

Table C-4

Teacher skills and professional development, school year 2003-04

	All schools	Instructional level of school			Location of school		All schools	Type of school		Size of school		
		Elementary	Secondary	Mixed	Urban	Rural		Public	Private	Small	Medium	Large
% of schools with teachers possessing the required technical skills to use ICT for administrative purposes												
Less than 25% of the teachers	14.6	13.2	13.1	24.4	12.9	19.6	14.6	12.9	28.8	23.2	12.5	9
From 25% to 49% of the teachers	3.3	3.2	2.8	4.9	2.9	4.5	3.3	3.2	4.3	4.4	3.2	2.4
From 50% to 74% of the teachers	6.4	5.9	5.6	10.5	5.5	9.1	6.4	5.9	10.4	8.4	6.4	4.6
75% of the teachers or more	75.6	77.7	78.6	60.3	78.7	66.9	75.6	78.1	56.6	64.1	77.9	84
% of schools with teachers possessing the required technical skills to engage students in using ICT effectively												
Less than 25% of the teachers	18.9	16.9	19.1	28.3	18.1	21.2	18.9	17.0	33.1	23.8	17.2	16
From 25% to 49% of the teachers	11.4	10.5	15.1	9.6	11.8	10.1	11.4	11.5	10.8	9.3	11.1	13.6
From 50% to 74% of the teachers	23.5	23.3	26.9	18.8	24.1	21.9	23.5	23.4	24.3	20.6	25.6	24.1
75% of the teachers or more	46.2	49.3	39.0	43.4	46.0	46.8	46.2	48.1	31.8	46.2	46.1	46.3
% of schools with technology applications frequently¹ incorporated into teaching practices												
Use of software for special needs students and/or remedial programs providing individualized learning	29.1	30.4	28.7	22.9	30.3	25.6	29.1	31.0	14.1	24.5	29.5	32.6
Use of software for specific subject areas	28.3	28.1	30.9	25.0	29.6	24.6	28.3	29.2	21.3	24.3	29.5	30.8
Use of spreadsheets and database software for simple data manipulation and statistical analysis	15.3	10.3	27.4	19.5	16.1	13.1	15.3	15.2	16.8	10.9	15.0	19.7
Use of word processing	78.2	77.3	82.1	75.7	78.6	77.0	78.2	79.7	64.5	71.6	79.3	83
Use of desktop publishing	24.1	23.5	26.1	23.6	25.0	21.6	24.1	24.8	18.8	18.9	25.1	27.6
Use of presentation software	21.4	16.0	35.5	23.8	22.2	19.1	21.4	21.5	19.8	14.6	21.5	27.2
Use of software supporting creative works	10.8	8.9	17.1	9.5	11.9	7.6	10.8	10.9	10.4	8.0	10.4	13.7
Use of Internet/Intranet to disseminate information	34.4	32.5	40.5	33.5	35.7	30.7	34.4	35.7	24.0	27.1	36.6	38.7
Use of Internet for online learning	28.8	27.0	32.7	30.5	29.5	26.8	28.8	29.7	21.0	23.2	29.5	32.9
Other	18.1	22.5 *	x	x	22.2	x	18.1	23.4	x	9.3 **	26.5 *	26.4 **
% of schools with strategies to help teachers learn how to use ICT												
Training sessions	12.2	13.0	11.1	9.9	13.0	9.9	12.2	12.7	9.0	9.6	12.3	14.5
Mentoring/coaching activities with other teachers or ICT professionals	25.1	25.5	25.4	22.8	27.4	18.7	25.1	25.5	22.7	17.0	26.4	31.2
Organized after-school sessions	7.2	7.8	5.9	6.0	8.2	4.1	7.2	7.5	4.7	4.4	7.0	9.8
Information-sharing with other staff members/discussion forum	18.2	18.9	17.8	15.3	19.3	15.0	18.2	18.6	15.9	15.3	18.8	20.1
Staff meetings	8.0	8.3	6.8	8.2	8.5	6.4	8.0	7.9	9.1	7.1	7.8	8.9
Summer programs	2.7	3.2	1.7	2.1 *	2.8	2.3	2.7	2.7	2.5 *	2.1	2.5	3.4
Courses online	1.4	1.6	1.0 *	1.0 *	1.5	1.3 *	1.4	1.5	x	1.6	1.3	1.3 *
Informal online-learning	3.2	3.0	3.5	3.3	3.3	2.9	3.2	3.2	3.2 *	3.4	3.4	2.7
Formal credit courses	1.2	1.3	1.1 *	F	1.3	1.0 *	1.2	1.2	1.7 **	1.5	0.9 *	1.2 *
Personal-learning activities	14.6	14.9	13.8	14.0	14.7	14.2	14.6	15.0	11.9	13.5	14.2	15.9
Professional development	12.8	13.1	12.5	11.6	13.7	10.1	12.8	13.2	10.3	10.2	12.9	15
% of schools where ICT learning is included for teacher development in the following subjects:												
Mathematics	40.4	37.8	48.5	39.2	41.6	36.8	40.4	41.9	28.5	32.9	42.9	44.7
Physics	7.7	0.7 *	24.6	13.5	7.9	7.0	7.7	7.0	12.8	4.8	7.1	10.9
Chemistry	7.2	0.8	21.6	14.0	7.4	6.5	7.2	6.6	11.8	4.5	6.9	9.9
Biology/Life Science	10.0	3.4	25.9	15.2	10.4	8.8	10.0	9.1	17.0	7.3	10.1	12.2
Earth Science	9.0	7.2	13.7	9.5	9.2	8.2	9.0	9.0	9.7	7.3	8.4	11
General Science	15.1	11.3	24.4	18.2	16.0	12.6	15.1	15.2	15.3	10.8	16.1	18.2
French	18.7	18.7	22.0	13.0	19.1	17.4	18.7	18.9	17.4	16.0	18.6	21.2
English	30.6	28.1	36.4	33.0	31.1	29.0	30.6	31.1	27.2	25.0	34.6	31.7
Computer Education/Informatics	34.5	29.2	50.0	34.9	35.2	32.7	34.5	35.0	31.2	28.4	36.7	38.1
Other language(s)	2.8	1.5	5.6	4.4	3.4	1.1 *	2.8	2.3	6.5	1.5	2.3	4.4
History	14.1	10.7	23.8	14.7	14.9	12.0	14.1	13.8	16.7	10.9	14.4	16.8
Accounting	4.6	0.5 *	15.5	5.9	4.8	4.0	4.6	4.5	5.8	2.7	4.5	6.3
Geography	15.6	12.3	26.2	13.8	16.5	12.9	15.6	15.4	17.7	12.2	15.6	18.6
Business	5.1	0.5 *	18.3	5.6	5.9	3.1	5.1	5.0	6.2	2.8	4.4	8.1
Social Studies	15.1	12.3	20.8	19.6	16.2	12.0	15.1	15.5	13.2	11.5	16.7	16.9
Economics	2.9	0.5 *	8.9	4.5	3.3	1.8	2.9	2.1	9.0	1.2 *	2.7	4.6
Arts	12.9	10.5	20.6	11.9	14.1	9.4	12.9	12.9	12.8	8.7	13.3	16.3
Industrial Arts	6.4	1.3	20.7	7.5	6.5	6.3	6.4	7.0	1.6 **	3.0	7.1	8.8
Health and Physical Education	9.0	6.4	15.6	10.7	9.4	7.9	9.0	9.0	9.8	6.8	9.2	10.8
Vocational subjects	2.8	1.0	8.0	3.2	3.0	2.4	2.8	3.1	1.0 **	1.7	2.6	4.2
Religious Studies	4.1	3.1	6.6	4.7	4.7	2.2	4.1	3.6	8.1	3.3	4.1	4.8
Multidisciplinary projects or activities	16.5	16.6	17.6	14.0	16.5	16.7	16.5	17.1	12.7	13.8	16.9	18.7
Career studies	14.2	6.8	32.4	20.1	15.0	12.0	14.2	14.3	14.4	10.4	14.1	17.8
Other	9.4	10.1	8.0	8.6	9.8	8.3	9.4	9.8	6.6	7.7	10.8	9.5

Notes:

1. Technology applications were defined as frequently incorporated into teaching practices when they were used "most of the time" or "always".

Source: Information and Communications Technologies in Schools Survey, 2003-2004

Footnotes

Symbols and abbreviations:

- ... Not applicable
- x Suppressed to meet confidentiality requirements of the *Statistics Act*
- * Numbers marked with this symbol have a coefficient of variation between 16.6% and 25% and are less reliable than unmarked numbers
- ** Numbers marked with this symbol have a coefficient of variation greater than 25% and less or equal to 33.3% and are very unreliable
- F Too unreliable to be published (coefficient of variation surpasses 33.3%)
- 0 Nul, zero or too small to be expressed

Infrastructure:

Notes:

1. Processor speeds are measured in Megahertz (MHz), with each MHz representing one million cycles per second (the number of times the computer processor is able to perform a task). Computers with low processor speed include those with processors in the range of 66-233 MHz (e.g. 486, Pentium® I). Computers with medium processor speed typically range in the area of 233 MHz all the way up to 1.4 GHz (Gigahertz) (e.g. Pentium® II/III, Apple™ G3). The most recent generation of processors on the market, classed as having high processor speed, are typically available in speeds of 1.3 GHz to 3.8 GHz and sometimes higher (e.g. Pentium® IV, Apple™ G5).

2. Computers with most recent operating systems were computers running with the latest version of operating systems (e.g. Windows™ NT/2000/XP, Mac™ OS X) at the time of the survey.

Source: Information and Communications Technologies in Schools Survey, 2003-2004

Connectedness:

Notes:

1. Processor speeds are measured in Megahertz (MHz), with each MHz representing one million cycles per second (the number of times the computer processor is able to perform a task). Computers with low processor speed include those with processors in the range of 66-233 MHz (e.g. 486, Pentium® I). Computers with medium processor speed typically range in the area of 233 MHz all the way up to 1.4 GHz (Gigahertz) (e.g. Pentium® II/III, Apple™ G3). The most recent generation of processors on the market, classed as having high processor speed, are typically available in speeds of 1.3 GHz to 3.8 GHz and sometimes higher (e.g. Pentium® IV, Apple™ G5).

2. Dial-up access is defined as "Regular dial-up telephone line with a modem".

3. The method to access the Internet is said to be "Always on" when the method used by the school is one of the following: cable modem, high-speed line (ISDN/DSL) or Frame relay, T1 line, optical fibre, fixed wireless (terrestrial) devices or Satellite connection.

Source: Information and Communications Technologies in Schools Survey, 2003-2004

Access:

Notes:

1. Frequency of access is established as follow: Computers that were often to always available outside instructional hours were defined as "frequently accessible". Computers that were rarely available or available sometimes were defined as "infrequently accessible". "Never accessible" was assigned in the cases where principals reported that their computers were never available outside instructional hours.

Source: Information and Communications Technologies in Schools Survey, 2003-2004

Teacher Skills:

Notes:

1. Technology applications were defined as frequently incorporated into teaching practices when they were used "most of the time" or "always".

Source: Information and Communications Technologies in Schools Survey, 2003-2004

Challenges:

Source: Information and Communications Technologies in Schools Survey, 2003-2004

**Table C-4
Teachers Skills, school year 2003-04
Newfoundland and Labrador**

	All schools	Instructional Level of Schools			Location		Type		Size		
		Elementary	Secondary	Mixed	Urban	Rural	Public	Private	Small	Medium	Large
% of schools with teachers possessing the required technical skills to use ICT for administrative purposes...											
Less than 25% of the teachers	32.6	26.3	26.6	45.9	23.3	40	32.9	x	44.7	26.6	23.5*
From 25% to 50% of the teachers	9.6	12.3*	x	10.0*	11.5*	8.1*	9.3	x	16.4*	x	x
From 50% to 75% of the teachers	7.6*	9.0*	x	x	x	10.3*	7.0*	x	x	x	x
75% of the teachers or more	50.1	52.4	66.2	33	61	41.5	50.7	x	33.9	58.9	61.3
% of schools with teachers possessing the required technical skills to engage students in using ICT effectively to enhance their learning & Less than 25% of the teachers	29.2	35.4	10.8**	37.5	17.8	38.4	29.4	x	35.9	25.4	25.8*
From 25% to 50% of the teachers	18.3	19.1	18.6*	17.0*	19.9	17	18.2	x	19.8	17.9*	16.6*
From 50% to 75% of the teachers	23	23	25.6	20.7*	27.2	19.6	22.8	x	18	23.6	29.3*
75% of the teachers or more	29.5	22.5	45	24.8	35.1	25.1	29.6	x	26.3	33.1	28.3*
% of schools with technology applications frequently¹ incorporated into teaching practices & Use of software for special needs students and/or remedial programs providing individualized learning	34.1	42.5	31.1	25.8	39.5	29.6	35	x	26.7	33.4	46
Use of software for specific subject areas	20.7	20.2	23.6	18.8*	25.5	16.8	19.9	x	22.9	19	20.2*
Use of spreadsheets and database software for simple data manipulation and statistical analysis	5.0*	x	x	x	8.1**	x	4.4*	x	x	7.7**	x
Use of word processing	79.7	72.3	82.3	86.8	81	78.6	79.9	x	72.5	84.6	82.7
Use of desktop publishing	34.7	26.1	39.9	41	37.1	32.7	34.8	x	33.9	37.6	30.8
Use of presentation software	27.2	16.6*	41.5	28	32.5	22.8	27.1	x	15.8*	37.8	26.9*
Use of software supporting creative works	11.7	8.9**	x	18.6*	15.3*	8.9*	11.3	x	x	13.5*	17.8*
Use of Internet/Intranet to disseminate information	45.5	28.4	50.9	62.3	47.3	44.1	45.9	x	37.5	51.1	48.4
Use of Internet for online learning	51.2	39.8	52.1	64.7	53.3	49.6	51.8	x	48.2	50.4	57.3
Other	x	x	x	x	x	x	x	x	x	x	x
% of schools with strategies to help teachers learn how to use ICT & Training sessions	6.1*	x	14.7*	x	8.4*	x	6.3*	x	x	x	x
Mentoring/coaching activities with other teachers	17.3	11.3*	29.2	14.4*	20.2	15	17	x	9.4*	21.7	22.1*
Organized after-school sessions	x	x	x	x	x	x	x	x	x	x	x
Information-sharing with other staff members/discussion forum	12.7	8.2**	15.3*	16.0*	13.3*	12.2*	12.3	x	9.4*	16.0*	x
Staff meetings	4.4*	x	x	x	x	x	4.5*	x	x	x	x
Summer programs	x	x	x	x	x	x	x	x	x	x	x
Courses online	x	x	x	x	x	x	x	x	x	x	x
Informal online-learning	x	x	x	x	x	x	x	x	x	x	x
Formal credit courses	x	x	x	x	x	x	x	x	x	x	x
Personal-learning activities	6.6*	9.4*	x	x	8.9*	x	6.7*	x	x	8.6**	x
Professional development	7.8	x	20.1*	x	12.2*	x	8	x	8.1**	8.8*	x
% of schools where ICT learning is included for teacher development in the following subjects:											
Mathematics	23.9	9.3**	32.8	33.5	19.1	27.9	23.8	x	27.1	22.1	22.0*
Physics	9.9	x	17.6*	15.0*	7.6*	11.8*	9.4	x	x	13.8*	x
Chemistry	10.2	x	15.8*	17.5*	9.4*	10.9*	9.7	x	x	14.5*	x
Biology/Life Science	11.6	x	19.9*	16.5*	10.1*	12.7*	11.1	x	8.6**	14.0*	x
Earth Science	x	x	x	x	x	x	x	x	x	x	x
General Science	10.5	x	14.5*	9.9*	11.0*	10	10	x	9.8*	11.4*	x
French	10.4	x	13.5*	x	11.5*	9.5*	10	x	x	13.6*	x
English	19.6	13.4*	29	19.0*	14.7*	23.6	19.4	x	23.9	17.9*	x
Computer Education/Informatics	26.8	11.0*	46.3	28.8	22.2	30.5	26.8	x	25.2	31.5	21.3*
Other language(s)	x	x	x	x	x	x	x	x	x	x	x
History	8.0*	x	x	12.7**	x	11.4*	7.4*	x	x	13.0*	x
Accounting	x	x	x	x	x	x	x	x	x	x	x
Geography	8.2*	x	11.4**	x	x	11.8*	7.7*	x	8.2**	11.1*	x
Business	x	x	x	x	x	x	x	x	x	x	x
Social Studies	11	x	13.5*	14.5*	9.9*	11.9*	11.3	x	10.0*	9.1**	x
Economics	x	x	x	x	x	x	x	x	x	x	x
Arts	11.6	x	19.6*	13.0**	12.4*	10.9*	11.1	x	8.6**	13.4*	x
Industrial Arts	10.8	x	23.5	x	12.0*	9.9*	10.4	x	x	15.0*	x
Health and Physical Education	9.9	x	12.0*	x	11.5*	8.7*	9.5	x	x	10.7*	x
Vocational subjects	x	x	x	x	x	x	x	x	x	x	x
Religious Studies	6.6*	x	x	x	x	6.0**	6.8*	x	x	x	x
Multidisciplinary projects or activities	11.4	x	14.1*	13.0**	14.1*	9.1*	11.7	x	8.8*	12.7*	x
Career studies	9.8	x	19.1*	12.1**	x	12.7*	9.4	x	8.4**	11.7*	x
Other	6.9*	x	11.7**	x	7.7**	6.2**	7.1*	x	10.1*	x	x

**Table C-4
Teachers Skills, school year 2003-04
Nova Scotia**

	All schools	Instructional Level of Schools			Location		Type		Size		
		Elementary	Secondary	Mixed	Urban	Rural	Public	Private	Small	Medium	Large
% of schools with teachers possessing the required technical skills to use ICT for administrative purposes...											
Less than 25% of the teachers	21.1	21.3	21	20.2*	21.1	21.2	20	49.5*	27.9	24.6	9.3*
From 25% to 50% of the teachers	7.6	8.5	x	x	6.0*	9.4	7.7	x	7.2*	6.0*	10.3*
From 50% to 75% of the teachers	12.5	13.9	9.2*	x	10.2	15.1	13.1	x	17.2	9.2	12.5*
75% of the teachers or more	58.7	56.3	65.8	53.3	62.7	54.3	59.3	x	47.7	60.2	67.9
% of schools with teachers possessing the required technical skills to engage students in using ICT effectively to enhance their learning & Less than 25% of the teachers	20	21.1	16.1	24.8*	17.7	22.7	19.4	x	24.2	21.6	13.6*
From 25% to 50% of the teachers	12.1	12.4	11.8	x	14.1	9.8	12.1	x	8.6*	14.2	12.5*
From 50% to 75% of the teachers	25.1	26.6	23.5	20.9*	27.9	22	25.2	x	28.4	22.1	26
75% of the teachers or more	42.8	39.9	48.6	43.8	40.4	45.6	43.2	x	38.8	42.1	47.9
% of schools with technology applications frequently¹ incorporated into teaching practices & Use of software for special needs students and/or remedial programs providing individualized learning	29.7	29.5	30.9	28.1*	32.7	26.4	30.7	x	20.2	33.2	34.4
Use of software for specific subject areas	19.8	16.7	26.9	19.3*	20.7	18.9	19.7	x	15.4	22.9	19.9
Use of spreadsheets and database software for simple data manipulation and statistical analysis	9.2	3.9*	18.9	x	10.3	8	9.6	x	x	13.1	11.9
Use of word processing	72.9	69.6	77.5	79.8	73.2	72.5	73.5	57	64.6	79.5	71.8
Use of desktop publishing	22.3	23	21.1	21.4*	21	23.8	23.2	x	17.4	29.1	17.4
Use of presentation software	25.3	18.1	40	27.8*	28.2	21.9	25.5	x	19.1	27.3	28.6
Use of software supporting creative works	8.2	4.4*	15.5	x	8.6	7.7	8.5	x	5.9*	9.5	8.5*
Use of Internet/Intranet to disseminate information	33.5	25.7	46	43.9	38.2	28.3	33.3	x	26.4	31.8	42.9
Use of Internet for online learning	30.6	24	43.4	34.3	37.9	22.6	31	x	20.2	38	30.7
Other	x	x	x	x	x	x	x	x	x	x	x
% of schools with strategies to help teachers learn how to use ICT & Training sessions	10.2	11.8	8.2*	x	10.4	10	10.6	x	10.2*	9.7	11.0*
Mentoring/coaching activities with other teachers	21	19	28.3	x	22.2	19.6	21.5	x	15.4	27.5	17.1
Organized after-school sessions	5.5	5.7*	6.3*	x	5.5*	5.6*	5.8	x	x	6.0*	x
Information-sharing with other staff members/discussion forum	16.1	18	15.7	x	17.5	14.5	16.8	x	15.6	16	16.7
Staff meetings	5.5	4.5*	8.4*	x	7.0*	3.8*	5.4	x	x	6.1*	x
Summer programs	4.3	5.6*	x	x	4.7*	4.0*	4.5	x	x	6.2*	x
Courses online	x	x	x	x	x	x	x	x	x	x	x
Informal online-learning	5.3	4.9*	x	x	6.4*	4.0*	5.5	x	x	7.7*	x
Formal credit courses	x	x	x	x	x	x	x	x	x	x	x
Personal-learning activities	16.4	14.2	21.4	x	14.8	18.2	16.7	x	13	19.8	15.1
Professional development	11.9	11.5	15	x	12.1	11.7	12.2	x	6.0*	17.5	10.0*
% of schools where ICT learning is included for teacher development in the following subjects:											
Mathematics	45.9	37.2	54.7	72.8	44.2	47.9	46.5	x	44.1	44.1	50.8
Physics	12.1	x	29.6	32	12.3	12	12	x	5.6*	10.4	21.9
Chemistry	11.2	x	26.5	31	10	12.5	10.5	x	x	10.3	20.4
Biology/Life Science	13.7	x	31.1	32	14.6	12.6	13.9	x	6.5*	14.7	19.9
Earth Science	12.7	7.9	21.8	x	13.1	12.2	12.5	x	10.0*	14.3	13.2
General Science	17.4	6.5*	33.5	36.9	17.5	17.3	17.1	x	10.1	16.4	26.9
French	13.8	6.6	22.8	30.9	15.1	12.4	13.3	x	9.6*	13.8	18.4
English	36.7	33	47.2	30.1*	34.5	39.3	37.3	x	39.7	34.6	36.8
Computer Education/Informatics	32	24.4	47.2	34.9	32.5	31.6	32.4	x	21.4	33.9	40.8
Other language(s)	1.9*	x	x	x	3.6*	x	x	x	x	x	x
History	17.1	6.8	34.3	30.1*	17.7	16.3	16.4	x	10.7	16.2	25.3
Accounting	x	x	x	x	x	x	x	x	x	x	x
Geography	18.3	7.6	38.3	26.2*	20.6	15.7	18.1	x	10.2*	21.2	22.9
Business	3.1*	x	10.8*	x	4.6*	x	3.2*	x	x	x	6.2*
Social Studies	18.2	9	34.5	27.3*	17.5	19	18	x	16.2	18.1	20.8
Economics	3.4	x	11.9	x	3.5*	x	3.2	x	x	x	7.3*
Arts	11.1	5.8*	22.4	x	12	10.1	10.6	x	10.3*	7.3*	17.9
Industrial Arts	12	x	33.9	x	13.4	10.3	12.5	x	x	14.5	16.3
Health and Physical Education	10.5	8.2	13.7	x	12.2	8.6	10.2	x	7.2*	8.1*	17.8
Vocational subjects	x	x	x	x	x	x	x	x	x	x	x
Religious Studies	x	x	x	x	x	x	x	x	x	x	x
Multidisciplinary projects or activities	19.8	17.6	27.4	x	19.5	20.1	20.1	x	23.5	17.7	19
Career studies	6.4	x	16.8	x	7.5	5.1*	5.5	x	x	5.0*	11.2
Other	6.4	7.7	x	x	5.9*	7.0*	6.3	x	10.0*	x	x

Table C-4
Teachers Skills, school year 2003-04
New Brunswick

	All schools	Instructional Level of Schools			Location		Type		Size		
		Elementary	Secondary	Mixed	Urban	Rural	Public	Private	Small	Medium	Large
% of schools with teachers possessing the required technical skills to use ICT for administrative purposes...											
Less than 25% of the teachers	18.9	19.9	9.6*	41.2	14.2	26.2	17.3	x	23.2	18.3	14.2
From 25% to 50% of the teachers	4.8	6.1	x	x	x	7.5	4.5	x	6.3*	x	x
From 50% to 75% of the teachers	7.1	6.1	10.3*	x	5.0*	10.4	7.4	x	11.2	5.7*	x
75% of the teachers or more	69.2	67.9	79	47.8	77.8	55.9	70.7	x	59.2	73	77.2
% of schools with teachers possessing the required technical skills to engage students in using ICT effectively to enhance their learning & Less than 25% of the teachers	23	23	16	46	20.6	26.7	21.6	x	25.1	25	18
From 25% to 50% of the teachers	14.9	11.8	18.4	x	18	10.2	14.5	x	13	14	18.4
From 50% to 75% of the teachers	26.1	25.3	32.6	x	25.3	27.5	27.1	x	22.4	26.5	30.5
75% of the teachers or more	35.9	39.9	33	x	36.2	35.6	36.8	x	39.5	34.6	33.1
% of schools with technology applications frequently¹ incorporated into teaching practices & Use of software for special needs students and/or remedial programs providing individualized learning	18.9	17.5	24.6	x	20.5	16.3	18.9	x	15.6	22.9	18.1
Use of software for specific subject areas	8.8	7.3	11.6	x	9	8.4	9.1	x	x	11.1	9.7
Use of spreadsheets and database software for simple data manipulation and statistical analysis	5	x	11	x	3.4*	7.8	4.7	x	x	x	x
Use of word processing	61.2	57	69.3	70.9	61.8	60.3	62.1	x	53.7	61.1	70.3
Use of desktop publishing	11.5	9.9	15.5	x	9.9	14.1	11.8	x	10.6	10.6	13.7
Use of presentation software	10.4	7.7	14.2	x	8.3	14	10.7	x	6.6*	9.6	16
Use of software supporting creative works	3.5	x	8.7*	x	3.2*	x	3.6	x	x	x	6.8*
Use of Internet/Intranet to disseminate information	16.7	15.4	17.5	x	17.8	14.8	17.1	x	11.5	20.5	18.1
Use of Internet for online learning	15.3	9.5	22.3	46.5	15	15.9	15.2	x	12.2	13.8	20.7
Other	x	x	x	x	x	x	x	x	x	x	x
% of schools with strategies to help teachers learn how to use ICT & Training sessions	12.3	10.5	14.3	x	9.3	17	12.8	x	11.8	13.8	11.3
Mentoring/coaching activities with other teachers	20.4	17.7	26.8	x	20.7	19.9	21.1	x	17.4	22.7	21.3
Organized after-school sessions	8.7	8.6	x	x	7.4	10.7	9	x	6.4*	8.3	11.9
Information-sharing with other staff members/discussion forum	12.6	11.1	15.2	x	11.1	14.8	13	x	10.2	14	13.7
Staff meetings	7.6	7	x	x	4.8*	11.9	7.9	x	10	x	8.2*
Summer programs	6.2	4.6	8.6*	x	6.2	6.2*	6.4	x	8.7	x	x
Courses online	x	x	x	x	x	x	x	x	x	x	x
Informal online-learning	2.8*	x	x	x	4.6*	x	2.9*	x	x	x	x
Formal credit courses	x	x	x	x	x	x	x	x	x	x	x
Personal-learning activities	12	11	16.7	x	13	10.3	12	x	9.4	13.7	13.2
Professional development	10	7.1	14.2	x	9.9	10.1	10.4	x	7.4*	11.9	11.1
% of schools where ICT learning is included for teacher development in the following subjects:											
Mathematics	38.9	36.9	48.6	x	39.2	38.5	40.2	x	37.5	42.6	36.6
Physics	6.3	x	18.9	x	8.1	x	6.5	x	x	x	15.5
Chemistry	5	x	14	x	6	x	5.2	x	x	x	11.2
Biology/Life Science	13.8	10.6	21.8	x	11.2	17.8	14.2	x	9.4	10.1	23.7
Earth Science	7.6	7.4	9.8*	x	9.2	x	7.8	x	5.9*	8.4*	8.8*
General Science	16.7	16.8	17	x	13.9	21.2	17.3	x	10.9	16.4	24.9
French	21.9	22.5	20.4	x	20	24.9	22.7	x	16	24.2	27.2
English	30.2	30	32.4	x	30.7	29.3	31.2	x	33.7	30.1	25.5
Computer Education/Informatics	37.3	30.5	57.6	x	37.2	37.5	38.6	x	33.1	34.3	46.4
Other language(s)	2.4*	x	x	x	x	x	2.5*	x	x	x	x
History	14.7	12	21.8	x	11.3	20.1	15.2	x	11.3	11.8	22.7
Accounting	5.3	x	17.2	x	6	x	5.5	x	x	x	9.6
Geography	17.2	14.9	24.1	x	16.2	18.7	17.8	x	15.6	13	24.2
Business	x	x	x	x	x	x	x	x	x	x	x
Social Studies	8.9	8.1	11	x	10	7.0*	9.1	x	8.3	12	x
Economics	x	x	x	x	x	x	x	x	x	x	x
Arts	10.9	8.4	18.3	x	13.7	6.5*	11.2	x	6.7*	10.7	16.7
Industrial Arts	18.2	13	30.9	x	16.1	21.4	18.8	x	14.2	13.2	29.1
Health and Physical Education	15.8	16	15.2	x	13.3	19.5	16.3	x	13.4	10.9	24.5
Vocational subjects	6.4	x	13.6	x	6.3	6.5*	6.6	x	x	8.3*	11.3
Religious Studies	x	x	x	x	x	x	x	x	x	x	x
Multidisciplinary projects or activities	20.4	19	25.3	x	18.9	22.7	21	x	17.9	20.6	23.3
Career studies	9	x	27.3	x	11.6	x	9.3	x	8.3*	9.9	9.1
Other	5.8	6.1	x	x	6.3	x	6	x	x	x	9.0*

Table C-4
Teachers Skills, school year 2003-04
Quebec

	All schools	Instructional Level of Schools			Location		Type		Size			
		Elementary	Secondary	Mixed	Urban	Rural	Public	Private	Small	Medium	Large	
% of schools with teachers possessing the required technical skills to use ICT for administrative purposes...												
Less than 25% of the teachers	16.4	17	12.2	25.0*	14.9	20.1	15.5	25.4	23.5	13.5	12.3	
From 25% to 50% of the teachers	3.9	4.1	3.0**	x	3.8	3.9**	3.8	x	5.1*	3.4*	3.1*	
From 50% to 75% of the teachers	7.3	8.4	3.2**	x	5.4	12.1	7.2	10.1**	10.8	6.8*	4.5*	
75% of the teachers or more	72.5	70.5	81.6	63.5	75.8	63.9	73.6	60.5	60.6	76.3	80.1	
% of schools with teachers possessing the required technical skills to engage students in using ICT effectively to enhance their learning & Less than 25% of the teachers	13	10.9	18.9	20.1*	14.4	9.6	12.1	22.8*	12.1	11.7	15.1	
From 25% to 50% of the teachers	12.2	8.9	24.8	x	13.4	9.2	12.1	11.4*	9.1	11.2	15.8	
From 50% to 75% of the teachers	29.6	28.3	33	34.6	30	28.6	29.2	33	25.3	34.4	29.6	
75% of the teachers or more	45.2	51.9	23.4	37.9	42.2	52.6	46.5	32.8	53.5	42.7	39.5	
% of schools with technology applications frequently¹ incorporated into teaching practices & Use of software for special needs students and/or remedial programs providing individualized learning	10.1	10.3	8.5*	12.4**	10.1	10.1	10.8	x	12.3	9.4	8.6	
Use of software for specific subject areas	19.2	20.3	15	20.4*	18.9	20.1	19.5	15.9*	19.1	19.4	19.2	
Use of spreadsheets and database software for simple data manipulation and statistical analysis	8.3	4.5	18.2	21.5*	8.9	6.8*	7.3	17.0*	4.5*	6.3*	13.3	
Use of word processing	79.7	80.4	77.6	78.6	79.6	80	80	75.6	71.8	82.3	84.7	
Use of desktop publishing	9.1	7.5	13.7	11.5**	9.9	6.9*	8.5	13.5*	5.3*	9.1	12.4	
Use of presentation software	17.3	12.4	32.1	26.8*	18.3	14.5	15.5	34.5	12.4	17.1	21.8	
Use of software supporting creative works	7.5	6.7	9.1*	11.8**	8.7	4.3*	6.9	12.6**	7.0*	6.5*	8.7	
Use of Internet/Intranet to disseminate information	32.6	31.8	36.1	30.2*	34.9	27	32.9	30.3	25.6	33.5	38.2	
Use of Internet for online learning	22.4	22.5	21.3	24.5*	22.4	22.3	22.2	23.3	19	22.5	25.3	
Other	35.0**	x	x	x	39.5*	x	x	x	x	x	x	
% of schools with strategies to help teachers learn how to use ICT & Training sessions	19.3	19.4	19.9	13.7**	21.5	13.5	19	22.3*	13.9	18.5	24.7	
Mentoring/coaching activities with other teachers	30.9	30.6	31	34.5	33.8	23.5	30.6	35	23.5	30	38.2	
Organized after-school sessions	9.8	10	8.1*	13.2**	11.2	6.0*	9.2	15.7*	6.0*	9.8	13	
Information-sharing with other staff members/discussion forum	16.8	16.7	15.4	24.5*	18.3	13	16.3	23.5*	16.1	18.7	15.9	
Staff meetings	10.2	10.2	10.5	x	10.7	8.8	10.3	11.2**	10.1	10.8	9.7	
Summer programs	x	x	x	x	x	x	x	x	x	x	x	
Courses online	x	x	x	x	x	x	x	x	x	x	x	
Informal online-learning	1.2*	1.3**	x	x	F	x	1.4*	x	x	x	x	
Formal credit courses	0.9**	F	x	x	1.1**	x	1.0**	x	x	2.1**	x	
Personal-learning activities	20.6	22	16.7	16.7**	19.9	22.6	20.7	21.2*	21.4	18.4	21.8	
Professional development	11.7	11.4	11.6	17.6**	12.8	8.9	11.1	17.9*	9.9	12.8	12.5	
% of schools where ICT learning is included for teacher development in the following subjects:												
Mathematics	35.1	30.9	46.9	45.2	37.1	30	34.5	40	31.2	33.2	40.3	
Physics	7.2	x	26.7	22.0*	8.1	4.7*	5.4	23.7	4.2*	6.8	10.1	
Chemistry	5.1	x	18.7	15.6**	6.2	2.2**	3.5	19.3*	2.5**	4.2*	8.1	
Biology/Life Science	8	1.7*	27.3	17.2**	9.2	5.0*	5.9	29	6.8**	7.3	9.7	
Earth Science	11.1	8.7	18	16.1**	10.8	12	10.4	20.2*	9.6	10.6	12.9	
General Science	9.6	6.6	18.4	15.5**	11.6	4.6*	8.9	18.0*	4.9*	10.6	13	
French	41.1	42.5	37.4	36.5	40.4	42.8	40.9	44.9	37.9	40.1	44.7	
English	22.2	15.4	41.5	37.8	22.1	22.5	20.5	40.3	19.2	24.8	22.9	
Computer Education/Informatics	37	31.5	53.8	46.1	38	34.5	35.8	49.6	35.7	35.1	39.8	
Other language(s)	2.7	1.1**	6.9*	x	3.2	x	1.7*	13.2*	2.1**	2.2**	3.7*	
History	18	11.9	35.9	29.8*	18.4	17	16.1	37.3	17.5	19.2	17.5	
Accounting	F	x	x	x	F	x	x	x	x	x	x	
Geography	17.9	13.3	33.3	18.4**	18.4	16.7	16.7	33.9	17.3	18.9	17.7	
Business	F	x	x	x	F	x	x	x	x	x	x	
Social Studies	3.5	2.8*	4.3*	x	3.7	3.0**	3.2	6.7**	3.0*	3.8*	3.6*	
Economics	4.1	x	14.2	15.9**	5.3	x	2.2*	23.8	x	5.0*	6.3	
Arts	14.4	11.8	22.5	17.7**	16.6	8.9*	14.3	15.3*	8.4	15.8	18.7	
Industrial Arts	1.0*	x	3.9**	x	1.3**	x	1.1**	x	x	x	2.4*	
Health and Physical Education	6.1	4.6	11.2	x	6.7	4.7*	5.5	13.4*	4.3*	6.2*	7.7	
Vocational subjects	0.9**	F	x	x	1.0**	x	1.0**	x	x	x	F	
Religious Studies	4.4	2.3*	11.2	x	5.4	x	3.4	15.7*	2.9**	4.7*	5.5*	
Multidisciplinary projects or activities	24.9	23.5	26.8	37.2	25.3	24	24.8	26.1	20.5	23.5	30.1	
Career studies	9.2	2.4*	30.1	18.5*	10.5	6.1*	8.5	16.5*	6.8*	6.6*	13.5	
Other	7	6.8	7.5*	x	7.3	6.1*	7	x	6.2*	8.7	6.3*	

**Table C-4
Teachers Skills, school year 2003-04
Ontario**

	All schools	Instructional Level of Schools			Location		Type		Size		
		Elementary	Secondary	Mixed	Urban	Rural	Public	Private	Small	Medium	Large
% of schools with teachers possessing the required technical skills to use ICT for administrative purposes...											
Less than 25% of the teachers	10.8	9.6	12.1	25.2	10.7	11.1	7.4	30.7	21	9.5	5.7
From 25% to 50% of the teachers	1.4	1.1*	1.7**	x	1.4*	x	0.8*	4.8*	3.2*	x	x
From 50% to 75% of the teachers	3.1	1.6*	7.2	10.0**	3.2	2.8*	1.9	10.4	6.2	1.8**	2.2*
75% of the teachers or more	84.7	87.7	78.9	60.4	84.7	84.8	89.9	54.1	69.6	87.7	91.5
% of schools with teachers possessing the required technical skills to engage students in using ICT effectively to enhance their learning & Less than 25% of the teachers	18.4	17	20.7	31.9	18.3	19.1	15.7	34.1	25.6	17.9	14.5
From 25% to 50% of the teachers	11.9	11.8	12	13.5*	12.2	10.2	12	11.1	9.7	11.8	13.2
From 50% to 75% of the teachers	22.1	21.1	27.1	15.0*	22.4	20.6	22	23	20.6	22.2	23
75% of the teachers or more	47.6	50.1	40.3	39.6	47.1	50	50.3	31.8	44.1	48.1	49.3
% of schools with technology applications frequently¹ incorporated into teaching practices & Use of software for special needs students and/or remedial programs providing individualized learning	39.9	40.7	39.7	26.2	40.2	38.2	44.1	13.2	28.5	40	46.4
Use of software for specific subject areas	38.6	36	49.1	30.9	39.4	34.8	40.7	25.7	30.5	39.8	42.3
Use of spreadsheets and database software for simple data manipulation and statistical analysis	21.7	15.9	41.2	25.8	22.3	19	22.2	18.4	18.7	19.8	24.9
Use of word processing	80.3	78.8	87.7	71.1	80.8	78.4	83.3	62.1	73.2	81.5	83.7
Use of desktop publishing	34.5	34.1	38.2	23.4	35.6	29.7	36.8	20.2	26.7	35	38.6
Use of presentation software	23.5	17	46.2	23.9	24.2	19.9	24.2	18.7	18.7	20.4	28.6
Use of software supporting creative works	14.8	10.8	28.8	13.5*	15.2	12.9	15.4	10.9	11.1	14.3	17.3
Use of Internet/Intranet to disseminate information	38.4	36.9	44.9	32.3	39.1	34.9	40.9	22.9	30.3	41.1	41
Use of Internet for online learning	30.7	29.1	37.3	25.3	31.9	25.4	32.5	19.6	23	30.8	35
Other	13.9**	x	x	x	x	x	27.3**	x	x	x	x
% of schools with strategies to help teachers learn how to use ICT & Training sessions	10.6	11.3	8.3	10.0**	10.6	10.7	11.2	7.2*	10	10.2	11.3
Mentoring/coaching activities with other teachers	24.9	24.6	24.5	32	26.4	17.4	24.9	24.8	18.8	24.7	28.6
Organized after-school sessions	7.1	7.5	5.4*	7.3**	7.6	4.5*	7.7	3.5**	4.8	6.6	8.8
Information-sharing with other staff members/discussion forum	21.4	22.3	19.3	16.0*	21.9	18.9	22.2	16.5	19.1	21.3	22.8
Staff meetings	8.6	9.2	5.3*	12.7*	8.9	7.2	8.3	10.4	8.8	7.6	9.2
Summer programs	4.9	5.5	2.3**	x	4.8	5.3*	5.3	F	3.7*	4.5	5.9
Courses online	2.6	2.8	1.9**	x	2.3	4.1*	3	x	4.3*	2.4*	1.8*
Informal online-learning	4	3.8	4.5*	x	4	4.3*	4	4.3**	5.7	3.5*	3.4*
Formal credit courses	1.8	1.9*	1.6**	x	1.7*	2.2**	1.9	x	3.5*	x	1.5**
Personal-learning activities	12.6	12.3	12.5	20.3*	13	10.8	12.9	11.4	12.8	12.2	12.9
Professional development	13.1	13.8	10.7	12.5*	13.7	10.2	13.8	9.2	11	11.4	15.7
% of schools where ICT learning is included for teacher development in the following subjects:											
Mathematics	43.8	42.5	50.6	31.5	44.2	41.5	46.3	28.9	32.8	46.2	48.4
Physics	7.1	1.0**	25.6	23.8	7.5	5.2*	6.1	12.8	6	5.5	8.9
Chemistry	6.3	0.8**	23.8	17.9*	6.7	4.4*	5.6	10.6	5.0*	5.7	7.6
Biology/Life Science	9.5	4	26.4	24.4	9.9	7.8	8.3	17.1	9.3	9	10.1
Earth Science	7.9	6.2	13.8	10.0**	8.2	6.8	7.8	8.6*	7.5	6.7	9.2
General Science	14	10.8	24.4	19.9*	14.7	10.7	13.7	16.2	12.5	12.5	16.2
French	15.6	13.9	20.6	20.8*	15.7	15	15.6	15.7	14.8	17.4	14.7
English	31.1	31.7	28.7	33.2	31.5	29.4	31.9	26.7	22.7	35.3	32.8
Computer Education/Informatics	33.5	28.9	51	26.5	33.7	32.2	34.7	26.2	27.1	34.8	36.2
Other language(s)	2.7	1.5*	4.7*	13.9*	3.1	x	2.1	5.8*	1.6**	1.8**	4
History	15.3	13.2	22	19.4*	15.8	13	15.3	15.2	12.8	15	16.9
Accounting	6.1	0.8**	24.1	11.2**	6.2	5.6*	5.7	8.4*	4.4*	5.8	7.3
Geography	18.5	13.9	34.1	23	19	16.2	18.7	17.7	14.3	17.9	21.6
Business	8.4	0.7**	34.2	16.6*	8.9	5.8*	8.2	9.7	6.2	6.6	11.1
Social Studies	13.4	12.2	16.7	17.8*	13.8	11.7	13.4	13.1	10.6	12.8	15.5
Economics	3.6	0.7**	11.9	14.9*	3.8	2.8**	2.7	9.1*	2.7*	2.7*	4.9
Arts	14.6	11.8	22.6	24.5	14.9	13	14.8	13.5	10.4	14.5	17.2
Industrial Arts	6.5	1.3*	26.2	x	6.4	6.9	7.3	x	3.7*	6.8	7.9
Health and Physical Education	9	5.7	18.9	19.4*	9.4	7.3	8.6	11.3	8.5	8	10.1
Vocational subjects	3	1.3*	9.4	x	3.1	2.2**	3.3	x	1.9**	2.3*	4.1
Religious Studies	4.3	3.5	7	x	4.4	3.8*	4.1	5.4*	4.1*	4.7	4.1
Multidisciplinary projects or activities	12.3	12.2	12.8	12.9**	12.3	12.5	12.2	13	11.1	12	13.4
Career studies	17.4	11.9	35.7	23.5*	17.7	15.8	18	13.6	12.2	17.9	20
Other	11.5	12.1	9.5	10.7**	11.3	12.1	12.6	4.6*	9	13.2	11.6

Table C-4
Teachers Skills, school year 2003-04
Manitoba

	All schools	Instructional Level of Schools			Location		Type		Size		
		Elementary	Secondary	Mixed	Urban	Rural	Public	Private	Small	Medium	Large
% of schools with teachers possessing the required technical skills to use ICT for administrative purposes...											
Less than 25% of the teachers	23.4	19.8	19.8*	31	16.7	32.6	19.8	50	35	16.3	10.3*
From 25% to 50% of the teachers	5.8	5.5*	x	5.1**	4.2**	8.2*	5.4	x	5.4*	7.4**	x
From 50% to 75% of the teachers	14.6	14.9	10.4*	16.5	14.8	14.2	14.9	x	13.9	12.8*	18.1
75% of the teachers or more	56.2	59.9	61.9	47.4	64.3	45	59.9	29.9*	45.7	63.5	67
% of schools with teachers possessing the required technical skills to engage students in using ICT effectively to enhance their learning & Less than 25% of the teachers	27.1	21.3	23.4	37.6	19.8	37.3	23.4	57.2	35.1	21.8	18.7*
From 25% to 50% of the teachers	9.2	11	8.4**	7.0**	9.1	9.2*	9.5	x	8.6*	7.0*	13.2*
From 50% to 75% of the teachers	18.3	18	22.7	16.3	21	14.7	17.6	22.4**	16.4	21	18.4*
75% of the teachers or more	45.4	49.7	45.5	39.2	50.1	38.9	49.5	x	39.9	50.1	49.7
% of schools with technology applications frequently¹ incorporated into teaching practices & Use of software for special needs students and/or remedial programs providing individualized learning	29.9	36.3	23.9	24.2	29.1	30.9	31.4	x	26.4	37.1	26.8
Use of software for specific subject areas	34	31	34	38.3	35	32.7	36.3	x	28.7	42.6	32.7
Use of spreadsheets and database software for simple data manipulation and statistical analysis	21.3	8.9*	44.6	25.4	21	21.8	21.4	21.5**	16.9	23	28.1
Use of word processing	79.6	80.1	87.4	74.2	81.8	76.6	81.9	58.3	72.4	83.5	88.9
Use of desktop publishing	29.4	28.5	29.6	30.7	29.8	28.9	32.5	x	24.3	35	32.2
Use of presentation software	24.7	22.2	33.6	22.8	27.9	20.1	25.3	x	17.9	28.7	32.7
Use of software supporting creative works	7.2	4.7*	10.6*	8.8*	7.9*	6.3*	7.6	x	5.4*	7.5*	10.5*
Use of Internet/Intranet to disseminate information	31.5	31.7	34	29.6	34.3	27.6	33.6	x	19.1	37.4	48.2
Use of Internet for online learning	30	34.3	25.7	26.5	30.9	28.9	32.7	x	24	33.2	37.7
Other	x	x	x	x	x	x	x	x	x	x	x
% of schools with strategies to help teachers learn how to use ICT & Training sessions	14.8	17.9	10.5*	13.0*	18.9	9.3*	16.6	x	9.2	21.2	17.2
Mentoring/coaching activities with other teachers	24.9	28.4	27.5	18.1	33	13.6	25.2	24.5**	12.5	35	34.8
Organized after-school sessions	4.9	6.6*	x	x	7.0*	x	5.7	x	x	6.9*	7.0**
Information-sharing with other staff members/discussion forum	16.9	20	17.8*	11.9*	17.6	16	18	x	17.9	17.6	14.1*
Staff meetings	5.6	5.9*	x	6.1**	7.2*	3.5**	5.7	x	4.9*	6.2**	6.3**
Summer programs	x	x	x	x	x	x	x	x	x	x	x
Courses online	x	x	x	x	x	x	x	x	x	x	x
Informal online-learning	2.5*	3.2**	x	x	2.9**	x	2.6*	x	x	x	x
Formal credit courses	x	x	x	x	x	x	x	x	x	x	x
Personal-learning activities	14.5	15.7	11.3*	14.6	16.2	12.1	16.3	x	11.2	18.5	15.6*
Professional development	14	16.5	17.4*	8.3*	20.1	5.4*	14.5	x	8.5*	19.9	16.7*
% of schools where ICT learning is included for teacher development in the following subjects:											
Mathematics	52.6	53.3	70.3	41.1	58.7	43.9	55.1	34.5*	38.7	69	57.9
Physics	10.6	x	34.7	9.1*	11.1	9.9*	9.9	x	4.2**	16.4	15.3*
Chemistry	9.7	x	29.3	9.6*	10.8	8.2*	8.7	x	3.7**	14.8	14.5*
Biology/Life Science	13.3	3.3**	40.6	12.0*	16.5	8.8*	12.5	x	2.9**	23.7	19.6
Earth Science	10	8.7*	12.9*	10.3*	11.7	7.7*	10.1	x	x	16.4	15.0*
General Science	25.1	26	38.8	15.5	32.3	14.8	26.5	x	13.4	36.1	33
French	14.8	18.4	21.6*	5.4**	20.6	6.6*	15.7	x	8.3*	19.9	20.7
English	36.2	38.6	51.3	23.7	45.1	23.6	38.6	x	25	50	39.8
Computer Education/Informatics	38.5	36.9	55.4	30.9	46.2	27.6	40.3	24.9**	24.4	54.3	44.9
Other language(s)	3.1*	x	x	x	4.3**	x	3.0*	x	x	x	x
History	15.9	14.5	29.2	10.2*	20.2	9.9	17.4	x	7.9*	20.3	25.5
Accounting	9.1	x	25.2	10.1*	9.6	8.3*	9.2	x	4.1**	12.9*	13.7*
Geography	24.3	23.4	38.8	16.9	30.6	15.3	26.1	x	13.7	34.8	30.7
Business	7.4	x	22.8	7.6*	9.5	4.5**	7.7	x	x	10.2*	14.4*
Social Studies	19.4	23.9	21	11.8*	26.5	9.3*	20.5	x	9.6*	28.3	26.5
Economics	1.8**	x	x	x	2.6**	x	1.8**	x	x	x	x
Arts	10.6	11.2	19.2*	x	16.3	x	10.9	x	3.7**	15.2*	17.6
Industrial Arts	7	x	16.7*	8.2*	7.3*	6.6*	7.6	x	x	11.2*	12.7*
Health and Physical Education	13.2	13.2	25.5	5.9**	16.8	8.2*	15	x	7.5*	21.2	14.0*
Vocational subjects	2.1*	x	8.3**	x	2.8**	x	2.5*	x	x	x	x
Religious Studies	2.5**	x	x	x	3.1**	x	x	x	x	x	x
Multidisciplinary projects or activities	19.1	22.4	23.8	11.3*	21	16.4	22.2	x	16	23.3	19.6
Career studies	15	7.4*	30.9	17	18.7	9.8*	15.7	x	5.2*	20.2	27
Other	7.6	8.2*	x	7.7**	6.5*	9.1*	8.2	x	6.1*	8.4*	9.1*

**Table C-4
Teachers Skills, school year 2003-04
Saskatchewan**

	All schools	Instructional Level of Schools			Location		Type		Size		
		Elementary	Secondary	Mixed	Urban	Rural	Public	Private	Small	Medium	Large
% of schools with teachers possessing the required technical skills to use ICT for administrative purposes... Less than 25% of the teachers	30.6	28.8	22.9	36.4	24.8	38.3	30.1	x	43.3	23.4	19.9*
From 25% to 50% of the teachers	8.6	10.2*	x	10.5*	7.5*	10.0*	9	x	5.1**	10.6	11.4**
From 50% to 75% of the teachers	12.7	14	8.7**	12.9	14.9	9.9	13	x	7.6	17.4	13.4*
75% of the teachers or more	48.1	47.1	68.4	40.2	52.8	41.8	47.9	x	43.9	48.5	55.3
% of schools with teachers possessing the required technical skills to engage students in using ICT effectively to enhance their learning & Less than 25% of the teachers	30.3	30.7	23	33.2	26.2	35.7	29.6	x	44.2	21.4	20.7*
From 25% to 50% of the teachers	10.6	8.3*	17.2*	10.5	10.2	11.2	11.1	x	6.8*	12.3	15.0*
From 50% to 75% of the teachers	20.8	21	21.2	20.4	22.5	18.6	20.9	x	15.6	27.3	18.1*
75% of the teachers or more	38.2	39.9	38.6	35.9	41.1	34.4	38.4	x	33.4	39.1	46.2
% of schools with technology applications frequently ¹ incorporated into teaching practices & Use of software for special needs students and/or remedial programs providing individualized learning	31.8	34.6	30.8	28.6	35.9	26.3	32.9	x	28.5	32.8	36
Use of software for specific subject areas	20.1	24.7	12.2*	17.8	22.2	17.3	20.1	x	16.1	22.8	22.1*
Use of spreadsheets and database software for simple data manipulation and statistical analysis	11.6	5.1*	20.1	16.1	10.8	12.6	12.1	x	6.0*	13.8	17.5*
Use of word processing	79.1	75.2	79.6	84.1	74.2	85.8	79.9	63.1*	73.3	81.4	85.5
Use of desktop publishing	25.6	25	23.7	27.3	24.6	26.9	26.1	x	19.9	27.2	33.2
Use of presentation software	23.8	21.9	30.8	22.9	25.9	21	24.4	x	13.4	27.3	35.9
Use of software supporting creative works	8.1	9.8	7.6**	6.1*	8.5	7.6*	8.2	x	6.7*	9.8*	x
Use of Internet/Intranet to disseminate information	35.3	33	35.5	38.1	36.8	33.3	35.7	x	28.4	39.6	39.6
Use of Internet for online learning	37.8	36.4	39.2	38.9	39.6	35.3	38.2	x	27.9	41.8	48.7
Other	x	x	x	x	x	x	x	x	x	x	x
% of schools with strategies to help teachers learn how to use ICT & Training sessions	10.4	11.8	14.8*	6.6**	14.3	5.3**	10.8	x	7.3**	10.4	16.6*
Mentoring/coaching activities with other teachers	19.7	19.7	26.2	16.6	25.3	12.3*	20	x	12.4*	25.1	23.1*
Organized after-school sessions	6.4	6.1*	8.4**	5.9**	9.4	x	6.7	x	4.5**	7.0*	9.1**
Information-sharing with other staff members/discussion forum	13.9	15.6	20.5	8.7*	17.3	9.5*	14.5	x	10.1*	16.7	15.6*
Staff meetings	5.3	3.3**	11.4*	5.2*	6.6*	3.6**	5.6	x	3.2**	4.2**	11.6*
Summer programs	x	x	x	x	x	x	x	x	x	x	x
Courses online	x	x	x	x	x	x	x	x	x	x	x
Informal online-learning	2.3*	x	x	x	2.8**	x	2.4*	x	x	x	x
Formal credit courses	x	x	x	x	x	x	x	x	x	x	x
Personal-learning activities	12	14	13.1*	8.9*	13.5	9.9*	12.3	x	6.1**	15.4	16.4*
Professional development	10.9	11.8	8.1**	11.1*	11.5	10.1*	11.4	x	5.9*	13	16.8*
% of schools where ICT learning is included for teacher development in the following subjects:											
Mathematics	35.6	41.1	28.9	31.5	40.7	29.2	36.3	x	27.8	40.4	41.2
Physics	9.2	x	29.6	10.6	9.3	9.1	8.7	x	5.6*	6.7*	22
Chemistry	10	x	27.7	14.3	7.9	12.5	9.7	x	6.9*	8.0*	20.5
Biology/Life Science	11.5	3.2**	26.2	15.7	10.3	13.1	11.1	x	6.9*	10.6	23.1
Earth Science	9.6	9.6	13.4*	7.8*	10.7	8.3*	9.8	x	5.7*	11.8	12.9*
General Science	12.9	8.7	24.9	12.9	13.7	11.9	13	x	8.2	16.8	14.0*
French	10.7	9.4	17.4*	9.4*	11.9	9.2*	10.8	x	9.8*	10.8	12.4*
English	28.6	30.5	28.8	25.9	31.6	24.7	28.9	x	22.5	34.9	27.1
Computer Education/Informatics	36	27.1	48.6	41.8	34.5	37.7	36.9	x	26.3	41.6	43.2
Other language(s)	2.7*	x	x	x	3.8*	x	2.5*	x	x	x	x
History	12.6	7.6*	28.1	11.9	14.2	10.6	12.5	x	9.3	11.2	22.4
Accounting	7.3	x	20.8	10.0*	5.4*	9.6	7	x	4.0*	8.0*	12.4*
Geography	3.6*	4.4**	x	x	4.6*	x	3.5*	x	4.1*	x	x
Business	2.9*	x	x	x	2.9**	x	2.8*	x	x	x	x
Social Studies	15.9	13.9	21.8	15.7	18.5	12.6	16.2	x	11.8	17.7	20.2*
Economics	x	x	x	x	x	x	x	x	x	x	x
Arts	13.3	12.7	25.1	8.5*	16.3	9.4	13.4	x	11.4	14	15.3*
Industrial Arts	8.9	x	22.3	12.1	7.7	10.4	9.1	x	3.9**	9.1	18.6*
Health and Physical Education	12.2	10.5	19.0*	11.3	13.5	10.6	12.5	x	8.0*	13.4	18.1*
Vocational subjects	5.3	x	12.3*	8.5*	4.0*	7.0*	4.8	x	x	5.4*	12.3*
Religious Studies	4.9	5.8*	x	x	7.2	x	4.7	x	5.2*	4.6**	x
Multidisciplinary projects or activities	13.7	15.1	15.2*	11.0*	14.9	12.1*	14	x	12.3*	15.2	13.1**
Career studies	15.1	9.7*	22.8	18.5	16.1	13.7	15.3	x	8.0*	18.1	22.9
Other	8.3	8.0*	x	10.4*	7.9*	8.8*	8.4	x	8.0**	7.7*	10.1**

Table C-4
Teachers Skills, school year 2003-04
Alberta

	All schools	Instructional Level of Schools			Location		Type		Size		
		Elementary	Secondary	Mixed	Urban	Rural	Public	Private	Small	Medium	Large
% of schools with teachers possessing the required technical skills to use ICT for administrative purposes... Less than 25% of the teachers	12.7	12.3	10.7	14.8	13.6	9.7*	11.4	27.2*	14.9	11.6	11.6
From 25% to 50% of the teachers	2.2*	1.5**	3.7**	x	2.3*	x	2.0*	x	3.3**	2.8**	x
From 50% to 75% of the teachers	4.9	5.1	3.2**	6.1*	4.3	7.2*	4.6	x	5.9*	4.7*	4.2*
75% of the teachers or more	80.2	81.1	82.5	77	79.9	81.1	82	62.4	75.9	80.9	83.9
% of schools with teachers possessing the required technical skills to engage students in using ICT effectively to enhance their learning & Less than 25% of the teachers	12	7.9	11.8	17.4	12.7	9.9*	9.8	29.3*	16.4	8.8	11
From 25% to 50% of the teachers	5.5	2.8*	8.7*	6.6*	6.3	3.1**	5.1	x	5.3*	5.2*	6.2*
From 50% to 75% of the teachers	16.4	16.3	16.9	16.3	16.3	16.9	16.3	19.0**	14.7	17.8	16.8
75% of the teachers or more	66	72.9	62.5	59.7	64.7	70.1	68.8	41.1	63.6	68.2	66
% of schools with technology applications frequently ¹ incorporated into teaching practices & Use of software for special needs students and/or remedial programs providing individualized learning	25.3	26.4	27.1	22.5	26.2	22.1	26.6	14.9**	27.9	22.1	26.3
Use of software for specific subject areas	28.7	28.4	34.6	24.4	29.1	27.2	30.2	15.8**	27.7	28.3	30.1
Use of spreadsheets and database software for simple data manipulation and statistical analysis	21.3	15.2	32	21	21.1	22.1	22.1	16.0**	15.2	22.4	26.7
Use of word processing	75	71.9	81.9	73.7	75.7	72.7	75.7	67	68.8	75.9	80.5
Use of desktop publishing	20.4	17.4	23.1	22.2	19.6	23.1	20.4	21.7*	16	22.8	22.2
Use of presentation software	29.2	27.5	35.5	26.6	28.6	31.2	30.9	13.9**	18	30.8	39.1
Use of software supporting creative works	10.6	11.1	13	8.3*	11.9	6.4*	11	x	10.1	8.9	13.2
Use of Internet/Intranet to disseminate information	34.5	30.3	45.8	31.3	35.9	29.8	35.1	27.4*	30	34.8	38.9
Use of Internet for online learning	30	29.9	37.8	24.1	31.4	25.4	30.9	19.6*	28	29.4	32.7
Other	x	x	x	x	x	x	x	x	x	x	x
% of schools with strategies to help teachers learn how to use ICT & Training sessions	13	17.3	9.3	10.2	13.7	10.6	13.2	11.5**	9.1	15.5	14.3
Mentoring/coaching activities with other teachers	31.3	38.3	26.5	25.7	33.2	24.9	33.1	13.7*	14.4	36	43.8
Organized after-school sessions	8.8	12.4	6.3*	5.9*	10.5	3.0**	9.4	x	5.1*	9.8	11.5
Information-sharing with other staff members/discussion forum	21.8	23.4	23.5	18.3	22.5	19.6	22.7	12.5**	12	27.6	25.4
Staff meetings	9	10.9	6.5*	8.5*	9.1	8.9*	9.3	x	5.7*	11	10.3
Summer programs	2.3*	2.4*	x	F	2.3*	x	1.7*	x	F	x	2.8**
Courses online	1.3*	2.3*	x	x	1.4*	x	1.4*	x	x	1.9**	x
Informal online-learning	4	4.2	3.4**	4.3**	4.1	F	3.9	x	3.2**	4.4*	4.5*
Formal credit courses	1.1**	x	x	x	x	x	x	x	x	x	x
Personal-learning activities	17.3	19	15.5	16.5	17	18.2	18.1	F	14.1	15.2	23.3
Professional development	20.2	24.3	19	15.8	20.4	19.5	20.8	15.9**	17.6	19.9	23.4
% of schools where ICT learning is included for teacher development in the following subjects:											
Mathematics	52.9	54.2	61.1	45.3	53.8	49.8	56	26.9*	43.9	58.1	56.6
Physics	11.2	x	28.4	10.8	11.1	11.6	11.8	x	6.9*	10.4	16.8
Chemistry	12.9	2.0*	29.9	13.4	12.8	13.3	13.2	11.1**	9.7	11.4	18
Biology/Life Science	14.2	5.1	31	12.8	14.6	13	14.6	12.2**	10.5	12.6	20.1
Earth Science	11.6	12	13	10	12.1	9.7*	12.1	x	9.2	9	16.9
General Science	28.6	25.7	40.1	23.5	29	27.1	29.8	19.1*	21.3	30.8	33.8
French	12.4	10.3	21	8.6*	14.7	4.7**	12.9	x	8	11.3	18.4
English	50	50.3	55.5	45.5	50.1	49.8	51.7	36.2	41.1	53.2	55.8
Computer Education/Informatics	37.2	31	51	34.5	36.3	40.2	37.8	32.8	32.1	38.5	41.2
Other language(s)	3.9	2.7*	7.8	2.6**	4.7	x	4.3	x	x	3.9*	7.1
History	13.4	10.5	19.7	12.3	14.4	10.2*	13.8	10.6**	8.6	14.7	17.1
Accounting	5.6	x	15.9	4.0**	5.6	5.5**	5.8	x	3.3**	4.2*	9.5
Geography	14.9	15.2	16	13.9	16.1	11.2	15.2	13.4**	11.4	15.4	18.1
Business	5.8	x	15.9	4.5*	5.6	6.4*	6.3	x	4.0**	3.6*	10.1
Social Studies	37	36.2	49.8	28.4	39	30.3	38.8	22.8*	29.9	38.3	43.1
Economics	1.9*	x	3.4*	2.5**	1.8*	x	1.9*	x	x	x	3.8*
Arts	14.1	14	18.7	10.7	15	11.0*	13.7	17.3**	10	15.7	16.5
Industrial Arts	10.3	1.8*	27.6	7.7*	11.2	7.4*	11.3	x	5.3*	9.9	16
Health and Physical Education	14.8	14.1	19.9	11.9	15.3	13.3	15.4	10.2**	11.4	14.2	19.2
Vocational subjects	6.4	x	16.5	5.0*	6.6	5.5**	6.6	x	5.4*	5.4*	8.5
Religious Studies	7.9	7.3	9.1	7.8*	9.7	x	7.3	14.0**	6.7*	4.7*	12.8
Multidisciplinary projects or activities	17.3	23.5	12.7	13.2	17.4	16.8	18.2	x	10.7	20.9	20.1
Career studies	19.5	2.9*	39	24.9	17.6	25.7	19.2	23.5*	19.5	16.5	22.9
Other	9.9	11.1	7.9*	9.9*	10.4	8.1*	10.2	x	8.4*	12.5	8.6

Table C-4
Teachers Skills, school year 2003-04
British Columbia

	All schools	Instructional Level of Schools			Location		Type		Size		
		Elementary	Secondary	Mixed	Urban	Rural	Public	Private	Small	Medium	Large
% of schools with teachers possessing the required technical skills to use ICT for administrative purposes... Less than 25% of the teachers	9.4	8.1	10.9*	15.2*	9.1	10.7*	8.4	14.8*	14.8	7.3*	5.8*
From 25% to 50% of the teachers	3.1*	3.6*	x	x	3.6*	x	3.2*	x	x	3.1**	4.7**
From 50% to 75% of the teachers	7.1	8	x	13.0*	7.1	7.3*	5.6	14.6*	6.5*	9.8	4.5**
75% of the teachers or more	80.3	80.3	83.6	71.8	80.2	80.9	82.8	69.5	76.9	79.8	85.1
% of schools with teachers possessing the required technical skills to engage students in using ICT effectively to enhance their learning & Less than 25% of the teachers	24.3	22.8	23.5	37	24.2	24.6	23	30.6	26.2	21.6	25.5
From 25% to 50% of the teachers	13.4	12.6	17.2	x	13.3	13.7	14.2	10.0*	11.3	12.3	17.3
From 50% to 75% of the teachers	27.2	26.8	30.9	19.4*	28.6	21.8	26.9	27.6	21.6	33.2	25.9
75% of the teachers or more	35.2	37.7	28.4	35.5	33.9	40	35.9	31.8	40.9	32.9	31.3
% of schools with technology applications frequently ¹ incorporated into teaching practices & Use of software for special needs students and/or remedial programs providing individualized learning	31.2	32.9	31	19.2*	31.4	30	32.4	25.2	31.7	31.5	30.2
Use of software for specific subject areas	21.8	23.8	16.1	23.5*	21.6	22.6	22	19.6*	23.2	23.4	18.1
Use of spreadsheets and database software for simple data manipulation and statistical analysis	7.2	5.1	9.1*	17.7*	7.1	7.5*	6.3	12.6*	4.0**	8.8	8.8*
Use of word processing	76.8	77.4	77.4	71	77.3	74.7	78.8	64.3	73.3	75.1	83
Use of desktop publishing	18	19	16.2	16.3*	18.7	15.3	17.4	22.8	20	17.4	16.6
Use of presentation software	13.3	10.8	19.5	14.7*	13.5	12.6*	12.7	16.9*	6.9*	15.2	18.3
Use of software supporting creative works	9.6	8.8	11.8	9.5**	10.7	5.4**	9.6	11.1*	6.2*	9.3	14.1
Use of Internet/Intranet to disseminate information	29.2	26.9	37	23.9*	28.8	30.7	30.8	20.9	25.3	32.1	29.9
Use of Internet for online learning	25.3	23.7	26.7	33.4	25.2	25.8	25.6	27.4	21.2	24.8	31
Other	x	x	x	x	x	x	x	x	x	x	x
% of schools with strategies to help teachers learn how to use ICT & Training sessions	7	6.3	7.2*	12.2**	7.4	5.5**	7.5	x	4.7**	7.1*	9.8*
Mentoring/coaching activities with other teachers	17.8	17.7	16.9	20.8*	17.8	17.7	18.2	13.4*	12.6	17.9	23.5
Organized after-school sessions	4	3.7*	3.8**	x	4.7	x	4.2	x	x	3.2**	8.3*
Information-sharing with other staff members/discussion forum	12.8	12.5	12.6	15.5*	12.9	12.6*	13	13.8*	12.4	9.3	18
Staff meetings	5.7	4.9*	5.2**	12.4**	6.2	x	5.4	8.4**	4.8*	5.4*	7.0*
Summer programs	1.5**	1.8**	x	x	1.7**	x	1.6**	x	x	x	x
Courses online	x	x	x	x	x	x	x	x	x	x	x
Informal online-learning	2.9*	2.5*	3.4**	x	2.8*	x	3.1*	x	3.4**	2.9**	x
Formal credit courses	1.2**	1.7**	x	x	1.4**	x	1.1**	x	x	x	x
Personal-learning activities	11.2	10.8	11.6*	13.5**	11.3	11.1*	11.9	10.0**	10.2	11.6	12
Professional development	8.5	8.9	8.7*	x	8.4	9.0*	9.5	x	6.8*	7.8*	11.3
% of schools where ICT learning is included for teacher development in the following subjects:											
Mathematics	26.1	22.2	33	35.2	26	26.5	27.8	17.0*	22.7	29.9	25.3
Physics	4.3	x	12.6*	10.5**	4.2	4.6**	3.8*	7.0**	x	4.1**	6.9*
Chemistry	3.9	x	10.1*	11.6**	4.2*	x	3.8*	x	x	4.1**	6.2*
Biology/Life Science	6.6	3.2*	13.5	12.1**	6.9	5.2**	6.2	9.1**	4.1**	7.6*	8.3*
Earth Science	5.5	3.7*	9.2*	x	6.2	x	6	x	5.5**	4.0**	7.6*
General Science	10.7	8.8	14.5	14.2*	10.3	12.5*	11.6	7.9**	7.2*	11.8	13.7
French	6.6	4.4*	10.1*	12.8**	6.6	6.7**	6.6	7.9**	5.1*	6.6*	8.5*
English	22.7	21	25.9	26.3*	21.8	26.3	24.3	15.9*	20.9	26.6	19.9
Computer Education/Informatics	30.8	25.7	41.1	39.5	32.6	24.2	30.6	33.9	21	35.7	36.8
Other language(s)	2.9*	1.5**	4.4**	x	3.3*	x	2.3*	7.0**	x	x	4.9**
History	6.2	2.0**	13.5	15.7*	7.4	x	5.7	9.3**	3.3**	6.4*	9.4*
Accounting	3.9	x	14.5	x	4.5	x	4	x	x	4.1**	5.4*
Geography	6.5	4.0*	11.1*	11.5**	7.1	4.4**	6.3	9.2**	4.8*	6.7*	8.4*
Business	4.3	x	15.2	x	5.3	x	4.2	x	x	4.5*	8.3*
Social Studies	16.3	12.2	24.9	22.5*	17.5	11.8*	17.3	13.6*	11	20.3	17.8
Economics	1.1**	x	3.7**	x	1.2**	x	x	x	x	x	x
Arts	7.1	3.1*	15.4	13.4*	6.9	8.1*	7.1	7.0**	6.5*	7.1*	7.9*
Industrial Arts	5.4	x	18.2	x	5.8	x	6.1	x	x	7.8*	7.7*
Health and Physical Education	3.2*	x	7.2*	x	3.1*	x	3.3*	x	x	5.8*	3.2**
Vocational subjects	1.4**	x	5.6**	x	1.7**	x	1.7**	x	x	x	x
Religious Studies	1.2**	x	x	x	1.3**	x	x	x	x	2.5**	x
Multidisciplinary projects or activities	14.2	14.2	16	9.6**	13.5	16.7	15.8	8.0**	9.4	15.5	18.4
Career studies	11.4	1.9**	32.3	21.9*	12.1	8.7*	11.9	9.4**	10.1*	12.1	12
Other	10.3	12	7.9*	x	11.3	6.5**	10.4	12.1*	7.4*	12.8	10.6*

