

**EDUCATION FOR ALL IN THE CARIBBEAN: ASSESSMENT 2000
MONOGRAPH SERIES**

Series Editor: Lynda Quamina-Aiyejina

GENDER DIFFERENCES IN EDUCATION IN JAMAICA

Hyacinth Evans

The research for this monograph was made possible by a grant from the Government of the Netherlands. The production of the EFA in the Caribbean Monograph Series was in part facilitated by a financial contribution from the UNFPA Caribbean Regional Office.

UNESCO
1999

The ideas and opinions expressed in this work are those of the author and do not necessarily represent the views of UNESCO. The designations employed and the presentation of the material in the publication do not imply the expression of any opinion whatsoever on the part of UNESCO concerning the legal status of any country, territory, city or area, or of its authorities, or concerning the delimitation of its frontiers or boundaries.

© Planning Institute of Jamaica and UNESCO

Published in 1999 by the Office of the
UNESCO Representative in the Caribbean
The Towers
3rd Floor, 25 Dominica Drive
Kingston 5, Jamaica

Printed in Trinidad by F.A.S.T.E.R. Publishing Services
Victory Street, Arima

Cover design by: Carole Maison-Bishop

ISBN: 976-95037-2-X

FOREWORD

Education for All in the Caribbean: Assessment 2000 is a remarkable output, which is the culmination of intensive collaborative efforts between the countries of the Caribbean sub-region, the Regional Advisory Technical Group and the EFA Forum Secretariat, and relevant agencies and institutions.

The Country Reports, Monograph Series, and Case Studies highlight and pinpoint, in an extremely effective manner, some of the issues and concerns that drive education policy and action in the Caribbean. At the same time, the documentation presents a balanced and informed overview of the rich and varied educational and cultural experience of the sub-region; a knowledge which is critical to the understanding of the unfolding social and economic developments.

UNESCO is pleased to have been associated with this endeavour, particularly through our regional office in Kingston, Jamaica which, as co-ordinator of the Regional Advisory Group for the Caribbean Sub-region, was integrally involved in every aspect of the exercise. We look forward to continued collaboration with the Caribbean on activities of a mutually rewarding nature as the consequences and implications of the EFA Assessment become manifest.

Colin Power
Deputy Director-General for Education
UNESCO

SERIES INTRODUCTION

At Jomtien in 1990, member states of the United Nations adopted the *Framework for Action to Meet Basic Learning Needs* and created the International Consultative Forum on Education for All (EFA Forum). One decade later, the EFA Forum embarked on an assessment of this initiative, intended to assist member states in examining their education provisions to inform the formulation of policy.

Once the Caribbean EFA Regional Advisory Group had embarked seriously on the assessment, it was quickly realised that it would be difficult to capture, in any one place, an assessment of all that had transpired in education in the Caribbean during the period 1990-1999. Moreover, the technical guidelines constrained assessors to specifics within quantitative and qualitative frames. However, because it was felt that education in the Caribbean is too dynamic to be circumscribed, the idea of a more wide-ranging monograph series was conceived.

Researchers, education practitioners, and other stakeholders in education were invited to contribute to the series. Our expectations were that the response would be quite moderate, given the short time-frame within which we had to work. Instead, we were overwhelmed by the response, both in terms of the number of enthusiastic contributors and the range of topics represented.

Caribbean governments and peoples have invested in the *hardware* for education--buildings, furniture, equipment; in the *software*, in terms of parent support and counselling services; and they have attended to *inputs* like books and other teaching/learning resources. They have wrestled with ways to evaluate, having gone through rounds of different national examinations, and modifications of ways to assess both primary and secondary education.

But, as the efforts to complete the country reports show, it has been more difficult to assess the impacts, if we take the eventual aim of education as improving the quality of life--we have had mixed successes. That the sub-region has maintained relative peace despite its violent past and contemporary upheavals may be cited as a measure of success; that the environment is threatened in several ways may be one of the indicators of how chequered the success has been.

Writers in the monograph/case study series have been able to document, in descriptive and analytic modes, some of the attempts, and to capture several of the impacts. That this series of monographs on Education for All in the Caribbean has been written, edited, and published in nine months (from first call for papers to issue of the published titles) is itself an indication of the impact of education, in terms of human capability and capacity.

It reflects, too, the interest in education of a number of stakeholders without whom the series would not have been possible. Firstly, the work of the writers is acknowledged. All worked willingly, hard, well, and, in most cases, without material reward. The sterling contribution of the editor, who identified writers and stayed with them to the end of the process, is also recognised, as is the work of the printer, who came through on time despite the severe time constraints. The financial contribution of the following agencies also made the EFA assessment process and the publication of the monograph/case study series possible: Caribbean Development Bank (CDB), Commonwealth of Learning (COL), Department for International Development (DFID), International Labour Organization (ILO), Sub-Regional Headquarters for the Caribbean of the United Nations Economic Commission for Latin America and the Caribbean (UNECLAC), United Nations Educational, Scientific and Cultural Organization (UNESCO), the United Nations Population Fund (UNFPA), the United Nations Children's Fund (UNICEF), The University of the West Indies, Cave Hill; and the UN country teams based in Barbados, Jamaica, and Trinidad and Tobago, Haiti, and Guyana.

We invite you to peruse individual titles or the entire series as, together, we assess Caribbean progress in education to date, and determine strategies to correct imbalances and sustain positive impacts, as we move towards and through the first decade of the new millennium.

Claudia Harvey

UNESCO Representative and Coordinator, Regional Technical Advisory Group (RTAG)
EFA in the Caribbean: Assessment 2000

CONTENTS

Foreword

Series Introduction

Acknowledgements

List of Tables

List of Acronyms and Abbreviations

Abstract

1. Introduction

Definition of Terms

Summary of the Issues Related to What Exists in Jamaica and the Related Literature

Theoretical Perspectives

Research Method and Design

2. Factors in the Home and Community

Student Attendance

Desire to Drop Out of School

Time Spend on School- and non-School-Related Activities

Parental Expectation, Support, and Supervision

Perception of the Utility and Value of Education

Involvement in Work Activities

3. Inside the Classroom - Teachers and Teaching, Curriculum, and Academic Identity

Students' Response to the Curriculum and Teaching Methods

Students' Classroom Behaviour

Reading

The Effects of Streaming

Students' Perceptions of Teacher-Student Interaction and Teacher Bias

Teachers' Perceptions of Their Behaviour and Their Response to Students

Teachers' and Students' Perceptions – A Contrast

Students' Academic Identity

Subject Choice and Career Aspirations

Conclusions and Recommendations

References

LIST OF TABLES

- 2-1. Gender Differences in Absenteeism
- 2-2. Gender Differences in Time Spent on School- and non-School-Related Activities
- 2-3. Perception of Parental Encouragement, Support, and Supervision
- 2-4. Perception of the Utility of Education
- 2-5. Perception of the Utility of Education and Academic Performance
- 2-6. Value of Education for Boys and Girls Compared With Wealth
- 2-7. Students' Involvement in Work Activities
- 2-8. Involvement in Work Activities and Academic Performance
- 3-1. Gender Differences in Perception of School Practices
- 3-2. School Practices and Academic Performance
- 3-3. Placement in Streams by Gender
- 3-4. Streaming and Academic Performance by School Type
- 3-5. Students' Perceptions of School Practices by Sex and Stream
- 3-6. Students' Perceptions of Teacher-Student Interaction and Bias
- 3-7. Perception of Teacher Bias and Academic Performance
- 3-8. Gender Differences in Academic Identity
- 3-9. Academic Identity and Academic Performance
- 3-10. References to the Academic as Admired Attribute
- 3-10. Choice of Selected CXC Subjects by Gender

LIST OF ACRONYMS AND ABBREVIATIONS

CEE	Common Entrance Examination
CXC	Caribbean Examinations Council
GCE	General Certificate of Education
MOEC	Ministry of Education and Culture
PIOJ	Planning Institute of Jamaica
SSC	Secondary School Certificate
UWI	The University of the West Indies

ACKNOWLEDGMENTS

Many individuals and agencies contributed to this research. I should like to take this opportunity to express my thanks and appreciation.

First, I should like to thank the students in Grades 1, 9, and 11 in all 58 schools who shared their experiences with us, providing us with information which is the basis of this report. Very special thanks to the approximately 800 Grade 9 students who agreed to be interviewed and who gave us details of life in school as they see it.

A special appreciation to the principals who agreed to let their schools be part of this study and who facilitated in many ways the collection of the data. Thanks are also due to the regional directors of the Ministry of Education and Culture who facilitated our entry into the schools, to the teachers in Grades 5 and 6 who shared their assessment of their students and to the eight Grade 9 teachers who allowed us in their classrooms for a period of more than two months--observing the details of classroom life.

Mrs. Ruth Morris of the Planning Unit of the Ministry of Education and Culture collaborated with me throughout the project--from the inception when the research design was formulated to the draft report. Her detailed comments and suggestions on the draft report have greatly improved the final report. Thank you.

I should like to pay special tribute to the research assistants who collected the data: Mrs. P. Bromley, Miss P. Brown, Miss T. Brown, Mrs. M. Byfield, Mrs. R. Clarke, Mrs. Y. Clarke, Mrs. H. Forrester, Mr. P. Gordon, Mrs. L. Grapine, Mrs. A. Hall, Ms. B. Hunter, Mr. G. Mullings, Miss J. McGlashan, and Mrs. B. Rose. Many thanks to Miss Cecile Chapman, Miss Kay Rodrigues, Mr. Courtney Josephs, and Mr. Andre Whycke-Spence who entered the data.

I am indebted to my colleague, Dr. Rosemarie Johnson of the Department of Educational Studies, who was responsible for all the statistical analyses and for training Miss Chapman and Mr. Josephs on data entry of SPSS data. She also commented on the draft report and kindly reviewed the tables before publication. A very special thank you. Thanks to Dr. Tony Bastick of the Department of Educational Studies who introduced me to NUD.IST software, to Mrs. Paulette Kerr of the UWI Main Library for locating some hard to find references, and to Mrs. Joanne Blake for editing the draft manuscript.

Finally, a word of thanks to the Government of the Netherlands for providing funding for this research, and the Planning Institute of Jamaica (PIOJ) for administrative support.

Hyacinth Evans
June 1999

ABSTRACT

For a number of years, girls' academic achievement has surpassed that of boys in nearly every subject and curricular area. In addition, more girls than boys are deciding to continue with tertiary education. It was against this background that the Ministry of Education and Culture (MOEC) commissioned a study of gender differences in academic achievement, participation, and opportunity to learn, in order to determine why boys are achieving less than girls and to discover what part, if any, the school plays in this disparity. The study was carried out over a period of nine months between August 1997 and April 1998. The research was primarily a survey of secondary students in four types of secondary schools. An ethnographic study of eight of these schools was also conducted. The sample consisted of the following: 3719 Grades 9 and 11 students in four types of secondary schools--the high, comprehensive, technical, and all-age/primary and junior high schools. Approximately 700 of these students were interviewed individually and in groups. Academic performance was assessed on the end-of-term examinations in December 1997 or March and April 1998. Various descriptive and inferential statistical analyses appropriate to each research question were performed. Interpretive methods of data analysis were used to analyze the qualitative data. The survey and qualitative studies sought answers to 12 broad research questions which were formulated as a result of the theoretical perspectives and the research evidence on absenteeism and school-related factors.

The results showed that boys and girls exist in a gender-coded school environment and differ on almost every measure examined in the study. Many factors contributed to the gender differences in academic performance. Some of the theoretical perspectives which shaped the design of this study have more explanatory power than others. Three of the six theoretical perspectives were found to be quite robust in offering explanations for what is now frequently referred to as boys' underachievement. Specific measures which examined these theories and which related to academic performance are: (a) school practices, such as being beaten and insulted, that demean students, particularly boys, (b) academic identity, (c) the belief that school will help you in later life, and (d) involvement in work activities. At the same time, the ethnographic observation revealed that boys actively and continuously constructed a definition of themselves as irresponsible, unreliable, and uninterested in academic work. Policy implications and recommendations are included in the study.

About the Author

Dr. Hyacinth Evans is a senior lecturer in the Faculty of Arts and Education, The University of the West Indies, Mona, Jamaica. She received a Ph.D. in Education from UCLA in the areas of curriculum and teacher education. She teaches graduate courses in teacher education and qualitative research methods. She has conducted research on curriculum practices in schools and on field experiences in teacher education. Her current research interests lie in the professional learning and development of teachers and teacher educators, and teaching and learning in schools.

CHAPTER 1

Introduction

In recent years, there has been much debate about the differences in academic achievement between boys and girls at all levels of the educational system in Jamaica. In this debate, references are made to the number of boys and girls who are awarded Common Entrance Examination (CEE) places for entry to secondary schools, the proportion of boys as compared to girls who obtain Level 1 or 2 in the Caribbean Examinations Council (CXC) examinations, and the number of men and women enrolled at The University of the West Indies (UWI) and the University of Technology. For a number of years, girls' academic achievement has surpassed that of boys in nearly every subject and curricular area. In addition, more girls than boys are deciding to continue with tertiary education. Consequently, the ratio of men to women at the two universities and at other tertiary level institutions continues to decline.

The present situation is undesirable from a societal perspective. The underachievement of any social group raises human capital issues, since developing countries such as Jamaica need a wide range and a large number of educated and skilled personnel. The disparity in achievement also raises issues of equity, and social justice or equal distribution of social benefits. But in order to address this problem and develop appropriate interventions, it is necessary to understand the nature and extent of the problem, as well as possible explanations for the disparity. It was for these reasons that the Ministry of Education and Culture (MOEC), Jamaica, commissioned a study of gender differences in academic achievement in order to determine why boys are achieving less than girls, and to discover what part, if any, the school plays in this disparity. The research was thus designed to emphasize school-related factors, although it was recognized that socialization within the home and community may contribute a great deal to students' motivation to achieve. This report presents the findings of research that was conducted over a period of 10 months between September 1997 and April 1998. The research was contracted to the author, as principal investigator, by the Planning Institute of Jamaica which represented the Government of the Netherlands. Dr. Rosemarie Johnson contributed to the design of the survey questionnaire and was responsible for the analysis of the survey data. Fifteen research assistants assisted in the collection of data and in data entry. The next sections present a summary of the issues related to gender and education in Jamaica, describe the theoretical perspectives that guided the design of the study, and outline the research methodology. Chapter 2 will discuss the main factors in the home and the community that influenced academic achievement, while Chapter 3 will discuss factors in the school that influenced academic achievement.

Definition of Terms

Gender

The term gender has come to have many overlapping meanings, and its meaning, it appears, is still evolving. First, it refers to the social differentiation between maleness and femaleness or masculinity and femininity. This differentiation is socially constructed in social relations rather than on the basis of the biological characteristics of males and females. The term gender is also sometimes used to refer to an attribute of all human beings, that is, one is of the male or female gender. In this second sense, it is used interchangeably with sex as described below. This second meaning of gender has led to some confusion between gender and sex.

Sex

Sex refers to the physical or biological characteristics of males and females. As such it is used as an attribute of all humans--one may be of the male or the female sex.

Gender bias

The term gender bias refers to an inclination or tendency to favour the male or female in a given situation.

Gender order/regime/code

The terms gender order, gender regime, and gender code refer to the rules or unstated understandings that obtain within a group, in a situation, or an institution, which indicate how males and females should act and interact or how they should be treated. It is also used to refer to the process whereby institutions such as schools construct and reinforce boundaries between what is acceptable as masculinity and femininity (Acker, 1992, p. 4).

Gender stereotype

This refers to widely held beliefs about characteristics deemed appropriate for males or females (Berk, 1997, p. 502). These beliefs are usually based on a limited aspect of male or female humanity.

Summary of the Issues Related to What Exists in Jamaica and the Related Literature

A review of the literature on gender and achievement in Jamaica indicates that the following are the salient issues:

Access to schools, attendance, and dropout rates

- There is equal access to infant and primary education for boys and girls, but there is inequality in access to secondary schools. There are more secondary places for girls in the system than for boys. Students who attend all-age schools and graduate at Grade 9 or drop out before Grade 9 (the majority of whom are boys) have limited access to any further education.
- Girls attend more frequently than boys at the primary level and, as a result, have more opportunity to learn than boys.
- Dropout rates in some secondary schools present a problem for both boys and girls. However, more girls than boys on average drop out during secondary schooling.

Differences in entry level cognitive skills and abilities

- Girls appear to be more ready for Grade 1 work than boys in the areas of cognitive skills and emotional maturity. More readiness for Grade 1 may give girls a head start which could serve them in good stead during the primary school years.
- The fact that more girls than boys are enrolled in basic and infant schools or departments may be a contributing factor to the difference in readiness skills.

Subject choice and performance in CXC

- There is evidence of gender bias in student choice of subjects.
- There is also some evidence that some teachers hold stereotypical notions of male and female ability or interest in certain subjects (Parry, 1996).
- With respect to performance in the CXC examinations, boys do well in some subjects, girls do well in others, and the performance is fairly even in some subjects.

In addition to research related to the issues identified above, other research exists on gender differences in education and schooling in Jamaica. Much of the existing research on gender and educational achievement is correlational and does not explain or seek to explain why the differences exist. The following have been the results of some research conducted in Jamaica:

- Adolescent males and females in the secondary high school differ in some cognitive capabilities which are critical for learning and achievement. Males tend to score higher than female students in tests of abstract reasoning and field independence.
- Males perform better than females on tests of spatial ability (Mitchelmore, 1980).
- The type of school that one attends makes a difference in students' achievement as well as in the predictive power of certain variables.
- Teachers' expectations for students have a powerful effect on student effort and achievement. There is evidence of gender stereotyping, which affects the teacher's expectations for males and females in some subjects. Students are aware of such differential expectations.
- The majority of students repeating Grades 1-5 in 1989-90 were boys. A larger percentage of boys repeated Grade 1. Repetition in Grade 1 may be explained, in part, by the fact that some boys began schooling in Grade 1, that is, they had not attended basic or infant school or a kindergarten. (See Evans, 1994 and Miller, 1997 for reviews of this research on primary and secondary education, and Evans, 1998 for a review of the literature on gender and achievement.)

The information reviewed above provided a basis for the design of the study and served to identify the variables that would be investigated. The study was also influenced by theoretical perspectives presented in the next section.

Theoretical Perspectives

An examination of the literature on the differences in academic achievement between boys and girls shows that the concern in most countries has to do with the low level of achievement of girls in relation to boys, the girls' lower access to education, and their lower rates of persistence to the higher levels of the educational system (see, for example, King and Hill, 1993; Stromquist, 1990). Although this gender gap appears to be narrowing in both industrialized and developing countries (Knodel, 1997), there is still a great deal of concern in many countries about girls' underachievement, especially in key subject areas such as mathematics and science. A great deal of research has been conducted in several industrialized and developing countries on the

gender gap in academic achievement. However, in most of these countries the concern has been with the underachievement of girls compared with boys. Because of this, the literature that explains the gender gap in achievement in most countries cannot explain the situation in Jamaica, where the concern has been the low academic achievement of boys in relation to girls, and the lower rates of access of boys to the tertiary levels of education. The theories which informed the design of this study were borrowed from the literature on underachievement of various social groups in mainly industrialized countries. The following seven theoretical perspectives shaped the design of the study:

1. *Differential gender socialization which takes place, mainly in the home, at an early age.* This perspective states that boys and girls learn different skills, attitudes, and dispositions as a result of the tasks which they perform in the home. Those learned by the girl equip her to fit into the demands and routines of school.
2. *Incompatibility between schooling and one's social identity.* This suggests that if there is an asynchrony between the act of participating in school activities and the student's image or social identity, then the student will experience conflict and will be reluctant to participate in learning activities.
3. *Gender differences in teacher-student interaction.* There is a great deal of research which indicates that teachers interact differently with boys and girls, and hold higher expectations for boys than girls. The quality of the teacher-student interaction has been used to explain girls' underachievement in those cases where teachers interact positively and more frequently with boys.
4. *Effects of school practices.* Studies of certain social groups, particularly immigrant groups, have shown that they have negative experiences in schools and are subject to many school practices which are demeaning and discriminatory. The poor performance of these students has been attributed to such practices.
5. *Influence of the structure of opportunity in the society.* This perspective suggests that if a social group does not think that schooling is necessary, or believe it unlikely that they will gain the usual benefits of an education, that group will not be motivated to succeed in school. Parents will not encourage their children to make the necessary effort or, if the parents do not discourage them from getting an education, the students may make inferences about the value of an education from the experiences of their parents and relatives.
6. *Differences in parental support and encouragement.* In many developing countries, including Jamaica, it has been shown that parents usually show preference for boys or girls, and will make sacrifices and provide more encouragement and support for the one that is preferred.
7. *The value of education to a devalued group.* This perspective assumes that in a society where one's options for advancement are limited, one will look to education for upward mobility. Females who are devalued by that society will place importance on education, and may strive to succeed at all costs. Girls' motivation to achieve may explain why they perform better than boys. (For a fuller discussion of these theoretical perspectives see Evans, 1998.)

Research Method and Design

This research is primarily a survey of secondary students in four types of secondary schools. The survey

section of the study sought to determine students' perceptions and attitudes with respect to the variables in this study. A 71-item questionnaire was used to obtain this information. An ethnographic study of a small number of schools was also conducted in order to provide more in-depth data on the variables in question. Interviews were conducted with a sample of students and teachers in order to allow these respondents to speak about the issues. In addition, Grades 5 and 6 classes were observed to obtain information on gender composition.

The sample consisted of 3719 Grades 9 and 11 students in four types of secondary schools--the high, comprehensive, technical, and all-age/primary and junior high schools. Approximately 700 of these students were interviewed individually and in groups. Additionally, 661 Grade 1 students were interviewed to obtain information on prior experiences and skills learned before entry to Grade 1. Ninety two Grades 5 and 6 teachers were interviewed to obtain information on performance of Grades 5 and 6 students. Academic performance was assessed on the end-of-term examinations in December 1997 or March and April 1998. The data gathering techniques were as follows:

- Student questionnaire for Grades 9 and 11 students;
- Structured student interview schedule for a sample of Grades 9 and 11 students;
- Structured interview schedule for Grade 1 students;
- Structured interview schedules for Grades 5 and 6 teachers; and
- End-of-term test results or mid-year exam results of students in Grade 9.

The tests were all teacher-made and were based on the curriculum and the topics taught that semester. Because the curriculum is centralized, these tests had some commonality in content.

Data analysis

Various descriptive and inferential statistical analyses, appropriate to each research question, were performed. Interpretive methods of data analysis were used to analyze the qualitative data.

Research questions

The following are the research questions:

1. Are there gender differences in experiences and skills of students entering Grade 1?
2. Are there gender differences in the percentage of boys and girls in CEE classes? If so what accounts for these differences?
3. What part does the secondary school play in creating gender differences? Are there school practices that are gendered? If so, what effect do these school practices have on academic achievement?
4. Are there gender differences in attendance and in reasons for absenteeism? Does attendance differ by type of school?
5. Are there gender differences in reasons why students desire to drop out of school? Do these reasons differ by type of school? Is desire to drop out related to academic performance?
6. Are there gender differences in students' perceptions of, and response to, the curriculum and teaching methods?
7. Are there gender differences in the academic identity of secondary students and in the value placed on education? Are academic identity and value placed on education related to academic performance?
8. Are there gender differences in the perceived and actual interaction between teachers and students? Are these perceptions related to academic performance and placement in stream?
9. Are there gender differences in the subjects which students plan to take at the Secondary School Certificate (SSC), CXC, and General Certificate of Education (GCE) levels and in the reasons for

- choosing these subjects?
10. Are there gender differences in the career and job aspirations of secondary students and their perceived utility of education? If so, what accounts for these differences? Is involvement in work activities related to academic performance?
 11. Are there gender differences in students' perception of parental encouragement, support, and supervision? Are these perceptions related to academic performance and placement in stream?
 12. Do boys and girls in single sex schools differ significantly from boys and girls in coeducational schools on the following: academic performance, academic identity, perception of school practices, value placed on education, and career aspirations?

This report will present the findings related to nine of these research questions and will exclude the findings related to questions # 1, 2, and 12.

A causal comparative strategy was used to determine if there are gender differences in the above variables. A correlation research design was used to determine if there is a relationship between students' perceptions/attitudes, perceptions of the school's culture, teacher-student interaction, streaming, performance, and attendance. The mediating variables of school type, students' social class, and streaming were part of the causal comparative design.

CHAPTER 2

Factors in the Home and Community

In this chapter, various factors related to the home and community are examined which, it was hypothesized, would influence academic achievement. These factors include attendance and desire to drop out of school, time spent on homework and general reading after school hours, and involvement in work activities. Students' perceptions of parental support and supervision are also examined, as well as their perception of the utility and value of education. The relationship between each of these factors and achievement is also discussed.

Student Attendance

Research in Jamaica and elsewhere has pointed to the higher level of absenteeism among boys as one explanation of the gender difference in academic achievement. Absence from school means that the student has fewer opportunities to learn and, as a consequence, learns less. In this study, absenteeism was assessed by asking students to indicate the number of days on which they were absent for the term which began September 1997. This form of assessment is not the most valid since it is dependent on students' memory of the number of times and the number of days on which they were absent. The results are shown in Table 2-1.

Table 2-1. Gender Differences in Absenteeism

Boys			Girls			
<i>N</i>	Mean	<i>SD</i>	<i>N</i>	Mean	<i>SD</i>	<i>t</i>
741	4.34	4.78	1054	3.69	3.98	3.14*

*Indicates a statistically significant gender difference.

The results show that of those who were absent ($n=741$) during the first two months of that term, boys were absent an average of 4.34 days while girls were absent an average of 3.69 days. Thus, boys were absent more frequently or for longer periods than girls and this difference was statistically significant ($t = 3.14, p < .05$). Absence deprives the student of opportunity to learn and to participate in learning activities. The gender difference in attendance may be one reason which contributes to gender difference in academic performance. Assuming that the questionnaires were completed 7 weeks (35 school days) after the start of the term, boys were absent on average 12.4% of the time, while girls were absent on average 10.5% of the time.

Students were also asked to indicate the reasons for their absence. The results showed that they were most often absent because of illness (32.7%), followed by having no lunch money (9.1%), rain (8.5%), having no bus fare (4.9%), and no transportation (3.9%). This means that students' absence was due mainly to home factors and rarely because of school-related factors.

Desire to Drop out of School

The study also sought to determine the number of students who intended to drop out of school--that is, those who did not plan to continue to Grade 11 or to take the SSC or the GCE 'A' levels--and whether desire to drop out was related to desire to find employment. The number of students who indicated that they would

like to drop out was very small--only 69 or 3.5% of those who answered that question or 1.9% of the sample. Of this number, 39 or 56.5% were male and 30 or 43.5% were female. In addition, 38 or 55% were from the comprehensive high school. Because of the small number of students who wished to drop out, further analyses of the dropout rate were not carried out. The students' interviews revealed that few students wish to drop out of school because stigma or shame is attached to this act, and because students perceive that there would be little for them to do in the existing job market.

Time Spent on School- and Non-School-Related Activities

We also sought to discover whether boys and girls spend different amounts of time on school- and non-school-related activities. To determine this, we asked the following four questions:

How many hours do you spend each day on homework or school work?

How many hours do you spend each day watching TV?

How many hours do you spend each day socializing with friends?

How many hours do you spend reading, doing homework, or school work on weekends?

The following table presents the findings.

Table 2-2. Gender Differences in Time Spent on School- and non-School-Related Activities

Activity	Boys (N = 1555)		Girls (N = 2158)		t
	Mean No. of Hours	SD	Mean No. of Hours	SD	
Homework	3.74	2.40	4.03	2.40	-3.41 *
Television	2.56	1.69	2.45	1.61	1.76
Socialize	2.43	1.92	2.38	1.94	.76
Reading etc., on Weekend	5.37	4.72	5.73	4.49	-2.23*

*Indicates a statistically significant gender difference.

Table 2-2 shows that there were gender differences in the time spent on school-related activities. Specifically, girls spent significantly more time doing homework ($t = -3.41, p < .05$) and reading on the weekend ($t = -2.23, p < .05$)--activities that could have an effect on learning and achievement. Spending more time reading and doing homework on the weekend may reflect the girls' preference for more sedentary leisure activities, or it may reflect the boys' reading difficulties which were revealed in this study. The amount of time spent on homework and general reading outside of school has a positive impact on learning and on academic performance (Cooper, 1989). The slight gender difference in involvement in these out-of-school activities may be a minor contributing factor to the gender gap in academic performance.

Parental Expectation, Support, and Supervision

The study also sought to find out whether parental expectations, support, and supervision differed

according to the sex of the child and whether any such difference was related to achievement. To determine parental encouragement, support, and supervision, the following four questions were included on the survey questionnaire:

- My parents/guardians insist that I do my homework.
- I can always rely on my parents to explain schoolwork that I don't understand.
- If I get low grades, my parents/guardians get very upset.
- It is hard to finish my homework because I have a lot to do at home.

The following table shows students' responses by sex.

Table 2-3. Perception of Parental Encouragement, Support, and Supervision

Question	Total who Agree		Boys		Girls		χ^2
			Frequency	%	Frequency	%	
My parents insist I do my homework	229	(6.1%)	94	6.0	135	6.2	4.3
My parents explain schoolwork	818	(22%)	318	21.8	500	23.1	6.1*
If I get low grades, my parents get very upset	1715	(52.5%)	742	55.4	973	50.5	7.8
It's hard to finish homework because I have a lot to do at home	433	(13.2%)	204	15.2	229	11.9	9.6

Note: Percentages are calculated on the number of boys in the sample or the number who answered the question.

*Indicates a statistically significant difference.

Table 2-3 shows that there were only slight gender differences in students' perception of parental support and encouragement. There was a statistically significant gender difference in the number of students whose parents explain homework ($\chi^2 = 6.1, p < .05$). The finding that parents are more likely to explain homework to a girl than to a boy is consistent with research results elsewhere which show that parents give more help to daughters than sons. The reason for this may be that girls are more likely to ask for help (Berk, 1997). Because there was only one statistically significant gender difference in these findings, it was concluded that gender differences in parental support for students cannot explain gender differences in academic performance. Thus, no further analyses of these measures were performed.

Perception of the Utility and Value of Education

It was hypothesized that a social group which expects that education will yield significant occupational returns will spend time and effort in obtaining an education or, at least, qualifications. If a social group perceives that an education is not necessary to obtain a reasonably well paid job, and that education will not make a difference to employment prospects, it is unlikely that that social group will spend effort to obtain those credentials. It was further assumed that where jobs are available in the informal sector for a given social

group, those jobs may compete with the formal schooling of that group. Students' perception of the utility of education is regarded as one of the factors related to the home, though it is recognized that the school can and does play a part in shaping students' career aspirations. The following questions were posed in the survey questionnaire to test the students' perception of the value of education for later success or for work:

- I sometimes cannot see how school work will help me in later life.
- You don't need to be good at school work to make it in later life.
- It is possible to be successful without going to college.

Table 2-4 presents the responses by gender.

Table 2-4. Perception of the Utility of Education

Item	Total who Agree		Boys		Girls		χ^2
			Frequency	%	Frequency	%	
You don't need to be good at school work to make it in life	1065	(28.6%)	519	35.6	546	25.3	35.5*
It is possible to be successful without going to college	2196	(59%)	943	60.6	1253	58.0	5.79*
I sometimes cannot see how school work will help me in later life	320	(8.6%)	176	12.0	144	6.6	26.7*

Note: Percentages are calculated on the number of boys or girls in the sample.

* Indicates a statistically significant difference.

This table shows that the overwhelming majority of students have a firm belief in the value of education for later life, but there are statistically significant gender differences in this perception of the utility of education ($\chi^2 = 35.5, 5.79, 26.79, p < .05$). However, although the overwhelming majority of students have a firm belief in education, they also think that there are alternative avenues for making a living in Jamaica. The gender difference in perception may reflect the structure of opportunity and the gender differences in remuneration which exist in the labour market. There are more jobs available for the male than the female in the informal sector (Anderson, 1997), and males need less education than females to make the same salary (JAMAL, 1995). Furthermore, regardless of their education, men take home more income than women who are in the same occupational group (Gordon, 1996).

To determine whether students who performed well academically had a different perception of the utility of education, *t* tests were performed on each measure and the average grades of those who agreed and disagreed with the statements. Grades are based on teacher-made tests administered in December of 1997 or March and April, 1998. The results are shown in Table 2-5.

Table 2-5. Perception of the Utility of Education and Academic Performance

	Av. Grade of Those	Av. Grade of Those	

Item	Who Agree		Who Disagree		<i>t</i>
You don't need to be good at school work to make it in life	46.6	(<i>SD</i> = 15.3)	50.44	(<i>SD</i> = 14.2)	-4.21***
It is possible to be successful without going to college	50.47	(<i>SD</i> = 14.0)	47.77	(<i>SD</i> = 15.4)	-4.98***
I sometimes cannot see how school work will help me later	43.9	(<i>SD</i> = 17.0)	49.9	(<i>SD</i> = 14.3)	-5.14***

*** $p < .000$.

The table shows that the beliefs reflected in each of these items affected the academic performance of students negatively. Those who held these beliefs obtained lower average scores on tests than those who did not ($t = -4.21, -4.98, \text{ and } -5.41, p < .000$). This suggests that when students believe that education will not lead to future success or employment, they may not expend the required time and energy to perform well academically.

With regard to the value of education for boys and girls, it was hypothesized that in a society where the female is devalued, girls will value education or, at least, certification much more highly as a means for gaining employment and security. For this reason, girls would be more motivated to achieve. To test this hypothesis, the following questions were posed:

- It is more important that boys rather than girls continue their education.
- It is important that girls get an education because they have to take care of themselves later in life.
- It is more important for a man to be rich than for him to be educated.
- It is more important for a woman to be rich than for her to be educated.

Table 2-6 presents the findings.

Table 2-6. Value of Education for Boys and Girls Compared With Wealth

Question	Total Who Agree		Boys		Girls		χ^2
			n	%	N	%	
More important for boys to continue their education (Item 21)	649	(19.1%)	393	25.2	256	(11.8)	158.0*
It's important that girls get an education because they have to take care of selves	3268	(88%)	1244	80.0	2024	(93.8)	109.2*
More important that a man be rich than educated	316	(8.5%)	163	11.2	153	(7.1)	15.3*
More important that a	220	(5.9%)	155	10.6	65	(3.0)	82.5*

woman be rich than educated

Note: Percentages are calculated on the number of boys or girls in the study.

* Indicates a statistically significant difference.

Table 2-6 shows that there are statistically significant gender differences in the value that boys and girls place on education as compared with wealth, ($\chi^2 = 158.0, 109.2, 15.3, 82.5, p < .05$). It should be noted, however, that only a small minority of students (19.1%) believe that it is more important for boys than girls to continue their education. These responses underscore a belief in the value of education or, at least, of certification on the part of the majority of students. At a time when there are concerns about materialism and the erosion of traditional values, these results are reassuring. However, more girls than boys profess a belief in the value of education.

Involvement in Work Activities

The study also sought to find out the extent of students' involvement in work activities and the extent to which this affects participation and achievement. Table 2-7 presents data on gender differences in students' involvement in work activities.

Table 2-7. Students' Involvement in Work Activities

Question	Total Who Agree	Boys	%	Girls	%	χ^2
I have to work as money is needed	543 (17.1%)	316	24.6	227	12.0	89.5*
I have a part-time job now	267 (8.4%)	189	14.8	78	4.1	113.7*

Note: Percentages are calculated on the number of boys or girls.

* Indicates a statistically significant difference.

The table shows that only a small percentage of students are involved in work activities, but there were statistically significant gender differences in the number of students who are ($\chi^2 = 89.5, 113.7, p < .05$). A higher percentage of boys are involved in part-time work and are required to work in order to contribute to family income. These results reflect the structure of the labour market that exists in Jamaica, where there are more jobs available for the male than the female in the informal sector (Anderson, 1997). Thus, the informal labour market competes with boys' schooling much more than it does for the schooling of girls.

In order to determine the effect that involvement in work activities had on academic performance, *t* tests were conducted on each of these measures and students' grades. The results are shown in Table 2-8.

Table 2-8. Involvement in Work Activities and Academic Performance

Item	Av. Grades of Those Who Agree		Av. Grades of Those Who Disagree		<i>t</i>
I have to work as the money is needed at home	41.93	(<i>SD</i> = 14.9)	51.09	(<i>SD</i> = 14.0)	-10.29***

I have a part-time job now	40.17 (SD = 15.4)	50.39 (SD = 14.1)	-8.72***
----------------------------	-------------------	-------------------	----------

*** $p < .000$.

The table shows that involvement in work activities affects academic performance of students. Specifically, students who work or who have a part-time job achieve an average of 10 percentage points less than those who do not ($t = -10.29, -8.72, p < .000$). Although working may be a good experience for adolescents, engagement in such activities reduces the amount of time that a student has to concentrate on homework and schoolwork. This reduces opportunity to learn which, in turn, affects academic performance. However, working may also be related to other family and home factors which may also be related to academic performance. In the next chapter, the factors in the school which affect academic performance are examined.

CHAPTER 3

Inside the Classroom - Teachers and Teaching, Curriculum, and Academic Identity

This chapter discusses aspects of the curriculum and teaching methods, teacher-student interaction, and students' academic identity. Gender differences in students' response to each of these aspects and its effect on academic achievement are also examined. First, the curriculum and teaching methods are described; students' response to this curriculum and the effects of school practices, including streaming, are then examined, followed by aspects of teacher-student interaction and students' choice of subjects.

There was some similarity in the curriculum offered in the schools. Most secondary schools offer a combination of general or academic, technical, and vocational subjects. The exception is the all-age school which offers a narrower range of subjects. There was also some similarity in the teaching methods used in these schools. The predominant methods of teaching--the ones most frequently observed--were lecturing or giving notes, and writing on the chalkboard with students copying the information in their notebooks. This method may result from teachers' definition of teaching, or the absence of teaching materials and/or the equipment to prepare such materials. The technology of teaching emphasized the written word; visual or audiovisual aids were rarely used, and little effort was made to relate the content to students' lives. Students appeared quite accustomed to this approach to teaching; their action indicated that they expected this kind of teaching and acted accordingly. Variations on this method were observed in a few classrooms. For example, the teacher might discuss what was written on the chalkboard or ask for students' questions, or point out the important points or the principles as they were discussed. Some teachers were more inclined than others to invite students' questions and to elaborate on what students said. In general, however, the prevailing method was lecturing or writing on the chalkboard with students' copying in notebooks. More than one-half of the students in this study (53.6%) were in mixed ability classes. Students were also grouped by the option chosen (e.g., science, arts). Grouping by option was practiced at all types of school except the all-age/ primary and junior high school.

Students' Response to the Curriculum and Teaching Methods

In the ethnographic observations of classrooms, it was observed that there were clear gender differences in the way boys and girls responded to the curriculum and to the teaching methods. Topics taught also elicited different responses from boys and girls. While there were a few instances in which there was equal participation from boys and girls, in most cases the girls showed more interest, were more eager to answer questions, to spell words, to read and, in general, to carry out academic tasks. The girls were also more likely to give the correct answer, to spell correctly, and to read fluently. They were much more likely than boys to be settled and on task, and to do the work assigned in cases where the teacher was not in the room. Girls were rarely out of their seats or seen walking around in the classroom during the teacher's absence, a behaviour frequently observed in boys. However, the boys' ennui and lack of interest were not always in evidence. Much depended on the subject and, in some cases, the topics under discussion. In some schools, boys showed much interest in music, science, and some practical activities. In one school, when students were asked to bring a musical instrument to school, most of the boys did while very few of the girls had prepared an instrument. When students were asked to sing Bob Marley songs, the boys were the ones who volunteered and then sang these songs with much gusto. In some schools, boys participated equally as, or more than girls, in mathematics and science. In a mathematics lesson where students were required to calculate the size of angles, the boys were obviously eager to do so. In a lesson on English literature at a rural technical high school, the researcher observed that contrary to what was expected, the boys were eagerly answering questions, while the girls were less involved. The book that was being discussed was *Shane* which is the story of a young boy,

narrated by the boy himself. Similarly, in a discussion of the football legend Pele, the boys were more knowledgeable and participated eagerly while the girls were silent. The lessons in which the boys were involved and interested can be characterized as requiring action or active participation on the part of the students, or as activities which drew on students' experiences, knowledge, or skill, or the subject matter was of intrinsic appeal to boys. When the teaching method required students to take notes or to copy from the chalkboard, the boys were less likely to become engaged.

The survey questionnaire also sought students' reaction to teaching and teaching methods. The questions were:

- I sometimes fool around in class when it gets boring.
- I stay away from classes because the lessons are dull.

The results showed that there were no significant gender differences in the number of students who fooled around in class when the lesson got boring. On the other hand, while there were relatively few students ($n = 336$) who stayed away from classes because lessons were dull, boys were more likely to stay away from lessons that were dull than girls, and these gender differences were statistically significant ($\chi^2 = 14.56, p < .05$). Thus, it appears that boys are less tolerant of lessons which do not engage their interest and attention.

Students' Classroom Behaviour

There was an obvious difference in the way in which boys and girls comported themselves in classrooms. While girls were more focused on their work, with their heads down in concentration, boys seemed more attuned to the behaviour of other boys. A number of boys actively engaged in behaviour that was in opposition to the norms of the classroom; joking, playing, and communicating with one another. Girls not only conformed to the rules for behaviour but, as has been seen, actively participated in teaching/learning activities. Observers noted that boys, and not girls, were likely to be out of their seats, to walk around and chat with other students, to engage in activities unrelated to the tasks assigned, to fidget, and to move around and tease others when the class was unsupervised. Some of this behaviour was even observed while the teacher was present. Boys were also likely to absent themselves from devotion or from lessons, and to be seen strolling around the school while classes were in session. Girls were not seen engaged in these activities. The following were taken from field notes of research assistants:

- The boys give a lot of trouble in class.
- During register, the boys fidget, move about, and talk among themselves (while the girls sit quietly).
- I saw a group of six boys sculling devotion, chatting, and appearing unconcerned.
- The boys use bad words.
- The boys are hyperactive. The teacher seems to use verbal abuse to shame them in order to get them to be quiet. She may not mean it but this is how she responds.

Boys' behaviour was, in short, in stark contrast with that of girls who were usually described as conforming, doing their work, participating, and sitting quietly. Such behaviour has been described as typically male, reflective of a male peer culture in previous research on gender in the Caribbean (e.g., Evans, 1988; Gibson, 1982). Parry (1996) found that an anti-academic male sex/gender identity existed among boys which was not compatible with either diligent study or good grades. The influence of the peer culture was evident at one urban comprehensive high school where male crews or gangs existed. Members of this gang explained that there is a behaviour code which exercises an influence on gang members. For example, a crew member's rudeness in class is often imitated by others. If most members were "idling" and one member wanted to work, he would refrain from doing so, because he would be seen as an "odd man out."

The tendency for boys not to conform to the school's norms affected teacher-student interaction, as well as teachers' expectations for boys. As shall be seen later, most teachers had higher expectations for, and made more positive evaluations of, girls than boys. Boys received more negative comments and were unfavourably compared with girls. In short, academic and behavioural standards were maintained primarily by girls. Boys, by their behaviour in class, constructed a definition of themselves as irresponsible and unreliable. This behaviour, influenced, in part, by a male peer culture, directly affected boys' engagement in learning activities.

Reading

One very conspicuous activity in which boys and girls revealed their differences in ability was reading. Observations in classrooms revealed that girls, on the whole, were more able to read fluently and to spell words correctly than boys. Boys, particularly those in the all-age/primary and junior high school, and the comprehensive high school, read slowly and haltingly. Boys, therefore, had great difficulty reading and understanding the meaning of passages. Because the teaching methods most often used by teachers emphasized reading and writing, many of the poor readers had great difficulty in school and fell further and further behind. Through the public act of reading, girls repeatedly and continuously provided evidence of their academic superiority. This was particularly evident in the all-age school, the primary and junior high school, and the comprehensive high school. Such public displays of poor ability was another occasion where boys and girls constructed a perception of their academic ability.

The problem of reading in the all-age/primary and junior high school, and the comprehensive high school was well recognized by teachers and principals alike. Some teachers tried to be encouraging, or to insist that a boy read even when none had volunteered. But very often, the teacher unwittingly, through body language, tone of voice, or actual words, showed disappointment in, or condescension toward, boys. A few teachers used the boy's reading ability to shame and humiliate. A teacher might say, in an annoyed tone of voice, to a boy who had been chatting in class "____, you can't even read and you making so much noise." Such interactions were never observed between a teacher and a girl.

School Practices

It was hypothesized that school practices can influence students' motivation to learn and to stay in school which, in turn, influence students' academic performance. Based on research findings in Jamaica and elsewhere, it was also expected that these factors would affect boys and girls differently. Practices may take the form of discourse between staff and students (the manner in which teachers talk to or refer to students), or discourse among staff about students. They may also refer to rules and regulations, and disciplinary and other procedures. Table 3-1 presents information on students' perception of these school practices.

Table 3-1. Gender Differences in Perceptions of School Practices

Item	Total Who Agree	%	Boys	%	Girls	%	χ^2
I get beaten at school	498	13.4	281	18.0	217	10.0	56.1*
I often think of leaving school because of being beaten	216	5.8	123	7.9	93	4.3	34.8*

Item	Total Who Agree	%	Boys	%	Girls	%	χ^2
I don't like how teachers treat me	907	24.4	455	29.2	452	20.9	39.9*
I'd like to be treated with more respect	2982	80.3	1245	80.0	1737	80.4	2.87
I have been insulted by my teachers	197	5.3	110	7	87	4	54.64*

Note: Percentages are calculated on the number of boys or girls in the study.

*Indicates a statistically significant difference.

The table shows that there were statistically significant gender differences in four of the five indicators ($\chi^2 = 56.1, 34.8, 39.9, 54.64, p < .05$), with boys more likely than girls to be exposed to negative evaluations and negative discourse. The only item which did not differentiate boys and girls was desire to be treated with more respect at school ($\chi = 2.87$). In this case, an overwhelming majority of students (80.3%) would like to be treated with more respect at school, and girls are as equally likely to have this opinion as boys.

To determine the extent to which experiences with these school practices relate to achievement, *t* tests were conducted to determine whether there were differences between the average grades of those who agreed and those who disagreed with each of the measures. The results are presented in Table 3-2.

Table 3-2. School Practices and Academic Performance

Item	Grades and <i>SD</i> of Those Who Agree	Grades and <i>SD</i> of Those Who Disagree	<i>t</i>
I get beaten at school	42.16 (<i>SD</i> = 15.6)	50.8 (<i>SD</i> = 14.1)	-9.44***
I often think of leaving school because of being beaten	38.20 (<i>SD</i> = 15.7)	50.32 (<i>SD</i> = 14.3)	-9.64***
I don't like how teachers treat me	44.24 (<i>SD</i> = 15.3)	51.03 (<i>SD</i> = 14.1)	-6.66***
I have been insulted by my teachers	37.17 (<i>SD</i> = 16.1)	50.6 (<i>SD</i> = 14.3)	-10.18***

*** $p < .000$.

These results show that negative school practices affect academic performance. Specifically, students who experience school practices such as being insulted or beaten achieve lower grades than those who do not. Those students who reported being insulted or beaten many times, or beaten to the extent that they have thought of leaving school, obtained 12-13 points less than those students who had not had this experience. However, these results have to be interpreted with some caution, as students' academic performance was based on teacher-made tests, the standard of which may vary from school to school.

The Effects of Streaming

In the schools where qualitative observation was carried out, and where streaming by ability was practiced, girls were, in all cases, more represented in the brighter groups. Table 3-3 presents information obtained in the survey on the proportion of boys and girls in the three streams.

Table 3-3. Placement in Streams by Gender

Sex	High Stream		Low stream		Mixed ability		Total
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	
Male	399	25.6	434	27.9	723	46.5	1555
Female	709	32.9	446	20.7	1003	46.5	2158
Total	1108		880		1726		3714

Note: Percentage is calculated on the number of girls or boys in the study.

It is seen that boys and girls were equally represented in the mixed ability streams, but boys were more likely than girls to be placed in a low stream--27.9% of boys compared with 20.7% of girls. Similarly, girls were more likely to be placed in a high stream--32.9% of girls were placed in a high stream compared with 25.6% of boys.

The extent to which streaming made a difference in students' academic performance was also examined. *T* tests were conducted to determine the difference in the average grades of those in the different streams. The results, by type of school, are shown in Table 3-4.

Table 3-4. Streaming and Academic Performance by School Type

Type of School	Gender	Grades		
		High Stream	Mixed Ability	Low Stream
Secondary High	Girls	55.8 (<i>SD</i> = 11.8)	55.1 (<i>SD</i> = 11.7)	49.8 (<i>SD</i> = 11.5)
	Boys	52.5 (<i>SD</i> = 11.9)	54.7 (<i>SD</i> = 11.8)	46.9 (<i>SD</i> = 13.9)
Technical High	Girls	54.9 (<i>SD</i> = 9.9)	49.1 (<i>SD</i> = 10.7)	46.5 (<i>SD</i> = 17.3)
	Boys	55.8 (<i>SD</i> = 11.6)	45.4 (<i>SD</i> = 11.8)	36.5 (<i>SD</i> = 11.8)
Comprehensive High	Girls	54.6 (<i>SD</i> = 15.6)	48.8 (<i>SD</i> = 17.5)	39.1 (<i>SD</i> = 16.4)
	Boys	48.7 (<i>SD</i> = 15.4)	44.0 (<i>SD</i> = 15.4)	35.0 (<i>SD</i> = 16.0)

The following are the *F* values:

Gender Main Effect – $F = 27.317, p < .000$; School Type Main Effect – $F = 42.73, p < .000$
 Stream Main Effect – $F = 84.70, p < .000$; Interaction gender x school type – $F = 1.517$

Interaction gender x stream – $F = 1.691$; Interaction school type x stream – $F = 8.637, p < .000$
 Interaction gender x school type x stream – $F = 2.072$

Table 3-4 shows that in all cases, except one, streaming, gender, and type of school made a difference to students' grades. The exception was in the mixed ability stream of the secondary high school. In all cases, low stream students achieved appreciably less than students in other streams. Boys achieved less than girls in all streams in all types of school. However, there was very little difference in the performance of students in the high stream and the mixed ability stream of the secondary high school.

The extent to which placement in a stream affected school practices was examined. Table 3-5 presents students' perceptions of school practices by gender and stream.

Table 3-5. Students' Perceptions of School Practices by Sex and Stream

	High Stream		Mixed Ability		Low Stream		χ^2
	Girls	Boys	Girls	Boys	Girls	Boys	
I get beaten at school	8.7%	18.1%	8.3%	13.7%	17.0%	29.1%	High stream 20.89* Mixed ability 12.66* Low stream 17.24*
I often think of leaving school because of beatings	3.0%	6.5%	3.5%	6.6%	8.3%	11.3%	High stream 8.01 Mixed ability 19.72* Low stream 6.36
I don't like the way teachers treat me	16.7%	25.3%	20.3%	29.1%	32.0%	39.0%	High stream 11.4* Mixed ability 17.3* Low stream 4.45
I have been insulted by my teachers	3.4%	3.8%	2.5%	4.8%	8.5%	13.8%	High stream 16.22* Mixed ability 21.66* Low stream 11.86*

* Indicates a statistically significant difference.

It can be seen from the table that there were statistically significant gender differences in the number of students who reported negative school practices. In every stream, boys were more likely than girls to be insulted and beaten. However, low stream students, particularly boys, were more subject to these negative experiences than any other group.

Students' Perceptions of Teacher-Student Interaction and Teacher Bias

The ethnographic observation showed that teachers structured gender separation through their classroom practices. They also applied a gender code made manifest in curricular and co-curricular activities. In addition, they were attuned to the gender differences in ability existing in their classrooms, structured, in part, by the non-conforming behaviour of boys. To obtain further information on the extent of teachers' interaction with boys and girls, five questions were posed on the survey questionnaire. In addition, students were asked about this aspect of classrooms during the interviews. The responses to the five questions in the survey are provided in Table 3-6.

Table 3-6. Students' Perceptions of Teacher-Student Interaction and Bias

Item	Total Agree		Who		Boys		Girls		χ^2
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	
Some teachers have favourites in class	2767	74.5	1122	72	1645	76	16.01*		
In classes where the teacher is a woman, girls are given preferential treatment	948	25.5	541	34.7	407	18.8	59.69*		
In classes where the teacher is a man, boys are given preferential treatment	443	11.9	182	11.7	261	12.4	3.14		
Girls are usually given more responsibility than boys	2411	64.9	797	51	1614	74	223.36*		
Teachers discipline boys more than they discipline girls	1755	47.2	994	64	761	35	185.49*		

Percentages are calculated on the number of boys or girls in the sample.

*Indicates a statistically significant difference.

The responses to the five questions on the survey questionnaire showed that most students believed that teachers treated boys and girls differently and that this treatment was in favour of the girls. There were also statistically significant gender differences in responses to four of the five items. Specifically, more boys than girls thought that female teachers showed preferential treatment to girls ($\chi^2 = 159.69, p < .05$) and that teachers disciplined boys more than girls ($\chi^2 = 185.49, p < .05$). On the other hand, more girls than boys thought that some teachers had favourites in class ($\chi^2 = 16.01, p < .05$), and that girls were given more responsibility ($\chi^2 = 223.36, p < .05$). The sex of the teacher appeared to make a difference in some of these responses. There were also differences among types of school in some of these responses. Students from the comprehensive high school were more likely to think that there was more bias and more negative teacher interactions in that type of school than students in other schools.

Similar results were also found in the interviews with Grade 9 students. In the interview, students were asked: "Do teachers in your class treat boys and girls differently when they are teaching?" and, as a follow-up question, "What does the teacher do differently?" Individual and group interviews were conducted with Grade 9 students in all types of school. Four hundred and forty interviews were held with a total of roughly 700 students. The majority of students interviewed thought that teachers treated boys and girls differently. Both boys and girls admitted that the boys got much more unfair treatment, or that the girls were favoured by teachers. However, boys stated more frequently than girls that girls were favoured by teachers. Girls, while admitting that teachers treated boys differently or unfairly, often blamed the boys for such treatment. Both boys and girls stated that boys were more frequently or more harshly punished, but it was the boys who said that they were insulted or called names. Many boys and girls made reference to the very harsh punishment which male teachers meted out to the boys. At the same time, there was a tendency on the part of girls and, to a lesser extent, of the boys to blame boys for this harsh treatment, or to point to the good qualities of girls for their preferential treatment. Some of the words of the students are provided below:

- Girls: Boys give more trouble.
 Girls treated better because they are less difficult.
 Male teachers punish boys severely.
 Boys are sometimes slow and teachers pay attention to them.
 Some teachers like boys more.
 Some teachers look out for the girls
 Sometimes boys get harsher punishment for the same thing.
 Sometimes teachers rough up the boys.
 Yes, girls treated more tenderly, boys can take the punishment.
- Boys: Yes, they are always comparing boys with the bad guys in the society.
 They always blame boys for trouble making.
 Girls are asked most of the questions.
 Girls not easily punished.
 Male teacher more interested in girls.
 Most times, because girls are usually more disciplined than boys.
 When we get an answer wrong she answers differently from when the girls answer incorrectly.
 Some girls get more help.
 Sometimes they overlook girls but punish the boys.
 They always give them (the boys) low marks and if they (boys) get good marks they say they (the boys) cheat.
 Yes, boys get harsher punishment for the same behaviour..
 Teachers are always asking us “Why can’t you be like the girls?”

So students notice the differences in treatment--that teachers send negative messages to boys, have lower expectations for boys than girls, compare boys’ and girls’ performance, and are more likely to defame or insult boys than girls. In fact, neither girls nor boys mentioned girls being insulted or called names. At the same time, boys and girls have begun to make attributions about the others’ ability, character, and competence. The strength of the feelings of the students, and in particular of the boys, regarding this differential treatment was also detected.

To test whether the academic performance of students who perceive negative/biased teacher-student interaction is different from those who do not, analysis of variance was performed on students’ academic performance and each of the measures. The effect of perception of teacher bias and students academic performance is shown in Table 3-7.

Table 3-7. Perception of Teacher Bias and Academic Performance

Item	Grades of Those Who Disagree	Grades of Those Undecided	Grades of Those Who Agree	of <i>F</i> Who
Some teachers have favourites in class	43.7	52.9	49.8	27.599, <i>p</i> < .000
In classes where the teacher is a woman, girls are given preferential treatment	50.29	50.14	46.5	11.706, <i>p</i> < .000

In classes where the teacher is a man, boys are given preferential treatment	50.02	50.67	43.59	22.415, <i>p</i> < .000
Girls are usually given more responsibility than boys	46.5	52.3	49.5	12.565, <i>p</i> < .000
Teachers discipline boys more than they discipline girls	49.9	50.0	48.49	2.235 <i>p</i> < .000

The table shows that there were no significant differences between the average grades of students who agreed and those who disagreed with these measures. It appears that perception of teacher bias does not influence students' academic performance. These results may be explained, in part, by the fact that the statements to which students responded reflect aspects of the teaching/learning environment which apply to all students. Because they apply to all students, they do not necessarily affect the motivation and the academic performance of an individual student. It appears that unless the unfair treatment or partiality is specifically directed at the individual, the effect of these contextual features are unlikely to be translated into poor academic performance. Nevertheless, despite these statistical findings, the boys' resentment and ill feeling, which have the potential of creating conflict and opposition to learning, should not be ignored; such emotions interfere with learning. The act of learning can be regarded as a political act; the learner has to grant his or her assent to learning (Erickson, 1987). When there is an absence of trust, as exists in cases where students perceive bias against themselves, they may refuse to learn or may demean whatever one attempts to teach them. Such behaviour and, indeed, the absence of trust, reduce participation in learning activities and, ultimately, the students' opportunity to learn. But above all, perceptions of teacher bias eventually create a social reality in the minds of both boys and girls, in which girls are seen as able and boys as incompetent.

Teachers' Perception of Their Behaviour and Their Response to Students

Most teachers interviewed professed that they were gender fair; that they tried to treat boys and girls equally. Or if there were noticeable differences in the way boys and girls were treated in the classroom, they explained these differences in terms of student ability, motivation, or needs, or differences in their in-class behaviour. Teachers said they tried to encourage and motivate boys more than girls, and made special efforts to include non-participating boys more than non-participating girls. It was observed that, at times, teachers even ignored those girls who wanted to contribute or to give an answer in favour of boys who were uninvolved. When teachers were asked about students' participation or abilities demonstrated in class, the majority stated that girls were more alert, more interested in their work, more focused, and more disciplined and organized than the boys. Some stated that girls were better able to express their thoughts verbally or in writing than boys. Many also referred to the responsibility of the girls. As one teacher said "When you want something done, you look for a girl." Only two of the teachers interviewed said that boys and girls performed equally or were equally alert and interested, and one teacher said that the boys performed better than the girls. In some cases, teachers treated the one or two boys who did their work well as special cases.

The classroom observation, however, revealed that teachers had varying responses to the differences in ability, interest, and participation in class. Competition between boys and girls was one way in which they tried to get students to participate. A few teachers made a special effort to motivate, even coerce, the boys to get their involvement. Teachers were seen cajoling or encouraging boys to participate or to attempt an answer. For example, when boys failed to be involved in the lesson, a teacher would say, "Let's hear something from the boys," or more specifically, "Come on _____, what do you say?" or "Let's try with John." In some cases, the teacher called on a boy even though it was the girls who had their hands up. In such cases, it was

difficult to know whether this was a case of teacher bias or teacher encouragement of boys who rarely volunteered.

In these efforts to get the boys to participate, the teacher often betrayed low expectations or, in a not so subtle way, his or her irritation with the boys. “I knew you would give me the wrong answer,” or, “you two boys stand and read and I hope you read it well” (to two boys who had been conversing with each other during the lesson). Sometimes, in her interaction, the teacher revealed her higher expectations for the girl in her tone of voice. In some classrooms, the teacher asked more questions of the girls, or called upon the girls to answer more often than the boys. This may, however, reflect an ability bias rather than a gender bias, since, in almost all the classes observed, the girls performed better than the boys. Except in those cases already described where the topic was of interest to boys, or the boys were interested in a particular activity, the girls were seen to participate more actively, to get more correct answers, and to complete their homework more often than the boys. Girls also appeared more able to express their ideas and to be more confident in doing so.

Teachers’ and Students’ Perceptions - A Contrast

Although the teacher’s thinking was not explored in any great detail, it seems that teachers and students have very different views of students’ behaviour in classrooms--particularly that of boys--and the effect of the teacher’s actions on students. Teachers tended to explain away differential treatment, citing such factors as the boys’ hyperactivity, lack of interest in academic work, and laziness, or the teachers’ need to be encouraging and motivating. Students on the other hand, both boys and girls, detected bias and discrimination on the part of the teacher, with the female teacher more often than the male teacher being guilty of discriminatory practices in favour of the girl.

Students’ Academic Identity

The academic identity of students was also investigated in this study. Based on the research on achievement of some social groups in industrialized countries, it is assumed that if students’ identity and values accord with the values of the school, they are more likely to participate in school activities and, hence, to succeed in school. In this case, academic work forms part of their social identity. When, in contrast, students’ social identity conflicts in some way with the goals and routines of the school, they will not publicly participate in learning activities and adhere to the values and routines of the school. Their identity will be in conflict with the demands of the school. It was also assumed that there will be gender differences in this identity. This aspect of the students’ personal identity is termed academic identity. To find answers to this question, students were asked to respond to five statements on the survey questionnaire. Table 3-8 presents the responses of students by gender.

Table 3-8. Gender Differences in Academic Identity

Item	Total Who Agree	%	Boys		Girls		χ^2
			Freq.	%	Freq.	%	
Students who are serious & hardworking are not usually popular	1661	46	691	47.5	1030	47.7	3.13
If a boy wants to be popular & respected, he can’t be serious about school work	1329	35.8	577	39.6	752	34.8	4.29

he can't be serious about school work

Boys who are serious and study hard are strange	825	22.0	371	24.0	454	21.0	6.36*
Getting good grades is most important to me	3393	91.3	1344	92.3	2049	94.9	54.4*
I work hard in school	3389	91.0	1341	92.0	2048	95.0	58.5*

Note: Percentages are calculated on the number of boys or girls in the study.

*Indicates a statistically significant difference.

The table shows that there were statistically significant gender differences in students' commitment to hard work and getting good grades in school, and in the view of the male scholar. Specifically, more boys than girls thought that boys who were serious and studied hard were strange ($\chi^2 = 6.36, p < .05$), more girls than boys thought that getting good grades was most important ($\chi^2 = 54.4, p < .05$) and that they worked hard in school ($\chi^2 = 58.5, p < .05$). The statistically significant gender differences in these responses point to the differences in academic identity. It is indeed alarming that roughly 40% of boys think that if a boy wants to be popular and respected, he cannot be serious about school work, and that 24% of boys think that boys who are serious and study hard are strange. These results show evidence of the importance of the opinions of peers, as well as the place of academic work in the value scheme of students.

To test the significance of this social/academic identity, analysis of variance was performed to determine whether there are differences between the average grades of those scoring high and low on each of the measures. The results are presented in Table 3-9, by gender.

Table 3-9. Academic Identity and Academic Performance

Item	Total		Boys		Girls	
	True	False	True	False	True	False
Students who are serious and hard-working are not usually popular	47.2	51.6	46.4	47.9	50.5	52.7
If a boy wants to be popular and respected, he can't show that he is serious about school work	47.2	51.0	44.6	48.4	49.0	52.9
Boys who are serious and study hard seem strange to me	45.5	51.1	42.2	48.9	48.3	52.5
Getting good grades is most important to me	50.1	43.7	47.4	42.3	51.8	46.0
I work hard in school	50.1	43.9	47.2	45.1	51.8	41.8

Below are the *F* values:

Gender Main Effect	49.066, $p < .004$	Q.30 Main Effect	8.35, $p < .000$
Interaction Q.30 x gender	.272	Gender Main Effect	46.114, $p < .000$
Q.31 Main Effect	34.43, $p < .000$	Interaction Q.31 x gender	.002
Gender Main Effect	45.087, $p < .000$	Q.37 Main Effect	56.178, $p < .000$
Interaction Q.37 x gender	3.141	Gender Main Effect	9.445, $p < .002$
Q.34 Main Effect	17.127, $p < .000$	Interaction Q.34 x gender	.054
Gender Main Effect	.232	Q.33 Main Effect	19.388, $p < .004$
Interaction Q.33 x gender	8.324, $p < .004$		

Table 3-9 shows that there are significant differences between the grades of those who agree with these statements and the grades of those who do not. However, the differences are greater for some items than others. For the item “I work hard in school” there is a difference in the mean grades of 10 percentage points between girls who agree with this statement and those who do not. This item, however, does not differentiate the high achieving and low achieving boys. For boys, the item “Boys who are serious and study hard are strange” is the measure that differentiates the higher achieving and the lower achieving boys. These results suggest that boys who equate studiousness with being strange are unlikely to behave or act studiously and will, as a result, participate less in learning activities and have fewer opportunities to learn. For girls, it is hard work that makes the difference.

These results suggest that academic values and school work occupy a contradictory place in the value scheme of boys, much more so than of girls. Many boys seem constrained by the socially undesirable image of the studious male. Academic work and being serious about school occupy an uneasy and conflicting place in their value system. Research conducted elsewhere has shown that many boys believe that doing well at school is feminine behaviour (e.g., Power, Whitty, Edwards, & Wigfall, 1998). Such conceptions of what is masculine have the power of limiting boys’ access to learning and to knowledge.

Students’ social and academic identity was also determined during the students’ interviews. In an effort to determine students’ self-identification, or that aspect of identity that reflects qualities or attributes that persons admire and would like to emulate, students were asked to state the qualities of a student--boy and girl--whom they admired. The assumption was that the qualities or attributes mentioned would represent what each student would like to be, and that each student would act in ways reflective of what was admired. Or, at least, they would not act in ways oppositional to those qualities. The two questions asked were:

Think of the boy in your class or school that you really admire. What is it about this boy that makes you admire him?

Think of the girl in your class or school that you really admire. What is it about this girl that makes you admire her?

Students were allowed to state the words or phrases which they thought described this person, and whatever they said was accepted. Students’ responses were then categorized into larger groupings, each of which reflected a common theme. These larger categories were as follows:

1. Academic which had two aspects - a) natural ability and b) hard work/application
2. Social/communicative
3. Physical appearance
4. Helpful/encouraging
5. Kind/loving/understanding

Examples of words used in the category “Academic - natural ability” were *bright, intelligent, ability*. Examples of words used in the category “Academic - hard work/application” were *takes work seriously, hard*

working, interested in school work. Examples of words in the category “social/communicative” were *co-operative, gets along, easy going, interpersonal skills.* Examples of physical appearance were *neat, well dressed, carries self well, deportment, style.*

With one exception, students referred to the academic attribute more often than to any of the other attributes when describing same sex and other sex students. The exception was boys’ description of girls, in which the physical descriptors predominated. Because of the interest in this study in academic achievement, only the results related to the academic will be reported here. The number of references to the academic attribute made by boys and girls is presented in Table 3-10. A chi-square calculated to determine if any of these values occurred more frequently for one group than the other showed that the differences were not statistically significant.

Table 3-10. References to the Academic as Admired Attribute (interview data)

	Natural Ability	Natural Ability	Hard Work	Hard Work
	References to Boys	References to Girls	References to Boys	References to Girls
Boys	29	43	33	22
Girls	63	69	36	37

Table 3-10 shows that, in describing the admired person, girls attach more importance to academic qualities than boys. They value natural ability such as intelligence more than they value hard work or application. Boys appear to admire the academic quality in girls more than they admire it in themselves, as they mention it more often when describing girls than when they are describing boys.

Subject Choice and Career Aspirations

This study sought to discover whether there were gender differences in the subjects that boys and girls take or plan to take in the CXC examination, and in their reasons for choosing these subjects. The study also sought to discover students’ career aspirations and the reasons for these career choices. In the survey questionnaire, students were asked to choose from a list of 60 subjects offered in the CXC examination, and from a list of 21 subjects offered at the SSC level. Table 3-11 presents information on selected subjects, by gender.

Table 3-11. Choice of Selected CXC Subjects, by Gender

CXC Subject	Boys		Girls		χ^2
	Freq.	Percent	Freq.	Percent	
Biology	187	35.9	848	64.1	30.31*
Chemistry	280	40.6	577	59.4	1.67
Computer Science	18	39.7	715	60.3	3.56*

CXC Subject	Boys		Girls		χ^2
	Freq.	Percent	Freq.	Percent	
English Language	1182	76.0	1880	87.1	77.7*
Food & Nutrition	124	19.8	503	80.2	151.60*
General Science	191	44.7	236	55.3	1.59
Home Management	47	14.6	275	85.4	107.93*
Integrated Science	235	37.7	389	62.3	5.52*
Mathematics	1142	40.1	1703	78.9	15.38*
Office Practice	147	24.4	456	75.6	91.97*
Physics	360	49.0	375	51.0	18.89*
Principles of Accounts	349	27.5	921	72.5	165.74*
Principles of Business	414	29.2	1005	70.8	154.66*
Technical Drawing	473	30.4	105	4.9	448.53*
Typewriting	179	11.5	742	34.4	253.79*
Woodwork	267	17.2	39	1.8	30.15*

*Indicates a statistically significant gender difference.

Table 3-11 shows that there were significant gender differences in the choice of most of the selected subjects. Of the 60 subjects offered by the CXC, about three-fourths were chosen more frequently by boys or girls, and these differences were statistically significant. The subjects in which gender differences in choice were *not* evident are Caribbean History, Chemistry, General Science, Information Technology, Masonry, and Religious Education.

Students were also asked to indicate the reasons why they chose these subjects. The results showed that most subjects were chosen by the majority of students because these subjects were seen as important for getting a job or for the career which students want to pursue. Gender stereotyping of subjects was a significant consideration in choosing a subject at the CXC level. This is, in part, because subjects are linked to jobs and some jobs are still seen as appropriate for females only or for males only. Most, but not all, of the subjects that were chosen for job/career reasons are directly associated with specific jobs or occupations. At the same time, a minority of students chose 31 of the subjects--more than one-half of those offered--because these subjects were perceived as gender-coded subjects, that is, subjects usually taken by boys or by girls. This perception may, in part, be a result of the gender stereotyping of jobs. These gender-coded subjects included the following for boys:

Agricultural Science, Art, Auto Mechanics, Building Engineering, Building Technology, Cabinet Making, Drafting, Electrical Installation, Farm Mechanics, Machine Shop and Welding, Masonry, Mechanical Engineering and Technology, Metals, Plumbing and Pipe Fixing, Resource and Technology, and Technical Drawing.

The following subjects were chosen by girls because they believed they were subjects that girls usually take:

Beauty Culture, Catering and Food Processing, Child Care, Clothing and Textiles, Cosmetology, Food and Nutrition, Garment Construction, and Home Management.

Thus, 20 gender-coded subjects were chosen by boys, compared with 8 sex-typed subjects chosen by girls. These results lead to two different interpretations. On the one hand, girls appear to have less rigid notions of what they can do or, at least, their stereotypes apply to fewer jobs. On the other hand, girls are allowed access to fewer skilled jobs because of gender stereotyping of jobs, while boys have access to a wider choice of skilled jobs. Girls' access to a limited number of skilled jobs has serious implications for the welfare of girls and women who face a higher unemployment rate than boys and men.

Conclusions and Recommendations

The results of this study indicate that boys and girls exist in a gender-coded school environment and differ on almost every measure examined in the study. Many factors contribute to the gender differences in academic performance. Gender relations are complex, arising as they do from biological differences, social and cultural conditioning and expectations, and a myriad of personal experiences with members of the opposite sex. Several theoretical perspectives may help explain why boys are not achieving as well as girls, and are deciding not to continue to the tertiary level. Nevertheless, the results of the study indicate that some of the theoretical perspectives that shaped the design of this study have more explanatory power than others. Three of the six theoretical perspectives were found to be quite robust in offering explanations for what is now frequently referred to as boys' underachievement. Specific measures which examined these theories and which related to academic performance are: (a) school practices, such as being beaten and insulted, that demean students, particularly boys, (b) academic identity, (c) the belief that school will help you in later life, and (d) involvement in work activities. At the same time, the ethnographic observation revealed that boys actively and continuously constructed a definition of themselves as irresponsible, unreliable, and uninterested in academic work. The following critical areas require urgent attention:

- School practices such as corporal punishment and insults are demeaning to students and lead to anger and even rage. Boys were more likely than girls to suffer from school practices and were more likely to be exposed to negative evaluations from teachers. Though a small number of students were beaten, a higher percentage of boys than girls were beaten and insulted. The strong relationship with academic performance suggests that the practices themselves depress students' motivation and commitment to their academic work. They also suggest that exposure to these practices may be related to other factors such as streaming and social class. Although these practices stem, in part, from the behaviour of boys themselves, they raise critical equity issues that need to be addressed.
- The negative effects of streaming and the negative experiences which correlate with being assigned to the low stream were also evident in the results of the study. Students in the low stream were more likely to be insulted, beaten, and to feel that they did not belong in school. They were also more likely to be male and, of course, to obtain low grades. Students in the low stream constituted almost one-fourth of the sample. It can be estimated, therefore, that in the entire population, one-fourth of the

secondary school population is in the low stream. Instructional and attitudinal changes are, therefore, needed to improve these students' chances for learning and for increasing their access to knowledge.

- Gender-coding of appropriate student behaviour and subject choice was evident; stereotypical notions of male and female behaviour were held by students and teachers alike. These stereotypes were reinforced by school practices, routines, and rituals. The school does not act as a countervailing and liberating force in altering societal stereotypes. These stereotypes restrict one's thinking and narrow the vision of what is educationally and socially possible for boys and girls. For example, stereotypical notions of what are male and female jobs restrict females to a limited number of skilled jobs in a society where female unemployment is quite high.
- It appears that boys are more likely to hold gender stereotyped notions than girls. This is evident in their conception of what are male, female, and gender neutral jobs. Violations of the gender code by boys appear to be more harshly treated than violations by girls. Teachers play a part in the construction of gender roles and conceptions of masculinity and femininity. Most teachers make little attempt to change gender stereotypes.
- Students' academic identity, particularly that of the boy, is problematic. Boys' academic identity may help explain why they socially constructed an image of themselves as not interested in academic work, not organized, and likely to fool around in the classroom. The "anti-academic culture" which they socially constructed may be their way of expressing this identity.
- The nature of teacher-student interaction which shows some bias in favour of girls. This bias results, in part, from teacher expectations formed as a result of previous performance and in-class behaviour, and the boys' academic identity. Although teacher-student interaction and lower expectations for boys did not correlate with academic performance, the interactions observed raise gender equity and moral issues that have implications for the teacher's role. These issues must be addressed through some action at the local school level.
- The curriculum and teaching methods appear to alienate many boys. From limited observations in about four classrooms, boys can become very interested in academic work if the topics are of interest and they are required to do meaningful tasks. Thus, serious and urgent attention will have to be paid to the curriculum.
- There is a major problem of secondary boys' ability to read. Reading is critical to school success and is an expectation of teachers and parents. Therefore, if a student is not able to read, school can become punishing and demeaning, and may be one reason why boys are more likely than girls to think that they do not belong in school and to drop out of school.
- Aspects of the functioning of the comprehensive school are worrisome. Students in this school are more likely to experience negative school practices, to report more teacher bias and negative teacher-student interaction, and to plan to drop out of school.

Measures of the quality of education have, in the past, emphasized the inputs to the education system--teacher qualifications, number of schools and places, textbooks made available, and so on. These are important indicators and attention should continue to be paid to them. However, the processes of schooling are as important--the quality of school life, the nature of teacher-student interaction, the quality of teaching and

learning, and students' experiences in school. This report has shown that the experiences of boys and girls differ substantially in almost every respect. It has also shown that on some measures, students' experiences are negative. Hence, the Ministry of Education and Culture (MOEC) must immediately begin to take steps to create a gender fair environment that ensures equity for boys and girls, as well as an environment where attention is paid to students' emotional and social well being. Developing guidelines related to school processes and gender equity and fairness is a first step. Including these standard as goals in future planning is essential.

References

- Acker, S. (1992). Travel and travail [Critical introduction]. In J. Gaskell, *Gender matters from school to work*. Milton Keynes: Open University Press.
- Anderson, P. (1997). *Youth unemployment in Jamaica*. Mona: Department of Sociology and Social Work, UWI.
- Berk, L. (1997). *Child development* (4th ed.). Boston: Allyn & Bacon.
- Cooper, H. (1989). *Homework*. New York: Longman.
- Erickson, F. (1987). Transformation and school success, *Anthropology and Education Quarterly*, 18 (4), 335-45.
- Evans, H. L. (1988). *Reform of secondary education: General curriculum. Final Report to the UNDP and the Ministry of Education*. Mona: Faculty of Education, UWI.
- Evans, H. L. (1994). *Review of policy relevant research on secondary education in Jamaica. Final report to Harvard Institute of International Education*. Mona: Faculty of Education, UWI.
- Evans, H. L. (1998). *Gender differences in participation, opportunities to learn and achievement in secondary education in Jamaica. Final Report to the World Bank*. Mona: Faculty of Education, UWI.
- Gibson, M. (1982). Reputation and respectability: How competing cultural systems affect students' performance in school. *Anthropology and Education Quarterly*, 13 (1), 3-27.
- Gordon, D. (1996). Women, work and social mobility in postwar Jamaica. In K. Hart (Ed.), *Women and the sexual division of labour in the Caribbean*. Kingston: Canoe Press in collaboration with the Consortium Graduate School of Social Sciences.
- Jamaica. Ministry of Education, Youth and Culture. (1991). *Jamaica five-year development plan, 1990-1995: Education and Training*. Kingston: Planning Institute of Jamaica.
- JAMAL. (1995). *National literacy survey of 1994: Final Report*. Kingston: The Author
- King, E. M., & Hill, M. A. (Eds.). (1993). *Women's education in developing countries: Barriers, benefits and policies*. Baltimore, MD: Johns Hopkins University Press.
- Knodel, J. (1997). The closing of the gender gap in schooling: The case of Thailand. *Comparative Education*, 33 (1), 61-86.
- Miller, E. (1997). *Jamaican primary education: A review of policy-relevant studies*. Kingston: Green Lizard Press.
- Mitchelmore, M. C. (1980). Three-dimensional geometrical drawings in three cultures. *Educational Studies in Mathematics*, 11 (2), 205-216.
- Parry, O. (1996, March). *Sex, gender and school failure*. Paper presented at the Conference on Caribbean Culture, Mona, Jamaica.
- Power, S., Whitty, G., Edwards, T., & V. Wigfall. (1998). Schoolboys and schoolwork: Gender identification and academic achievement *International Journal of Inclusive Education*, 2 (2), 135-153.
- Stromquist, N. (1990). Gender inequality in education: Accounting for women's subordination. *British Journal of Sociology of Education*, 11 (2), 137-153.