



The school's educational values are reflected by the teachers, school leadership, the students themselves, and their parents. A school with a positive atmosphere toward high achievement and a rigorous academic program can overcome resource shortages and encourage students toward excellent performance. By contrast, a school with more disciplinary problems is not conducive to higher student achievement. When students are fearful and worried about their safety, for example, it is difficult to focus on academics. Chapter 6 presents the PIRLS 2011 results about positive and negative aspects of the atmosphere in schools around the world.

### Scientific Evidence: Academic Success

Studies of academic optimism show that a positive school atmosphere emphasizing academic achievement can even overcome socioeconomic disadvantages (McGuigan & Hoy, 2006). There are several dimensions of academic optimism, including a school communicating its academic emphasis through clear and rigorous academic goals. However, because individuals are the actors within schools, the effect on achievement is greatest when there is a collective influence. This includes a school administration and teachers that support and trust in students' achievement. In addition to making it clear that academic success is important, principals and teachers need to emphasize it can be achieved. Parents' support for their children's learning also contributes to a school's collective efficacy or belief that the school's academic goals can be implemented.

#### *School Emphasis on Academic Success*

The PIRLS 2011 School Emphasis on Academic Success scale characterizes five aspects of academic optimism:

- Teachers' understanding of the school's curricular goals;
- Teachers' degree of success in implementing the school's curriculum;
- Teachers' expectations for student achievement;
- Parental support for student achievement; and
- Students' desire to do well in school.

This set of questions was given to both students' principals and teachers, with the respective responses used to create scales.

Exhibit 6.1 shows the principals' reports on the School Emphasis on Academic Success scale. As might be anticipated, principals had very positive attitudes about the emphasis on academics in their schools, so the three regions of the scale have been described as **Very High**, **High**, and **Medium**. Students were scored according to their principals' characterization of their school in terms of the five aspects. Students in schools with **Very High Emphasis** on academic success had principals characterizing three of the five aspects as "very high" and the other two as "high," on average. Students in **Medium Emphasis**










### *Principals Spend Time on Leadership Activities*

The effectiveness of school leadership has become a central issue, as principals worldwide are held increasingly accountable for their students' achievement outcomes. However, the effects of principal leadership are often indirect and difficult to measure. A meta-analysis of multinational studies conducted between 1986 and 1996 found that "defining and communicating the school's mission" had the largest direct effect on student achievement (Witziers, Bosker, & Kruger, 2003), whereas a different meta-analysis of 27 studies conducted between 1978 and 2006 found strong effects for promoting teacher learning and development, and establishing goals (Robinson, Lloyd, & Rowe, 2008).

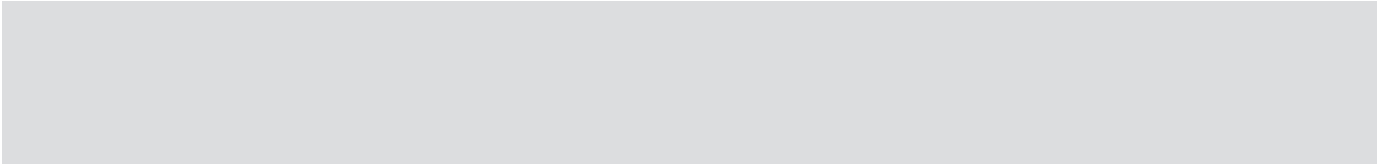
PIRLS 2011 used research conducted in the Netherlands (ten Bruggencate, Luyten, Scheerens, & Slegers, 2012) to develop questions about principals' leadership roles













## Safe and Orderly School

The sense of security that comes from attending a school with few behavior problems and having little or no concern about student or teacher safety promotes a stable learning environment. There is increasing research showing that a safe school environment is important for students' academic achievement. On the other hand, a general lack of discipline, especially if students and teachers are afraid for their safety, does not facilitate learning. Unfortunately, community and school violence are becoming an increasing problem, especially among urban youth.

### *Safe and Orderly School*

There is growing evidence that students' perceived school safety adversely affects academic performance, even for primary school children (Milam, Furr-Holden, & Leaf, 2010). It seems that safety at school can no longer be taken for granted, even at the fourth grade. To provide information on the extent to which school safety might be affecting reading achievement, PIRLS 2011 developed the Safe and Orderly School scale. Teachers were asked the degree to which they agreed or disagreed with the following statements:

This school is located in a safe neighborhood;

I feel safe at this school;

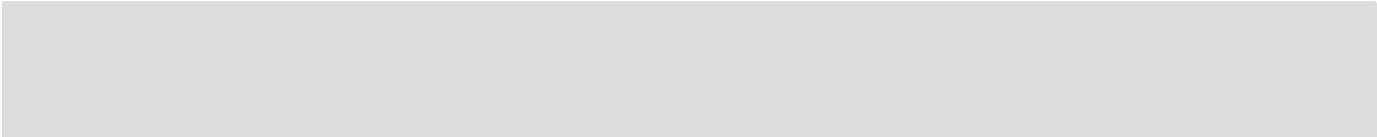
This school's security policies and practices are sufficient;

The students behave in an orderly manner; and

The students are respectful of the teachers.

Exhibit 6.5 presents the results for the Safe and Orderly School scale. Students were scored according to their teachers' degree of agreement with the following statements. Students in **Safe and Orderly** schools had teachers that "agreed a lot" with three of the following qualities and "agreed a little" with other two, on average. There was substantial variation internationally, but on average, across the fourth grade countries, the majority of students (55%) were attending schools judged by their teachers to be **Safe and Orderly**. Almost all the remaining students (41%) were in schools judged to be **Somewhat Safe and Orderly**. In general, only small percentages of students (4% on average) were in schools judged **Not Safe and Orderly**; at best, their teachers "disagreed





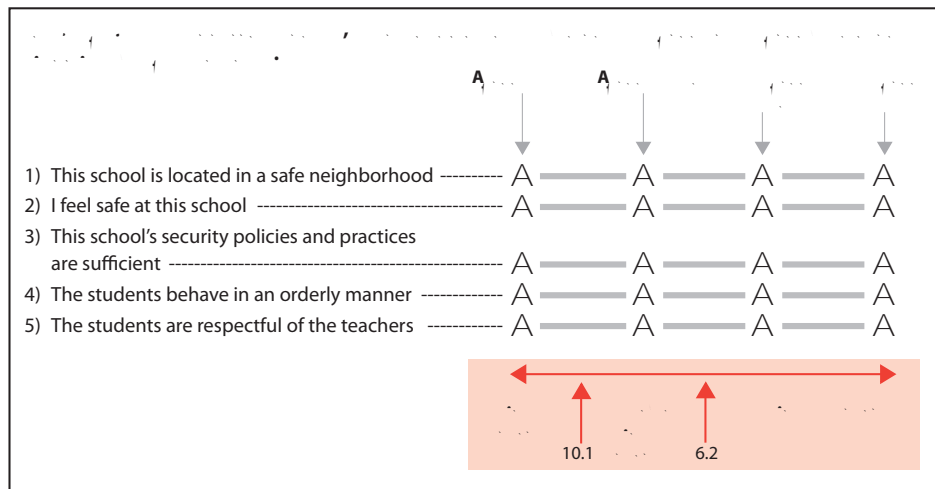
A large table with multiple columns and rows, mostly obscured by a light orange/red color. A dark red bar is present at the bottom of the table area.



Country	Safe and Orderly		Somewhat Safe and Orderly		Not Safe and Orderly		Average Scale Score
	Percent of Students	Average Achievement	Percent of Students	Average Achievement	Percent of Students	Average Achievement	
<b>Sixth Grade Participants</b>							
Honduras	62 (4.4)	448 (6.8)	33 (4.2)	452 (8.9)	5 (1.7)	445 (36.1)	10.3 (0.18)
Kuwait	61 (4.4)	422 (9.4)	34 (4.2)	415 (11.5)	6 (1.7)	391 (19.4)	9.8 (0.17)
Morocco	41 (4.2)	428 (8.6)	46 (4.6)	421 (6.7)	13 (2.9)	406 (7.5)	9.2 (0.22)
Botswana	27 (4.1)	450 (10.7)	56 (4.3)	412 (5.5)	16 (2.9)	399 (7.4)	8.4 (0.19)
<b>Benchmarking Participants</b>							
Dubai, UAE	79 (1.9)	477 (3.3)	20 (1.9)	478 (7.8)	0 (0.0)	~ ~	11.3 (0.08)
Abu Dhabi, UAE	74 (3.6)	427 (6.0)	25 (3.6)	416 (8.9)	1 (0.6)	~ ~	10.6 (0.15)
Alberta, Canada	72 (3.9)	555 (3.0)	27 (3.9)	531 (6.0)	1 (0.7)	~ ~	10.9 (0.15)
Florida, US	61 (5.4)	583 (4.9)	35 (5.3)	548 (6.0)	5 (2.1)	572 (16.8)	10.3 (0.22)
Ontario, Canada	60 (4.4)	557 (3.6)	34 (4.2)	545 (5.0)	6 (1.9)	522 (6.6)	10.0 (0.20)
Maltese - Malta	52 (0.2)	464 (2.2)	46 (0.2)	453 (2.5)	2 (0.1)	~ ~	10.1 (0.01)
Quebec, Canada	45 (4.5)	540 (2.8)	51 (4.5)	537 (3.2)	5 (1.9)	519 (6.7)	9.7 (0.17)
Eng/Afr (5) - RSA	40 (5.7)	461 (13.1)	47 (5.6)	417 (11.2)	12 (3.6)	336 (13.6)	9.2 (0.24)
Andalusia, Spain	39 (4.0)	524 (4.2)	55 (4.1)	513 (3.2)	6 (2.1)	475 (11.7)	9.3 (0.17)

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

Country	Safe and Orderly		Somewhat Safe and Orderly		Not Safe and Orderly		Average Scale Score
	Percent of Students	Average Achievement	Percent of Students	Average Achievement	Percent of Students	Average Achievement	
Colombia	35 (4.4)	581 (7.5)	54 (4.7)	574 (4.3)	11 (2.8)	574 (6.3)	8.9 (0.21)
South Africa	35 (3.2)	467 (8.1)	51 (3.1)	463 (6.8)	14 (2.2)	433 (7.3)	9.0 (0.15)
Botswana	23 (3.3)	483 (10.2)	62 (3.8)	461 (4.1)	15 (3.2)	439 (8.2)	8.3 (0.17)



## 6.6:

Reported by Principals

Students were scored according to their principals' responses concerning ten potential school problems on the *School Discipline and Safety* scale. Students in schools with **A** had a score on the scale of at least 9.9, which corresponds to their principals reporting "not a problem" for five of the ten discipline and safety issues and "minor problem" for the other five, on average. Students in schools with had a score no higher than 7.7, which corresponds to their principals reporting "moderate problem" for five of the ten issues and "minor problem" for the other five, on average. All other students attended schools with

Country	Hardly Any Problems		Minor Problems		Moderate Problems		Average Scale Score
	Percent of Students	Average Achievement	Percent of Students	Average Achievement	Percent of Students	Average Achievement	
Hong Kong SAR	87 (2.9)	570 (2.5)	12 (2.8)	566 (10.1)	1 (0.0)	~ ~	11.4 (0.12)
Northern Ireland	85 (3.7)	561 (2.9)	15 (3.7)	546 (7.1)	0 (0.0)	~ ~	11.1 (0.13)
Ireland	83 (3.5)	556 (2.5)	16 (3.3)	531 (9.0)	1 (1.0)	~ ~	11.2 (0.12)
Georgia	81 (2.8)	489 (3.6)	13 (2.4)	481 (9.5)	6 (1.4)	484 (13.2)	10.8 (0.14)
Chinese Taipei	77 (3.3)	552 (2.1)	23 (3.3)	555 (4.5)	0 (0.0)	~ ~	11.4 (0.13)
Spain	77 (3.3)	517 (2.8)	14 (2.7)	499 (6.7)	10 (2.5)	510 (9.2)	10.7 (0.17)
Bulgaria	75 (3.6)	540 (4.2)	19 (3.6)	509 (11.8)	6 (2.0)	498 (14.7)	10.6 (0.15)
Lithuania	75 (3.5)	531 (2.4)	25 (3.5)	522 (4.6)	0 (0.0)	~ ~	10.6 (0.11)
England	75 (4.4)	557 (3.3)	24 (4.3)	532 (5.8)	1 (1.0)	~ ~	10.8 (0.15)
Iran, Islamic Rep. of	74 (3.9)	462 (4.1)	26 (3.9)	446 (6.8)	0 (0.0)	~ ~	10.8 (0.11)
Czech Republic	68 (3.6)	547 (2.7)	29 (3.5)	542 (4.1)	2 (1.0)	~ ~	10.3 (0.11)
New Zealand	68 (3.3)	544 (2.9)	32 (3.3)	514 (5.7)	0 (0.4)	~ ~	10.6 (0.11)
Singapore	67 (0.0)	568 (4.0)	33 (0.0)	565 (5.8)	0 (0.0)	~ ~	10.8 (0.00)
Portugal	65 (5.2)	543 (3.2)	30 (5.3)	538 (6.5)	5 (1.7)	524 (8.0)	10.4 (0.17)
Croatia	65 (4.0)	557 (2.3)	33 (4.0)	544 (3.2)	2 (1.2)	~ ~	10.5 (0.12)
Russian Federation	65 (3.9)	571 (3.5)	35 (3.8)	564 (4.3)	0 (0.5)	~ ~	10.3 (0.09)
Australia	64 (3.9)	534 (3.5)	34 (3.8)	521 (4.5)	2 (1.0)	~ ~	10.5 (0.12)
Finland	64 (4.5)	571 (2.3)	34 (4.4)	564 (3.2)	2 (1.2)	~ ~	10.3 (0.12)
Romania	64 (4.1)	512 (5.2)	23 (3.4)	500 (10.6)	13 (2.9)	454 (14.3)	10.3 (0.17)
Malta	64 (0.1)	492 (1.9)	30 (0.1)	454 (2.8)	6 (0.1)	448 (6.3)	10.2 (0.00)
United States	63 (2.7)	564 (2.0)	35 (2.8)	548 (2.7)	2 (0.8)	~ ~	10.3 (0.09)
Qatar	63 (3.2)	441 (5.2)	23 (2.6)	405 (8.7)	14 (2.3)	384 (12.2)	10.1 (0.14)
Azerbaijan	62 (4.2)	464 (4.0)	8 (2.3)	455 (9.5)	30 (3.9)	461 (7.5)	9.6 (0.26)
France	62 (4.5)	527 (2.6)	33 (4.3)	507 (5.5)	5 (1.8)	502 (14.3)	10.4 (0.12)
United Arab Emirates	61 (2.3)	449 (3.1)	24 (1.9)	414 (4.7)	15 (1.7)	412 (6.6)	10.0 (0.11)
Canada	60 (2.4)	554 (2.0)	37 (2.4)	539 (2.4)	3 (0.7)	531 (4.5)	10.3 (0.07)
Norway	58 (4.4)	507 (2.9)	39 (4.2)	507 (3.2)	3 (1.6)	496 (10.2)	10.0 (0.13)
Belgium (French)	57 (4.7)	515 (3.2)	38 (4.5)	496 (5.7)	5 (2.2)	496 (8.1)	10.1 (0.16)
Slovak Republic	57 (3.6)	539 (2.6)	35 (3.4)	534 (5.5)	9 (2.0)	514 (15.0)	10.0 (0.12)
Italy	56 (3.9)	541 (3.1)	25 (3.8)	546 (4.7)	19 (2.9)	538 (5.5)	9.6 (0.14)
Denmark	56 (3.5)	557 (2.4)	42 (3.3)	550 (2.7)	2 (1.0)	~ ~	10.1 (0.09)
Slovenia	53 (3.7)	530 (2.8)	42 (3.6)	532 (3.2)	4 (1.4)	519 (7.6)	10.1 (0.12)
Poland	51 (3.9)	527 (2.7)	46 (4.2)	524 (3.8)	3 (1.4)	530 (16.0)	9.9 (0.09)
Hungary	50 (4.2)	553 (4.3)	45 (4.2)	533 (4.9)	5 (1.5)	470 (20.2)	9.8 (0.13)
Sweden	49 (4.7)	551 (2.7)	45 (4.7)	5351	13.0		



### *Students Bullied at School*

In general, bullying involves aggression or negative behavior intended to harm or bother less physically or psychologically powerful persons, although a New

Fourth grade students' reports about being bullied were directly related to their average reading achievement on PIRLS 2011. Each successive category of increased bullying was related to a decrease in average reading achievement to the extent that there was a 34-point difference in achievement between **Almost Never** being bullied and being bullied **About Weekly** (523 vs. 489). Higher percentages of students in the sixth grade and prePIRLS countries reported being bullied **About Weekly** than did students, on average, in the fourth grade. However, there were also several countries where relatively high percentages of fourth grade students (37–38%) reported being bullied **About Weekly**.




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