APPENDIX E: Comparisons Between Two Years – CCTT Students

YEAR * Have you ever used a computer? Crosstabulation

			Have you ever used a computer?		
			Yes	No	Total
YEAR	1.00	Count	970	20	990
		% within YEAR	98.0%	2.0%	100.0%
	2.00	Count	3602	62	3664
		% within YEAR	98.3%	1.7%	100.0%
Total		Count	4572	82	4654
		% within YEAR	98.2%	1.8%	100.0%

There was almost no difference in the percentages of students who had ever used a computer.

Report

Mean

YEAR	If yes, how many years?
1.00	6.229
2.00	6.611
Total	6.535

The small increase in years of experience using a computer was statistically significant.

YEAR * Do you use a computer at school? Crosstabulation

			Do you use a computer at school?		
			Yes	No	Total
YEAR	1.00	Count	894	79	973
		% within YEAR	91.9%	8.1%	100.0%
	2.00	Count	3360	257	3617
		% within YEAR	92.9%	7.1%	100.0%
Total		Count	4254	336	4590
		% within YEAR	92.7%	7.3%	100.0%

The small change in the percentage of students using a computer in school was not statistically significant.

Report

Mean

YEAR	If yes, how many hours per week at school?
1.00	4.898
2.00	4.798
Total	4.819

The small difference in the number of hours per week a computer is used at school was not statistically significant.

YEAR * Biology Crosstabulation

			Biology		
			No	Yes	Total
YEAR	1.00	Count	761	256	1017
		% within YEAR	74.8%	25.2%	100.0%
	2.00	Count	2601	1107	3708
		% within YEAR	70.1%	29.9%	100.0%
Total		Count	3362	1363	4725
		% within YEAR	71.2%	28.8%	100.0%

YEAR * Chemistry Crosstabulation

| | | | Chemistry | | Total |
			No	Yes	
YEAR	1.00	Count	941	76	1017
		% within YEAR	92.5%	7.5%	100.0%
	2.00	Count	3136	572	3708
		% within YEAR	84.6%	15.4%	100.0%
Total		Count	4077	648	4725
		% within YEAR	86.3%	13.7%	100.0%

YEAR * Physics Crosstabulation

| | | | Physics | | Total |
			No	Yes	
YEAR	1.00	Count	904	113	1017
		% within YEAR	88.9%	11.1%	100.0%
	2.00	Count	3304	404	3708
		% within YEAR	89.1%	10.9%	100.0%
Total		Count	4208	517	4725
		% within YEAR	89.1%	10.9%	100.0%

YEAR * Mathematics Crosstabulation

| | | | Mathematics | | Total |
			No	Yes	
YEAR	1.00	Count	781	236	1017
		% within YEAR	76.8%	23.2%	100.0%
	2.00	Count	2934	774	3708
		% within YEAR	79.1%	20.9%	100.0%
Total		Count	3715	1010	4725
		% within YEAR	78.6%	21.4%	100.0%

YEAR * English Crosstabulation

| | | | English | | Total |
			No	Yes	
YEAR	1.00	Count	376	641	1017
		% within YEAR	37.0%	63.0%	100.0%
	2.00	Count	1430	2278	3708
		% within YEAR	38.6%	61.4%	100.0%
Total		Count	1806	2919	4725
		% within YEAR	38.2%	61.8%	100.0%

YEAR * Social Studies Crosstabulation

			Social Studies		Total
			No	Yes	
YEAR	1.00	Count	834	183	1017
		% within YEAR	82.0%	18.0%	100.0%
	2.00	Count	2286	1422	3708
		% within YEAR	61.7%	38.3%	100.0%
Total		Count	3120	1605	4725
		% within YEAR	66.0%	34.0%	100.0%

YEAR * Foreign Lanuages Crosstabulation

			Foreign Lanuages		Total
			No	Yes	
YEAR	1.00	Count	823	194	1017
		% within YEAR	80.9%	19.1%	100.0%
	2.00	Count	2771	937	3708
		% within YEAR	74.7%	25.3%	100.0%
Total		Count	3594	1131	4725
		% within YEAR	76.1%	23.9%	100.0%

YEAR * Vocational Courses Crosstabulation

			Vocational Courses		Total
			No	Yes	
YEAR	1.00	Count	846	171	1017
		% within YEAR	83.2%	16.8%	100.0%
	2.00	Count	3435	273	3708
		% within YEAR	92.6%	7.4%	100.0%
Total		Count	4281	444	4725
		% within YEAR	90.6%	9.4%	100.0%

YEAR * Business Courses Crosstabulation

			Business Courses		Total
			No	Yes	
YEAR	1.00	Count	874	143	1017
		% within YEAR	85.9%	14.1%	100.0%
	2.00	Count	3062	646	3708
		% within YEAR	82.6%	17.4%	100.0%
Total		Count	3936	789	4725
		% within YEAR	83.3%	16.7%	100.0%

In Biology, Chemistry, Social Studies, Foreign Languages and Business courses, the percentage of students reporting using a computer in the class increased significantly. In Vocational Education, the percentage of students using a computer decreased significantly.

YEAR * Do you use a computer at home? Crosstabulation

			Do you use a computer at home?		
			Yes	No	Total
YEAR	1.00	Count	763	214	977
		% within YEAR	78.1%	21.9%	100.0%
	2.00	Count	3066	563	3629
		% within YEAR	84.5%	15.5%	100.0%
Total		Count	3829	777	4606
		% within YEAR	83.1%	16.9%	100.0%

The percentage of students reporting using a computer at home increased significantly from year one to year two.

Report

Mean

YEAR	If yes, how many hours per week at home?
1.00	9.116
2.00	9.811
Total	9.673

The difference in the number of hours per week using a computer at home was not statistically significant.

YEAR * Has the computer made doing homework... Crosstabulation

			Has the computer made doing homework...			
			Easier	About the same	Harder	Total
YEAR	1.00	Count	554	261	20	835
		% within YEAR	66.3%	31.3%	2.4%	100.0%
	2.00	Count	2268	1202	70	3540
		% within YEAR	64.1%	34.0%	2.0%	100.0%
Total		Count	2822	1463	90	4375
		% within YEAR	64.5%	33.4%	2.1%	100.0%

There was not a significant difference in the responses of the students over the two years.

YEAR * Help from parents Crosstabulation

			Help from parents		Total
			No	Yes	
YEAR	1.00	Count	641	376	1017
		% within YEAR	63.0%	37.0%	100.0%
	2.00	Count	2515	1193	3708
		% within YEAR	67.8%	32.2%	100.0%
Total		Count	3156	1569	4725
		% within YEAR	66.8%	33.2%	100.0%

YEAR * Help from brother or sister Crosstabulation

			Help from brother or sister		Total
			No	Yes	
YEAR	1.00	Count	774	243	1017
		% within YEAR	76.1%	23.9%	100.0%
	2.00	Count	2816	892	3708
		% within YEAR	75.9%	24.1%	100.0%
Total		Count	3590	1135	4725
		% within YEAR	76.0%	24.0%	100.0%

YEAR * Help from teacher Crosstabulation

			Help from teacher		Total
			No	Yes	
YEAR	1.00	Count	462	555	1017
		% within YEAR	45.4%	54.6%	100.0%
	2.00	Count	2086	1622	3708
		% within YEAR	56.3%	43.7%	100.0%
Total		Count	2548	2177	4725
		% within YEAR	53.9%	46.1%	100.0%

YEAR * Help from another adult Crosstabulation

			Help from another adult		Total
			No	Yes	
YEAR	1.00	Count	822	195	1017
		% within YEAR	80.8%	19.2%	100.0%
	2.00	Count	3180	528	3708
		% within YEAR	85.8%	14.2%	100.0%
Total		Count	4002	723	4725
		% within YEAR	84.7%	15.3%	100.0%

YEAR * Help from a friend Crosstabulation

			Help from a friend		
			No	Yes	Total
YEAR	1.00	Count	567	450	1017
		% within YEAR	55.8%	44.2%	100.0%
	2.00	Count	2110	1598	3708
		% within YEAR	56.9%	43.1%	100.0%
Total		Count	2677	2048	4725
		% within YEAR	56.7%	43.3%	100.0%

YEAR * Help from another source Crosstabulation

			Help from another source		
			No	Yes	Total
YEAR	1.00	Count	861	156	1017
		% within YEAR	84.7%	15.3%	100.0%
	2.00	Count	3127	581	3708
		% within YEAR	84.3%	15.7%	100.0%
Total		Count	3988	737	4725
		% within YEAR	84.4%	15.6%	100.0%

There were three areas where the percentage of students reporting help changed significantly, all decreasing. They were help from parents, teachers and other adults.

YEAR * Games Crosstabulation

			Games		
			No	Yes	Total
YEAR	1.00	Count	97	920	1017
		% within YEAR	9.5%	90.5%	100.0%
	2.00	Count	353	3355	3708
		% within YEAR	9.5%	90.5%	100.0%
Total		Count	450	4275	4725
		% within YEAR	9.5%	90.5%	100.0%

YEAR * Word Processor Crosstabulation

			Word Processor		
			No	Yes	Total
YEAR	1.00	Count	171	846	1017
		% within YEAR	16.8%	83.2%	100.0%
	2.00	Count	666	3042	3708
		% within YEAR	18.0%	82.0%	100.0%
Total		Count	837	3888	4725
		% within YEAR	17.7%	82.3%	100.0%

YEAR * E-mail Crosstabulation

			E-mail		
			No	Yes	Total
YEAR	1.00	Count	345	672	1017
		% within YEAR	33.9%	66.1%	100.0%
	2.00	Count	614	3094	3708
		% within YEAR	16.6%	83.4%	100.0%
Total		Count	959	3766	4725
		% within YEAR	20.3%	79.7%	100.0%

YEAR * World Wide Web - Internet Crosstabulation

			World Wide Web - Internet		
			No	Yes	Total
YEAR	1.00	Count	148	869	1017
		% within YEAR	14.6%	85.4%	100.0%
	2.00	Count	517	3191	3708
		% within YEAR	13.9%	86.1%	100.0%
Total		Count	665	4060	4725
		% within YEAR	14.1%	85.9%	100.0%

YEAR * Research-Information Crosstabulation

			Research-Information		
			No	Yes	Total
YEAR	1.00	Count	151	866	1017
		% within YEAR	14.8%	85.2%	100.0%
	2.00	Count	563	3145	3708
		% within YEAR	15.2%	84.8%	100.0%
Total		Count	714	4011	4725
		% within YEAR	15.1%	84.9%	100.0%

YEAR * Chat rooms Crosstabulation

			Chat rooms		
			No	Yes	Total
YEAR	1.00	Count	438	579	1017
		% within YEAR	43.1%	56.9%	100.0%
	2.00	Count	1401	2307	3708
		% within YEAR	37.8%	62.2%	100.0%
Total		Count	1839	2886	4725
		% within YEAR	38.9%	61.1%	100.0%

YEAR * Spreadsheet Crosstabulation

| | | | Spreadsheet | | Total |
			No	Yes	
YEAR	1.00	Count	579	438	1017
		% within YEAR	56.9%	43.1%	100.0%
	2.00	Count	2167	1541	3708
		% within YEAR	58.4%	41.6%	100.0%
Total		Count	2746	1979	4725
		% within YEAR	58.1%	41.9%	100.0%

YEAR * Art or Graphics Crosstabulation

| | | | Art or Graphics | | Total |
			No	Yes	
YEAR	1.00	Count	314	703	1017
		% within YEAR	30.9%	69.1%	100.0%
	2.00	Count	1416	2292	3708
		% within YEAR	38.2%	61.8%	100.0%
Total		Count	1730	2995	4725
		% within YEAR	36.6%	63.4%	100.0%

YEAR * Programming Crosstabulation

| | | | Programming | | Total |
			No	Yes	
YEAR	1.00	Count	694	323	1017
		% within YEAR	68.2%	31.8%	100.0%
	2.00	Count	2614	1094	3708
		% within YEAR	70.5%	29.5%	100.0%
Total		Count	3308	1417	4725
		% within YEAR	70.0%	30.0%	100.0%

YEAR * Graphing Calculator Crosstabulation

| | | | Graphing Calculator | | Total |
			No	Yes	
YEAR	1.00	Count	710	307	1017
		% within YEAR	69.8%	30.2%	100.0%
	2.00	Count	2651	1057	3708
		% within YEAR	71.5%	28.5%	100.0%
Total		Count	3361	1364	4725
		% within YEAR	71.1%	28.9%	100.0%

YEAR * Calculator based labs and interfaces Crosstabulation

			Calculator based labs and interfaces		Total
			No	Yes	
YEAR	1.00	Count	797	220	1017
		% within YEAR	78.4%	21.6%	100.0%
	2.00	Count	3025	683	3708
		% within YEAR	81.6%	18.4%	100.0%
Total		Count	3822	903	4725
		% within YEAR	80.9%	19.1%	100.0%

YEAR * Virtual reality GPS Crosstabulation

			Virtual reality GPS		Total
			No	Yes	
YEAR	1.00	Count	847	170	1017
		% within YEAR	83.3%	16.7%	100.0%
	2.00	Count	3194	514	3708
		% within YEAR	86.1%	13.9%	100.0%
Total		Count	4041	684	4725
		% within YEAR	85.5%	14.5%	100.0%

YEAR * GIS modeling software Crosstabulation

			GIS modeling software		Total
			No	Yes	
YEAR	1.00	Count	965	52	1017
		% within YEAR	94.9%	5.1%	100.0%
	2.00	Count	3425	283	3708
		% within YEAR	92.4%	7.6%	100.0%
Total		Count	4390	335	4725
		% within YEAR	92.9%	7.1%	100.0%

There were seven areas where the percentage of students reporting using computers changed significantly. In the use of e-mail and chat rooms, the percentage of students increased significantly. For art/graphics, calculator based labs and interfaces and virtual reality GPS software the percentage of students decreased significantly.

YEAR * Printer Crosstabulation

			Printer		
			No	Yes	Total
YEAR	1.00	Count	74	943	1017
		% within YEAR	7.3%	92.7%	100.0%
	2.00	Count	550	3158	3708
		% within YEAR	14.8%	85.2%	100.0%
Total		Count	624	4101	4725
		% within YEAR	13.2%	86.8%	100.0%

YEAR * CD Rom Crosstabulation

			CD Rom		
			No	Yes	Total
YEAR	1.00	Count	149	868	1017
		% within YEAR	14.7%	85.3%	100.0%
	2.00	Count	768	2940	3708
		% within YEAR	20.7%	79.3%	100.0%
Total		Count	917	3808	4725
		% within YEAR	19.4%	80.6%	100.0%

YEAR * Scanner Crosstabulation

			Scanner		
			No	Yes	Total
YEAR	1.00	Count	467	550	1017
		% within YEAR	45.9%	54.1%	100.0%
	2.00	Count	1581	2127	3708
		% within YEAR	42.6%	57.4%	100.0%
Total		Count	2048	2677	4725
		% within YEAR	43.3%	56.7%	100.0%

YEAR * Projector devices Crosstabulation

			Projector devices		
			No	Yes	Total
YEAR	1.00	Count	759	258	1017
		% within YEAR	74.6%	25.4%	100.0%
	2.00	Count	2699	1009	3708
		% within YEAR	72.8%	27.2%	100.0%
Total		Count	3458	1267	4725
		% within YEAR	73.2%	26.8%	100.0%

There were two devices where student use changed significantly. In both printer and CD-ROM use, the percentage of students decreased.

YEAR * Which type of computer do you find easier to use? Crosstabulation

			Which type of computer do you find easier to use?				
			Mac	IBM or PC	Other	More than one kind	Total
YEAR	1.00	Count	211	397	338		946
		% within YEAR	22.3%	42.0%	35.7%		100.0%
	2.00	Count	767	1717	580	211	3275
		% within YEAR	23.4%	52.4%	17.7%	6.4%	100.0%
Total		Count	978	2114	918	211	4221
		% within YEAR	23.2%	50.1%	21.7%	5.0%	100.0%

A significantly higher percentage of students reported the IBM or PC easier to use in the most recent survey than did those responding to the previous survey.

YEAR * When you started to use a computer in school - which did you use? Crosstabulation

			When you started to use a computer in school - which did you use?				
			Mac	IBM or PC	Other	More than one kind	Total
YEAR	1.00	Count	440	169	339		948
		% within YEAR	46.4%	17.8%	35.8%		100.0%
	2.00	Count	1794	965	322	151	3232
		% within YEAR	55.5%	29.9%	10.0%	4.7%	100.0%
Total		Count	2234	1134	661	151	4180
		% within YEAR	53.4%	27.1%	15.8%	3.6%	100.0%

Both Macs and IBM/PC's showed a statistically significant increase in the students' first experience with computers. Others showed a significant decrease.