



5. St Vincent: Quantitative survey

BACKGROUND:

Previous chapters concerning Trinidad and Barbados showed that females performed better in school than males. In the Trinidadian example, consideration began with a survey (confirming the superiority of female performance) and provided evidence of within-class actions that supported the performance of females. In Barbados, the project confirmed speculation that females performed better in schools than males; yet anomalies due to paternal and maternal occupation and with whom the child lives were identified. Some of the anomalies were explored in depth through classroom observations in a prestige secondary school and in a female-only secondary school. Both Trinidad and Barbados are among the islands in the Caribbean whose provision of schools allows all children to attend at primary and secondary levels.

Discussions within the Caribbean acknowledged that universal primary and secondary education was not characteristic of all the islands. Speculation was made concerning the participation and performance of females in situations where there was limited access to secondary school places. A quantitative study was deemed necessary to investigate participation and attainment levels in an educational system that allowed for universal primary education but restricted entry (due to limited places) to secondary schools. This study would investigate:

- 1) whether there was a higher proportion of females than males in secondary schools;
- 2) whether there was consistent superior female performance in both primary and secondary schools on within-class and national measures of school attainment; and
- 3) whether restricted entry to secondary schools affected children's expected career and educational opportunities.

St Vincent was identified as a island which displayed the differences in primary and secondary school places for children. Upon discussion with the Ministry of Education (St Vincent and the Grenadines) we agreed that a representative study could be undertaken in primary and secondary schools which replicated the previous Barbados study.

Setting the scene:

Who participates in schooling in St Vincent?

The school system in St Vincent is financed by the government and provides local primary schools throughout the island for all children. Entry to selective and stratified secondary schools is based upon levels attained on the Common Entrance Examination. While there are a number of secondary schools distributed around the island, the two high status schools (with established educational histories) are the male-only grammar and female-only high school. These schools are located in the main town, Kingstown.

The quantitative survey was undertaken with four specific age groups: Junior 2 (7 to 8 year olds), Junior 5 (11 to 12 year olds), the main primary school leaving group if the

children had successfully passed their CEE), Form 2 (13 to 14 year olds) and Form 4 (16 to 17 year olds). Table 5.1 displays the island-wide distribution of males and females within these age groups (statistics taken from St Vincent and Grenadines, Ministry of Education, 1996).

Table 5.1: Island-wide distribution of males and females attending school within the age groups of the survey (percentage of sex type per age group in brackets)

AGE GROUP/ Sex	Junior 2	Junior 5	Form 2	Form 4
Male	1532(53.6)	1238(45.5)	754(41.8)	570(38.7)
Female	1328(46.4)	1481(54.5)	1050(58.2)	904(61.3)
Total	2860(100)	2719(100)	1804(100)	1474(100)

Total school enrolment for children in St Vincent and the Grenadines was 22149 in 1995/6, and there was a slightly greater number of males than females (11630 males and 10519 females) attending school in that year. Table 5.1 shows a proportional (and numerical) decline in school participation by both boys and girls. Based on this distribution, readers will see that there are fewer secondary school places for students, approximately 60% of the primary school cohort will gain entry to secondary school places. The decline within the secondary schools, though, was far more evident among males than females.

The Sample:

As with the Barbados quantitative survey, we wished the St Vincent sample to be representative, to provide information on the participation of girls and boys in schooling, to assess underlying reasons for within-class and national attainment and to question

whether attainment was related to career and educational expectations of children. Because of the number and location of primary and secondary schools on the island, it was agreed with the Ministry of Education that the sample would be:

- a. proportional with regard to educational district,
- b. stratified with regard to ages of children (Junior 2, Junior 5, Form 2, and Form 4) and types of secondary schools (co-educational, single-sex),
- c. focused to ensure a range of **CXC** performance of secondary schools, and
- d. clustered to gain information from whole classes within the selected schools.

All of the schools in this survey were state-funded. (There are very few private schools in St Vincent (three primary schools and no secondary schools) and none were included in this sample.) Of the sixty state-funded primary schools in St Vincent, the survey drew upon twelve schools (20% of the total). Of the twenty-one secondary schools, the survey drew upon seven schools (33% of the total). Among the secondary schools focused upon, the top performing (by CXC Examination results) schools included the male-only, the female-only single-sex schools and a co-educational school. All other secondary schools were co-educational and presented a range of mid to low CXC performance. All of the primary schools were co-educational. Overall, data was recorded for 1379 children. There were 916 primary school pupils and 463 secondary students surveyed.

The survey profile of parental occupations from the St Vincent sample was slightly different from the reported Barbados sample, displaying a higher proportion of craft and elementary labouring work undertaken by fathers (Table 5.2) and by mothers (Table 5.3).

Table 5.2: Paternal occupations of St Vincent sample

Value Label	Frequency	Percent	Valid Percent	Cum Percent
top managers	17	1.2	1.5	1.5
professionals	44	3.2	3.9	5.4
tech assoc prof	98	7.1	8.8	14.2
clerks	20	1.5	1.8	16.0
service/sales	150	10.9	13.4	29.4
skilled agric/fish	15	1.1	1.3	30.7
crafts	274	19.9	24.5	55.2
machine operators	16	1.2	1.4	56.6
elementary	302	21.9	27.0	83.6
unemployed	40	2.9	3.6	87.1
vague	112	8.1	10.0	97.1
immigrant	17	1.2	1.5	98.7
deceased	13	.9	1.2	99.8
student	2	.1	.2	100.0
no occupation identified	259	18.8	Missing	
Total	1379	100.0	100.0	

Table 5.3: Maternal occupations of the St Vincent sample

Value Label	Frequency	Percent	Valid Percent	Cum Percent
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top managers	7	.5	.6	.6
professionals	95	6.9	7.5	8.0
tech assoc prof	23	1.7	1.8	9.9
clerks	85	6.2	6.7	16.5
service/sales	109	7.9	8.6	25.1
crafts	39	2.8	3.1	28.2
machine operators	7	.5	.6	28.8
elementary	488	35.4	38.5	67.2
unemployed	148	10.7	11.7	78.9
housewife	195	14.1	15.4	94.2
vague	48	3.5	3.8	98.0
immigrant	18	1.3	1.4	99.4
deceased	6	.4	.5	99.9
student	1	.1	.1	100.0
no occupation identified	110	8.0	Missing	
Total	1379	100.0	100.0	

Information provided by the survey:

1. *Who is succeeding in school?*

This first question explored whether the superior attainment performance of females within the St Vincent sample was the same as found in Barbados. The comparisons drew

upon the raw end-of-term scores from each class, the standard deviated (standardised) within-class scores for all children, and the CEE scores for the secondary school students. Analyses were undertaken for the whole sample and at each year level. Within-class scores included an average of core curriculum scores and subject scores in English, mathematics, science and social studies.

Within-class attainment: Drawing upon the 'raw' scores assigned by the teachers on the end-of-term examinations, girls were found to attain higher percentage grades and perform at a higher standardised level overall (Table 5.4). While girls performed at a higher level than boys, their performance was not consistently higher in all curriculum areas (a finding distinct from Barbados and Trinidad). Girls' attainment excelled in English and social studies. Their attainment was not significantly higher than boys in mathematics or the sciences.

Table 5.4: Raw and standard deviated scores for core subjects and significance of differences between boys and girls.

Core Course	Average Male Score	Average Female Score	Difference based on Raw Score	Difference based on S.D. Score
Average	52.32	54.70	F1,1249= 7.454, p<0.0064	F1,1228= 5.983, p<0.015
English	50.39	55.06	F1,1234= 21.355, p<0.0001	F1,1213= 19.750, p<0.0001
Maths	49.64	49.20	N.S.	N.S.
Integrated Science	55.06	56.77	N.S.	N.S.
Social Studies	54.84	58.70	F1,1164= 12.925, p<0.0001	F1,1143= 12.925, p<0.0001

Social Studies	54.84	58.70	F(1,110) = 13.229, p < 0.0003	N.S.
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When the within-class attainments were explored by year in school, even fewer differences were found between the performance of boys and girls. There were no significant differences in attainment between boys and girls in any of the core curriculum subjects at the Junior 2 level. At Junior 5, girls attained higher raw scores in English, mathematics and social studies, although the standardised score only confirmed this result in English. At second form, boys attained higher raw scores in mathematics but this was not confirmed using the standardised scores and girls scored higher on the standardised scores in English. At fourth form, girls scored significantly higher in English, social studies and biology but the standardised scores only confirmed this result in English. The disparity between raw and standardised results is important; raw scores tell that girls were assigned higher scores than boys but within the classes the standardised scores did not show as many differences in performance between males and females as were found elsewhere in the Caribbean.

Differences between boys and girls were also explored with regard to the type of school attended. In these analyses, the average and English scores were used for comparison. Differences showed that girls attained higher within-class and standardised scores in primary schools (all of these schools were co-educational) and these differences were also found in the mid-attaining co-educational secondary schools. Differences between the attainments of boys and girls were not found among the low attaining and high attaining secondary schools (Table 5.5).

Table 5.5: Raw and standardised score performance of boys and girls by type of school attended (for co-educational schools only), drawing upon average scores and scores in English

Type of school	Average Male Score	Average Female Score	Difference based on Raw Score	Difference based on S.D. Score
Primary Average	51.13	35.27	F1,797=3.295, p<0.069	N.S.
English	49.61	54.06	F1,788=10.796' p<0.0011	F1,788=9.239/ p<0.0024
Secondary (low att)				
Average	53.12	53.45	N.S.	N.S.
English	51.77	56.99	N.S.	N.S.
Secondary (mid att)				
Average	49.48	54.39	F1,149=6.159, p<0.014	F1,144=15.092/ p<0.0001
English	41.28	49.21	F1,144=15.092, p<0.0002	F1,144=18.382, P<0.0001
Secondary (high att)				
Average	51.08	50.97	N.S.	N.S.
English	48.00	52.59	N.S.	N.S.

CEE, a national comparison

Descriptive statistics indicate that girls were likely to attain at higher levels than boys at both primary and secondary school levels generally. The CEE scores taken at the end of the primary school present a very different picture. These scores were collected for all second and fourth form children in the sample. The scores represent only those who were

successful on the examination and gained one of the limited number of places in secondary schools. There was virtually no difference in the average CEE scores for boys and girls; average for boys was 171.63 and average for girls was 171.66. While the scores for the boys and girls were nearly the same, the number of children that completed the CEE by sex tells a different story. Data for males was collected from 107 boys and data was collected from 253 females. Two points can be made from this data: first, students who successfully completed the CEE gained near-equivalent scores although there were nearly 2.5 females who were successful for every male; and second, although starting secondary schools with nearly equal CEE scores, girls were still more successful within their classes - especially in English.

2. What was the distribution of male and female pupils in each of the year levels: was there evidence of male drop-out or were girls restricted entry to secondary schools?

Overall, there were more girls than boys attending school in the sample and at each age level (Table 5.6). Within the primary schools there were slightly more girls than boys at each of the year levels. Within the secondary schools there was a dramatic drop off in the number of boys attending at the second and fourth forms. The drop off in male presence at secondary schools mirrored the national statistics. The drop off also shows that selective entry to secondary education was not dominated by equality (in number of boys and girls attending), nor was it dominated by males usurping secondary school places that characterise other developing countries (Brock & Cammish, 1997).

Table 5.6: Total number of males and females in the sample and distribution at each year level surveyed (percentage by year group in brackets)

SEX	YEAR IN SCHOOL				Row
	Junior 2	Junior 5	Form 2	Form 4	

	Junior 2	Junior 5	Form 2	Form 4	Total
male	154	262	80	71	567
	(44.9)	(45.9)	(33.6)	(31.6)	(41.2)
female	189	309	158	154	810
	(55.1)	(54.1)	(66.4)	(68.4)	(58.8)
Column	343	571.	238	225	1377
Total	(25.3)	(42.1)	(17.6)	(16.3)	(100.0)

Focusing on boys only, we questioned whether consideration of parental occupation helps to provide an explanation for the dramatic drop-off of male participation at secondary school. Tables 5.7 and 5.8 display that most of the drop-off took place among boys whose parents worked in crafts and unskilled occupations. Boys whose parents worked in skilled and professional/managerial occupations were more likely to stay-on in secondary school.

Table 5.7: (Grouped) Paternal occupations of boys in school by year level excluding incomplete figures from form 4 (row and column percentages in brackets)

FATHER OCC.	EAR IN SCHOOL			Row Total
	Junior 2	Junior 5	Form 2	
craft/elem/unemp	81	146	29	256
	(31.6)	(57.0)	(11.3)	(69.2)
	(68.6)	(73.7)	(53.7)	
clerk/service/sk	16	26	15	57
	(28.1)	(45.6)	(26.3)	(15.4)

	(13.6)	(13.1)	(27.8)	
professional/man	21	26	10	57
	(36.8)	(45.6)	(17.5)	(15.4)
	(17.8)	(13.1)	(18.5)	
Column	118	198	54	370
Total	(31.9)	(53.5)	(14.6)	(100.0)

Table 5.8: (Grouped) Maternal occupations of boys in school by year level excluding incomplete figures from Form 4 (row and column percentages in brackets)

MOTHER OCC.	YEAR IN SCHOOL			Row Total
	Junior 2	Junior 5	Form 2	
manager/prof	13	22	16	51
	(25.5)	(43.1)	(31.4)	(11.9)
	(10.5)	(9.3)	(23.5)	
clerk/service	12	31	21	64
	(18.8)	(48.4)	(32.8)	(15.0)
	(9.7)	(13.1)	(30.9)	
craft/unskilled/	83	154	15	252
	(32.9)	(61.1)	(6.0)	(58.9)
	(66.9)	(65.3)	(22.1)	
housewife	16	29	16	61
	(26.2)	(47.5)	(26.2)	(14.3)

	(12.9)	(12.3)	(23.5)	
Column	124	236	68	428
Total	(29.0)	(55.1)	(15.9)	(100.0)

3. What other explanations can be provided for school-based success and failure?

3. What other explanations can be provided for school-based success and failure?

Within-class and CEE results and parental occupation: The Barbados survey showed that there were significant differences in attainment due to parental occupation, especially that of the mother, and that these differences accounted for more of the variance in attainment scores than the sex of the child. A

similar set of analyses were undertaken on the St Vincent data. For this analysis, the occupations of the father were broken down into three groupings: professional/managerial, clerk/skilled, and craft/unskilled. The occupations of the mother were broken down into four groupings: professional/managerial, clerk/skilled, craft/unskilled, and housewife. Using the raw within-class attainment scores in each of the core curriculum subjects and CEE many significant differences were found with regard to the occupations of father and mother. The higher the occupational level (and educational background) of the father, the higher the average and core curriculum and CEE scores for the child. This statement is made with regard to averaged grades in each subject and most of the curriculum subjects at each age level (Table 5.9) and is replicated using the standardised attainment scores. Focusing on the magnitude of differences between the different year levels in school, readers will note that differences between children of professional and craft background at secondary schools were not as wide as found in the

primary school years. While there were significant differences between children from different paternal backgrounds in the secondary schools, the selection to gain entry into secondary school obviously withdrew a number of the (potentially) lower attaining children from the sample. Analyses for occupation of the mother paralleled those of the father; this was not surprising as there was a significant correlation between occupations of parents ($\rho = 0.358$, $p < 0.0001$). A more focused view of Table 5.10 shows that the general relationship between maternal occupation and within-class results did not remain the same at all year levels; the relationship between maternal occupation and subject attainment virtually disappeared at the second and fourth forms (Table 5.10). A possible explanation for the non-significant differences in within-class attainments explained by maternal occupation may be the gradual drop-off in school participation of children from the craft and unskilled parental occupations. The remaining children in school will be supported by a more educated and skilled home background, as well as being the children who have succeeded in their earlier years of schooling.

Table 5.9: Within-class attainment averaged by (grouped) paternal occupation

SUBJECT/ Yr.Level	AVERAGE	ENGLISH	MATHS	SCIENCE	SOC.ST.
Overall					
prof..	61.90	61.87	58.94	62.76	64.78
clerk..	54.92	54.65	50.01	56.78	58.69
craft..	52.13	51.27	48.21	54.52	55.09
Signif.	F2,885=24.319, p<0.0001	F2,877=21.691, p<0.0001	F2,878=18.473, p<0.0001	F2,813=10.616, p<0.0001	F2,823=16.852, p<0.0001
Junior 2					

prof..	70.77	73.63	67.33	73.52	68.59
clerk..	59.15	59.82	54.39	64.03	58.17
craft..	60.48	60.95	55.85	63.38	61.47
Signif.	F2,190=5.363, p<0.0054	F2,189=5.885, p<0.0033	F2,190=4.060, p<0.0188	F2,188=3.595, p<0.0294	N.S.
Junior 5					
prof..	57.22	56.02	57.21	57.09	59.75
clerk..	49.01	50.35	44.39	51.22	51.63
craft..	46.76	45.72	44.09	49.14	48.90
Signif.	F2,404=10.909, p<0.0001	F2,399=8.795, p<0.0002	F2,404=13.314, p<0.0001	F2,388=4.351, p<0.0135	F2,382=8.428, p<0.0003
Form 2					
prof..	65.90	65.67	59.71	67.16	71.10
clerk..	62.08	58.67	60.49	60.19	69.77
craft..	58.44	56.61	55.18	58.91	62.65
Signif.	F2,144=5.585, p<0.0046	F2,143=4.127, p<0.0181	N.S.	F2,143=3.551, p<0.0312	F2,128=4.149, p<0.0179
Form 4					
prof..	58.62	58.00	53.97	56.06	64.38
clerk..	53.59	52.07	43.18	55.25	63.61
craft..	51.70	50.41	43.54	54.26	59.32
Signif.	F2,138=5.265,	F2,137=5.259,	F2,131=4.694,	N.S.	F2,117=3.501,

	p<0.0063	p<0.0063	p<0.0107		p<0.0334
Average CEE scores					
prof..	186.45	N.A.	N.A.	N.A.	N.A.
clerk..	173.44				
craft..	166.35				
Signif.	F2,236=6.237, p<0.0023				

Table 5.10: Within-class attainment averaged by (grouped) maternal occupation

SUBJECT/ Yr.Level	AVERAGE	ENGLISH	MATHS	SCIENCE	SOC.ST.
Overall					
prof..	60.58	60.26	56.31	63.60	64.33
clerk..	56.50	54.98	52.46	57.27	61.88
craft..	51.64	51.16	46.96	55.00	54.84
h/wife	54.09	52.62	50.44	55.09	57.66
Signif.	F3,1083=14.3290, p<0.0001	F3,1072=9.905, p<0.0001	F3,1075=9.925, p<0.0001	F3,979=7.108, p<0.0001	F3,1016=13.201, p<0.0001
Junior 2					
prof..	73.24	73.16	69.95	76.42	73.42
clerk..	66.40	63.95	63.95	67.09	70.62
craft..	59.99	61.12	54.57	63.74	60.45

h/wife	53.89	52.12	47.08	61.08	54.50
Signif.	F3,206=6.868, p<0.0003	F3,205=4.596, p<0.0039	F3,206=5.470, p<0.0012	F3,205=3.345, p<0.0199	F3,203=6.195, p<0.0005
Junior 5					
prof..	58.21	57.92	55.47	60.13	59.95
clerk..	50.12	48.18	47.88	52.56	52.11
craft..	46.20	45.60	43.08	49.38	48.19
h/wife	51.85	51.16	49.97	51.23	55.31
Signif.	F3,495=9.317, p<0.0001	F3,488=7.099, p<0.0001	F3,495=8.261, p<0.0001	F3,477=4.386, p<0.0046	F3,469=7.359, p<0.0001
Form 2					
prof..	61.27	60.79	56.07	62.41	65.68
clerk..	61.12	59.45	56.31	59.53	70.02
craft..	59.92	58.52	55.11	60.94	66.15
h/wife	56.65	53.76	54.63	58.07	61.19
Signif.	N.S.	N.S.	N.S.	N.S.	N.S.
Form 4					
prof..	55.25	54.91	49.44	59.06	62.39
clerk..	54.09	54.10	46.63	54.74	61.89
craft..	51.57	49.20	41.92	56.83	61.14
h/wife	56.02	54.82	48.23	56.00	61.25
Signif.	N.S.	F3,177=3.337,	N.S.	N.S.	N.S.

Average CEE scores					
prof..	182.44	N.A.	N.A.	N.A.	N.A.
clerk..	179.33				
craft..	162.31				
h/wife	171.79				
Signif.	F3,296=6.249, p<0.0004				

Parental occupation by type of school attended: Occupation of parents was an important factor in the explanation of the presence of particular children in stratified types of secondary schools in both Trinidad and Barbados, and a similar expectation was held for St Vincent. Analyses focused solely on secondary schools, as this is where stratification within the school system occurs. Tables 5.11 and 5.12 clearly show that children whose fathers and mothers were employed in managerial or professional positions were most likely to attend the top attaining schools in the sample. The difference in distribution between children from various parental occupations within secondary school types was not significant for paternal occupation but was highly significant for maternal occupation ($\chi^2(6)=19.242, p<0.004$). Table 5.11 shows a higher proportion of children from a professional/managerial background attended the high attainment secondary schools.

Table 5.11: Distribution of students in types of secondary school by grouped paternal occupation (percentage of occupation by school types in brackets)

SEC. SCHOOL TYPE	FATHER'S OCCUPATION	Row Total

	prof/ man	clerk/ skill	craft/ unskill	
sec.-low att	8	12	39	59
	(12.1)	(18.8)	(23.5)	(19.9)
sec.-mid att	15	23	51	89
	(22.7)	(35.4)	(30.7)	(30.1)
sec.-high att	43	29	76	148
	(65.2)	(45.3)	(45.8)	(50.0)
Column	66	64	166	296
Total	(22.3)	(21.6)	(56.1)	(100.0)

Table 5.12: Distribution of students in types of secondary school by grouped maternal occupation (percentage of occupation by school types in brackets)

SEC. SCHOOL TYPE	MATHER'S OCCUPATION				Row Total
	prof/ man	clerk/ skill	craft/ unskill	house-wife	
sec.-low att	10	17	50	16	93
	(15.5)	(18.9)	(32.9)	(19.5)	(24.0)
sec.-mid att	16	29	54	26	125
	(25.4)	(32.2)	(35.5)	(31.7)	(32.3)
sec.-high att	37	44	48	40	169
	(58.7)	(48.9)	(31.6)	(48.8)	(43.7)
Column	63	90	152	82	387
Total	(16.3)	(23.3)	(39.3)	(21.9)	100.0)

Raw scores and CEE scores by type of secondary school: The difference in social background of those attending the various types of secondary schools is shown in a slightly different way when considering whether the different types of secondary school provide differential feedback to their students. Table 5.13 clearly displays that the higher attaining schools awarded the highest within-class scores to their students. Also, the students in the top attaining schools scored higher on their CEE examinations. This finding shows a significant differentiation on the part of schools and teachers. Within-class scores were assigned by each teacher, based on the work that the class covered in each subject over the term. Theoretically, each type of school could and should provide the same range and average scores for its students. The table clearly shows that the high attaining school provided the highest scores for students (Scheffe post hoc analysis) and there was little differentiation between the mid and low attaining schools.

Table 5.13: Average end-of-term, core curriculum subject and CEE scores for types of secondary school

Type of school	Average score	English	Maths	Science	Social Studies	CEE
High Att	61.03	61.83	55.08	62.02	66.88	191.16
Mid Att	52.54	46.27	51.07	50.52	63.56	158.73
Low Att	53.36	55.59	39.67	60.85	59.59	160.04
Diff	F2 110=20 222	F2 113=63 587	F2 128=23 320	F2 351=22 103	F2 202=8 875	F2 320=62 356

Diff.	F2,443=29.202, p<0.0001	F2,443=33.307, p<0.0001	F2,433=29.333, p<0.0001	F2,331=22.433, p<0.0001	F2,333=8.873, p<0.0002	F2,333=82.330, p<0.0001
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Even within the top attaining secondary schools, there was a significant difference between the three schools that made-up this grouping. The three schools included the high status male-only grammar school, the high status female-only school and a co-educational school. CEE scores show that girls attending the female-only school attained the highest scores, followed by the male-only and co-educational schools. The school giving the highest within-class scores to students was the female-only school. These scores were closely followed by the male-only school. Both of the single-sex schools gave higher scores to their students than the co-educational school (Table 5.14).

Table 5.14: Average end-of-term, core curriculum subject and CEE scores for high attaining secondary schools

Type of school	Average score	English	Maths	Science	Social Studies	CEE
Male	62.84	63.93	62.33	61.68	72.50	190.49
Female	67.25	67.42	62,33	71.91	73.46	213.63
Co-ed.	50.98	52.35	38.42	52.09	56.22	159.19
Diff.	F2,185=56.891, p<0.0001	F2,185=35.929, p<0.0001	F2,185=61.304, p<0.0001	F2,156=37.981, p<0.0001	F2,73=21.155, p<0.0001	F2,163=95.294 p<0.0001

While students attending the female-only school were assigned the highest average within-class scores of the top attaining schools, we questioned whether girls in the top attaining co-educational school attained higher than boys in that school. Before this

analysis was undertaken, it was noted that there were very few males in the co-educational school, girls outnumbered the boys by a ratio of ten to one. A review of the raw and standardised scores showed that there were no significant differences in the attainments of boys and girls in this school.

Pre-school attendance: Attendance of pre-school contributed a significant amount of the variance in the within-class scores for secondary students in Barbados and similar analyses were undertaken on the St Vincent data. The survey data showed that a very high proportion of children stated that they had attended pre-school; nearly 65% said that they had attended a pre-school. Overall, if children attended a pre-school before starting primary school, they were more likely to attain higher within-class scores (calculated on the raw data, $F_{1,1212} = 13.675$, $p < 0.0001$; and on the standardised scores $F_{1,1212} = 4.604$, $p < 0.0321$). Similar findings were shown in the three main curriculum subjects of English, mathematics and science, but significant differences were not found for social studies. The analyses were undertaken separately at primary school and secondary school levels. Findings showed significant differences for primary schools (raw scores: $F_{1,784} = 18.054$, $p < 0.0001$; standardised: $F_{1,784} = 4.834$, $p < 0.028$), but there were no significant differences found within the secondary school population (although the numerical averages for pre-school attenders was higher than non-attenders). The higher raw and standardised within-class scores for pre-school attenders may be explained by the greater likelihood that those children who attended pre-school came from a privileged home background; parents who worked in professional or managerial occupations were more likely to send their children to pre-school than other parental occupations (father $\chi^2(2) = 8.011$, $p < 0.018$; mother $\chi^2(3) = 15.480$, $p < 0.0015$). There was no difference in pre-school attendance between boys and girls in the sample.

With whom does the child live? A child's success in school in Barbados was partially

determined by parental background and this was seen to affect type of school attended. A further home-based contribution to educational success was with whom the child lived. In St Vincent, most children lived with the mother or mother and father (Table 5.15). These results provided a comparable percentage of children who lived with the mother only and father only but a smaller proportion of the sample lived with both parents and a larger proportion lived with grandparents(see Table 4.1.21).

Table 5.15: With whom does the child live?

	Frequency	Percent
mother only	523	37.9
father only	51	3.7
both parents	513	37.2
grandparents	148	10.7
other relatives	83	6.0
guardian	40	2.9
(missing)	21	1.5
Total	1339	100.0

In Barbados, children who lived with both parents attained at higher levels within-class and nationally. A similar result was found among the St Vincent sample (Table 5.16). Children who lived with both parents attained higher within-class scores and this was substantiated using standardised scores. These findings were consistent for all children and among separate analyses for boys and girls. The children who attained, on average, the lowest in schools were those who lived with the mother only. When focusing on the

CEE scores, a different picture is presented. There were no significant differences between the scores when compared to the different 'living with' situations. There are some indications that boys living with grandparents and girls living with both parents did better than others on the CEE. Readers should remember that CEE scores represent an elite group of children who passed their primary school leaving examination, thus this was a much smaller sample than found in the whole survey.

Table 5.16: Averages and differences on within-class and national scores for children living with mother, father, both parents and grandparents

CHILDREN/ Scores	ALL CHILDREN	MALES ONLY	FEMALES ONLY
Common Entrance Live with:			
mother	171.39	172.61	170.88
father	152.40	158.33	149.86
both	173.19	164.83	176.14
grandparent	169.33	178.83	166.62
Significance	N.S.	N.S.	N.S.
Standardised Live with:			
mother	-0.1381	-0.2284	-0.0794
father	-0.0117	0.0102	-0.0379
both	0.1314	0.0279	0.2086
grandparent	-0.0351	-0.2351	0.1070
Significance	F3,1107= 5.854,	F3,452= 2.644,	F3,650= 4.009,

	p<0.0006	p<0.048	p<0.0076
Raw Average Live with:			
mother	52.29	50.99	53.19
father	52.31	50.98	53.98
both	55.60	53.98	56.84
grandparent	52.89	50.95	54.39
Significance	F3,1128= 4.042, p<0.0072	N.S.	F3,650= 2.975, p<0.0311

A review of the relationship between parental occupations and with whom the child lives showed that there was no significant difference between the range of paternal occupations and with whom the child lives. For maternal occupation, though, there was a significant difference ($\chi^2 (9) = 45.618$, $p < 0.0001$), showing that maternal occupation when living with both parents was most likely to be managerial/professional or housewife. Other 'living with' situations showed lower proportions of these occupations for mothers.

Who helps with homework? Simply identifying with whom the child lives does not tell about the help that a child receives with school work. Children were asked whether anyone helps them with homework. Most children stated that they received help with their homework (81.4%). Children were more likely to receive help with homework when they attended primary school than secondary school (approximately 90% received help in primary school while 65% received help at secondary). There were no parental occupation differences between those children who received help or not. Table 5.17 reveals that mothers, sisters and brothers were most likely to help with homework within the family; fathers only helped twenty-one percent of their children. Within the table, we

were able to explore whether males or females worked with friends on their homework, and found that sixty-two percent of those who received help from a friend were female. Using tutors to help with homework may appear, logically, to be the prerogative of children of professionals and managers. In this sample, though, the largest proportion of children who received help from a tutor (approximately 63%) came from a craft and unskilled home background.

Table 5.17: Who helps the child with homework

Who helps with homework	Percentage receiving help
Mother	48.6%
Friend	36.2%
Relatives	33.9%
Sister	32.5%
Brother	22.7%
Father	21.3%
Tutor	15.4%

Dividing children's within-class attainment into three groups of high, middle and low attainers and comparing this grouping to help with homework revealed that there were no differences between those who received homework help from mothers, brothers, sisters, relatives or friends. High attainers were more likely to receive help from their father than other groups. Low attainers were more likely to receive help from a tutor than other groups.

Attitudes to future education and occupation: The Ministry of Education in St Vincent

requested that the children surveyed be asked to respond to three questions about the role of education in their lives. Children were asked what occupation they aspired to, whether and why education was important and to what level they expected to rise in education. Descriptively, children answering these questions showed extremely high expectations for future occupation and education. Table 5.18 displays that two-thirds of children thought that they would, eventually, rise to a professional or managerial occupation. Table 5.18 contrasts sharply with the actual parental occupations of the sample (Tables 5.2 and 5.3) which displays only 13% of parents in these professional positions.

Table 5.18: Occupational expectations of children in the sample

Value Label	Frequency	Percent	Valid Percent	Cum Percent
top managers	18	1.3	1.4	1.4
professionals	602	44.3	46.3	47.7
tech assoc prof	249	18.3	19.2	66.8
clerks	118	8.7	9.1	75.9
service/sales	79	5.8	6.1	82.0
skilled agric/fish	3	.2	.2	82.2
crafts	123	9.1	9.5	91.7
machine operators	1	.1	.1	91.8
elementary	11	.8	.8	92.6
unemployed	1	.1	.1	92.7
vague	95	7.0	7.3	100.0

	58	4.3	MISSING	
Total	1358	100.0	100.0	

In a similar manner, many children displayed high expectations for their educational careers (Table 5.19). Nearly sixty percent of children stated that they expected to go to university and a further fourteen percent expected to attend technical college.

Table 5.19: Educational expectations of the sample children

Value Label	Frequency	Percent	Valid Percent	Cum Percent
primary	55	4.1	4.1	4.1
form 3	16	1.2	1.2	5.3
CXC	54	4.0	4.0	9.3
form 6	93	6.8	6.9	16.2
university	796	58.6	59.2	75.4
tech college	190	14.0	14.1	89.5
evening class	141	10.4	10.5	100.0
	12	.9	Missing	
Total	1358	100.0	100.0	

In a sense, the occupational and educational expectations appear unrealistic - the thoughts of those who have not yet entered the real and competitive world of higher education and jobs. In another sense, the children were very focused on the importance of education. When asked if education was very important, unimportant or if they were unsure, ninety-eight percent stated that education was very important and only half-a-

percent stated that it was unimportant. When asked why education was important, over two-thirds of the children stated that it was for the development of knowledge and skills; another thirty percent stated that education would help to gain a job and less than ten percent identified social aspects of education (developing and seeing friends) as important.

The unusually high job and educational expectation could have been accounted for by young children's unrealistic images of their futures. When Tables 5.18 and 5.19 were broken down into primary and secondary school levels, very few differences were found between children at these levels. Children whose mothers or fathers worked in professional and managerial positions tended to identify these positions for their future employment. Children whose parents worked as clerks, skilled or service positions showed job expectations that ranged from professional through sales and service positions. A large majority of the children whose parents worked in craft and unskilled positions (nearly two-thirds of the children) expected to work in managerial and professional positions, and this finding characterised children at both primary and secondary school. A similar profile of educational expectation was found among primary and secondary school children. Many of the children expected to go to university, and this included over 55% of the children from craft and unskilled parental background.

When comparing job and educational expectations between boys and girls, significant differences were found between the sexes on each question. Girls showed a slightly higher expectation for professional and managerial positions and a higher expectation for clerk and service positions (Table 5.20) while more boys saw future positions in crafts and elementary labouring positions ($\chi^2 (2) = 95.102, p < 0.0001$). Table 5.21 displays that girls also had a slightly different and higher expectation for then-education ($\chi^2 (6) = 18.406, p < 0.005$). The educational aspirations of boys and girls appear very similar

except for those who expected to leave school before CXC examinations and those who aspired to university. Boys were more likely to see themselves as leaving school before CXC examinations and a greater proportion of girls aspired to university than boys.

Table 5.20: Male and female job expectation (grouped occupations) with percentages of occupation by sex in brackets

SEX	EXPECTED OCCUPATION			Row Total
	man./ prof.	clerk/ service	craft/ elemen.	
male	326	42	99	467
	(69.8)	(9.0)	(21.2)	(38.8)
female	543	158	36	737
	(73.7)	(21.4)	(4.9)	(61.2)
Column	869	200	135	1204
Total	(72.2)	(16.6)	(11.2)	(100.0)

Table 5.21: Male and female educational aspirations (percentages of educational aspiration by sex in brackets)

SEX	EDUCATIONAL ASPIRATION					Row Total
	primary	form 3	CXC	form 6	university	
male	32	8	30	38	295	542
	(5.9)	(1.5)	(5.5)	(7.0)	(54.4)	(40.3)
female	22	6	25	56	502	803

	(2.7)	(.7)	(3.1)	(7.0)	(62.5)	(59.7)
Column	54	14	55	94	797	
Total	(4.0)	(1.0)	(4.1)	(7.0)	(59.3)	

	tech college	evening class	Row Total
1	81	58	542
male	(14.9)	(10.7)	(40.3)
2	109	83	803
female	(13.6)	(10.3)	(59.7)
Column	190	141	1345
Total	(14.1)	(10.5)	(100.0)

4. From the range of significant results provided thusfar, what is the relative contribution of each result to the overall performance of pupils and students in school? Throughout these analyses a number of significant results have been presented to explain the performance of children within-class and on the national CEE. Significant results showed that girls attain at higher levels than boys, that children whose parents worked in managerial and professional positions attain at higher levels than others, pre-school attendance was associated with higher attainment, status of secondary school attended affects attainment, whether or not the child lived with both parents and if the father helped with homework also affect attainment. Stepwise regressions were undertaken to ascertain the amount and significance of each of these variables in explaining average end-of-term results, standardised end-of-term results and CEE scores. These results are conducted separately for primary and secondary school

children.

Primary schools: Working with the standardised within-class scores, the regressions provided little information of significance. In total, about six percent of the variance was accounted for and this percentage was composed of two factors: occupation of the father (3.4% adjusted R square) and whether the child lived with both parents (a further 2.4% adjusted R square). Using the raw, non-standardised, within-class scores only 2% of the variance was accounted for and occupation of the mother contributed this amount. The most obvious conclusion is that success in primary school was not accounted for by the sex of the child, but was most likely to be affected by the occupation (and educational background) of the child's parents.

Secondary schools: Remembering that entry to secondary school was limited to only sixty percent of the primary school population, we expected that regressions may be very different from those found in Trinidad (Jules & Kutnick, 1990) and Barbados (Chapter 4.1). Stepwise regression on the raw within-class scores showed that six percent of the variance was accounted for by two factors; the occupation of the father (3.7% adjusted R square) and whether the father helped with homework (a further 2.4% adjusted R square). Using the standardised within-class scores, a smaller amount of variance was explained: help with homework by the father (2.3% adjusted R square) and sex of the student (a further 1.4% adjusted R square). Similar analyses were undertaken that drew upon co-educational schools only; this analysis excluded the two (single-sex) top prestige schools from the sample. Co-educational results mirrored the standardised variance, but the variance of the raw scores showed that father helping with homework accounted for 1.2% (adjusted R square), sex of the student accounted for another 1.1% (adjusted R square) and school type accounted for another 1.0% (adjusted R square). Focusing on the CEE scores, it must be remembered that only those children who were allocated a

secondary school place provided a score - this in itself established these children as an elite group. The only significant contribution to the CEE variance was type of secondary school attended, and this contributed a large 29.3% (adjusted R square) of the variance. In surveying the range of regression results for secondary schools, a picture of the successful child shows one who is placed in the high attaining secondary schools, who receives help from father and is female.

SUMMARY POINTS:

1. The survey confirmed the drop-off in student numbers between primary and secondary schools that would be expected in St Vincent, but showed that the drop-off was more dramatic among males than females. Economic constraints, such as those found in Sub-Saharan Africa, did not preclude females from participating in education through secondary schooling and having high educational ambitions.
2. Girls generally performed at higher attainment levels throughout the survey, although the differences between their attainments and male attainments were not as dramatic as those reported from the Barbados survey.
3. Attainment results were highly stratified by parental (both paternal and maternal) occupation, attendance of pre-school and type of secondary school attended; this was seen most clearly in the secondary school regression.
4. Children who lived with both mother and father were most likely to attain at the highest levels. High attainers were most likely to receive help with school work from their fathers. Alternately, we can speculate about the existence of a vicious circle of failure among males. Males are most likely to drop-out of school, and often attained at low levels. These males did not have the support of living with both parents and low attainers are

unlikely to receive help with school work from fathers. School disaffection and drop-out is likely to be repeated within the families of these males who are unable to achieve the high occupational positions and educational support correlated with educational success for their children.



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6. Summary of the studies

The studies reported in this occasional paper were undertaken to add to our knowledge and understanding of the relationship between gender and school achievement within the context of developing countries. The Caribbean region was selected for the project because great efforts have been made to improve the quantity and quality of education in many of these countries. Also, preliminary studies concerning educational achievement in one of these developing countries showed that females were succeeding at much higher levels than males. This achievement by females contrasted sharply with results of studies undertaken in other developing countries.

The three countries selected for study were: Trinidad, Barbados and St Vincent. These countries were selected:

1. to expand the preliminary survey research previously undertaken in Trinidad by establishing qualitative insights into school processes that support success;
2. to question the generalisability of findings to other countries (from Trinidad to Barbados and St Vincent) with similar and dissimilar patterns of enrolment in schools; and
3. to seek descriptive evidence concerning background and other factors of those succeeding and those likely to drop-out of the school system.

The methods chosen for the studies included: quantitative surveys to assess success and generalisability of results from one island to another; and qualitative case studies to provide insights into classroom process, interaction and structure in the promotion of success (or lack of it) at the level where it affects children.

Four research questions that underlie the studies are revisited. This chapter provides brief summaries of evidence and some implications from the range of studies presented in the earlier chapters.

1. What is the evidence for variance of school achievement scores between males and females, especially between pupils of equal ability? Evidence drawn upon includes within-class tests in curriculum subjects and national Common Entrance Examination (CEE) scores taken when children near the end of their primary schooling.

- a. In the Barbados survey, girls scored higher in each of the core curriculum subjects of English, mathematics and science as well as in social studies and on the Common Entrance Examination.

- b.** In the top year of primary schools in Barbados, boys were more likely to be found in the lower streams and girls in the higher streams within their schools.

- c.** In the classroom observations in Trinidad, teachers, schools and classrooms played a major role in the development of children's attainment. Selection to secondary school, based on CEE results, showed virtually no differences between the scores of males and females. Within-class attainment differences between boys and girls were highly significant: the success of girls is most likely to be attributed to the encounters of schooling and the attitudes that students develop towards schooling.

- d.** Additionally, the Trinidad observations showed that it is naive to assume that it is just boys who present learning and behaviour problems in the classroom. These observations showed that both boys and girls had low attainment levels and needed to be supported to improve their achievement in education.

- e.** In the St Vincent survey, girls generally performed at higher attainment levels in the core curriculum subjects and on the CEE although the differences between their attainments and male attainments were not as dramatic as those reported from the Barbados survey.

2. While girls are seen to achieve at higher levels than boys, do these differential levels of achievement remain over time (especially over the years of secondary schooling)? Are there differences in subject (option) choice between boys and girls? And, is this difference in performance related to earlier individual expression of ability or socialisation?

- a.** The Barbados survey found that, within the core curriculum subjects, girls performed better than boys on average throughout the years of secondary schooling. After selection into secondary schools, some of the sex differences became less dramatic, especially in mathematics, chemistry and physics (subjects normally taken in the prestige schools). Boys performed better than girls in industrial arts, but girls performed better than boys in modern languages and business studies.
- b.** Occupations of mothers and fathers were significantly associated with school success, as well as whether the child lived with both parents and if father helped with homework. Matrilineal explanations that dominate some Caribbean explanations for school success were not found to be significant here. Each of the significant background or socialisation factors showed that children (male and female) performed better in schools if their parents worked in professional and managerial positions (which required advanced education). Occupation of parents provided a more significant explanation for school success than the sex of the child.
- c.** In Barbados, participation at various levels of the stratified school system also affected school success. Pre-school attendance and attendance of high status (prestige) secondary schools were significantly associated with enhanced school attainments, although both of these factors were significantly associated with parental occupation. If a boy or girl was able to achieve entry to a high status school, characteristic sex and social class differences in attainment were no longer found. Prestige schools encouraged a democratic performance among those who had achieved at the top levels of the CEE. A similar range of results characterised the St Vincent survey.

d. We wish to raise a concern that the father's lack of presence, poor education and lack of help with homework may be cyclical in the educational experience of boys. Over the years of secondary schooling in Barbados and St Vincent, boys participated less. Overall, there was a drop-off in participation rate in Barbados from 50% in the primary school to 36% at the sixth form and in St Vincent from 53% in the primary school to 38% in the fourth form. Drop-off among the boys was most dramatic among those from a working class background.

e. By the fourth form students chose course options. The Barbados survey showed there were significantly more girls than boys pursuing core curriculum studies, all three sciences, modern languages, business studies and fine arts; many of these options have not been described as typical of course choices made by females previously.

f. Part of the explanation for remaining in school and high attainment may be the 'culture' generated within particular schools. In the case study of a prestige school in Barbados, children were aware that high levels of attainment would be rewarded with high examination passes and scholarships. Within this culture of high attainment, all students appeared to be self-disciplined and participated fully in school and homework. In the female-only school in Barbados, girls attained at lower levels than expected. Teachers attributed low self-esteem as a primary factor in low school performance, but cultural aspects such as teacher paternalism and poor support for education at home may be equally strong explanations.

3. As higher levels of attainment were found among girls, do girls display any learning strategies which are distinct from boys (which may serve as models of

successful approaches to attainment in schooling)? Also, were there any teaching and learning strategies characterised in schools and classrooms that either enhance or deny the learning potential of children (especially boys)?

Child-based strategies:

a. Observations showed that the formal interaction between teacher and child, exemplified in question and answer sessions, placed a great burden on the child to 'get it right'. At the same time, some children were allowed to "hide' from participation. A competitive atmosphere generated within question and answer sessions and frequent quizzes encouraged the high attainers and discouraged the low attainers. Reliance on the individual child as the source of participation in the classroom can be augmented by paired work and peer tutoring. Paired preparation may relieve pupils of some of the threat generated in question and answer sessions. Boys, in particular, may benefit from paired work; when they were unable to answer questions in the didactic classroom they were provided with little support from their classmates. When girls needed help in question and answer sessions, they often received help from female classmates either verbally or non-verbally.

b. Children can and will participate in learning and generation of classroom rules if they are given the opportunity to participate. Teachers may consider how they can be more inclusive of children's ideas and contributions.

c. Lowest attaining children (mainly boys) displayed poor social skills. Social skills are at the centre of cooperative learning and social support, and it may be worthwhile developing these skills so that social and academic learning may be

enhanced in the classroom (Slavin, 1990).

d. Boys have few examples of high attainment role models. The few high attaining boys in the observations tended to act and misbehave like their lower attaining male classmates. Learning efforts by these boys need to be better integrated into the classroom, possibly through acceptable (non-exaggerated) levels of reward and the opportunity to share their skills with others (Perret-Clermont, 1980).

e. Reading interests and habits showed a fundamental difference between attainment levels and boys and girls. Lowest attaining children displayed poor basic reading skills. When called upon to read in the classroom, they were often embarrassed and 'put down' when more competent readers (mainly girls) were called upon to continue the reading at an acceptable level. Additionally, more focus or encouragement should be given to those children who only select information books, such that they will also include books with story lines. Stories help children to understand sequences of events, allow them to explore for alternate answers and provide more complex answers to questions (Murphy and Elwood, 1996).

f. There were many differences observed in the behaviour of boys and girls and few opportunities for them to 'work' together. Yet, there were some classrooms observed where they worked together to their mutual benefit. When teachers 'allowed' children to sit with whom they chose, there was a strong tendency for sex segregation. Teachers frequently made boys sit next to girls to control misbehaviour. In the Barbados prestige school, though, boys and girls often chose to sit near each other. Male and female approaches to class work were

often different (sometimes complementary), especially as girls presented longer, more meticulous answers and boys presented short, analytic answers (similar to descriptions of UK students identified by Murphy and Elwood, 1996). Girls, especially in the Trinidadian secondary schools, developed academic and social support groups among themselves. Boys did not take advantage of group support.

g. Homework was an important aspect of pupil learning and preparation for classwork. Many pupils, though, did not have people who can understand and help at home (this was particularly evident among boys). A strategy may be introduced which suggests how parents may help their children. Additionally, children could be assigned a homework-mate with responsibilities for communication and mutual resolution of homework problems.

School-based strategies:

a. Teaching in all of the classrooms observed was didactic, strongly controlled by the teacher. Some teachers, as found in the Barbados prestige school, showed their commitment to the school and students by their encouragement of all students. More often, though, teaching strategies involved simple dictation, question and answers, chalk and talk; these strategies emphasised a one-way flow of information which could not detect misunderstanding and alienation of students. Where student contributions were asked for, comments were directed towards the teacher or channelled through the teacher to the rest of the class. A few alternative teaching strategies were observed that involved paired and cooperative learning; these strategies enhanced children's involvement and respect for classmates. The application of these alternatives require planning

and are not to be taken lightly (see Kutnick & Rogers, 1994; Jules, 1991).

b. Teachers will always be asked to attend to matters outside of their classrooms. In this 'teacher-less' time careful planning and directions for continued student work must be made. Without this planned use of student time, regressive and stereotypical behaviours are likely to occur among the children. Teachers in the prestige secondary schools were away from their classes less often than teachers in other schools, and there were correspondingly fewer incidents of misbehaviour in their classes.

c. Where school and classroom rules are ambiguously applied, it appeared that the boys are most likely to be criticised and punished (even if girls had presented the same behaviour). As all classrooms observed had boundaries for behaviour, it would be helpful for students if these boundaries could be made explicit, evident and applied equally for all students. Without clear boundaries, both expressed and perceived teacher preferences are likely to occur. Observed preference was strongly associated with the higher attainers in class (and these were, in the main, girls).

d. Strategies need to be developed to involve the full attainment range of children and ensure that the pace of the classroom does not leave some children behind. Praise need not be reserved for the first pupils to complete a learning assignment; slower pupils can be given an equal opportunity to be told of the good quality of their work (which occurred in one Trinidadian primary school and the prestige Barbados secondary school).

e. To involve students in their own learning may help to overcome the discrepancy between teachers' views that their students should be autonomous

and mature and the students' perception that their learning is teacher dependent. If students are to act as autonomous learners within their secondary schools, they must be offered and understand the opportunities for autonomy. One school that took some opportunities to promote autonomy and self-discipline among its students was the Barbados prestige school. Observations showed that all students were active participants; there was no evidence of teacher preference for particular students (by attainment or sex). Their school work and behaviour showed high levels of motivation - including full submission of homework and virtually no incidents of misbehaviour, bullying or teasing.

4. While the quantitative surveys and most of the case studies showed girls attaining at higher levels in the classroom, how generalisable are these results (from Trinidad to Barbados to St Vincent)? Generalisation should take into account the availability of school places within a country; types of schools, especially at secondary level; and the explanatory value of sex differences in attainment.

a. As stated, the quantitative surveys showed that the average within-class attainment and CEE scores attained by girls was consistently higher than boys across the three countries. Generalisation from Trinidad to Barbados was expected and confirmed in the first survey. Due to the limited number of secondary school places in St Vincent we questioned whether access to secondary school would be based on educational merit or other forms of preference. In the St. Vincent survey and national data, more secondary school places were allocated to girls than boys, allocation being based on CEE results. These findings are in contrast to research in other developing countries which have shown that economic and other considerations (Brock and Cammish, 1997)

combine to allow privileged access to schooling to males.

b. The drop-off in male participation in schooling, especially during the transition to and during secondary schooling, was confirmed in Barbados and St Vincent. Educators should look to school placement and activities within the classroom as arenas that may be used to enhance male attainment, knowing that societal attitudes and parental behaviour will affect attainment as well.

c. To make the statement that females perform at higher levels than males would be an oversimplification of the research. Sex of the children was only one significant factor in the explanation of attainment in school. Factors such as occupation of parents, with whom the child lives, attendance of pre-school and the type of school attended each contributed more of the variance in attainment than the sex of the child.

d. Within schools, the case studies showed practices which allowed for the inclusion or exclusion of certain children (especially low attainers, a number of which are male). 'Cultures' of particular schools may help to overcome or magnify these distinctions in attainment (between the sexes and children of different parental occupations). The culture found in prestige schools overcame sex and social class differences among students in Barbados and St Vincent. Differentiation and division of attainment by sex and social class has characterised the other types of secondary school in these countries.





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