

TIMSS 2015

E-appendix to
*Inside the primary classroom:
What happens in Fourth Class?*

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Introduction

This e-appendix provides supplementary statistical information (e.g., standard errors) for data presented in Chapters 3-7 of *Inside the primary classroom: What happens in Fourth Class?*¹ This information has been excluded from the main report in order to facilitate a clear presentation of findings. The main report is available for download here: www.erc.ie/timss.

Tables in the e-appendix in which the title is preceded by an **A** are expansions of corresponding tables in the main report (e.g., Table A3.1 is an expansion of Table 3.1). The e-appendix document also contains additional tables that expand on information given only in text in the main report. In these cases, the table number is preceded by an **E** (e.g., Table E6.1). Finally, the e-appendix contains tabulated versions of figures from the main report (e.g., Figure 3.1 [tabulation]).

Tables and figures are presented in the order in which they appear, or are referenced, in the main report.

¹ See Clerkin, Perkins & Chubb (2017): <http://www.erc.ie/studies/timss>

Chapter 3: Characteristics of Fourth Class teachers

Figure 3.1 (tabulation): Percentage of pupils taught by female teachers

	%	(S.E)
Australia	83	(2.6)
England	71	(3.7)
Finland	75	(2.7)
Hong Kong SAR	53	(4.5)
Ireland	84	(2.7)
New Zealand	80	(1.7)
Northern Ireland	71	(4.5)
Rep. of Korea	80	(3.3)
Russian Fed.	100	(0.0)
Singapore	73	(2.4)
Slovenia	97	(1.3)
United States	84	(1.7)
TIMSS	81	(0.4)

Table A3.1: Percentage of pupils taught by teachers of various ages, and teachers' average teaching experience (mean and median)

	Teacher age					Years teaching experience	
	Under 25	25-29	30-39	40-49	50+	Mean	Median
Australia	5 (1.5)	15 (2.6)	20 (2.5)	27 (3.9)	34 (3.8)	15.2 (0.9)	13.0 (3.6)
England	9 (1.8)	22 (3.2)	32 (3.5)	24 (3.5)	13 (3.0)	10.6 (0.7)	8.0 (0.0)
Finland	0 (0.1)	7 (1.6)	28 (2.7)	35 (3.6)	29 (2.7)	16.4 (0.5)	16.0 (2.2)
Hong Kong SAR	1 (0.8)	12 (2.8)	40 (3.5)	34 (3.7)	13 (2.9)	14.8 (0.8)	15.0 (0.0)
Ireland	9 (1.9)	15 (2.3)	46 (4.1)	17 (3.5)	13 (3.0)	13.4 (0.8)	10.0 (2.4)
New Zealand	4 (1.0)	12 (1.7)	25 (2.2)	30 (2.1)	29 (2.1)	14.3 (0.5)	12.0 (0.0)
Northern Ireland	4 (2.4)	19 (3.2)	26 (3.6)	33 (4.8)	18 (4.0)	15.0 (0.8)	15.0 (1.7)
Rep. of Korea	6 (2.1)	15 (2.9)	30 (3.8)	30 (3.8)	19 (3.1)	15.5 (0.7)	15.0 (3.2)
Russian Fed.	1 (0.6)	4 (1.5)	14 (3.6)	45 (4.3)	36 (3.5)	25.2 (0.7)	26.0 (0.7)
Singapore	4 (1.0)	19 (2.3)	44 (2.7)	23 (2.2)	10 (1.7)	10.6 (0.5)	8.0 (2.6)
Slovenia	0 (0.0)	2 (0.8)	19 (2.7)	32 (3.2)	47 (3.3)	23.7 (0.6)	26.0 (0.0)
United States	4 (1.0)	13 (2.0)	28 (2.5)	28 (2.3)	28 (2.4)	13.1 (0.5)	12.0 (0.7)
TIMSS	3 (0.2)	10 (0.3)	30 (0.5)	31 (0.5)	27 (0.4)	17.1 (0.1)	16.2 (0.4)

Table A3.2: Percentage of pupils, by teachers' specialisation in primary education **and/or** maths or science

	Major in primary education			Major in primary education		
	Yes	Yes	No	Yes	Yes	No
	Maths specialisation			Science specialisation		
	Yes	No	Yes	Yes	No	Yes
Australia	13 (2.6)	80 (3.2)	1 (0.6)	16 (3.5)	77 (3.7)	0 (0.3)
England	12 (2.6)	57 (4.3)	4 (1.7)	17 (3.0)	52 (4.0)	10 (2.6)
Finland	10 (2.1)	82 (2.8)	0 (0.4)	12 (2.0)	81 (2.5)	0 (0.4)
Hong Kong	64 (4.3)	23 (3.8)	10 (2.9)	25 (4.7)	50 (4.8)	9 (3.0)
Ireland	12 (2.6)	78 (3.6)	3 (2.0)	5 (1.7)	86 (2.5)	3 (2.1)
Korea, Rep.	19 (2.1)	75 (2.5)	0 (0.3)	13 (1.8)	81 (2.1)	2 (0.7)
New Zealand	17 (4.0)	65 (4.7)	1 (1.0)	9 (2.8)	71 (4.3)	3 (1.9)
N. Ireland	12 (2.7)	86 (2.9)	0 (0.0)	9 (3.1)	78 (3.3)	1 (0.7)
Russian Fed.	44 (4.6)	53 (5.0)	1 (0.7)	41 (4.4)	54 (4.9)	3 (1.3)
Singapore	59 (2.9)	14 (1.9)	14 (1.8)	54 (2.7)	17 (1.7)	15 (1.9)
Slovenia	5 (1.2)	94 (1.3)	0 (0.0)	7 (1.5)	93 (1.5)	0 (0.3)
United States	13 (1.6)	73 (2.3)	2 (0.7)	11 (1.5)	74 (2.5)	5 (1.4)
TIMSS	27 (0.4)	46 (0.5)	14 (0.3)	23 (0.5)	49 (0.5)	15 (0.3)

Chapter 4: Characteristics of the classroom

Table A4.1: Mean class sizes (overall and Fourth grade) and percentage in multigrade classes

	N (all pupils)	N (pupils in Fourth grade)	% Fourth Class pupils in multigrade classes
Australia	26.3 (0.2)	20.7 (0.6)	44 (4.4)
England	26.9 (0.4)	25.1 (0.4)	17 (3.0)
Finland	20.2 (0.4)	18.7 (0.4)	17 (2.6)
Hong Kong SAR	27.3 (0.3)	27.4 (0.3)	1 (0.7)
Ireland	25.8 (0.3)	22.3 (0.5)	29 (3.1)
New Zealand	26.7 (0.3)	15.9 (0.4)	78 (2.5)
Northern Ireland	25.7 (0.4)	23.5 (0.5)	20 (3.0)
Rep. of Korea	25.5 (0.3)	25.4 (0.3)	6 (1.8)
Russian Fed.	24.2 (0.3)	–	–
Singapore	35.4 (0.4)	35.4 (0.4)	0 (0.0)
Slovenia	20.9 (0.5)	19.9 (0.4)	9 (1.7)
United States	24.2 (0.4)	23.9 (0.4)	5 (1.2)
TIMSS	24.6 (0.1)	23.3 (0.1)	12 (0.4)

A dash (–) indicates that data was not available.

Figure 4.1 (tabulation): Variation in total class size of classes taught by Fourth Class teachers, by DEIS status

		Fewer than 20 pupils	20-25 pupils	26-30 pupils	31 or more pupils
DEIS	Urban Band 1	63 (6.9)	30 (10.6)	7 (7.4)	0 (0.0)
	Urban Band 2	0 (0.0)	35 (15.6)	54 (19.4)	12 (11.6)
	DEIS Rural	19 (6.7)	25 (11.3)	56 (13.5)	0 (0.0)
	Non-DEIS	5 (1.7)	31 (4.2)	52 (4.4)	12 (3.0)
Overall (national)		10 (1.6)	31 (3.7)	48 (3.9)	11 (2.6)

Figure 4.2 and Figure 4.3 (tabulation): Percentage of pupils in classes where *no Fourth Class pupils or more than 10% of Fourth Class pupils* have difficulties understanding English, by DEIS status and school location

		No pupils in class have difficulties w/ English	>10% of pupil in class has difficulties w/ English
DEIS	Urban Band 1	73 (8.0)	18 (6.6)
	Urban Band 2	36 (18.5)	33 (16.5)
	DEIS Rural	78 (14.9)	0 (0.0)
	Non-DEIS	65 (4.2)	9 (1.9)
Population	<15,000	66 (5.3)	3 (1.5)
	15,001+	61 (6.1)	19 (4.7)

Chapter 5: Teaching practices

Figure 5.1 and Figure 5.2 (tabulation): Total instructional hours per year for mathematics and science

	Mathematics	Science
Australia	202 (3.5)	57 (1.5)
England	189 (4.5)	61 (2.2)
Finland	115 (2.2)	82 (1.8)
Hong Kong SAR*	159 (4.7)	--
Ireland	165 (2.4)	32 (0.7)
New Zealand	163 (2.3)	43 (2.0)
Northern Ireland	215 (6.5)	38 (2.1)
Rep. of Korea	100 (1.4)	76 (1.0)
Russian Federation	106 (1.4)	49 (0.9)
Singapore	201 (1.6)	85 (1.4)
Slovenia	144 (1.2)	86 (1.3)
United States	216 (4.1)	100 (3.7)
TIMSS	157 (0.5)	76 (0.3)

*Science instructional hours are not available for Hong Kong SAR as data were provided for less than 50% of pupils.

Table A5.1: Percentage of pupils, by frequency of teaching strategies to engage pupils in lessons (**in general**)

		Every or almost every lesson	About half of lessons	Some lessons	Never
Relate the lesson to pupils' daily lives	IRL	54 (4.1)	33 (4.1)	13 (2.5)	0 (0.0)
	TIMSS	56 (0.5)	28 (0.5)	16 (0.4)	<1 (0.0)
Ask pupils to explain their answers	IRL	66 (3.6)	28 (3.4)	6 (2.3)	0 (0.0)
	TIMSS	69 (0.5)	22 (0.4)	8 (0.3)	<1 (0.0)
Bring interesting materials to class	IRL	14 (2.4)	47 (4.0)	39 (3.7)	0 (0.0)
	TIMSS	23 (0.4)	41 (0.5)	35 (0.5)	1 (0.1)
Encourage classroom discussions among pupils	IRL	58 (4.1)	32 (3.7)	9 (2.7)	<1 (0.2)
	TIMSS	42 (0.5)	30 (0.5)	26 (0.5)	1 (0.1)
Link new content to pupils' prior knowledge	IRL	78 (3.6)	19 (3.2)	4 (1.5)	0 (0.0)
	TIMSS	72 (0.5)	21 (0.4)	6 (0.3)	<1 (0.0)
Ask pupils to complete challenging exercises that require them to go beyond the instruction	IRL	18 (2.9)	46 (3.8)	35 (4.0)	1 (0.6)
	TIMSS	17 (0.4)	31 (0.5)	46 (0.5)	6 (0.2)
Ask pupils to decide their own problem solving procedures	IRL	25 (3.6)	40 (3.6)	35 (3.6)	1 (0.5)
	TIMSS	40 (0.5)	36 (0.5)	23 (0.5)	1 (0.1)
Encourage pupils to express their ideas in class	IRL	67 (3.9)	26 (3.7)	7 (2.1)	0 (0.0)
	TIMSS	69 (0.5)	22 (0.4)	9 (0.3)	<1 (0.0)

Figure 5.3 (tabulation): General teaching practices, by teachers' years of experience (percentage pupils engaging in each activity in *at least half the lessons*)

	New (up to 2 years)	3-5 years	6+ years
Relate the lesson to pupils' daily lives	85 (11.1)	86 (7.2)	88 (2.9)
Ask pupils to explain their answers	100 (0.0)	97 (2.9)	93 (2.9)
Bring interesting materials to class	82 (9.9)	72 (8.8)	58 (4.0)
Encourage classroom discussions among pupils	100 (0.0)	100 (0.0)	89 (3.4)
Link new content to pupils' prior knowledge	100 (0.0)	100 (0.0)	94 (2.0)
Ask pupils to complete challenging exercises that require them to go beyond the instruction	97 (3.2)	74 (8.6)	59 (4.7)
Ask pupils to decide their own problem solving procedures	87 (8.6)	57 (10.2)	64 (4.4)
Encourage pupils to express their ideas in class	91 (8.1)	99 (1.5)	92 (2.6)

Table A5.2: Percentage of pupils, by teaching practices in **mathematics** lessons

		Every or almost every lesson	About half the lessons	Some lessons	Never
Listen to me explain new mathematics content	IRL	73 (3.5)	20 (3.3)	7 (2.1)	<1 (0.4)
	TIMSS	65 (0.5)	22 (0.4)	11 (0.3)	1 (0.1)
Listen to me explain how to solve problems	IRL	57 (3.8)	26 (3.8)	16 (3.3)	<1 (0.4)
	TIMSS	59 (0.5)	24 (0.5)	16 (0.4)	1 (0.1)
Memorise rules, procedures, and facts	IRL	34 (3.9)	35 (3.8)	32 (3.4)	0 (0.0)
	TIMSS	33 (0.5)	27 (0.5)	36 (0.5)	4 (0.2)
Work problems (individually or with peers) with my guidance	IRL	40 (3.9)	53 (4.1)	7 (1.8)	0 (0.0)
	TIMSS	52 (0.5)	32 (0.5)	15 (0.4)	<1 (0.1)
Work problems together in the whole class with direct guidance from me	IRL	34 (3.9)	43 (4.8)	22 (3.7)	<1 (0.5)
	TIMSS	40 (0.5)	31 (0.5)	27 (0.5)	2 (0.2)
Work problems (individually or with peers) while I am occupied by other tasks	IRL	24 (4.1)	31 (3.9)	35 (4.3)	10 (2.3)
	TIMSS	15 (0.4)	19 (0.4)	35 (0.5)	30 (0.5)
Take a written test or quiz	IRL	8 (1.8)	17 (2.9)	74 (3.4)	<1 (0.4)
	TIMSS	14 (0.3)	19 (0.4)	66 (0.5)	1 (0.1)
Work in mixed ability groups	IRL	21 (3.5)	27 (3.4)	47 (4.1)	5 (1.7)
	TIMSS	20 (0.4)	29 (0.5)	47 (0.5)	4 (0.2)
Work in same ability groups	IRL	14 (2.9)	30 (4.0)	48 (3.7)	8 (2.4)
	TIMSS	12 (0.3)	24 (0.5)	49 (0.5)	14 (0.4)

Table A5.3: Percentage of pupils, by teaching practices in **science** lessons

		Every or almost every lesson	About half the lessons	Some lessons	Never
Listen to me explain new science content	IRL	50 (4.3)	33 (3.6)	17 (3.2)	0 (0.0)
	TIMSS	60 (0.5)	24 (0.5)	16 (0.4)	1 (0.1)
Observe natural phenomena such as the weather or a plant growing and describe what they see	IRL	15 (3.0)	38 (4.0)	44 (4.4)	2 (1.1)
	TIMSS	25 (0.4)	34 (0.5)	39 (0.5)	1 (0.1)
Watch me demonstrate an experiment or investigation	IRL	14 (3.0)	36 (4.0)	48 (3.9)	3 (1.5)
	TIMSS	22 (0.4)	25 (0.5)	49 (0.5)	4 (0.2)
Design or plan experiments or investigations	IRL	14 (3.0)	39 (3.5)	41 (3.6)	6 (1.5)
	TIMSS	15 (0.3)	28 (0.5)	52 (0.5)	5 (0.3)
Conduct experiments or investigations	IRL	18 (2.7)	46 (3.5)	35 (3.2)	1 (1.0)
	TIMSS	17 (0.4)	31 (0.5)	51 (0.5)	2 (0.2)
Present data from experiments or investigations	IRL	9 (2.1)	36 (4.3)	51 (4.0)	4 (1.2)
	TIMSS	14 (0.3)	27 (0.5)	55 (0.5)	4 (0.2)
Interpret data from experiments or investigations	IRL	12 (2.4)	32 (4.1)	52 (3.7)	4 (2.0)
	TIMSS	15 (0.3)	29 (0.5)	52 (0.5)	4 (0.2)
Use evidence from experiments or investigations to support conclusions	IRL	12 (2.5)	38 (3.5)	48 (3.8)	3 (1.4)
	TIMSS	18 (0.4)	30 (0.5)	48 (0.5)	4 (0.2)
Read their textbooks or other resource materials	IRL	27 (3.6)	39 (4.2)	28 (3.7)	6 (2.0)
	TIMSS	40 (0.5)	30 (0.5)	27 (0.5)	4 (0.2)
Have pupils memorise facts and principles	IRL	5 (1.8)	18 (3.1)	50 (3.6)	26 (3.4)
	TIMSS	25 (0.4)	24 (0.5)	39 (0.5)	11 (0.3)
Do field work outside the class	IRL	2 (0.4)	10 (2.4)	82 (2.9)	6 (1.6)
	TIMSS	5 (0.2)	15 (0.4)	69 (0.5)	11 (0.3)
Take a written test or quiz	IRL	1 (0.6)	11 (2.4)	53 (4.2)	35 (4.3)
	TIMSS	14 (0.3)	19 (0.4)	60 (0.5)	7 (0.3)
Work in mixed ability groups	IRL	24 (3.3)	42 (4.3)	30 (3.6)	4 (1.9)
	TIMSS	26 (0.4)	31 (0.5)	40 (0.5)	3 (0.2)
Work in same ability groups	IRL	4 (1.6)	30 (4.4)	39 (4.5)	26 (4.0)
	TIMSS	9 (0.3)	22 (0.5)	48 (0.5)	21 (0.4)

Table A5.4: Percentage of pupils and mean science achievement, by teachers' emphasis on scientific investigation

	About half the lessons or more			Less than half of the lessons		
	% students	(S.E)	Science	% students	(S.E)	Science
Australia	22	(2.8)	529 (4.5)	78	(2.8)	526 (3.0)
England	26	(3.6)	540 (5.9)	74	(3.6)	537 (3.4)
Finland	4	(1.4)	559 (8.6)	96	(1.4)	553 (2.4)
Hong Kong SAR	10	(2.1)	570 (6.9)	90	(2.1)	554 (3.4)
Ireland	20	(3.0)	540 (5.6)	80	(3.0)	526 (2.5)
New Zealand	14	(2.1)	505 (8.2)	86	(2.1)	506 (2.9)
Northern Ireland	3	(0.7)	504 (12.0)	97	(0.7)	521 (2.2)
Rep. of Korea	60	(4.0)	590 (2.6)	40	(4.0)	589 (3.0)
Russian Fed.	16	(2.9)	572 (6.5)	84	(2.9)	567 (3.7)
Singapore	34	(2.5)	596 (6.1)	66	(2.5)	588 (4.5)
Slovenia	12	(2.3)	541 (8.1)	88	(2.3)	544 (2.5)
United States	24	(2.3)	546 (6.4)	76	(2.3)	545 (2.3)
TIMSS	27	(0.4)	508 (1.1)	73	(0.4)	505 (0.7)

Figure 5.4 and Figure 5.5 (tabulation): Teachers' use of active scientific methods, by DEIS status and teacher experience (percentage of pupils engaging in active scientific methods in *at least half the lessons*)

About half of lessons or more		
DEIS	Urban Band 1	8 (5.7)
	Urban Band 2	21 (13.2)
	DEIS Rural	12 (12.7)
	Non-DEIS	22 (3.5)
Experience	New (up to 2 years)	24 (10.3)
	3-5 years	15 (6.8)
	6+ years	20 (3.4)

Table A5.5: Percentage of pupils, by teachers' emphasis on various forms of assessment

		Mathematics			Science		
		Major Emphasis	Some emphasis	Little or no emphasis	Major Emphasis	Some emphasis	Little or no emphasis
Assessment of pupils' ongoing work	IRL	90 (2.6)	10 (2.6)	0 (0.0)	53 (4.2)	40 (4.2)	7 (2.0)
	TIMSS	85 (0.4)	14 (0.4)	1 (0.1)	77 (0.5)	21 (0.4)	2 (0.2)
Classroom tests (for example, teacher-made or textbook tests)	IRL	61 (3.9)	39 (3.9)	0 (0.0)	18 (3.6)	49 (4.4)	33 (4.0)
	TIMSS	68 (0.5)	30 (0.5)	2 (0.1)	58 (1.0)	34 (1.0)	8 (0.4)
National or regional achievement tests	IRL	32 (3.8)	61 (4.1)	6 (1.7)	4 (1.5)	15 (2.8)	81 (3.0)
	TIMSS	33 (0.5)	47 (0.5)	20 (0.4)	26 (0.4)	40 (0.5)	34 (0.5)

Table A5.6: Percentage of pupils with any access to a computer or tablet in lessons

	Mathematics	Science
Australia	60 (3.8)	63 (3.3)
England	58 (3.6)	71 (4.1)
Finland	56 (3.1)	64 (3.4)
Hong Kong SAR	45 (4.4)	47 (4.5)
Ireland	40 (4.2)	42 (4.1)
New Zealand	89 (1.6)	91 (1.6)
Northern Ireland	71 (3.8)	76 (3.9)
Rep. of Korea	14 (3.1)	22 (3.7)
Russian Fed.	62 (3.6)	66 (3.6)
Singapore	37 (2.4)	49 (2.4)
Slovenia	16 (2.6)	22 (2.9)
United States	46 (3.2)	47 (2.9)
TIMSS	37 (0.5)	46 (0.5)

Figure 5.6 (tabulation): Percentage of pupils with varying types of access to computers/tablets during maths lessons

	Individual	Class	School
Australia	11 (2.1)	50 (3.7)	48 (3.3)
England	7 (2.3)	34 (3.8)	51 (3.7)
Finland	4 (1.4)	24 (2.7)	54 (3.1)
Hong Kong SAR	19 (3.7)	24 (4.6)	42 (4.3)
Ireland	2 (1.7)	25 (3.4)	29 (4.1)
New Zealand	9 (1.9)	77 (2.5)	55 (3.1)
Northern Ireland	2 (1.3)	52 (4.6)	53 (4.1)
Rep. of Korea	2 (1.3)	3 (1.7)	11 (2.7)
Russian Fed.	6 (1.9)	41 (4.3)	55 (3.7)
Singapore	17 (2.0)	14 (1.7)	35 (2.3)
Slovenia	<1 (0.1)	3 (1.2)	15 (2.5)
United States	11 (2.0)	37 (2.8)	39 (3.0)
TIMSS	7 (0.3)	20 (0.4)	31 (0.5)

Table A5.7: Percentage of pupils, by use of computers *at least monthly* for various activities in lessons

	Mathematics			Science			
	Explore maths principles & concepts	Practice skills & procedures	Look up ideas & information	Practice skills & procedures	Look up ideas & information	Do scientific procedures/experiments	Study natural phenomena through simulations
Australia	53 (3.8)	57 (3.9)	49 (3.8)	39 (3.2)	60 (3.4)	37 (3.3)	46 (3.5)
England	49 (3.7)	52 (3.6)	45 (3.9)	43 (4.5)	69 (4.3)	42 (4.4)	54 (4.2)
Finland	32 (3.3)	50 (3.5)	30 (3.3)	48 (4.0)	61 (3.3)	25 (3.1)	22 (2.8)
Hong Kong SAR	33 (4.9)	35 (4.4)	29 (4.4)	29 (4.5)	37 (4.5)	33 (4.3)	27 (4.1)
Ireland	31 (3.7)	34 (3.8)	27 (4.0)	22 (3.4)	36 (4.1)	14 (3.1)	22 (3.6)
New Zealand	78 (2.3)	86 (2.0)	76 (2.3)	46 (2.3)	87 (1.8)	52 (2.7)	55 (2.8)
Northern Ireland	58 (3.9)	68 (3.8)	58 (5.0)	37 (4.5)	69 (4.2)	23 (4.5)	39 (4.8)
Rep. of Korea	7 (2.2)	8 (2.4)	8 (2.3)	14 (3.2)	19 (3.5)	18 (3.4)	16 (3.2)
Russian Fed.	49 (4.1)	60 (3.7)	58 (4.0)	59 (4.2)	62 (3.6)	45 (3.5)	39 (3.4)
Singapore	30 (2.2)	34 (2.2)	28 (2.3)	36 (2.7)	43 (2.6)	35 (2.7)	31 (2.5)
Slovenia	9 (2.1)	12 (2.5)	12 (2.3)	15 (2.6)	20 (2.8)	11 (2.3)	17 (2.6)
United States	38 (3.0)	43 (3.2)	32 (2.5)	30 (2.4)	40 (2.7)	28 (2.6)	27 (2.4)
TIMSS	26 (0.4)	33 (0.4)	27 (0.4)	31 (0.5)	41 (0.5)	26 (0.5)	28 (0.5)

Chapter 6: Teacher confidence and professional development

Table A6.1: Percentage of pupils, by teachers' confidence with various aspects of maths and science teaching

			Teachers' confidence			
			Very high	High	Medium	Low
Inspiring students to learn maths/science	Maths	IRL	36 (4.3)	57 (4.2)	6 (1.3)	1 (0.5)
		TIMSS	38 (0.5)	51 (0.5)	11 (0.3)	<1 (0.1)
	Science	IRL	17 (3.3)	52 (4.6)	28 (3.9)	3 (1.3)
		TIMSS	40 (0.5)	46 (0.5)	13 (0.4)	1 (0.1)
Providing challenging tasks for the highest achieving students	Maths	IRL	27 (3.8)	52 (4.1)	19 (3.6)	1 (0.6)
		TIMSS	28 (0.5)	49 (0.5)	21 (0.4)	2 (0.1)
	Science	IRL	4 (1.5)	30 (3.7)	51 (4.3)	15 (2.8)
		TIMSS	18 (0.4)	41 (0.5)	34 (0.5)	7 (0.3)
Adapting my teaching to engaging students' interest	Maths	IRL	27 (3.5)	59 (4.2)	14 (2.9)	<1 (0.3)
		TIMSS	30 (0.5)	55 (0.5)	14 (0.4)	<1 (0.1)
	Science	IRL	11 (1.7)	60 (4.2)	24 (3.6)	5 (2.1)
		TIMSS	31 (0.5)	52 (0.6)	16 (0.4)	1 (0.1)
Helping students appreciate the value of learning maths/science	Maths	IRL	30 (3.4)	60 (3.6)	9 (2.1)	0 (0.0)
		TIMSS	36 (0.5)	52 (0.5)	12 (0.3)	1 (0.1)
	Science	IRL	15 (3.1)	57 (4.6)	26 (3.8)	3 (1.2)
		TIMSS	34 (0.5)	50 (0.6)	15 (0.4)	1 (0.1)
Assessing student comprehension of maths/science	Maths	IRL	20 (3.0)	62 (3.9)	18 (3.1)	0 (0.0)
		TIMSS	30 (0.5)	56 (0.5)	14 (0.4)	<1 (0.1)
	Science	IRL	6 (1.5)	39 (4.0)	44 (4.4)	11 (2.8)
		TIMSS	26 (0.5)	52 (0.6)	21 (0.4)	2 (0.2)
Improving understanding of struggling students	Maths	IRL	18 (2.9)	65 (3.6)	17 (2.9)	1 (0.7)
		TIMSS	26 (0.5)	54 (0.6)	20 (0.4)	1 (0.1)
	Science	IRL	8 (2.5)	43 (4.1)	43 (3.9)	6 (1.9)
		TIMSS	22 (0.4)	49 (0.6)	27 (0.5)	2 (0.2)
Making maths/science relevant to students	Maths	IRL	29 (4.2)	57 (3.9)	14 (2.8)	0 (0.0)
		TIMSS	33 (0.5)	53 (0.5)	14 (0.4)	<1 (0.1)
	Science	IRL	19 (3.0)	53 (4.1)	22 (3.2)	5 (2.1)
		TIMSS	34 (0.5)	50 (0.6)	15 (0.4)	1 (0.1)
Developing students' higher-order thinking skills	Maths	IRL	23 (3.6)	55 (3.8)	21 (3.1)	1 (0.9)
		TIMSS	23 (0.4)	50 (0.5)	25 (0.4)	2 (0.1)
	Science	IRL	9 (1.7)	46 (4.2)	37 (4.0)	8 (2.8)
		TIMSS	22 (0.4)	47 (0.5)	28 (0.5)	3 (0.2)
Teaching science using inquiry methods *	Science	IRL	13 (2.5)	37 (3.5)	41 (3.7)	9 (2.3)
		TIMSS	22 (0.4)	44 (0.6)	30 (0.5)	4 (0.2)
Explaining concepts/principles by doing science experiments *	Science	IRL	11 (2.8)	47 (4.1)	35 (3.4)	7 (1.5)
		TIMSS	26 (0.4)	43 (0.5)	28 (0.5)	3 (0.2)
Showing students a variety of problem solving strategies *	Maths	IRL	27 (3.8)	57 (3.6)	15 (3.0)	<1 (0.2)
		TIMSS	36 (0.5)	52 (0.5)	12 (0.3)	<1 (0.1)

*Question only applicable to one domain.

Table E6.1: Percentage of pupils, by teachers' reported preparedness to teach mathematics topics

			Very well prepared	Somewhat prepared	Not well prepared
Number	Concepts of whole numbers, including place value and ordering	Ireland	93 (2.6)	2 (1.1)	1 (0.6)
		TIMSS	89 (0.9)	7 (0.8)	<1 (0.1)
	Adding, subtracting, multiplying, and/or dividing with whole numbers	Ireland	96 (1.7)	2 (1.0)	1 (0.6)
		TIMSS	90 (0.9)	7 (0.8)	<1 (0.1)
	Concepts of multiples and factors; odd and even numbers	Ireland	90 (1.8)	4 (0.9)	2 (1.0)
		TIMSS	82 (1.1)	9 (0.9)	1 (0.2)
	Concepts of fractions	Ireland	87 (3.2)	11 (3.0)	1 (1.0)
		TIMSS	77 (0.9)	13 (0.9)	1 (0.1)
	Adding and subtracting with fractions, comparing and ordering fractions	Ireland	72 (3.3)	13 (2.3)	2 (1.1)
		TIMSS	69 (1.0)	14 (0.9)	1 (0.2)
Concepts of decimals, including place value and ordering, adding and subtracting with decimals	Ireland	88 (2.4)	10 (2.3)	2 (1.0)	
	TIMSS	69 (1.0)	13 (0.9)	1 (0.2)	
Number sentences	Ireland	90 (2.1)	6 (1.4)	1 (0.7)	
	TIMSS	77 (1.0)	14 (0.9)	1 (0.2)	
Number patterns	Ireland	91 (2.2)	4 (1.3)	1 (1.0)	
	TIMSS	79 (1.0)	14 (0.9)	1 (0.1)	
Geometric shapes and measures	Lines (measuring, estimating length of; parallel and perpendicular lines)	Ireland	89 (1.8)	8 (1.7)	0 (0.0)
		TIMSS	84 (0.9)	11 (0.9)	1 (0.1)
	Comparing and drawing angles	Ireland	63 (3.6)	16 (2.7)	1 (0.5)
		TIMSS	72 (1.1)	12 (1.0)	1 (0.2)
	Using informal coordinate systems to locate points in a plane	Ireland	46 (4.1)	16 (3.3)	2 (0.7)
		TIMSS	65 (1.2)	12 (0.9)	2 (0.2)
	Elementary properties of common geometric shapes	Ireland	71 (3.6)	18 (3.5)	1 (0.4)
		TIMSS	82 (1.0)	12 (0.9)	1 (0.1)
Reflections and rotations	Ireland	45 (4.2)	23 (3.7)	4 (2.1)	
	TIMSS	48 (1.0)	19 (0.9)	3 (0.3)	
Relationships between two-dimensional and three-dimensional shapes	Ireland	84 (2.5)	12 (2.3)	2 (1.2)	
	TIMSS	53 (0.8)	18 (0.9)	3 (0.2)	
Finding and estimating areas, perimeters, and volumes	Ireland	81 (2.7)	9 (2.0)	1 (0.8)	
	TIMSS	72 (1.0)	13 (0.9)	2 (0.2)	
Data Display	Reading and representing data from tables, pictographs, bar graphs, or pie charts	Ireland	91 (2.4)	7 (2.3)	1 (0.6)
		TIMSS	77 (1.2)	12 (0.9)	1 (0.2)
	Drawing conclusions from data displays	Ireland	90 (2.1)	8 (1.9)	1 (0.6)
		TIMSS	74 (1.2)	15 (1.0)	1 (0.2)

Table E6.2: Percentage of pupils, by teachers' reported preparedness to teach science topics

			Very well prepared	Somewhat prepared	Not well prepared
Life Sciences	Characteristics of living things and the major groups of living things	Ireland	66 (3.8)	31 (3.8)	2 (1.0)
		TIMSS	66 (0.5)	20 (0.4)	2 (0.1)
	Major body structures and their functions in humans, other animals, and plants	Ireland	65 (4.1)	31 (4.1)	2 (1.3)
		TIMSS	64 (0.5)	21 (0.4)	2 (0.1)
	Life cycles of common plants and animals	Ireland	75 (3.6)	21 (3.2)	2 (1.0)
		TIMSS	64 (0.5)	21 (0.4)	2 (0.1)
	Understanding that some characteristics are inherited and some are the result of the environment	Ireland	44 (4.1)	45 (4.3)	8 (2.8)
		TIMSS	45 (0.5)	23 (0.5)	4 (0.2)
How physical features and behaviours help living things to survive in their environments	Ireland	60 (3.9)	36 (3.7)	3 (1.4)	
	TIMSS	60 (0.5)	22 (0.5)	2 (0.2)	
Relationships in communities and ecosystems	Ireland	62 (4.0)	33 (4.1)	3 (1.3)	
	TIMSS	65 (0.5)	19 (0.4)	2 (0.2)	
Human health	Ireland	75 (3.5)	19 (2.8)	3 (1.4)	
	TIMSS	64 (0.5)	17 (0.4)	2 (0.2)	
Physical Sciences	States of matter and properties of the states of matter; how the state of matter changes by heating or cooling	Ireland	60 (4.1)	34 (3.7)	3 (1.4)
		TIMSS	67 (0.5)	19 (0.4)	3 (0.2)
	Classifying materials based on physical properties	Ireland	49 (3.9)	45 (3.8)	4 (1.3)
		TIMSS	48 (0.5)	26 (0.5)	5 (0.2)
	Mixtures and how to separate a mixture into its components	Ireland	51 (4.3)	39 (4.0)	7 (2.0)
		TIMSS	43 (0.5)	24 (0.5)	6 (0.3)
	Chemical changes in everyday life	Ireland	41 (4.1)	47 (4.0)	6 (1.8)
		TIMSS	40 (0.5)	25 (0.5)	6 (0.2)
	Common sources of energy	Ireland	74 (3.6)	23 (3.3)	3 (1.2)
		TIMSS	61 (0.5)	21 (0.4)	3 (0.2)
Light and sound in everyday life	Ireland	63 (4.0)	33 (3.7)	4 (1.5)	
	TIMSS	49 (0.5)	24 (0.5)	4 (0.2)	
Electricity and simple circuits	Ireland	46 (4.0)	44 (4.1)	9 (2.1)	
	TIMSS	44 (0.5)	25 (0.5)	6 (0.3)	
Properties of magnets	Ireland	66 (4.0)	29 (3.9)	4 (1.3)	
	TIMSS	52 (0.5)	20 (0.4)	4 (0.2)	
Forces that cause objects to move	Ireland	66 (4.1)	31 (3.8)	3 (1.2)	
	TIMSS	49 (0.5)	22 (0.4)	5 (0.2)	
Earth Science	Common features of the Earth's landscape and their relationship to human use	Ireland	71 (3.9)	25 (3.6)	2 (0.9)
		TIMSS	56 (0.5)	20 (0.4)	2 (0.2)
	Where water is found on Earth and how it moves in and out of the air	Ireland	75 (3.6)	21 (3.1)	1 (0.9)
		TIMSS	68 (0.5)	17 (0.4)	2 (0.1)
	Understanding that weather can change from day to day, from season to season, and by geographic location	Ireland	76 (3.5)	23 (3.4)	1 (0.6)
		TIMSS	59 (0.5)	19 (0.4)	2 (0.1)
Understanding what fossils are and what they can tell us about past conditions on Earth	Ireland	42 (4.2)	41 (4.2)	11 (2.6)	
	TIMSS	38 (0.5)	25 (0.5)	5 (0.3)	
	Ireland	63 (3.9)	31 (3.9)	4 (1.5)	

Understanding Earth Science Objects in the solar system and their movements	TIMSS	58 (0.5)	18 (0.4)	2 (0.2)
How day and night result from Earth's rotation on its axis and how the Earth's rotation results in changing shadows	Ireland	65 (3.6)	28 (3.4)	5 (1.7)
	TIMSS	62 (0.5)	16 (0.4)	2 (0.2)
Understanding how seasons are related to the Earth's annual movement around the Sun	Ireland	67 (3.8)	27 (3.8)	3 (1.3)
	TIMSS	60 (0.5)	16 (0.4)	2 (0.2)

Figure 6.1 (tabulation): Percentage of pupils whose teachers felt *not well prepared* to teach selected topics

	Ireland	TIMSS
Fossils	11 (2.6)	5 (0.3)
Inherited and environmental characteristics	8 (2.8)	4 (0.2)
Electrical circuits	9 (2.1)	6 (0.3)

Table A6.2: Percentage of pupils, by teachers' participation in mathematics- or science-related CPD in the two years prior to TIMSS

		None	Less than 6	6-15 hours	16-35 hours	More than 35 hours
Maths	Ireland	28 (3.7)	30 (3.6)	26 (4.3)	11 (2.3)	4 (1.0)
	TIMSS	27 (0.5)	22 (0.5)	24 (0.5)	14 (0.4)	12 (0.3)
Science	Ireland	67 (4.1)	16 (3.0)	10 (3.2)	5 (1.9)	1 (0.7)
	TIMSS	41 (0.5)	24 (0.5)	19 (0.4)	9 (0.3)	8 (0.3)

Table A6.3: Percentage of pupils, by teachers' participation in CPD related to specified aspects of mathematics and science teaching

	Maths		Science	
	Ireland	TIMSS	Ireland	TIMSS
Content	46 (3.7)	42 (0.5)	18 (3.3)	32 (0.5)
Instruction	37 (3.7)	45 (0.5)	14 (3.2)	32 (0.5)
Curriculum	38 (4.0)	39 (0.5)	20 (3.6)	32 (0.5)
Integrating ICT into maths/science	34 (4.0)	35 (0.5)	12 (2.7)	30 (0.5)
Assessment	25 (3.6)	35 (0.5)	7 (1.8)	25 (0.4)
Critical thinking/ problem-solving	45 (3.9)	40 (0.5)	17 (3.0)	33 (0.5)
Addressing individuals' needs	27 (3.8)	42 (0.5)	13 (3.0)	32 (0.5)
Integrating science into other subjects			24 (3.8)	29 (0.5)

Table A6.4: Percentage of pupils, by teachers' engagement in various collaborative practices

		Very often	Often	Sometimes	Never or almost never
Discuss how to teach a particular topic	IRL	26 (3.5)	25 (2.9)	44 (3.9)	5 (1.8)
	TIMSS	29 (0.5)	41 (0.5)	28 (0.5)	3 (0.2)
Collaborate in planning or preparing instructional materials	IRL	25 (3.3)	31 (3.7)	31 (3.8)	13 (2.9)
	TIMSS	28 (0.5)	38 (0.5)	28 (0.5)	6 (0.3)
Share what I have learned about my teaching experiences	IRL	22 (3.3)	31 (3.3)	41 (3.8)	6 (1.9)
	TIMSS	29 (0.5)	42 (0.5)	26 (0.5)	2 (0.2)
Visit another classroom to learn more about teaching	IRL	2 (0.8)	9 (2.3)	23 (3.2)	66 (3.6)
	TIMSS	9 (0.3)	20 (0.4)	43 (0.5)	28 (0.4)
Work together to try out new ideas	IRL	12 (2.4)	26 (2.9)	46 (4.2)	15 (3.3)
	TIMSS	18 (0.4)	35 (0.5)	40 (0.5)	7 (0.3)
Work as a group to implement the curriculum	IRL	20 (2.6)	47 (4.1)	27 (3.7)	7 (2.3)
	TIMSS	24 (0.4)	38 (0.5)	30 (0.5)	7 (0.3)
Work with teachers from other grades to ensure continuity in learning	IRL	9 (1.8)	36 (3.8)	37 (3.5)	19 (3.1)
	TIMSS	15 (0.4)	34 (0.5)	38 (0.5)	12 (0.3)

Chapter 7:

Teachers' views of the working environment

Table A7.1: Percentage of pupils, by teachers' reports of issues that limit their ability to teach their class

		Limited a lot	Limited to some extent	Not at all limited
Disruptive pupils	IRL	7 (2.0)	52 (3.8)	41 (3.9)
	TIMSS	19 (0.4)	54 (0.5)	27 (0.5)
Uninterested pupils	IRL	4 (1.6)	64 (3.8)	32 (3.7)
	TIMSS	15 (0.4)	62 (0.5)	23 (0.4)
Pupils lacking prerequisite knowledge or skills	IRL	10 (2.4)	65 (3.6)	25 (3.5)
	TIMSS	19 (0.4)	65 (0.5)	16 (0.4)
Pupils with mental, emotional, or psychological impairments	IRL	6 (2.0)	42 (4.0)	52 (4.0)
	TIMSS	10 (0.3)	48 (0.5)	42 (0.5)
Pupils with physical disabilities	IRL	<1 (0.3)	13 (2.8)	87 (2.8)
	TIMSS	2 (0.2)	14 (0.4)	84 (0.4)
Pupils suffering from not enough sleep	IRL	3 (1.0)	59 (3.8)	38 (3.7)
	TIMSS	9 (0.3)	50 (0.5)	42 (0.5)
Pupils suffering from lack of basic nutrition	IRL	2 (0.7)	23 (3.3)	75 (3.3)
	TIMSS	5 (0.2)	28 (0.5)	67 (0.5)

Figure 7.1 (tabulation): Percentage of pupils, by teachers' reports of the extent to which their teaching is limited

	Not limited	Somewhat limited	Very limited
Australia	34 (3.4)	58 (3.3)	8 (3.0)
England	38 (4.3)	58 (4.2)	5 (2.0)
Finland	44 (3.4)	54 (3.4)	2 (0.9)
Hong Kong SAR	47 (4.0)	51 (4.0)	2 (1.1)
Ireland	48 (3.8)	48 (3.8)	4 (1.6)
New Zealand	36 (2.6)	58 (2.8)	6 (1.4)
Northern Ireland	43 (4.5)	55 (4.6)	2 (1.1)
Rep. of Korea	39 (3.8)	53 (3.7)	8 (1.9)
Russian Fed.	27 (3.6)	58 (4.0)	15 (2.7)
Singapore	44 (3.0)	52 (2.9)	4 (1.0)
Slovenia	18 (2.8)	69 (3.3)	13 (2.4)
United States	21 (2.0)	70 (2.3)	9 (1.2)
TIMSS	34 (0.5)	58 (0.5)	8 (0.3)

Table A7.2: Percentage of pupils, by teachers' reports of work-related challenges

		Agree a lot	Agree a little	Disagree a little	Disagree a lot
There are too many pupils in the classes	IRL	54 (4.0)	25 (3.2)	11 (2.7)	9 (2.3)
	TIMSS	29 (0.5)	32 (0.5)	23 (0.4)	16 (0.4)
I have too much material to cover in class	IRL	49 (4.0)	40 (4.0)	8 (2.2)	3 (1.4)
	TIMSS	30 (0.5)	42 (0.5)	22 (0.4)	6 (0.3)
I have too many teaching hours	IRL	2 (0.8)	20 (3.1)	45 (4.0)	33 (4.0)
	TIMSS	13 (0.3)	26 (0.5)	37 (0.5)	23 (0.4)
I need more time prepare for class	IRL	33 (4.0)	43 (4.1)	19 (3.0)	6 (1.9)
	TIMSS	27 (0.5)	42 (0.5)	23 (0.4)	9 (0.3)
I need more time to assist individual pupils	IRL	71 (3.9)	25 (3.6)	3 (1.2)	1 (0.7)
	TIMSS	53 (0.5)	38 (0.5)	7 (0.3)	2 (0.2)
I feel too much pressure from parents	IRL	6 (2.0)	28 (3.6)	35 (4.0)	31 (4.3)
	TIMSS	7 (0.3)	26 (0.5)	42 (0.5)	25 (0.5)
I have difficulty keeping up with all the changes to the curriculum	IRL	8 (2.2)	42 (4.1)	30 (3.2)	20 (3.5)
	TIMSS	8 (0.3)	30 (0.5)	38 (0.5)	24 (0.5)
I have too many administrative tasks	IRL	36 (3.8)	38 (4.2)	16 (2.3)	10 (2.7)
	TIMSS	28 (0.5)	31 (0.5)	23 (0.4)	18 (0.4)

Table A7.3: Percentage of pupils and mean achievement, by teachers' reports of the safety of the school environment

	Very safe and orderly			Safe and orderly			Less than safe and orderly		
	%	Maths	Science	%	Maths	Science	%	Maths	Science
Australia	75 (2.8)	529 (4.1)	533 (3.6)	23 (2.9)	490 (5.8)	502 (5.6)	2 (0.8)	--	--
England	76 (3.7)	550 (4.0)	541 (3.3)	24 (3.7)	536 (6.2)	524 (5.4)	<1 (0.4)	--	--
Finland	37 (3.1)	540 (2.5)	558 (2.7)	60 (3.1)	534 (2.4)	553 (2.7)	3 (1.0)	509 (15.3)	511 (20.9)
Hong Kong SAR	64 (4.5)	616 (3.4)	562 (4.7)	34 (4.5)	612 (6.5)	551 (6.7)	2 (1.4)	--	--
Ireland	83 (2.7)	551 (2.2)	534 (2.5)	14 (2.7)	536 (5.6)	511 (6.1)	2 (1.3)	--	--
New Zealand	71 (2.5)	504 (2.6)	517 (3.1)	26 (2.2)	461 (5.0)	480 (5.1)	3 (0.8)	446 (12.7)	469 (13.2)
Northern Ireland	85 (3.1)	576 (3.1)	523 (2.4)	15 (3.1)	554 (12.1)	506 (7.3)	0 (0.0)	--	--
Rep. of Korea	44 (3.7)	615 (3.8)	595 (3.1)	54 (3.6)	603 (2.8)	585 (2.5)	2 (1.2)	--	--
Russian Fed.	55 (3.8)	566 (4.6)	568 (4.3)	43 (3.9)	562 (6.5)	567 (6.0)	2 (1.0)	--	--
Singapore	63 (2.6)	619 (4.5)	599 (4.8)	35 (2.6)	616 (6.5)	576 (6.1)	2 (0.6)	--	570 (15.4)
Slovenia	29 (3.2)	522 (3.2)	547 (3.7)	64 (3.4)	521 (2.5)	543 (3.3)	7 (1.6)	510 (5.7)	533 (6.4)
United States	55 (2.5)	552 (3.0)	560 (2.7)	38 (2.3)	526 (4.4)	531 (4.1)	7 (1.4)	500 (11.1)	510 (9.9)
TIMSS	56 (0.5)	511 (0.6)	513 (0.6)	40 (0.5)	497 (0.8)	498 (0.8)	4 (0.2)	464 (2.9)	469 (2.8)

Table A7.4: Percentage of pupils and mean achievement, by teachers' reports of their schools' emphasis on academic success

	Very high emphasis			High emphasis			Medium emphasis		
	%	Maths	Science	%	Maths	Science	%	Maths	Science
Australia	9 (2.2)	555 (7.7)	522 (5.6)	63 (4.1)	526 (3.5)	527 (4.2)	28 (4.0)	488 (5.8)	504 (4.6)
England	15 (2.7)	575 (9.8)	561 (9.1)	56 (4.0)	552 (4.0)	542 (3.2)	29 (3.7)	521 (6.3)	516 (5.7)
Finland	2 (0.9)	-	-	64 (3.3)	538 (2.0)	557 (2.2)	34 (3.3)	530 (4.1)	547 (4.8)
Hong Kong SAR	<1 (0.4)	-	-	71 (3.7)	624 (3.9)	564 (4.4)	29 (3.7)	591 (4.6)	542 (7.0)
Ireland	20 (3.5)	562 (4.9)	545 (5.2)	67 (3.9)	548 (2.6)	530 (2.7)	13 (2.5)	518 (6.4)	495 (6.2)
New Zealand	12 (2.2)	510 (6.4)	523 (7.5)	68 (2.8)	499 (2.9)	513 (3.2)	20 (2.2)	454 (6.0)	473 (6.3)
Northern Ireland	22 (3.6)	585 (7.3)	529 (5.3)	67 (4.4)	574 (4.2)	522 (3.4)	11 (3.1)	539 (6.6)	500 (5.9)
Rep. of Korea	29 (2.8)	627 (4.7)	601 (3.7)	57 (3.5)	603 (2.5)	586 (2.6)	15 (2.7)	590 (4.6)	574 (3.7)
Russian Fed.	<1 (0.5)	-	-	54 (3.9)	570 (3.9)	574 (3.6)	46 (3.9)	557 (6.5)	560 (5.9)
Singapore	4 (1.3)	639 (18.0)	629 (11.5)	52 (3.0)	637 (4.8)	609 (4.7)	44 (2.8)	594 (5.7)	562 (5.4)
Slovenia	1 (0.9)	-	-	61 (4.0)	521 (2.5)	544 (3.3)	38 (4.1)	519 (3.4)	541 (3.7)
United States	8 (1.7)	576 (9.7)	585 (8.3)	51 (2.5)	547 (3.7)	554 (3.6)	41 (2.2)	520 (3.4)	526 (3.1)
TIMSS	7 (0.3)	529 (2.2)	528 (2.2)	56 (0.5)	518 (0.6)	514 (0.7)	36 (0.5)	493 (0.8)	491 (0.9)

Table E7.1: Percentage of pupils, by teachers' satisfaction with various aspects of being a teacher

		Very often	Often	Sometimes	Never or almost never
I am content with my profession as a teacher	IRL	57 (4.6)	34 (4.4)	9 (2.3)	0 (0.0)
	TIMSS	49 (0.5)	41 (0.5)	10 (0.3)	1 (0.1)
I am satisfied with being a teacher at this school	IRL	68 (3.8)	23 (3.3)	7 (2.2)	2 (1.0)
	TIMSS	53 (0.5)	37 (0.5)	10 (0.3)	1 (0.1)
I find my work full of meaning and purpose	IRL	58 (4.6)	30 (4.1)	11 (2.7)	0 (0.0)
	TIMSS	61 (0.5)	33 (0.5)	6 (0.2)	<1 (0.1)
I am enthusiastic about my job	IRL	65 (4.2)	33 (4.1)	2 (1.1)	0 (0.0)
	TIMSS	53 (0.5)	38 (0.5)	8 (0.3)	<1 (0.1)
My work inspires me	IRL	56 (4.0)	33 (3.7)	10 (1.8)	1 (1.5)
	TIMSS	49 (0.5)	39 (0.5)	11 (0.3)	1 (0.1)
I am proud of the work I do	IRL	64 (4.2)	31 (3.8)	6 (1.9)	0 (0.0)
	TIMSS	57 (0.5)	34 (0.5)	9 (0.3)	1 (0.1)
I am going to continue teaching for as long as I can	IRL	56 (4.5)	27 (4.0)	15 (3.2)	2 (0.9)
	TIMSS	53 (0.5)	32 (0.5)	12 (0.3)	3 (0.2)

Table A7.5: Percentage of pupils and mean mathematics achievement, by teachers' overall career satisfaction

	Very satisfied		Satisfied		Less than satisfied	
	%	Maths	%	Maths	%	Maths
Australia	52 (3.9)	522 (4.1)	45 (3.9)	514 (5.8)	3 (1.0)	507 (9.5)
England	42 (4.2)	550 (6.2)	46 (4.0)	547 (5.7)	12 (2.8)	532 (9.2)
Finland	45 (3.4)	535 (2.7)	50 (3.4)	535 (2.6)	6 (1.6)	530 (8.1)
Hong Kong SAR	33 (4.3)	620 (5.9)	59 (4.8)	613 (3.7)	9 (2.5)	605 (16.0)
Ireland	62 (4.1)	548 (3.2)	33 (4.0)	547 (4.0)	5 (1.9)	545 (11.0)
New Zealand	50 (2.8)	494 (3.8)	43 (2.8)	487 (3.7)	7 (1.7)	482 (8.5)
Northern Ireland	59 (5.0)	574 (4.3)	37 (4.7)	572 (6.4)	4 (2.0)	563 (23.8)
Rep. of Korea	55 (3.9)	613 (3.4)	38 (3.9)	602 (3.5)	7 (1.9)	602 (4.8)
Russian Fed.	48 (3.6)	560 (4.2)	51 (3.5)	567 (5.8)	1 (0.8)	-
Singapore	37 (2.7)	625 (6.3)	53 (2.8)	612 (5.3)	11 (1.7)	620 (8.9)
Slovenia	52 (3.9)	520 (2.4)	47 (3.9)	521 (2.9)	0 (0.2)	-
United States	47 (2.7)	542 (3.5)	45 (2.7)	538 (3.5)	7 (1.3)	521 (8.0)
TIMSS	52 (0.5)	508 (0.6)	42 (0.5)	503 (0.8)	6 (0.2)	501 (2.0)

Figure 7.2 (tabulation): Percentage of pupils, by teachers' degree of career satisfaction, by DEIS status

		Very satisfied	Satisfied or less than satisfied	S.E
DEIS	Urban Band 1	69	31	(13.7)
	Urban Band 2	76	24	(11.0)
	DEIS Rural	78	22	(12.4)
	Non-DEIS	59	41	(4.7)
Overall (national)		62	38	(4.1)