "disagreeing a little" with three of the six statements and "agreeing a little" with the other three, on average. All other students had **Somewhat Satisfied** teachers.

Country	Satisfied		Somewhat Satisfied		Less Than Satisfied		Average Scale Score
	Percent of Students	Average Achievement	Percent of Students	Average Achievement	Percent of Students	Average Achievement	
Colombia	90 (2.6)	449 (4.4)	10 (2.6)	440 (15.6)	0 (0.0)	~ ~	11.6 (0.14)
Indonesia	89 (2.5)	430 (4.4)	11 (2.5)	414 (11.2)	0 (0.0)	~ ~	11.3 (0.13)
Croatia	83 (2.7)	552 (2.1)	16 (2.5)	557 (4.1)	1 (0.9)	~ ~	11.1 (0.10)
Georgia	79 (3.2)	487 (3.7)	20 (3.1)	496 (6.6)	1 (0.7)	~ ~	11.1 (0.13)
Spain	69 (3.6)	519 (3.0)	27 (3.2)	502 (4.0)	4 (1.6)	487 (13.1)	10.8 (0.16)
Ireland	69 (2.9)	551 (2.5)	29 (2.9)	555 (4.7)	2 (0.8)	~ ~	10.8 (0.12)
Denmark	69 (3.2)	556 (2.2)	28 (3.1)	549 (3.3)	3 (1.2)	556 (12.7)	10.7 (0.13)
Israel	67 (4.2)	542 (4.6)	30 (3.9)	546 (7.0)	3 (1.6)	525 (23.3)	10.7 (0.19)
Iran, Islamic Rep. of	66 (3.3)	462 (3.9)	31 (3.5)	448 (5.9)	3 (1.1)	448 (22.1)	10.3 (0.11)
Malta	66 (0.1)	485 (1.8)	30 (0.1)	463 (2.6)	4 (0.0)	467 (9.2)	10.7 (0.01)
Poland	64 (3.0)	525 (2.6)	36 (3.0)	527 (3.8)	1 (0.5)	~ ~	10.5 (0.10)
United Arab Emirates	63 (2.0)	446 (3.7)	31 (2.0)	425 (4.4)	5 (1.1)	429 (10.7)	10.4 (0.08)
Azerbaijan	62 (3.5)	465 (4.2)	37 (3.4)	459 (5.4)	1 (0.5)	~ ~	10.2 (0.10)
Austria	60 (3.5)	530 (2.5)	35 (3.5)	527 (3.3)	5 (1.4)	521 (12.1)	10.4 (0.13)
Russian Federation	60 (3.0)	570 (3.9)	36 (2.9)	566 (3.5)	4 (1.2)	565 (9.5)	10.2 (0.12)
Romania	57 (4.2)	507 (5.9)	42 (4.3)	492 (6.9)	1 (0.6)	~ ~	10.4 (0.14)
Lithuania	56 (3.8)	532 (2.7)	41 (3.7)	524 (3.5)	3 (1.0)	517 (17.2)	10.1 (0.13)
New Zealand	55 (3.3)	534 (3.5)	41 (3.0)	533 (4.0)	5 (1.2)	528 (7.7)	10.1 (0.14)
Northern Ireland	r 54 (4.3)	564 (4.0)	41 (4.5)	555 (4.2)	5 (1.9)	557 (12.6)	10.1 (0.18)
Qatar	54 (5.0)	425 (5.8)	40 (4.7)	428 (8.5)	6 (1.7)	391 (15.1)	10.0 (0.18)
Trinidad and Tobago	54 (4.3)	478 (5.7)	39 (4.2)	463 (6.6)	7 (1.7)	462 (12.0)	9.9 (0.17)
Hungary	53 (3.7)	549 (3.5)	44 (3.6)	528 (5.1)	3 (0.8)	511 (9.4)	10.0 (0.13)
Australia	r 53 (3.9)	536 (3.3)	41 (3.8)	528 (4.8)	6 (1.5)	512 (9.4)	9.9 (0.15)
Slovak Republic	53 (3.2)	532 (4.0)	41 (3.1)	535 (3.1)	6 (1.5)	559 (5.9)	9.7 (0.13)
Oman	53 (3.0)	400 (3.6)	42 (2.9)	384 (4.2)	5 (1.3)	359 (10.8)	9.9 (0.12)
England	52 (4.0)	550 (3.9)	42 (3.7)	550 (5.4)	6 (1.9)	557 (9.8)	9.9 (0.17)
Canada	52 (2.3)	550 (2.1)	43 (2.0)	547 (3.2)	5 (1.0)	540 (4.4)	9.9 (0.09)
Saudi Arabia	51 (3.6)	441 (5.4)	47 (3.7)	421 (7.6)	2 (1.0)	~ ~	10.0 (0.14)
Netherlands	51 (3.6)	546 (2.5)	42 (3.6)	546 (3.6)	7 (2.0)	549 (6.4)	9.9 (0.17)
Germany	50 (3.2)	544 (3.2)	45 (3.2)	538 (3.0)	5 (1.6)	540 (10.1)	9.9 (0.13)
Norway	49 (3.4)	509 (2.1)	43 (3.6)	505 (3.3)	7 (2.7)	508 (6.7)	9.7 (0.17)
Bulgaria	49 (4.3)	535 (5.4)	47 (4.0)	529 (5.8)	4 (1.2)	518 (13.5)	9.8 (0.17)
Czech Republic	48 (3.4)	552 (3.2)	45 (3.9)	539 (3.4)	7 (2.2)	538 (6.6)	9.6 (0.14)
United States	47 (2.6)	559 (2.5)	47 (2.5)	554 (2.8)	6 (0.9)	554 (5.0)	9.6 (0.10)
Slovenia	44 (3.0)	531 (2.6)	53 (3.2)	529 (3.0)	3 (0.9)	535 (11.1)	9.6 (0.08)
Belgium (French)	43 (3.8)	509 (5.3)	46 (3.9)	507 (3.5)	11 (2.5)	507 (6.6)	9.5 (0.20)
Finland	42 (3.1)	570 (2.7)	50 (3.5)	567 (2.5)	8 (2.2)	564 (4.7)	9.4 (0.13)
Italy	39 (3.4)	545 (2.9)	56 (4.0)	541 (3.2)	5 (1.5)	531 (11.8)	9.5 (0.13)
Hong Kong SAR	38 (3.9)	567 (4.0)	50 (3.3)	576 (3.5)	12 (3.4)	560 (9.4)	9.1 (0.17)
Portugal	36 (3.8)	547 (4.2)	59 (4.2)	539 (3.2)	5 (1.8)	527 (8.5)	9.4 (0.18)
Morocco	35 (4.1)	328 (7.4)	51 (4.3)	304 (5.9)	14 (3.0)	291 (12.3)	8.8 (0.20)
Singapore	35 (2.9)	572 (6.0)	54 (2.8)	561 (5.0)	11 (1.8)	578 (9.0)	8.9 (0.11)
Chinese Taipei	31 (3.9)	557 (2.8)	64 (4.0)	551 (2.5)	5 (0.9)	552 (10.3)	8.9 (0.11)
Sweden	29 (3.6)	538 (3.8)	59 (3.8)	543 (2.9)	12 (2.8)	546 (8.2)	9.0 (0.16)
France	25 (3.2)	520 (4.9)	59 (3.7)	521 (3.3)	17 (2.9)	518 (4.5)	8.6 (0.14)
International Avg.	54 (0.5)	516 (0.6)	40 (0.5)	509 (0.8)	5 (0.2)	511 (1.9)	

SOURCE: IEA's Progress in International Reading Literacy Study – PIRLS 2011

Centerpoint of scale set at 10.

( ) 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. An "s" indicates data are available for at least 50% but less than 70% of the students

**Exhibit 7.5: Teacher Career Satisfaction (Continued)**

Country	Satisfied		Somewhat Satisfied		Less Than Satisfied		Average Scale Score
	Percent of Students	Average Achievement	Percent of Students	Average Achievement	Percent of Students	Average Achievement	
<b>Sixth Grade Participants</b>							
Honduras	95 (1.8)	450 (5.3)	5 (1.8)	441 (21.7)	0 (0.0)	~ ~	12.1 (0.12)
Kuwait	66 (5.0)	425 (9.1)	27 (5.0)	396 (14.5)	6 (1.6)	435 (19.1)	10.3 (0.19)
Morocco	39 (4.5)	428 (8.9)	48 (4.5)	419 (7.8)	13 (2.5)	412 (7.8)	9.0 (0.14)
Botswana	24 (3.3)	425 (9.4)	64 (3.9)	419 (5.7)	12 (2.9)	419 (9.5)	8.6 (0.13)
<b>Benchmarking Participants<sup>◇</sup></b>							
Andalusia, Spain	74 (3.6)	514 (2.8)	23 (3.5)	523 (5.9)	3 (1.5)	493 (11.8)	11.1 (0.17)
Abu Dhabi, UAE	70 (3.8)	429 (6.2)	26 (3.4)	411 (8.7)	4 (1.7)	423 (8.4)	10.7 (0.17)
Maltese - Malta	69 (0.1)	462 (1.7)	29 (0.1)	451 (3.2)	2 (0.0)	~ ~	10.8 (0.01)
Dubai, UAE	64 (2.7)	487 (4.4)	31 (2.9)	459 (6.6)	4 (1.5)	473 (15.6)	10.5 (0.12)
Ontario, Canada	60 (4.1)	549 (3.4)	36 (4.1)	553 (4.2)	4 (1.6)	553 (9.2)	10.2 (0.15)
Florida, US	57 (5.5)	573 (5.9)	36 (5.5)	569 (7.0)	8 (2.5)	554 (10.3)	9.8 (0.20)
Alberta, Canada	52 (3.6)	550 (4.2)	43 (3.5)	547 (4.2)	5 (1.7)	545 (12.1)	10.0 (0.15)
Eng/Afr (5) - RSA	51 (5.0)	436 (13.8)	42 (5.3)	410 (10.7)	7 (2.2)	432 (14.0)	9.7 (0.16)
Quebec, Canada	40 (3.6)	542 (3.7)	50 (4.1)	534 (3.2)	10 (2.8)	536 (4.7)	9.4 (0.15)

<sup>◇</sup> Republic of South Africa (RSA) tested 5th grade students receiving instruction in English (ENG) or Afrikaans (AFR).

SOURCE: IEA's Progress in International Reading Literacy Study – PIRLS 2011

Country	Satisfied		Somewhat Satisfied		Less Than Satisfied		Average Scale Score
	Percent of Students	Average Achievement	Percent of Students	Average Achievement	Percent of Students	Average Achievement	
Colombia	90 (2.6)	577 (3.4)	10 (2.6)	564 (15.6)	0 (0.0)	~ ~	11.6 (0.14)
South Africa	51 (3.4)	453 (6.1)	44 (3.5)	461 (7.6)	6 (1.6)	523 (21.9)	9.7 (0.11)
Botswana	34 (4.2)	473 (8.9)	55 (4.5)	458 (4.4)	10 (2.8)	458 (10.6)	9.0 (0.16)

