

### Exhibit 9.1: Instruction Time Spent on Language and Reading

A wide variety of factors influence the relationship between amount of instructional time and student achievement, primarily the quality of the instruction and the students' readiness to learn. Nevertheless, instructional time remains a crucial component in considering students' opportunity to learn.

Exhibit 9.1 presents principals' and teachers' reports about the instructional hours per year spent on language and reading instruction. The principals provided the number of school days per year and the number of instructional hours per day, and the teachers provided the weekly number of hours of language and reading instruction. The results for the time spent were based on a series of calculations as explained on the second page of the exhibit. On average, the fourth grade students in PIRLS 2016 received 898 hours per year of instruction across all subjects. On average, 27 percent of that instructional time was devoted to language instruction, including reading, writing, speaking, literature, and other language skills, which averaged to 242 hours of instruction per year, while 18 percent of the total instructional time was devoted to reading, including reading instruction across the curriculum, which averaged to 156 hours per year. As might be anticipated, these estimates vary somewhat from the levels of instructional time set as a matter of policy.

**Exhibit 9.1: Instruction Time Spent on Language and Reading***Students Categorized by Principals' and Teachers' Reports*

Country	Total Instruction Hours per Year All Subjects	Language Instruction, Including Reading, Writing, Speaking, Literature, and Other Language Skills		Reading Instruction, Including Reading Across the Curriculum	
		Hours per Year	Percent of Total Instruction Time	Hours per Year	Percent of Total Instruction Time
South Africa	s 1180 (16.7)	s 240 (14.3)	20 (1.3)	x 122 (8.0)	10 (0.6)
Chile	r 1141 (17.9)	r 278 (20.1)	24 (1.7)	r 252 (22.3)	22 (1.9)
Netherlands	s 1092 (16.8)	s 363 (14.6)	34 (1.3)	s 205 (19.5)	19 (1.8)
Israel	1079 (13.5)	235 (9.4)	22 (0.8)	98 (8.7)	9 (0.8)
Italy	1064 (15.4)	r 290 (7.5)	28 (0.7)	r 148 (9.2)	14 (0.9)
United States	1061 (12.7)	r 301 (15.3)	30 (1.6)	r 327 (15.6)	32 (1.5)
Qatar	r 1045 (1.1)	r 327 (18.8)	31 (1.8)	r 182 (14.9)	18 (1.2)
Singapore	1040 (0.0)	278 (9.1)	27 (0.9)	124 (7.0)	12 (0.7)
Morocco	r 1036 (13.4)	r 224 (13.1)	21 (1.2)	r 109 (7.8)	11 (0.9)
Saudi Arabia	r 1034 (16.7)	r 179 (14.4)	18 (1.7)	r 175 (13.6)	16 (1.2)
United Arab Emirates	r 1018 (6.7)	r 234 (9.3)	23 (1.0)	r 139 (6.3)	13 (0.7)
Trinidad and Tobago	r 1008 (17.1)	r 361 (22.8)	36 (2.1)	r 299 (26.4)	30 (2.6)
Denmark	r 1006 (13.5)	231 (5.5)	23 (0.6)	132 (7.8)	13 (0.8)
Australia	r 1001 (6.7)	r 336 (7.9)	34 (0.8)	r 199 (9.9)	19 (1.0)
England	r 993 (10.5)	273 (9.5)	28 (0.9)	125 (11.3)	12 (1.1)
Oman	r 989 (12.1)	r 197 (7.4)	20 (0.9)	r 150 (7.5)	16 (0.9)
Hong Kong SAR	987 (10.3)	226 (14.8)	24 (1.9)	128 (7.1)	13 (0.8)
Northern Ireland	s 958 (10.5)	s 257 (10.7)	27 (1.3)	s 137 (7.8)	14 (0.8)
Belgium (Flemish)	s 956 (13.4)	r 248 (10.5)	26 (0.8)	s 84 (5.1)	9 (0.6)
Canada	952 (5.1)	r 292 (4.9)	31 (0.6)	r 206 (7.0)	22 (0.8)
Malta	942 (0.4)	178 (0.4)	19 (0.0)	83 (0.4)	9 (0.0)
Belgium (French)	r 940 (8.9)	r 320 (7.8)	34 (0.9)	r 247 (16.6)	27 (1.9)
Bahrain	934 (2.1)	202 (6.7)	22 (0.7)	114 (6.0)	12 (0.6)
Macao SAR	928 (0.2)	186 (0.2)	20 (0.0)	100 (0.2)	10 (0.0)
New Zealand	926 (4.0)	r 340 (8.6)	37 (1.0)	r 215 (8.9)	24 (1.0)
Egypt	924 (12.5)	297 (11.9)	34 (1.7)	r 161 (11.6)	18 (1.3)
Ireland	915 (0.3)	206 (5.2)	23 (0.6)	150 (7.2)	16 (0.8)
Portugal	895 (11.8)	288 (6.1)	32 (0.6)	301 (10.4)	34 (1.2)
France	r 883 (9.3)	r 330 (8.2)	37 (0.9)	r 165 (11.6)	19 (1.2)
Kuwait	s 860 (19.9)	s 178 (16.5)	21 (2.0)	s 139 (13.8)	17 (1.5)
Spain	853 (7.8)	212 (7.0)	25 (0.8)	136 (6.7)	16 (0.8)
Chinese Taipei	845 (9.2)	212 (4.0)	26 (0.6)	123 (8.0)	15 (1.0)
Germany	r 841 (10.7)	r 239 (9.9)	29 (1.2)	r 87 (7.3)	11 (1.0)
Kazakhstan	835 (21.8)	221 (10.7)	27 (1.1)	212 (11.0)	26 (1.3)
Norway (5)	827 (11.1)	186 (6.0)	23 (0.8)	134 (7.5)	17 (1.0)
Hungary	826 (13.7)	284 (9.1)	35 (1.3)	201 (9.3)	25 (1.4)
Sweden	r 809 (6.4)	r 185 (6.9)	22 (0.8)	101 (8.0)	12 (1.0)
Slovak Republic	778 (9.5)	233 (5.6)	30 (0.6)	180 (9.5)	23 (1.2)
Czech Republic	769 (7.4)	242 (10.1)	31 (1.1)	143 (8.9)	19 (1.1)
Austria	768 (7.0)	260 (6.8)	34 (1.0)	95 (5.5)	13 (0.8)
Azerbaijan	755 (21.4)	226 (8.9)	31 (1.5)	r 141 (6.8)	19 (1.1)
Poland	r 754 (5.4)	r 140 (1.0)	19 (0.1)	r 33 (1.7)	4 (0.2)
Slovenia	734 (7.8)	193 (8.5)	26 (1.0)	84 (5.7)	12 (0.8)
Finland	731 (7.5)	186 (4.9)	26 (0.7)	122 (6.3)	17 (0.9)
Georgia	r 725 (13.2)	185 (9.3)	26 (1.0)	132 (9.5)	19 (1.3)
Bulgaria	692 (20.4)	213 (10.2)	33 (1.7)	247 (14.5)	39 (2.5)
Latvia	669 (11.9)	193 (8.2)	30 (1.3)	184 (10.3)	28 (1.6)
Russian Federation	652 (5.4)	263 (6.4)	41 (1.0)	171 (7.0)	27 (1.1)
Lithuania	627 (3.7)	183 (1.9)	29 (0.4)	144 (8.7)	23 (1.4)
Iran, Islamic Rep. of	627 (5.3)	143 (2.4)	23 (0.4)	124 (13.8)	20 (2.2)
International Avg.	898 (1.6)	242 (1.4)	27 (0.2)	156 (1.5)	18 (0.2)

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

( ) 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. An "x" indicates data are available for less than 50% of students—interpret with caution.

**Exhibit 9.1: Instruction Time Spent on Language and Reading (Continued)**

Country	Total Instruction Hours per Year All Subjects	Language Instruction, Including Reading, Writing, Speaking, Literature, and Other Language Skills		Reading Instruction, Including Reading Across the Curriculum		
		Hours per Year	Percent of Total Instruction Time	Hours per Year	Percent of Total Instruction Time	
<b>Benchmarking Participants</b>						
Eng/Afr/Zulu - RSA (5)	s 1195 (17.5)	s 223 (8.7)	18 (0.8)	s 97 (7.0)	8 (0.7)	
Dubai, UAE	r 1013 (0.9)	r 220 (8.7)	22 (1.0)	r 135 (7.4)	12 (0.8)	
Abu Dhabi, UAE	r 1012 (8.5)	r 280 (20.3)	27 (2.2)	r 156 (11.5)	15 (1.2)	
Buenos Aires, Argentina	994 (26.4)	r 228 (10.6)	24 (1.2)	r 188 (19.9)	19 (1.9)	
Ontario, Canada	973 (9.9)	r 290 (8.2)	31 (1.0)	r 234 (12.5)	24 (1.7)	
Denmark (3)	r 915 (12.9)	278 (4.0)	31 (0.5)	158 (11.2)	17 (1.2)	
Quebec, Canada	906 (6.1)	305 (8.5)	34 (1.1)	145 (7.7)	16 (0.9)	
Madrid, Spain	878 (7.5)	203 (6.8)	23 (0.8)	141 (12.1)	17 (1.5)	
Andalusia, Spain	844 (9.0)	229 (6.3)	28 (0.8)	170 (11.6)	21 (1.5)	
Norway (4)	825 (11.2)	233 (8.7)	29 (1.2)	176 (10.9)	22 (1.5)	
Moscow City, Russian Fed.	621 (3.8)	260 (5.3)	42 (0.9)	178 (7.0)	29 (1.1)	

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

<b>Total Instruction Hours per Year</b>	=	Principal Reports of School Days per Year	<b>X</b>	Principal Reports of Instruction Hours per Day
<b>Language Instruction Hours per Year</b>	=	$\frac{\text{Teacher Reports of Weekly Language Instruction Hours, Including Reading, Writing, Speaking, Literature, and Other Language Skills}}{\text{Principal Reports of School Days per Week}}$	<b>X</b>	Principal Reports of School Days per Year
<b>Reading Instruction Hours per Year</b>	=	$\frac{\text{Teacher Reports of Weekly Reading Instruction Hours, Including Reading Across the Curriculum}}{\text{Principal Reports of School Days per Week}}$	<b>X</b>	Principal Reports of School Days per Year