

Classroom Instruction

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E b 8.2: S de L eLea g a e a c (C ed)

Country	Strongly Dislike		Dislike		Like		Total	Mean (SD)
	Count	%	Count	%	Count	%		

Ninth Grade Participants

Botswana	47 (1.1)	427 (2.5)	38 (0.8)	376 (2.6)	16 (0.8)	370 (4.3)	11.0 (0.05)
South Africa	41 (0.9)	378 (2.0)	44 (0.7)	339 (2.9)	15 (0.6)	348 (5.3)	10.8 (0.04)
Honduras	23 (1.0)	364 (4.6)	49 (0.9)	332 (4.2)	28 (1.1)	334 (4.8)	10.1 (0.06)

H c d ag ee e e a e e ab lea g a e a c ?

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1) I enjoy learning mathematics ----- Δ _____ Δ _____ Δ _____ Δ

2) I wish I did not have to study mathematics* ----- Δ _____ Δ _____ Δ

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E b 8.4: S de C de a e a c (C ed)

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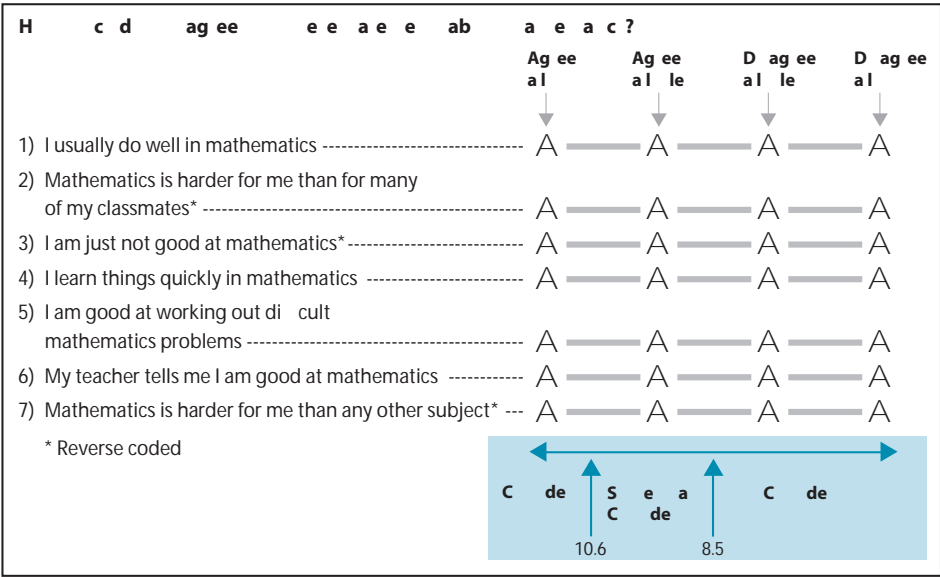
Sixth Grade Participants

Yemen	20 (1.2)	397 (6.2)	59 (1.4)	344 (5.8)	21 (1.3)	322 (7.7)	9.6 (0.05)
Botswana	19 (0.9)	473 (5.1)	52 (1.0)	408 (3.4)	29 (1.0)	410 (5.3)	9.4 (0.04)
Honduras	18 (1.0)	442 (7.5)	61 (1.3)	388 (5.7)	21 (1.0)	389 (6.3)	9.5 (0.04)

Benchmarking Participants

North Carolina, US	42 (1.5)	585 (3.9)	40 (1.2)	544 (4.7)	18 (1.3)	508 (4.7)	10.3 (0.07)
Abu Dhabi, UAE	41 (1.6)	452 (4.6)	46 (1.4)	398 (5.0)	13 (0.8)	385 (8.4)	10.4 (0.06)
Florida, US	41 (1.3)	578 (3.5)	38 (1.0)	533 (3.4)	21 (1.0)	507 (3.7)	10.3 (0.06)
Dubai, UAE	41 (1.0)	500 (2.4)	45 (0.8)	454 (2.4)	15 (0.7)	442 (3.7)	10.4 (0.04)
Quebec, Canada	37 (1.0)	562 (2.5)	44 (1.1)	527 (2.9)	19 (1.0)	490 (3.7)	10.1 (0.05)
Alberta, Canada	35 (1.1)	537 (2.8)	44 (1.0)	501 (2.7)	21 (0.9)	468 (3.8)	10.0 (0.05)
Ontario, Canada	33 (1.0)	558 (3.5)	46 (0.9)	510 (3.2)	21 (0.9)	475 (3.0)	10.0 (0.05)

SOURCE: IEA's Trends in International Mathematics and Science Study – TIMSS 2011



Instructional Time Spent on Mathematics

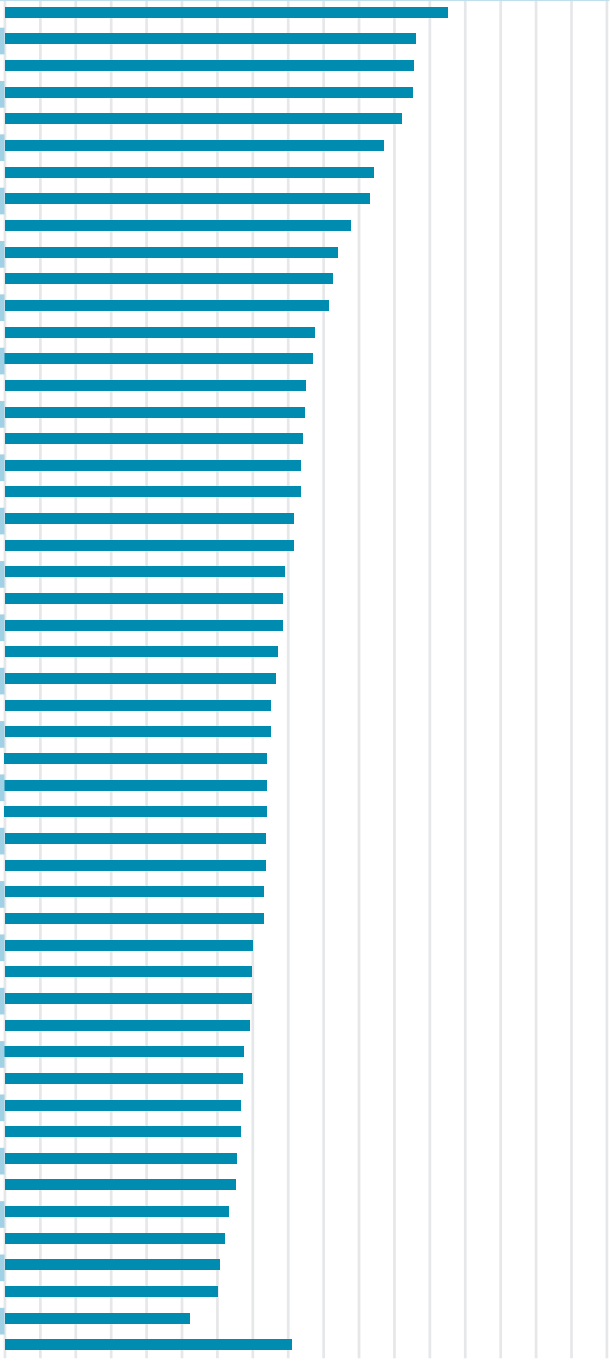
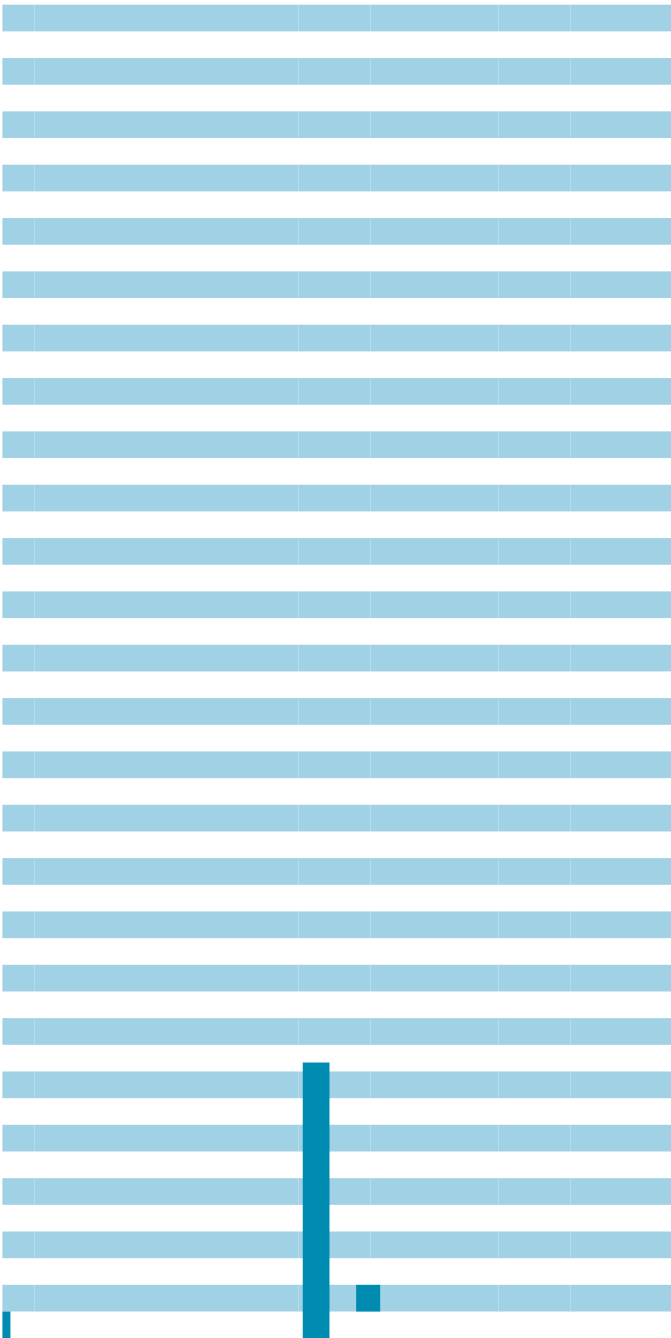
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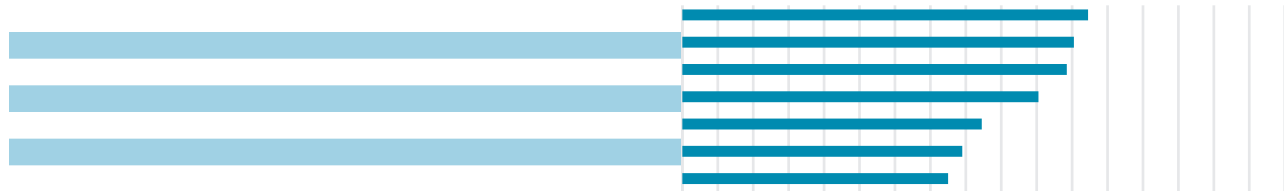


E b 8. :l c al eS e a e a c (C ed)

Country				
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Sixth Grade Participants

Honduras		1024 (16.9)	r	206 (7.2)	
Botswana	s	1143 (23.2)	s	153 (5.8)	
Yemen	r	831 (14.4)	r	123 (4.7)	






$\frac{\text{Principal Reports of School Days per Year}}{\text{Principal Reports of Instructional Hours per Day}}$	=	$\frac{\text{Teacher Reports of Weekly Mathematics Instructional Hours}}{\text{Principal Reports of School Days per Week}}$	x	$\text{Principal Reports of Instructional Hours per Day}$
$\frac{\text{Principal Reports of School Days per Year}}{\text{Principal Reports of Instructional Hours per Day}}$	=	$\frac{\text{Teacher Reports of Weekly Mathematics Instructional Hours}}{\text{Principal Reports of School Days per Week}}$	x	$\text{Principal Reports of School Days per Year}$















E b 8.7: I c a l e S e a e a c (C e d)

Country			
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Ninth Grade Participants

South Africa	r	1193 (11.3)	r	182 (6.7)	
Honduras	r	1152 (27.1)	r	160 (5.7)	
Botswana	r	1114 (20.1)	r	145 (3.9)	

Benchmarking Participants

North Carolina, US		1159 (16.0)	s	185 (9.7)	
Ontario, Canada	r	971 (7.5)	r	181 (3.9)	
Colorado, US		1148 (17.0)	r	173 (8.6)	
California, US	r	1040 (15.2)	s	172 (8.0)	
Alabama, US	r	1135 (16.0)	s	166 (8.9)	
Abu Dhabi, UAE	r	1045 (16.6)	r	158 (5.8)	
Alberta, Canada		1031 (10.0)		156 (4.2)	
Dubai, UAE	r	1022 (1.5)	r	155 (3.6)	
Massachusetts, US		1087 (13.6)	r	154 (5.4)	
Indiana, US	r	1133 (14.9)	s	149 (6.9)	
Quebec, Canada		913 (3.3)		147 (4.1)	
Florida, US	r	1119 (17.0)	s	144 (7.4)	
Connecticut, US		1071 (19.3)	r	144 (4.4)	
Minnesota, US		1043 (14.8)	r	142 (7.5)	

0 40 80 120 160 200 240 280 320

SOURCE: IEAs Trends in International Mathematics and Science Study – TIMSS 2011

**E b 8.8: Percentage Standard Achievement *
(Country)**

Country	(1)	(2)	(3)	(4)
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Sixth Grade Participants

Botswana	r	96 (0.8)	r	98 (0.5)	r	94 (1.4)	r	96 (1.5)
Honduras		75 (1.8)		93 (1.1)		64 (2.8)		50 (4.0)
Yemen		73 (1.4)		91 (1.1)		57 (2.0)		63 (4.0)

Benchmarking Participants

Alberta, Canada	r	64 (1.7)	r	75 (1.8)	r	44 (2.6)	r	81 (2.8)
Ontario, Canada		78 (1.1)		72 (1.5)		77 (1.5)		98 (0.8)
Quebec, Canada		82 (1.0)		83 (1.1)		81 (1.3)		81 (3.0)
Abu Dhabi, UAE		71 (1.9)		77 (1.8)		59 (2.8)		81 (2.9)
Dubai, UAE	r	74 (0.9)	r	82 (1.0)	r	60 (1.3)	r	85 (1.8)
Florida, US	s	89 (1.0)	s	90 (1.0)	s	88 (1.4)	s	87 (3.5)
North Carolina, US		91 (1.2)		97 (0.8)		81 (2.7)		96 (2.2)

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- 1) Concepts of whole numbers, including place value and ordering
- 2) Adding, subtracting, multiplying, and/or dividing with whole numbers
- 3) Concepts of fractions
- 4) Adding and subtracting with fractions
- 5) Concepts of decimals, including place value and ordering
- 6) Adding and subtracting with decimals
- 7) Number sentences
- 8) Number patterns

Background information for this table is provided in the table below.

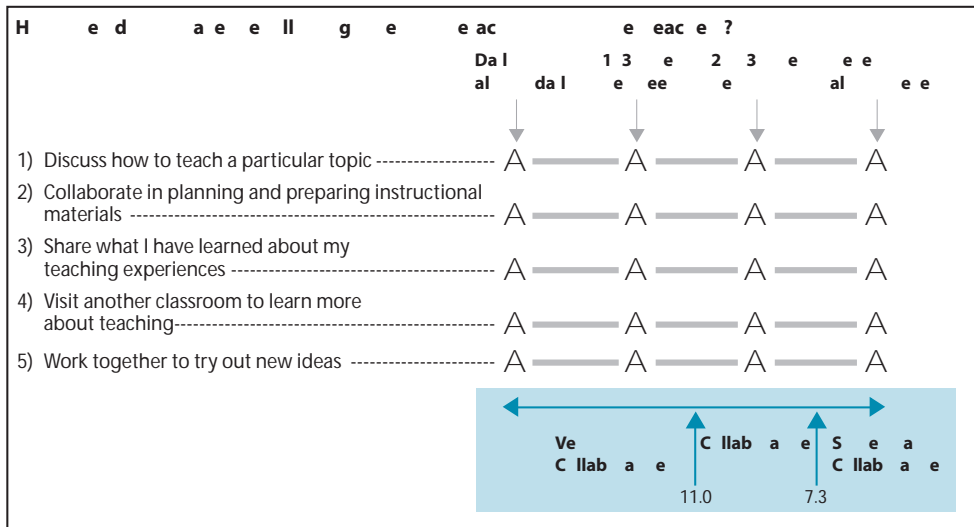


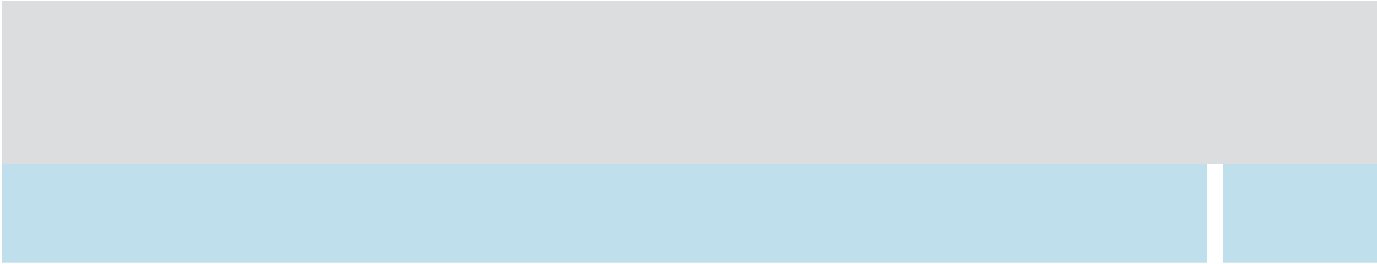
Collaborate to Improve Teaching

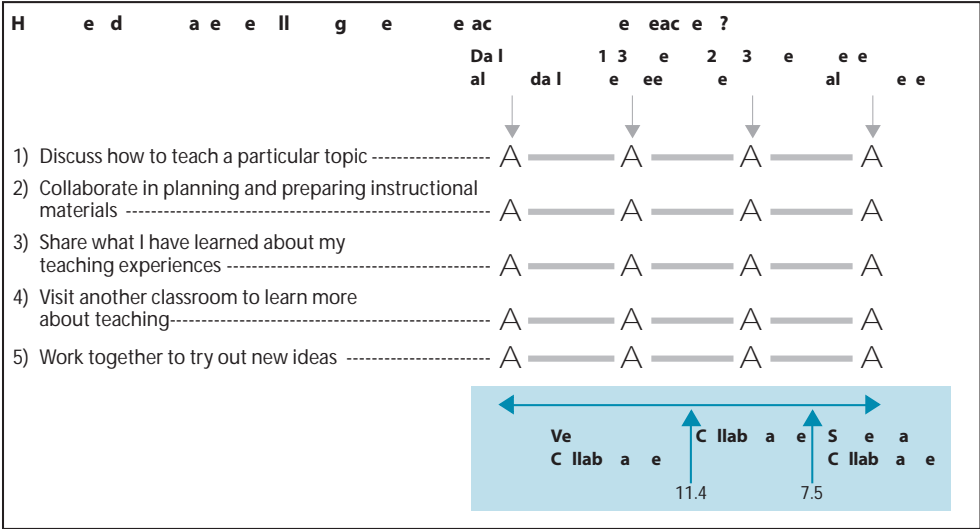


E b 8.12: C llab a e I e eac g(C ed)

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Country									

H e d d e l l g e a c g c l a ?

	E e e e	al le	Ab e le	al	S le	e e
1) Summarize what students should have learned from the lesson	↓	↓	↓	↓	↓	↓
2) Relate the lesson to students' daily lives	△	△	△	△	△	△
3) Use questioning to elicit reasons and explanations ...	△	△	△	△	△	△
4) Encourage all students to improve their performance	△	△	△	△	△	△
5) Praise students for good e ort	△	△	△	△	△	△
6) Bring interesting materials to class	△	△	△	△	△	△

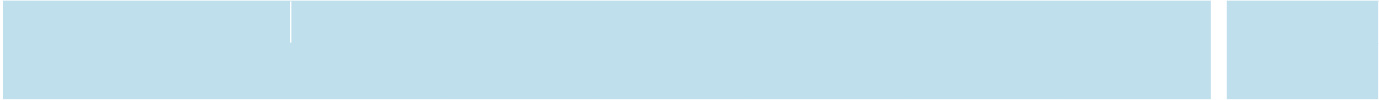
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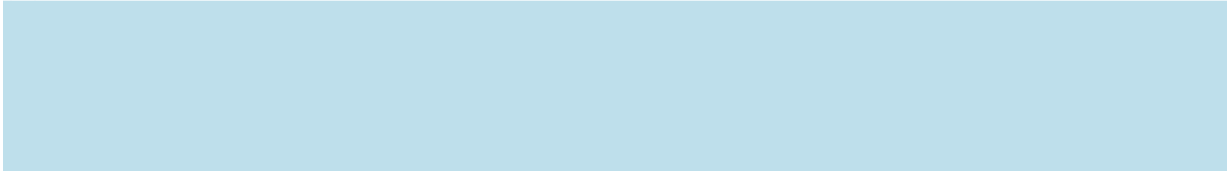




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**E b 8.22: I c L ed b S de S e g
Lac Slee (C ed)**

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Teacher Instructional Activities in Mathematics Class

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E b 8.27:8 . 8

Country					

Sixth Grade Participants

Botswana	68 (4.2)	64 (3.7)	37 (4.2)	59 (4.8)	r	71 (4.5)
Honduras	61 (4.7)	58 (4.5)	35 (4.8)	59 (4.5)		77 (4.3)
Yemen	30 (4.0)	44 (4.1)	7 (2.2)	66 (4.1)		45 (4.3)

Benchmarking Participants

Alberta, Canada	r	49 (4.7)	r	39 (4.7)	r	14 (3.4)	r	4 (1.5)	r	60 (4.8)
Ontario, Canada		47 (3.5)		43 (3.5)		14 (2.7)		8 (1.9)		62 (3.7)
Quebec, Canada		37 (4.7)		35 (4.9)		14 (3.1)		29 (3.9)		49 (4.5)
Abu Dhabi, UAE		58 (4.2)		40 (4.4)		13 (2.8)		45 (4.7)		80 (3.2)
Dubai, UAE		61 (2.6)	r	52 (3.0)	r	18 (3.3)		52 (2.8)	r	83 (2.4)
Florida, US	s	78 (4.9)	r	85 (3.9)	r	31 (4.9)	r	35 (4.3)	r	83 (3.6)
North Carolina, US		80 (3.8)		77 (5.1)		23 (5.5)		27 (5.3)		94 (2.6)

E b 8.28: eac e l c alAc e a e a c Cla (C ed)

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		COSTS				TOTAL	
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E b 8.29: C e Ac e D g a e a c Le (C ed)

Country						

Sixth Grade Participants

Yemen	12 (3.0)	339 (14.2)	352 (6.0)	r	4 (1.8)	4 (1.8)	4 (1.8)
Botswana	6 (2.1)	465 (16.6)	416 (4.5)	r	3 (1.2)	3 (1.5)	r 3 (1.2)
Honduras	4 (1.6)	407 (12.8)	396 (6.4)		2 (1.3)	2 (1.3)	2 (1.3)

Benchmarking Participants

