

PLANNING FOR IMPROVEMENTS IN BOYS' ACADEMIC PERFORMANCE: TOWARD A BETTER UNDERSTANDING OF TEACHER-STUDENT RELATIONSHIP

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ABSTRACT

This article explores the quality of teacher-student relationship as it relates to the academic performance of Jamaican male high school students when compared to their female counterparts. The study examined data from a regional examination body and found that girls out-performed boys in all subjects in the period 2011–2016. In extracting data from another study, it was found that boys had less positive perceptions of their relationships with their principals and teachers than girls. This article points to the need for educational practitioners and policy makers to adopt new ways of engaging boys in the teaching and learning process. Attention needs to be paid to the emotional and interpersonal needs of boys.

INTRODUCTION

The problem of male under-achievement, male under-representation, and comparatively lower academic performance is a global one. A March 6, 2015 article in the *Economist* magazine posed the question “Why do girls do better at schools than boys?” The authors contend that for centuries, boys have been doing better than girls but this situation is now changing. The article cites a study by the Organization for Economic Cooperation and Development (OECD) which examined how 15-year-old boys and girls performed at reading, mathematics, and science. The OECD study found that while boys still score somewhat better at mathematics and science the genders are roughly equal; but when it comes to the students who really struggle, the study found that boys are 50% more likely than girls to fall short of basic standards in all three areas.

Kohn (2002) articulates the issue with appropriate emotion when he writes:

Remember when girls became nurses and not doctors; stenographers, not CEOs; teachers, not principals? Well, that’s not the way it is any more. Thirty years after the passage of equal opportunity laws, girls are graduating from high school and college and going into professions and businesses in record numbers. Now, it’s the boys who could use a little help in school, where they’re falling behind their female counterparts.

Both the findings of the OECD study and the musings of Kohn reflect concerns that have been felt by policy makers, educational practitioners, and parents in Jamaica for decades. The results of the Caribbean Secondary Examinations Certificate (CSEC) have shown, over several years that girls do better than boys in most subjects. Using the data for the period 2011–2016, the findings show that girls outperformed boys in all five subjects analyzed.

The issue of male underperformance has several implications, the most important of which is the risk of declining male participation in organized, formal society. While it is accepted that participation in formal organizations is not the only, or indeed the primary, indicator of male participation in the society and economy, the increasing absence of males from the formal centers of society has raised concerns for policy makers and national leaders. Taking account of this problem, Jamaica and other Caribbean countries launched a Caribbean project in 2013 designed to address educational underachievement among boys. The programme which was named ‘Advancing the Education of Boys’, was designed to improve the educational outcomes of boys. Commenting

on the programme, which was funded by the Commonwealth Secretariat, a spokesperson for the Secretariat was quoted in the *Jamaica Observer* newspaper of June 6, 2013 as saying:

We understand the gravity of the problem when it comes to the achievement of our boys and, in as much as it is an educational problem, we are also aware of the wider impact it has on society and socio-economic development.

The Government of Jamaica has remained focused on the problem of male underachievement, and in 2015 the Ministry of Education commenced training of some forty (40) trainers who would in turn train classroom teachers in the differences in how boys and girls learn and the strategies that can be implemented to close the gender achievement gap. This decision, according to the Jamaica Information Service, the government's information service, was followed by the Ministry's participation in a boys' learning conference hosted by the Gurian Institute in Denver, Colorado. Commenting on the importance of the initiative. National Numeracy Coordinator, Andre Hill, pointed to the scientific data on the differences in the brain function and anatomy of boys and its impact on the way they learn in the classroom, compared to girls.

There is emerging consensus that part of the explanation for boys underperformance, when compared to girls, lies in the area of physiology and biology. While accepting that physiology and biology may be important factors, there is research evidence suggesting that there are other important factors. This study seeks to explore some of those other factors.

STATEMENT OF THE PROBLEM

The academic underperformance of boys is a potential threat to society. It means that fewer and fewer males will be competent and available to assume leadership positions. The concern here is not that society needs males more than it needs females to fulfill leadership roles but that they are needed in equal proportion. Hoff Sommers (2013), author of *The war against boys*, commented on the manifestation of the phenomenon in the United States of America. She pointed out that the society needs to acknowledge that boys are languishing while girls are succeeding. She noted that as the world moves to being a knowledge economy in which school achievement becomes the cornerstone of lifelong success, women are adapting and men are not. According to Hoff Sommers, women in the United States now earn 62% of the associate degrees, 57% of the bachelor's degrees, and 60% of the master's degrees. Policy-makers and college administrators have been caught napping she laments.

The situation in the Caribbean is similar to that of the United States. Over the last two and a half decades, male participation in education has shown a decline. In 1982 the ratio of male graduates to female graduates from the Mona Campus of the University of the West Indies was 8:2. By the end of 1992 the situation had been reversed with 70% graduates from the Mona campus of the University of the West Indies being female. That pattern had been maintained in the twenty-five years (roughly a generation) since the reversal. A similar pattern obtains at the other campuses of the University of the West Indies, located in Barbados and Trinidad, as well as the Open Campus.

The 2012–2013 Education Statistics Report published by Jamaica's Ministry of Education (2015), shows that males accounted for just over one third (37%) of the 8,383 students enrolled in Community Colleges. The data with respect to Teachers' Colleges was more dismal with males accounting for only 18% of the 7,141 students enrolled that year. The situation across the university level was less discouraging when compared to Teachers' Colleges, which showed that of the 10,805 Jamaican students enrolled in undergraduate programmes at the three main campuses of the University of the West Indies, males accounted for 32%. At the post-graduate level, the picture was almost the same with males accounting for 30.5% of the 2,811 Jamaican students enrolled across the three campuses.

The 2014/15 Education Statistics report provided by the Ministry of Education shows a slight decline among male registration among males which was at 33.5% of the 8,405 students registered. This lower number of male registrants amounts to a decline of 877 male students when the 2012/13 report is compared with the 2014/15 report. There was a slight improvement at the Teachers' College level with males accounting for 19.5% of the students, compared to 18% in 2012, but the nominal figure was almost 100 fewer male students with the number in 2012 being 1,290 compared to 1,197 in 2014. At the university level, the figures in 2014 were roughly the same as 2012, with males accounting for 31.75% and a net increase of 427, in 2014.

The situation at the University of Technology shows a slightly better picture with 41.5% of 13,016 students being males according to the 2011/12 data. The overall picture, however, is one of diminished (or minority) male presence when it is considered that across the other approximately twenty-five private tertiary institutions reported on in the Ministry of Education statistics, males account for an average of 33%. Thus while there has been some fluctuation in the data, and one exception with the University of Technology, the dominant trend in the data is that males account for less than 20% of the student population at Teachers' Colleges and an average of about 33% across all, but one, of the other tertiary institutions.

Thus, there is no disputing that there is a major disparity in the educational performance gap between males and females and, as has been shown, the problem is not limited to Jamaica, given that a number of Caribbean countries. But the issue of educational gender gap is not merely a Caribbean problem. It is a global one. A report in the *Independent* Newspaper in August 2016 revealed that in the United Kingdom 94,000 more girls than boys applied for university places. There is thus a growing consensus that if this trend continues male participation in education and formal organizations in the public and private sector could fall to unimaginably low levels.

OBJECTIVES OF THE STUDY

The argument of this paper is that the decreasing presence of males in the workforce is a problem that is in part perhaps attributable to the school system. This paper therefore seeks to examine those dynamics of the school system which may be, at least in part, responsible for the academic performance of boys versus girls and thus the threat to male participation in public life which their underperformance portends.

Various initiatives were undertaken in Jamaica, dating back over the last forty years to address the issue of women's disempowerment which resulted from and was manifested in the dominance of males in academia and the workplace, of which the university graduation rates, cited above, was one manifestation. These initiatives included the establishment of the Centre for Women Development Studies (recently renamed the Centre for Gender Development Studies) at the University of the West Indies, the Women's Centre which catered to girls who became pregnant while in school, the Women's Outreach, and Resource Centre, and more recently the 51% Coalition. Each of these initiatives was intended to reduce the imbalance between the genders in respect to participation in the socio-economic life and power-sharing. Now that the pendulum appears to have swung the other way, a similar set of initiatives is needed.

The study has two main objectives, namely:

- (i) To examine the academic performance of boys compared to that of girls. (The major high school terminal examination is used as the focal point of the comparison and data for the period 2011–2016 are used);
- (ii) To explore whether the relationships between teachers and students are implicated in the performance of boys.

RESEARCH QUESTIONS

This paper seeks to answer two questions, namely:

- (1) How does the performance of boys compare to that of girls in five selected subjects in Jamaica's major high school terminal examinations?
- (2) What are boys' perceptions of the quality of their relationships with their principals and teachers as compared to the girls' perceptions?

SCOPE AND SIGNIFICANCE OF THE STUDY

The study focused on the CSEC results of students in Jamaican public high schools 2011–2016. The study also examined the perspectives of one hundred and sixty grades ten and eleven students who participated in a survey that sought to understand students' perceptions and expectations of their principals and teachers. Both sets of data provided a broad perspective on the overall contextual realities of students' performance and their perceptions of their relationships with the school system.

The study is significant for at least two reasons, namely:

- a) It calls for public attention to a current and pressing social phenomenon which has major implications for the future of Jamaican and, indeed, Caribbean society;
- b) It focuses the spotlight in a new way on the dynamics of the leadership practices and teacher-student relationships in schools.

LITERATURE REVIEW

A number of theories and perspectives have been advanced seeking to explain male under-performance. One of the dominant Caribbean perspectives surrounds the issue of male marginalization.

Male Marginalization

Figueroa (2004) defines male marginalization as representing a decline of the male relative to female in academic performance. In Jamaica, while the performance of boys and girls are roughly similar at the Grade Six Achievement Test (GSAT) levels, as students progress through the education system the academic gap between the genders widens in favour of girls. This widening gap then places boys at the fringes as girls come to dominate most areas of activity, up to and including the tertiary level.

Various explanations have been advanced for the differences between the academic performance of boys versus girls. These explanations cite power, socialization, temperament, genes, social forces such as social upbringing and subtle attempts at control, and brain-wiring. Miller (1991) contends that the performance of boys is attributable to male marginalization. He further argued that male marginalization emerged as a tool of social control. This method of social control was a result of efforts by those who held central positions of power in post-colonial society to restrict black men to occupations related to agricultural and industrial labour, in order to stifle the emergence of black militant men who could challenge the inequality and injustice in society. Miller thus advances what he calls a theory of place and laments what he describes as the use of women as weapons against men who, as a result of the gender war have been somewhat displaced. Miller's theory of place is in part supported by Hoff Sommers (2013) who asserts that across all ethnic groups boys experience far less connection in school, and earn less good grades, and display lower academic aspirations than girls. This lack of connection is synonymous to marginalization.

Barrow (1998) and Chevannes (1999) reject the idea that boys are marginalized. Barrow contends that Caribbean men are central to the family and suggested that Caribbean men show strong bonds to their mothers and assume care responsibilities on behalf of the family. In addition, they often share in the care of their siblings and, to a lesser extent, their nieces, and nephews. Chevannes insists that the under-representation of men in academia is compensated for by their dominance in the church, national politics, student power at the university, and also the upper echelons of academia. Despite Barrow's and Chevannes' disputation, the data on gender participation in academia and other areas of public life have been showing a trend towards greater female presence since the mid 1990's.

Biology and Physiology

Another explanation advanced for male under-performance is located in biology and physiology. Moul, et al (2013), found that the serum serotonin level in boys was a significant predictor of callous-unemotional traits. Serotonin exists in much high levels in boys than in girls and according to experts it is implicated in conditions such as Oppositional Defiant Disorder (ODD) and Conduct Disorder (CD) which are more prevalent among boys than girls. According to Moul, et al, these disorders are manifested in behaviours such as spitefulness, arguing with adults, aggression towards others, destruction of property, and violation of rules. Thus, the degree to which these behaviours are prevalent among boys becomes a factor impacting academic work given the amount of energy that they utilize in distractive conduct.

Walker (2016) cites the work of Lusher and Yesenov who suggest that the differences in the performance of girls versus boys are attributable to the time at which school starts. In an experimental study conducted in an Eastern European country they found that by starting school later in the day the performance of boys improved and thus they concluded that one major explanation for the superior performance of girls is that they are early risers.

Walker also notes that the differences in the brain construction of boys versus girls are manifested in the reading habits of each gender. Citing the work of Lusher and Yesenov, he notes that girls read more than boys. Reading proficiency, they argue, is the basis upon which all other learning is built, thus when boys refuse to take a deep interest in reading the other areas of their academic performance suffer as well. Lusher and Yesenov further found that girls spend more time on homework and that boys are more adversely affected by peer pressure than girls and these factors impact their focus on and dedication towards their school work. These factors in turn affect the quality of boys' relationship with their teachers. Walker, Lusher and Yesenov contend that when boys are badly behaved (due to peer influence) teachers mark them down for this. Lusher and Yesenov point to confirmatory evidence in support of their contention that relationships with teachers play a role in boys' assessed performance. They cited reports that on anonymous tests boys perform better and that the gender gap was minimized when teachers do not know the gender of the pupil whose work they are marking.

Teacher-Student Relationships

Hughes and Kwok (2007) in a compelling study conducted in Texas, sought to examine the influence of student-teacher and parent-teacher relationships on student achievement in the primary grades. The study involved 443 ethnically diverse 1st graders, of whom were 52.6% males and 47.4% females. The study found that the quality of teachers' relationships with students and their parents served to correct and counterbalance the traditional adverse effects that normally arise in relation to children's background and classroom engagement. The study further found that the

quality of child classroom engagement served to inform the quality of student–teacher and parent–teacher relatedness and child achievement the following year.

A further feature of the research findings was striking. The study found that the improved student-teacher and parent-teacher relationships were stronger among African American children and their parents, relative to Hispanic and Caucasian children and their parents. In effect, what the study showed was that the need for relatedness being greater among African Americans had a greater impact on their academic achievement.

Hughes and Kwok’s note of students’ sense of social relatedness at school is a key construct in contemporary theories of academic motivation and engagement (Connell & Wellborn, 1991; Eccles, Wigfield, & Schiefele, 1998). Hughes and Kwok concluded that when students experience a sense of belonging at school and supportive relationships with teachers and classmates, they are motivated to participate actively and appropriately in the life of the classroom, and that when deep relatedness is established in the early grades it supports academic motivation and achievement over the long term. Similar findings were supported by authors in subsequent years (Hamre & Pianta, 2001; Ladd, Birch, & Buhs, 1999 as cited in Hughes & Kwok, 2007).

THEORETICAL FRAMEWORK

Four theoretical frameworks have informed this study. The first is that of Lusher and Yesenov (2016) who argue that teachers’ negative attitude towards boys and their biased engaged with them based on gender stereotypes affects their assessment of boys’ academic performance.

The second work which informs this study is that of Barriteau (2000) who argues that gender systems in the Caribbean consist of two main areas namely material and ideological relations. According to Barriteau, material dimensions explain how men versus women are allocated or given access to material and non-material resources within the state and society, while ideological dimensions explain how Caribbean society construct beliefs about masculinity and femininity. Barriteau’s perspective is somewhat supported by Figueroa (2004) who suggests that differences in role expectations somehow lower the performance bar for boys, thus there is the societal expression that “boys will be boys”, which means that boys are expected to misbehave while girls are expected to conform to a rigid code. Thus, when a boy does well academically it is viewed with surprise and applause but it is expected that a girl will do well. This framework of differential expectations and negative attitudes towards boys is what employed in this study to explore the key question that informs this research.

The third theoretical lens through which this study is pursued is found in the work of Monarth (2014) who speaks to the issue of power. Citing research conducted by Yona Kifer of the University of Tel Aviv, Monarth argues that when employees are enabled to feel powerful, the feeling can boost productivity and improvements in performance, thus leaving employees feeling more satisfied on the job. Thus, this study is predicated on the view that the degree of power that boys perceive they have or are facilitated in having, is a major explanation for how well they perform and how confident they are.

The final theoretical framework that informs this study is the issue of the role of relationships between teachers and students. Hughes and Kwok (2007) whose study, conducted in Texas, USA, sought to examine the influence of student-teacher and parent-teacher relationships on student achievement in the primary grades. The study found that the quality of teachers’ relationships with students and their parents served to correct and counterbalance the traditional adverse effects that normally arise in relation to children’s background and classroom engagement.

RESEARCH METHODOLOGY

Research Design

This study uses an exploratory design. According to Cuthill (2002) and Creswell (2005), exploratory designs are used when there is little or nothing known about a problem and thus there is a need to acquire greater knowledge of details and concerns, generate new ideas and assumptions, and make a determination about whether a study is feasible in the future.

Sample

This study used two sets of samples. The first is the results of students' examination grades in the Caribbean Examination Certificate over the period 2011–2016. The purpose of using this sample was to explore the performance of boys versus girls drawn from across the Caribbean. The number of girls who enter for these examinations is higher than the number of boys. It would not be feasible to create equal sample sizes for each gender. The sample used was the cohort of all students sitting the exams.

The performance of these students was assessed in five subjects, namely English Language, Mathematics, Chemistry, Information Technology, and Principles of Accounts. The subjects were purposively chosen to include four subjects that all students are mandated to sit (English Language, Mathematics, Accounts, and Information Technology) and four others.

The second sample consists of 160 Grades 10 and 11 students whose views and perspectives were canvassed in relation to a number of issues regarding their assessment of their teaching and learning environment. The views of these students were sought in order to determine whether there were differences between the boys' assessment of the learning environment and that of girls.

The sample consisted of:

- (a) forty students from a rural all-boys traditional high school;
- (b) forty students from an urban all-girls traditional high school;
- (c) forty students from each of two co-ed non-traditional high schools.

'Traditional' schools refer to schools that offered a typical grammar school education based on the British system. These schools were established in Jamaica while the country was under British rule. Non-traditional schools are those that were constructed after independence and offered a wider range of subjects to include technical and vocational education. The 160 students were either from Grades 10 or 11 students randomly chosen by their teachers to participate in the research. The sample consisted of 54 % females and 46 % males.

Data Collection Instruments, Reliability, and Validity

The reports of the examinations that were published by the Caribbean Examinations Council (CXC) 2011-2016 were used to provide the data on students' performance, while a self-designed 44-item instrument was used to collect data on students' perspectives. The instrument was pilot-tested twice and modified based on pilot results. The instrument was then assessed by a panel of reviewers who deemed it to have adequately captured the key issues related to the proposed field of inquiry. The instrument was further tested for internal consistency using Cronbach's Alpha and it produced a score of .899. A C-Alpha score of roughly .9 meets the standards proposed by Nunnally (1978) who argues that a C-Alpha score of .9 and above suggests a high level of reliability. This view was shared by Drost (2011) and Rosenthal and Rosnow (1991). The instrument is included in this study as an Appendix.

Data Collection Procedures and Analysis

Student academic performance in the five subject areas (English Language, Mathematics, Chemistry, Information Technology, and Principles of Accounts) was indicated in the results of the Caribbean Secondary Examinations Certificate published by the Caribbean Examinations Council (CXC) in its reports of 2011-2016. For student perceptions, the researcher collected the data from each school in a sequential fashion, with two schools being targeted each week. In two schools (the non-traditional schools) a teacher who was assigned by the principal to support the research process administered the questionnaire and in the other two the researcher administered the questionnaire to the group of assembled students. In all four schools, the questionnaires were administered and completed in a single sitting. The data from the questionnaires were analyzed using the Statistical Package for Social Sciences (SPSS).

RESULTS

Performance of Boys versus Girls: 2011 – 2016

Tables 1 – 5 provide a summary of students' performance over the period 2011 – 2016 in five purposively selected subject areas. The overall picture shows that the performance of girls was superior to that of boys in all areas. The scores 1, 2, 3 indicate the level of passes with 1 being the equivalent of A, 2 the equivalent of B, and 3 the equivalent of C.

The tables indicate that girls account for as much as 67% in a given cohort but at all times well above 50%. Thus the fact that the number of boys who participated in the examinations was significantly less than that of girls is descriptive of the degree to which boys were under-represented in academic undertakings. This fact of under-representation is therefore compounded by lower performance.

Table 1 Performance in English Language¹

Year	Total # of students sitting subject	# and % boys	# and % girls	% boys grade 1	% girls grade 1	% boys grade 2	% girls grade 2	% boys grade 3	% girls grade 3
2011	44571	17519 (39.31)	27052 (60.69)	3.54	9.99	6.87	13.36	10.27	17.04
2012	48335	19723 (40.81)	28612 (59.20)	2.25	5.73	4.09	7.98	8.71	15.54
2013	46315	19094 (41.23)	27221 (58.77)	3.08	7.82	6.03	10.69	10.18	16.69
2014	43860	18648 (42.52)	25212 (57.48)	4.02	10.21	6.48	10.67	9.81	15.31
2015	40981	17819 (43.48)	23162 (56.52)	4.17	10.35	6.15	10.62	10.30	14.72
2016	40662	17679 (43.48)	22983 (56.52)	4.89	11.93	7.68	11.96	11.28	15.63

¹While English is the language of instruction, there is also an examination that is known as English Language in which students' competence in grammar, comprehension, creative writing, and reasoning, among other things, are tested.

Table 1 shows that in each year 2011 to 2016 the percentage of boys who received a score of 1 in English Language ranged from about a half of the percentage of girls with 2.25% in 2012, compared to 5.73% of girls. In 2016 when the percentage of boys receiving a score of 1 was at its highest in the six years studied, at 4.89%, the performance of girls was also at its highest, outstripping boys by just under two and a half times.

The comparative performance of boys versus girls in the area of Mathematics, as shown in Table 2, was not as contrastive as it was with English Language. In each year the percentage of girls getting a grade of 1 was less than double the percentage of boys. This statistic does not show that boys were performing better, it only showed that both were performing relatively poorly with boys performing more poorly than girls.

It is to be noted that in both English Language and Mathematics, while the percentage of boys who received Grades 2 and 3 was higher than that for Grade 1, the performance of girls was again superior but in all cases by less than double. What this suggests, among other things, is that more boys were represented in the lower grade level performances.

Table 2 *Performance in Mathematics*

Year	Total # of students sitting subject	# and % boys	# and % girls	% boys grade 1	% girls grade 1	% boys grade 2	% girls grade 2	% boys grade 3	% girls grade 3
2011	45741	17197 (37.60)	28544 (62.40)	1.73	2.83	3.40	5.09	6.71	10.97
2012	50551	19382 (38.34)	31169 (61.66)	1.65	3.01	3.03	4.80	6.33	10.70
2013	48631	19033 (39.14)	29598 (60.86)	1.71	2.56	3.41	5.07	7.46	11.96
2014	46085	18828 (40.86)	27257 (59.15)	3.12	4.34	5.48	7.27	10.31	15.38
2015	42374	17520 (41.35)	24854 (58.65)	4.66	7.35	6.80	9.67	10.02	14.97
2016	41973	17222 (41.03)	24751 (58.97)	3.43	5.27	4.14	5.67	8.61	11.60

Boys again underperformed in relation to girls in the area of the sciences. The subject chosen for this analysis was chemistry. The comparative levels of performance here was close to that of English with the percentage of girls receiving Grades 1, 2, and 3 sometimes doubling the percentage of boys as can be seen 2015 and 2016 for Grade 1. While it was only in those two of the six years analyzed that the performance of girls outstripped that of boys by a margin of 2:1, the margins in the other years were also fairly wide (See Table 3).

Table 3 *Performance in Chemistry*

Year	Total # of students sitting subject	# and % boys	# and % girls	% boys grade 1	% girls grade 1	% boys grade 2	% girls grade 2	% boys grade 3	% girls grade 3
2011	7175	2675 (37.28)	4500 (62.72)	2.96	4.50	5.67	9.83	12.24	20.15
2012	7534	2669 (35.43)	4865 (64.67)	3.64	5.34	5.35	9.80	9.66	17.75
2013	7590	2724 (35.89)	4866 (64.11)	2.36	4.53	6.09	10.53	11.70	20.78
2014	7571	2761 (36.47)	4810 (63.53)	5.09	6.95	7.54	12.17	10.59	20.29
2015	7310	2607 (35.66)	4703 (64.34)	2.27	4.79	5.31	9.23	10.60	19.04
2016	7294	2542 (34.85)	4752 (65.15)	3.32	6.94	4.80	8.73	8.87	15.25

It has been suggested that boys tend to learn better when working with their hands (Walker, 2016). Thus subjects such as Chemistry, as shown in Table 3, and Information Technology (Table 4) which involve practical work should be more appealing to boys and by extension they should perform better in these subjects. The data, however, show otherwise and the margin of difference between the performance of boys versus girls is roughly the same as in the reading subject of English Language and the reasoning subject of Mathematics.

Table 4 *Performance in Information Technology*

Year	Total # of students sitting subject	# and % boys	# and % girls	% boys grade 1	% girls grade 1	% boys grade 2	% girls grade 2	% boys grade 3	% girls grade 3
2011	15211	6464 (42.50)	8747 (57.50)	2.95	4.75	9.32	14.99	15.07	21.33
2012	15988	6915 (43.25)	9073 (56.75)	3.73	6.02	10.86	15.12	14.72	20.79
2013	15273	6555 (42.92)	8718 (57.08)	6.25	10.90	11.36	15.64	11.97	16.24
2014	15297	6773 (44.28)	8524 (55.72)	5.70	7.90	11.00	14.78	13.85	18.46
2015	15249	6707 (43.98)	8542 (56.02)	9.10	14.91	12.95	17.70	10.66	12.40
2016	14499	6415 (44.24)	8084 (55.76)	3.76	7.75	9.44	14.25	14.17	17.62

In the subject of accounting the picture is very similar to that of English Language in which the performance of girls, measured in terms of the percentage who received higher grades, exceeded that of boys by margins of 2:1 or higher. In almost every year examined and across all three pass levels, the performance of girls was above the 2:1 margin with some near 3:1 (See Table 5).

As has been shown, girls are not congenitally superior to boys. The contrasts in their level of performance exist in subjects that require intense scrutiny.

Table 5 Performance in Principles of Accounting

Year	Total # of students sitting subject	# and % boys	# and % girls	% boys grade 1	% girls grade 1	% boys grade 2	% girls grade 2	% boys grade 3	% girls grade 3
2011	11478	3812 (33.21)	7666 (67.79)	3.79	9.54	5.78	13.83	9.37	19.03
2012	11375	3875 (34.07)	7500 (65.93)	2.15	5.62	3.68	9.81	9.11	19.33
2013	10360	3506 (33.84)	6854 (66.16)	4.83	13.77	6.77	14.86	9.64	18.03
2014	9748	3428 (35.17)	6320 (64.83)	3.74	9.60	5.75	12.61	10.45	20.21
2015	9110	3231 (35.47)	5879 (64.53)	4.22	10.48	5.98	13.37	9.42	17.18
2016	8856	3109 (35.11)	5747 (64.89)	2.90	7.81	5.54	12.11	10.01	21.24

Boys’ perceptions of the quality of their relationships with their principals and teachers

The second question sought to inquire into the perceptions that boys had of their relationships with their teachers compared with the perceptions that girls had of their relationships with their teachers. In doing this inquiry, the students in our sample were asked to state whether they agreed or disagreed with a number of assertions in the survey.

Based on a sample which consisted of 54 % girls and 46 % boys, the study found, as shown in Table 6, that with the exception of two variables namely: ‘my teacher encourages my self-confidence’ and ‘feeling of being prepared for life after school’, girls had more positive assessments of their relationships with their teachers than did boys.

In relation to the variable ‘principals’ interest in students’ concerns’, 75% of girls agreed that their principal showed interest in their concerns compared to 50% boys. The contrast is significant wherein 39% of boys disagree compared to 9% girls – a margin of almost 5:1. On the question of involvement in decision-making the margin of girls agreeing that their principal involves them in decision-making was almost twice of that of boys with 65% of girls agreeing compared to 34% of boys. Again the contrast is significant with a 6:1 margin to the disfavor of boys with 43% disagreeing that their principal involves them in decision-making compared to 7% of girls. (The words ‘principal’ and ‘teacher’ are used interchangeably in this paper except where the context specifically makes a distinction. For all intents and purposes, a principal is a teacher who manages a school and supervises other teachers).

Table 6 Percentages of Boys versus Girls in relation to Selected Variables

Variable	% of Girls Agreeing or Strongly Agreeing	% of Boys Agreeing or Strongly Agreeing	% of Girls Disagreeing or Strongly Disagreeing	% of Boys Disagreeing or Strongly Disagreeing
* Principals’ interest in students’ concerns	75	50	9	39
* Principal involves students in decision-making	65	34	7	43
* Principal takes an interest in students who are underperforming	66	50	4.5	28
* Principal is comfortable with expressions of disagreement	52	37	29.5	44
* My teacher encourages my self-confidence	84	86	8	5
* Feeling of being prepared for life after school	75	86.5		

DISCUSSION

The data show that between 2011 and 2016, girls outperformed boys in all five subjects of the CSEC examinations surveyed. The academic performance of girls versus boys, is a function of a number of variables whether physiological as Moul, et al (2013) suggests, ideological, as Barriteau (2000) contends, or political as Miller (1991) has argued.

Taking account of the various explanations, it seems to be the case that the most compelling set of findings that explain the performance of boys versus girls are relational as Hughes and Kwok (2007), Barrow (2015), and Lusher and Yesenov (2016) have found. This current study found some telling contrasts between boys' perceptions of their relationships with their principals and teachers, versus those of girls. The nature of these contrasts constitutes a major explanation for the performance of boys versus girls.

The first area examined was students' perceptions of their principals' interest in their concerns. The study found that whereas 75% of girls agreed or strongly agreed that their principals showed interest in their concerns, only 50% of boys did. The opposite end of the scale was even more telling with a mere 9% of girls disagreeing or strongly disagreeing compared to 39% of boys.

The important area of empowerment also showed significant differences between the perceptions of the genders. Feelings of empowerment or lack of empowerment are among the most critical senses that inform self-assessments of whether one feels excluded or included, marginalized or mainstreamed. In his research on employees, Monarth (2014) argued that when employees were enabled to feel powerful, the feeling could boost productivity and improvements in performance, thus leaving employees feeling more satisfied on the job. In this study, while 65% of girls agreed or strongly agreed that their principals included them in decision-making, only 34% of boys held that opinion. The picture at the other end of the scale was as stunning as it was in relation to perceptions of concerns being taken into account, with only 7% of girls disagreeing or strongly disagreeing that their principals included them in decision-making compared to a whopping 43% boys, over six times the percentage of girls.

The area of academic performance presented what may be described as distressing contrasts regarding the fact that academic performance is one of the key places from which the problem of marginalization originates and one of the most frequently referenced measures of marginalization. This issue of performance is contrastively viewed by Miller (1991), on the one hand, and Barrow (1998) and Chevannes (1999) on the other. Miller contends that males underperform because of their perceived place, but Barrow and Chevannes insist that men have more centres of power than mere academic performance or participation on public life.

The study found that only 4.5% of girls disagreed or strongly disagreed that their principals showed a caring attitude towards underperforming students, compared to 28% of boys who shared the perspective. The gap between the genders in respect of agreeing or strongly agreeing was not as wide with sixteen percentage points separating the genders – 50% boys and 66% girls. This comparatively narrow gap is explained by the size of the 'unsure' with 22% and 28% respectively being unsure. These finding tends to support the views of Miller (1991).

In relation to the other dimension of empowerment, namely having a voice and expressing disagreement, the percentage differentials between the genders while not being as wide, when compared to other areas, were nonetheless significant with 52% of girls agreeing or strongly agreeing that their principals are comfortable with them expressing disagreement compared to 37% of boys. The fifteen-percentage point spread is similar to that at the other end of the scale with 44% of boys disagreeing or strongly disagreeing that their principals are comfortable with them expressing disagreement compared to 29.5% of girls.

There were two findings in relation to students' perceptions of their relationship with their teachers and, interestingly, the contrasts between the perceptions of boys versus girls were not as wide as those when their perceptions of their relationship with their principals were measured. In fact, in relation to the first variable examined, namely students' perceptions of whether their teachers encouraged their self-confidence both genders were neck-and-neck with 86% boys and 84% girls agreeing or strongly agreeing that their teachers encouraged their self-confidence. Three percent of boys and seven percent of girls either disagreed or strongly disagreed. In this and the other variable tested fewer boys had a negative perception although the percentages are small. In relation to the other variable, perceptions of being prepared for life after school, 8% of girls disagreed or strongly disagreed that they are being adequately prepared compared to 5% of boys. The percentage of boys who agree or strongly agree that they were being prepared exceeded that of girls by eleven and a half percentage points at 86.5% compared to 75%.

It is somewhat ironic that while boys had generally less favourable views of their principals and teachers they reported feeling more prepared for life after school. This finding may explain the decrease in the number of males pursuing tertiary education and opting instead to go into entrepreneurial ventures. This interesting finding is worthy of further study.

CONCLUSION

There is overwhelming evidence that the quality of relationships that students share with their principals and teachers affect students' academic performance. The academic performance of boys in Jamaican High Schools, which is evidenced most clearly in the CSEC examination results, has been consistently weak when compared with that of girls using data for the period 2011–2016. Alongside the weaker academic performance is the fact that among a sample of 160 students surveyed boys expressed adverse opinions about the quality of their relationships with their principals across all four variables that related to their principal specifically though their perceptions were on par with that of girls in respect of one variable that specified their teacher.

It may be concluded that the path to improving boys' academic performance lies along the road of providing a more caring, inclusive, supportive, and male friendly learning environment for boys. Such an environment will require that teachers and principals share with boys in intellectually more stimulating and friendly ways, treating them in ways that make them feel related and connected. Boys will place greater value on their educational responsibilities when they share meaningful relationships with their schools' academic leaders.

IMPLICATIONS FOR EDUCATIONAL PLANNING

The disparities in the positive experiences and perceptions that boys have of the education system in Jamaica and the academic performance of boys across the Caribbean, including Jamaica, raise important questions for educational planners and policy makers. The first and most fundamental question is whether the education system is skewed, by design or accidental /unintended custom, against boys. Whichever it is, the trajectory of this trend is so serious that there is need for a radical overhaul of the education system in order to address the factors identified by boys which reflect their negative experiences. These include issues of inclusive pedagogy, the processes of decision-making, the level of attention paid to the needs of boys, as well as the provision of resources to support the effective delivery of a wider range of learning options that are responsive to the needs of boys.

Addressing the problem of the underperformance of boys also requires that governments of the region engage the expertise of educational planners and other professionals in countries in which

the disparity in the performance of boys is not as stark as it is in the Caribbean. Given, however, that the problem of male underperformance is a global one, as shown in the literature, one of the directions in which the planning process must go is that of greater collaboration among countries and regions of the world to explore and share practices that have been found to work, or are working, in tackling boys' academic underperformance.

RECOMMENDATIONS

For School Administrators and Teachers

Given the evidence that boys perceive themselves to be less close to their teachers than girls do and given the consistent weaker academic performance of boys compared to girls, it is recommended that:

- (1) Educational practitioners take cognizance of the existence of the perception that boys feel less positively about the quality of their relationship with them than do girls and adjust their pedagogical approaches to ensure that actual or potential inequities are removed;
- (2) Decision-making processes and practices at schools need to be re-examined to make them more inclusive and take account of the ways in which boys seek to engage.

For Policymakers

Having regard to what other research has shown about how boys learn, it is recommended that:

- (3) Subject offerings and components of courses be re-visited to ensure that greater emphasis is placed on practical and applied learning;

For Educational Planners

Having regard to the need to ensure that the disparities in the performance and positive experiences of boys versus girls, it is recommended that:

- (4) Countries of the Caribbean engage in greater collaborative efforts with countries outside to region to explore and draw on successful practices that have been, and are being used, to address the problem of male under-representation and under-performance in school and colleges.
- (5) The educational planning processes of countries, both at the sector and institutional levels, design systems that ensure equitable representation of boys at all levels of decision-making and other forms of power-sharing, as well as in the provision of additional resources to support their performance.

FOR FURTHER RESEARCH

Based on research findings from other jurisdictions regarding the relationship between time of day and how well boys learn, it is recommended that:

- (6) Research be done to determine whether factors such as time of day and normal sleeping and waking hours are related to how well boys in tropical climates learn.

Having regard to the fact that boys report feeling more prepared for life after school, despite having generally less favorable views about their relationships with their principals and teachers, it is recommended that:

- (7) Further study be done on boys' self-perception and values-orientation to better understand what makes boys tick and that the findings of these studies be used to inform investment and policy directions in planning for boys educational and career needs.

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APPENDIX – QUESTIONNAIRE

STUDENTS’ PERCEPTIONS AND EXPECTATIONS OF LEADERSHIP IN A POSTMODERN ERA

SECTION A

1. Gender: **(a)** Male [] **(b)** Female []
2. Form: **(a)** 4th [] **(b)** 5th []
3. Location of School: **(a)** Urban [] **(b)** Rural []
4. Type of School: **(a)** Traditional High [] **(b)** New Sec []

SECTION B - The following statements are about your views and experiences in your relationship with your teacher.

	SA	A	U	D	SD
1. My teacher shows interest in my opinions					
2. My teachers encourages students to hold points of views that may differ from his/her own					
3. My teacher responds positively when students disagree with him/her					
4. My teacher does not try to dictate what students should think					
5. I respect my teacher					
6. My teacher’s teaching style contributes to my level of motivation					
7. My academic performance is influenced by my teacher’s style of teaching					
8. I feel respected by my teacher					
9. I feel that my teacher makes an effort to make school work exciting					
10. I have a close relationship with my teacher					
11. My attitude towards others is influenced by my relationship with my teacher					
12. I believe I am being adequately prepared for life after school					
13. I am often commended by my teacher					
14. I listen to my teacher’s advice					
15. I am a highly motivated student					
16. My teacher accepts that he/she is not always right in how an issue may viewed					
17. My teacher conveys to students that there may be more than one correct approach to a given situation					
18. My teacher knows his / her subject matter very well					
19. My teacher is a good role model					
20. My teacher encourages me to have confidence in myself					
21. My teacher likes to engage in debates with students					
22. My teacher is a good listener					
23. My teacher accepts correction from students					
24. My teacher makes learning applicable to real life issues					
25. My teacher encourages students to be tolerant of differing points of view					
26. At my school there is a strong emphasis on academic performance					

	SA	A	U	D	SD
27. At my school students are encouraged to develop and express their own points of view					
28. At my school teachers believe they can learn from students					
29. At my school it is viewed as a good thing when students try to get answers from teachers on the reasons for some of their decisions					
30. My principal takes a positive interest in students who are not performing to their best					
31. My principal takes an interest in the concerns of students					
32. My principal takes the views of students into consideration before making some decisions					
33. My principal shows respect to students					
34. I respect my principal					
35. My principal is a good role model					
36. My principal is a good leader					
37. My principal is a good listener					
38. My principal behaves as if he/she owns the school					
39. My principal encourages students to be critical thinkers					
40. I would feel comfortable expressing my opinions to my principal if I disagreed with something.					