

REFERENCE 4

School Contexts for
Learning and
Instruction

R

4



Heating/Cooling and Lighting Instructional Space

Lithuania †

	Percentage of Students Affected by Shortage or Inadequacy					
	Science Laboratory Equipment and Materials	Computers for Science Instruction	Computer Software for Science Instruction	Calculators for Science Instruction	Library Materials Relevant to Science Instruction	Audio-Visual Resources for Science Instruction
Australia	27 (4.0)	48 (4.6)	45 (4.7)	11 (2.5)	23 (3.4)	23 (3.5)
Belgium (Flemish)	14 (3.5)	29 (4.5)	30 (4.6)	4 (1.4)	9 (2.4)	11 (3.8)
Bulgaria	88 (3.1)	78 (4.0)	77 (3.9)	45 (5.5)	85 (3.2)	86 (4.0)
Canada	37 (3.2)	49 (2.8)	54 (2.9)	27 (2.5)	39 (2.9)	33 (3.4)
Chile	67 (3.6)	55 (3.4)	58 (4.0)	42 (3.4)	44 (3.8)	48 (4.1)
Chinese Taipei	56 (4.1)	62 (4.1)	68 (4.2)	50 (4.4)	56 (4.5)	58 (4.5)
Cyprus	22 (0.3)	61 (0.2)	r 47 (0.2)	20 (0.3)	28 (0.3)	37 (0.2)
Czech Republic	27 (5.0)	37 (5.1)	40 (5.2)	8 (3.0)	13 (3.2)	13 (3.3)
England	r 41 (4.7)	r 54 (4.9)	r 53 (5.1)	r 26 (4.1)	r 30 (4.4)	r 26 (4.2)
Finland	45 (4.0)	49 (4.1)	50 (4.3)	10 (2.7)	19 (3.4)	15 (3.1)
Hong Kong, SAR	36 (4.5)	65 (4.3)	71 (4.1)	20 (3.6)	32 (4.3)	43 (4.7)
Hungary	61 (4.1)	47 (4.2)	53 (4.3)	20 (3.6)	26 (3.7)	39 (4.1)
Indonesia	61 (4.7)	37 (4.5)	37 (4.5)	34 (4.6)	55 (4.7)	47 (4.6)
Iran, Islamic Rep.	58 (3.6)	75 (4.1)	74 (4.1)	65 (4.2)	71 (3.6)	66 (4.5)
Israel	38 (4.6)	44 (4.3)	44 (4.5)	29 (4.0)	39 (4.1)	32 (4.3)
Italy	54 (3.6)	38 (3.8)	51 (4.0)	16 (2.8)	39 (3.9)	41 (3.4)
Japan	42 (4.1)	36 (4.3)	43 (4.4)	9 (2.5)	23 (3.7)	36 (3.8)
Jordan	87 (2.9)	56 (4.2)	55 (4.2)	45 (4.4)	72 (3.8)	75 (3.8)
Korea, Rep. of	60 (4.1)	65 (4.1)	77 (3.7)	43 (4.2)	62 (4.1)	68 (3.9)
Latvia (LSS)	78 (4.0)	71 (4.4)	69 (4.6)	40 (4.6)	66 (4.2)	70 (4.6)
Lithuania †	81 (3.0)	77 (3.6)	76 (3.7)	37 (4.0)	63 (4.4)	80 (3.5)
Macedonia, Rep. of	90 (2.1)	89 (2.8)	90 (2.6)	89 (2.6)	85 (3.1)	88 (2.1)
Malaysia	49 (4.3)	44 (4.5)	44 (4.5)	30 (3.8)	54 (4.3)	52 (4.0)
Moldova	96 (1.7)	88 (2.6)	87 (3.0)	78 (3.7)	88 (2.3)	91 (2.2)
Morocco	62 (4.0)	62 (4.8)	61 (4.7)	54 (4.7)	65 (4.1)	64 (4.8)
Netherlands	r 24 (5.5)	r 43 (6.7)	r 46 (7.4)	r 4 (1.7)	r 20 (4.7)	r 16 (4.6)
New Zealand	31 (3.9)	45 (4.3)	45 (4.3)	15 (3.0)	22 (3.9)	23 (3.7)
Philippines	64 (3.8)	63 (3.9)	64 (4.0)	56 (3.8)	69 (3.7)	68 (3.8)
Romania	81 (3.3)	88 (3.1)	89 (2.9)	67 (4.2)	69 (4.2)	83 (3.4)
Russian Federation	93 (1.9)	87 (3.0)	85 (3.6)	61 (4.1)	81 (3.2)	84 (4.0)
Singapore	11 (2.8)	32 (3.8)	37 (4.2)	6 (1.8)	14 (2.8)	17 (3.1)
Slovak Republic	81 (3.4)	88 (2.8)	87 (3.1)	32 (4.4)	51 (5.0)	68 (3.5)
Slovenia	72 (4.2)	54 (4.6)	56 (4.0)	18 (3.5)	42 (4.3)	61 (4.1)
South Africa	74 (3.6)	78 (3.5)	79 (3.5)	70 (4.0)	79 (3.3)	79 (3.4)
Thailand	85 (3.1)	80 (3.3)	81 (3.3)	61 (3.9)	88 (3.1)	88 (2.5)
Tunisia	80 (3.4)	42 (4.3)	44 (4.4)	27 (3.8)	56 (4.1)	77 (3.8)
Turkey	91 (2.7)	76 (3.3)	73 (3.1)	43 (3.9)	80 (3.0)	80 (3.6)
United States	r 38 (4.2)	r 45 (4.1)	r 47 (4.1)	r 29 (3.8)	r 29 (3.9)	r 30 (4.0)
International Avg.	58 (0.6)	59 (0.7)	60 (0.7)	35 (0.6)	50 (0.6)	53 (0.6)

SOURCE: IEA Third International Mathematics and Science Study (TIMSS), 1998-1999.

Background data provided by schools.

† Lithuania tested the same cohort of students as other countries, but later in 1999, at the beginning of the next school year.

() Standard errors appear in parentheses. Because results are rounded to the nearest whole number, some totals may appear inconsistent.

An "r" indicates school response data available for 70-80% of students.

Australia	r	100 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)
Belgium (Flemish)	r	83 (3.0)	9 (2.2)	1 (0.8)	4 (1.7)	4 (1.6)
Bulgaria		48 (5.9)	9 (2.3)	4 (1.5)	2 (1.1)	37 (5.3)
Canada		100 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)
Chile		70 (2.8)	6 (1.9)	2 (1.1)	4 (1.0)	18 (3.0)
Chinese Taipei		90 (2.5)	9 (2.6)	1 (0.8)	0 (0.0)	0 (0.0)
Cyprus		6 (0.1)	9 (0.1)	16 (0.1)	48 (0.2)	22 (0.2)
Czech Republic		89 (3.0)	2 (1.4)	5 (2.4)	0 (0.0)	3 (1.2)
England	r	100 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)
Finland	r	98 (1.2)	1 (0.0)	0 (0.0)	0 (0.0)	1 (0.0)
Hong Kong, SAR	r	86 (3.3)	3 (1.5)	4 (1.8)	3 (1.3)	5 (2.2)
Hungary		98 (1.1)	0 (0.0)	0 (0.0)	0 (0.0)	2 (1.1)
Indonesia		6 (1.4)	12 (3.6)	3 (1.0)	22 (4.4)	57 (4.5)
Iran, Islamic Rep.		1 (1.1)	1 (0.6)	1 (0.7)	5 (1.7)	92 (2.1)
Israel	s	92 (2.8)	4 (2.4)	1 (0.0)	0 (0.0)	3 (1.7)
Italy		64 (3.4)	19 (2.9)	7 (2.2)	3 (1.3)	6 (1.6)
Japan		92 (2.7)	5 (1.8)	0 (0.0)	0 (0.0)	3 (1.9)
Jordan		44 (3.4)	9 (2.5)	1 (0.0)	1 (0.8)	45 (3.7)
Korea, Rep. of		75 (3.6)	14 (3.2)	6 (1.8)	5 (1.8)	1 (0.0)
Latvia (LSS)	r	88 (3.0)	2 (1.7)	1 (1.1)	1 (0.1)	7 (2.3)
Lithuania		81 (3.2)	8 (2.4)	1 (0.9)	1 (1.0)	8 (2.2)
Macedonia, Rep. of		20 (2.8)	26 (3.6)	5 (2.1)	3 (1.6)	45 (3.8)
Malaysia		6 (2.2)	10 (2.2)	7 (2.0)	26 (3.6)	50 (4.0)
Moldova		81 (3.6)	6 (2.0)	0 (0.0)	0 (0.0)	13 (3.0)
Morocco		3 (1.4)	4 (1.5)	8 (2.2)	16 (2.8)	68 (3.6)
Netherlands	s	99 (1.0)	1 (0.1)	0 (0.0)	0 (0.0)	0 (0.0)
New Zealand		99 (0.6)	0 (0.0)	0 (0.0)	1 (0.0)	0 (0.0)

Background data provided by schools.

¹ Ratio of grade 8 enrollment to total computers for instructional use by grade 8 teachers and students.

† Lithuania tested the same cohort of students as other countries, but later in 1999, at the beginning of the next school year.

() Standard errors appear in parentheses. Because results are rounded to the nearest whole number, some totals may appear inconsistent.

An "r" indicates school response data available for 70-84% of students. An "s" indicates school response data available for 50-69% of students.

		Percentage of schools with internet access			
		1998	1999	2001	2002
Australia	r	94 (1.9)	0 (0.0)	6 (1.9)	0 (0.0)
Belgium (Flemish)		73 (4.0)	1 (0.7)	24 (3.9)	2 (1.2)
Bulgaria		18 (6.5)	0 (0.0)	39 (5.0)	43 (5.2)
Canada		96 (1.2)	1 (0.5)	3 (1.0)	0 (0.3)
Chile		23 (3.5)	3 (1.3)	59 (4.3)	16 (2.8)
Chinese Taipei		89 (2.8)	5 (1.9)	6 (2.0)	0 (0.0)
Cyprus	r	23 (0.1)	0 (0.0)	49 (0.2)	28 (0.2)
Czech Republic		34 (5.1)	2 (1.7)	45 (5.4)	19 (3.8)
England	r	86 (3.4)	1 (0.1)	13 (3.3)	0 (0.0)
Finland		100 (0.5)	0 (0.0)	0 (0.5)	0 (0.0)
Hong Kong, SAR	r	85 (3.7)	0 (0.0)	15 (3.7)	0 (0.0)
Hungary		46 (4.2)	3 (1.6)	42 (4.2)	9 (2.5)
Indonesia		0 (0.4)	0 (0.0)	15 (3.4)	85 (3.4)
Iran, Islamic Rep.		0 (0.0)	0 (0.0)	39 (4.4)	61 (4.4)
Israel	r	68 (4.0)	0 (0.0)	26 (4.0)	6 (2.3)
Italy		41 (4.2)	4 (1.6)	54 (4.2)	2 (1.2)
Japan		29 (3.9)	2 (1.1)	29 (4.0)	41 (4.2)
Jordan		2 (1.4)	1 (0.0)	28 (3.8)	70 (3.7)
Korea, Rep. of		48 (4.4)	0 (0.0)	46 (4.3)	6 (1.9)
Latvia (LSS)	r	48 (4.2)	9 (2.9)	20 (3.7)	23 (4.2)
Lithuania		64 (3.7)	0 (0.0)	24 (3.4)	12 (2.7)
Macedonia, Rep. of		1 (0.9)	0 (0.0)	51 (4.5)	48 (4.4)
Malaysia		16 (3.3)	2 (1.0)	60 (4.4)	22 (3.5)
Moldova		2 (1.2)	0 (0.0)	14 (2.6)	84 (2.9)
Morocco		0 (0.0)	0 (0.0)	8 (2.2)	92 (2.2)
Netherlands	r	81 (7.1)	3 (1.9)	15 (7.0)	1 (0.7)
New Zealand		87 (3.0)	1 (0.6)	12 (2.9)	1 (0.0)
Philippines		9 (2.6)	1 (1.0)	48 (4.2)	41 (3.9)
Romania		3 (1.6)	1 (0.7)	41 (4.2)	55 (4.1)
Russian Federation		5 (1.4)	0 (0.0)	16 (2.8)	79 (2.4)
Singapore		89 (3.0)	1 (0.9)	10 (2.8)	0 (0.0)
Slovak Republic		6 (2.1)	0 (0.0)	26 (4.1)	68 (4.4)
Slovenia		85 (3.6)	4 (1.9)	11 (3.1)	0 (0.0)
South Africa		7 (1.9)	0 (0.5)	33 (4.0)	60 (4.2)
Thailand		17 (2.5)	0 (0.0)	31 (3.6)	52 (3.5)
Tunisia		1 (0.0)	0 (0.0)	86 (3.2)	13 (3.1)
Turkey		3 (1.3)	1 (0.7)	46 (3.9)	50 (4.1)
United States	r	91 (3.1)	0 (0.0)	9 (2.8)	0 (0.0)
OECD average		41 (0.5)	1 (0.2)	29 (0.6)	29 (0.5)

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