In search of evidence-based policy and best practice: Addressing gender differences in schooling within the English-speaking Caribbean

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Abstract
Male academic underachievement is considered a significant education issue in the Anglophone Caribbean. The view that gender differentials are large favouring females on most subjects and at all levels of education is a widely held one. The body of work in the Caribbean on the issue is extensive and dates back to 1991. In Trinidad and Tobago, the issue has been included in the seamless education reform project funded by the IADB. In 2010, the Ministry of Education proposed gradual conversion of 20 secondary schools into single sex institutions. This paper analyses and documents the policy formulation and implementation processes from evidence, proposal, arena of conflict, and initiation of the single gender schooling intervention. The focus is on the nature of policymaking within small states; the supply and use of contextualized information; and the use, non-use, and misuse of evidence for judging and improving education quality. It is argued that even in this area of gender and achievement, high quality contextualized evidence in the Caribbean remains limited. Moreover, current policymaking and institutional sharing processes do not adequately promote use of evidence. Thus, for the small states of the Anglophone Caribbean, system-wide reform should be linked to the development and elaboration of evidence-based policy-making systems.

Keywords
Gender differences in achievement
Single gender schooling
Policy formulation
Developing countries
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Gender differences as a growing worldwide concern

Over the past two decades, the issue of gender differences in educational outcomes has attracted the attention of policymakers, academics, and the popular press. The issue was studied extensively in the 1970s and 80s (Maccoby & Jacklin, 1974; Hyde, 1981) and more recently for achievement tests in the 90s (Willingham & Cole, 1997). In the last decade, the increasing availability of data from national and international assessments of educational achievement has refocused attention on the issue (Benavot & Tanner, 2007; Ma, 2007). Both international and national assessments of educational achievement are low stakes and make use of large samples or census type data. This data might provide a more comprehensive picture of the nature of the problem within and across countries and at different levels (Ma, 2008).

In some countries, the apparent underachievement of males has become an important focus (Epstein et al., 1998). The work on male underachievement or “failing boys” has several strands. Much of the work in the UK and Australia has focused on anti-school male identities, with the school sometimes seen as an active agent (Connell, 1996). Although this work does not always capture the dynamic and complex nature of masculinities, the idea of poor failing boys, bad failing boys, or schools failing boys provide a popular but simplistic explanation for a complex problem (Connell & Messerschmidt, 2005; Frank et al., 2003). The popular press is actively engaged in the debate (Whitmire, 2010), and growing concerns have been expressed by governments and nongovernmental agencies (Jha & Kelleher, 2006). Sadly, these debates are being funnelled into a narrow binary debate about the academic achievement of boys relative to girls.

Recent data from international assessments do not necessarily point towards male relative underachievement as a homogenous problem. Although gender differences for all countries in the 2006 PIRLS favour girls, using Cohen’s benchmarks, they are mostly negligible to small. The exception is Kuwait, where the achievement gap on both literary and informational texts is medium sized. The pattern is a little different, however, in PISA 2006, administered to students 15 years-years-old. This study reported negligible to small differences reported in Science and Mathematics, but small to medium sized differences in Reading. Non-OECD countries in the PISA generally had larger gender differences in favour of females in Reading (OECD, 2009). Likely, then, in the case of gender and achievement, context appears to matter. This might be true within and across countries, and even across schools and classrooms (Ma, 2008; Marks, 2008; Else-Quest, Hyde, & Linn, 2010).

Research on gender and achievement in the Anglophone Caribbean

As a region, the Caribbean appears to represent one such context in which gender differentials are routinely in favour of females in several subject areas (Bailey, 2004). Concern for the apparent female advantage predates that in OECD countries (Miller, 1986; 1991). One of the possible reasons for the early emergence of the female advantage in the Caribbean may be the attainment of gender parity in enrolment as early as the 1950s (Duryea et al., 2007). Indeed, the problem now appears to be reversed, with declining participation ratios for males in secondary schools (UNESCO, 2008). To judge the magnitude and impact of the problem, it is necessary to use benchmarking and comparison data from international assessments. However, with the exception of Trinidad and Tobago and Belize, no Caribbean country has participated in international assessments, so comparative data is not readily available for the different Anglophone Caribbean countries.
Belize participated in the 2001 PIRLS recording a gender gap in Reading of 27 points on a scale with a standard deviation of 100 points (Mullis et al., 2003). Using Cohen’s benchmarks, this gap is small, although it was the second highest in the sample. Trinidad and Tobago participated in the 1990-1991 IEA study of Reading and the 2006 PIRLS (Elley, 1992; Trinidad and Tobago National Research Committee, n.d., Mullis et al., 2007). In the latter assessment, the gender gap was 0.31 points on a scale with a standard deviation of 100 points. Using Cohen’s benchmarks, this is also small. However, Trinidad had the fourth largest difference. In PISA 2009, Trinidad and Tobago was one of the few countries in which girls had a statistically significant advantage in all three subject areas. The gap in Reading was more than 0.5 of a standard deviation (OECD, 2010).

Cohen’s (1988) rubric for effect sizes suggests that 0.2 to 0.5 of a standard deviation is considered as small. However, this does not preclude considering these gaps as noteworthy, for reasons such as (1) the country’s ranking, (2) differential outcomes, and (3) the magnitude of interventions needed to redress that gap (Hill et al., 2008). In Trinidad and Tobago, effect sizes for gender differences on national assessments are of the same order as that found on the international assessments. These differences are all in the direction of a female advantage. Although the overall countrywide effect may be small, the census-type data suggests that in some parts of the islands on some subject areas, the gap is medium-sized (De Lisle, Smith, & Jules, 2005, 2010). Medium sized differences were found for the South East educational district and the island of Tobago.

Table 1: Size of gender differentials in education districts as of 2010

<table>
<thead>
<tr>
<th>Educational District</th>
<th>Urban/Rural</th>
<th>Achievement</th>
<th>Language</th>
<th>Maths</th>
<th>Science</th>
<th>Social Studies</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Std. 1</td>
<td>Std. 3</td>
<td>Std. 1</td>
<td>Std. 3</td>
</tr>
<tr>
<td>Port of Spain</td>
<td>Urban</td>
<td>Variable</td>
<td>0.53</td>
<td>0.47</td>
<td>0.28</td>
<td>0.19</td>
</tr>
<tr>
<td>Caroni</td>
<td>Mixed Urban</td>
<td>High Achieving</td>
<td>0.35</td>
<td>0.42</td>
<td>0.24</td>
<td>0.21</td>
</tr>
<tr>
<td>Victoria</td>
<td>Mixed Urban</td>
<td>High Achieving</td>
<td>0.37</td>
<td>0.46</td>
<td>0.25</td>
<td>0.08</td>
</tr>
<tr>
<td>St. George East</td>
<td>Mixed Urban</td>
<td>High Achieving</td>
<td>0.38</td>
<td>0.49</td>
<td>0.27</td>
<td>0.12</td>
</tr>
<tr>
<td>St Patrick</td>
<td>Mixed Rural</td>
<td>Variable</td>
<td>0.63</td>
<td>0.49</td>
<td>0.28</td>
<td>0.16</td>
</tr>
<tr>
<td>North Eastern</td>
<td>Rural</td>
<td>Low Achieving</td>
<td>0.36</td>
<td>0.48</td>
<td>0.18</td>
<td>0.21</td>
</tr>
<tr>
<td>South Eastern</td>
<td>Rural</td>
<td>Low Achieving</td>
<td>0.37</td>
<td>0.46</td>
<td>0.58</td>
<td>0.20</td>
</tr>
<tr>
<td>Tobago</td>
<td>Rural</td>
<td>Low Achieving</td>
<td>0.40</td>
<td>0.61</td>
<td>0.43</td>
<td>0.21</td>
</tr>
<tr>
<td>TOTAL</td>
<td></td>
<td></td>
<td>0.40</td>
<td>0.47</td>
<td>0.27</td>
<td>0.16</td>
</tr>
</tbody>
</table>

The 2010 data summarized in Table 1 suggest that this pattern remains mostly the same, with females having the advantage in all four subject areas. However, the effect sizes for Standard 3 Mathematics and Science are mostly negligible to small whereas the effect sizes for all districts on Language at Standard 3 are close to 0.5. The patterns in Trinidad and Tobago are different to OECD countries like New Zealand, where the female advantage is found on Language but not on Mathematics and Science (Alton-Lee & Pratt, 2000; Crooks, 2003). In Trinidad and Tobago, females have higher means in the national assessments at all subject levels, although these differences are regarded as small. The gender gap appears well before secondary school in the Trinidad and Tobago data. Recent data also points to the complexity of the situation by highlighting significant geographic variation across educational districts aligned to poverty and overall underachievement (De Lisle, Smith, & Jules, 2010).

In the wider Caribbean, most of the early studies on gendered achievement are small-scale and qualitative. Studies by Chevannes (2001), Evans (2001, 2006), and Parry (2000) all
used participant observation even when multiple sites were investigated. The disadvantage of relying primarily on qualitative research to generate theory is that the sampling methods may not always capture the variations in contexts that are possible or even likely given the uneven development within countries of the South. None of the current explanatory frameworks can adequately explain the variations in gendered achievement patterns over geographic space (De lisle, Smith, & Jules, 2010). This pattern suggests that readers most at risk are rural and poor boys (Trong, 2009).

The evolution of theory explaining gendered achievement in the Caribbean

Theoretical frameworks developed in the Caribbean to explain the perceived gender gap draw on and extend on frameworks from elsewhere, but also use several indigenous constructs. Caribbean theory sees gender differences through lenses developed within different academic communities over time. The different theories may be grouped for convenience into (1) sociological-structural, (2) feminist structural, (3) education and institution focused, and (4) equity-oriented perspectives. The earliest studies were decidedly sociological, including the work of Errol Miller. In his early work, Miller (1986, 1991) developed a theory for the large gender differences favouring females in Jamaica by borrowing from dependency theory. Labelled as the “marginalization thesis”, Miller argued that structural contexts were designed to ensure that native African-Jamaican males were excluded from schools and schooling.

Miller considered local and peripheral elites as the “source” of marginalization. In other words, his focus was on men dominating men in the patriarchal order (Lindsay, 2002). Several other sociological explanations were developed in the 1990s, as reflected in the work of Figueroa (1997, 2004) and Chevannes (2001). Figueroa built his theoretical framework from observation of Jamaican parenting practices. He used the term “privileging” to refer to differential treatment of males by parents. Chevannes (2001) observed some aspects of this practice, which included the tendency to give greater freedom to boys and to restrict the activities of females. Both Figueroa and Chevannes believed that females learnt self-discipline from these practice, helping them to be successful in school. Figueroa (2004) believed that schoolteachers might demonstrate similar differential behaviour with the same effect. Chevannes (2001) considered differential aspirations held by rural families for males and females as well as differences in the level of involvement in the family labour market.

Differential treatment by teachers and administrators is a primary theme in the work of educators studying male underachievement in the Caribbean. Kutnick’s (1999) study included both quantitative and qualitative methods. The case studies suggested that a number of institutional factors contributed to gender differentials, including teacher expectations, beliefs, and behaviour. Kutnick, Layne, and Jules (1997) studied classroom processes at the early secondary school level. Although they observed classes in which standardized test results were the same, in-class differences were often apparent. Evans (2001) focused upon the interaction of organizational elements such as streaming and the expectations and attitudes of students and teachers. Boys tended to be placed in the lower streams in the school site that was studied and this exacerbated the problem of differential achievement by gender.

The work of educators in explaining gender and achievement also draws strongly on the work of theorists in the field of gender and feminist sociology. The work in this area has mostly focused on males themselves and the attitudes and behaviours that contribute to lowered performance. A key concept in this explanatory framework is the construction of anti-school masculinities, a concept partly borrowed from the work of feminist sociologists in the UK and applied to both primary and secondary school settings. The complex, dynamic and fluid nature of young masculinities enacted within a multicultural setting has rarely, however, been considered (Frosh, Phoenix, & Pattman, 2002; Gosine, 2007). Parry (2000)
argued that it was “not appropriate to allow educators to take full responsibility for male underachievement” (p. 56). She believed instead that anti-school male identities, which considered education as feminine to be the main culprit, but admitted that teachers encouraged this approach in boys.

Equity theorists have recently entered the field of gender and achievement. From this perspective, gender is seen as one of several extraneous factors causing inequality of opportunity, but the argument is that it is not the most critical and is linked inextricably to other factors such as socioeconomic status and ethnicity. Like the feminist and pro-feminist sociologists, they are also quick to remind consumers that the issue may be more complex than first apparent and several groups of males and females may be at risk at the same time (De Lisle, Smith, & Jules, 2005). Equity theorists study achievement using large-scale secondary databases, with the aim of understanding patterns caused by gender and other factors. De Lisle, Smith, and Jules (2010), for example, argued that no single explanation could account for the current patterns, multiple antecedents, and varied outcomes obtained in studies using data from large-scale assessments.

Figure 1: Gendered achievement in the Caribbean as a complex issue operating at multiple levels.

The complexity of gender and achievement in the Caribbean: Awareness and challenge

The empirical evidence and the multiplicities of foci for the different theories suggest that gendered achievement is a complex phenomenon operating at multiple levels. There may be factors in parenting, community, and the wider society as argued by Chevannes (2001) and Figueroa (1997) and factors in schools and schooling, as argued by Evans (2001) and Kutnick, Layne, and Jules (1997). The feminist sociologists have pointed to individual factors associated with male identity and its construction. Figure 1 employs Brofenbrenner’s (1979) ecological model summarizing key concepts from Caribbean theory on male underachievement. These factors operate at five different levels of the system.
Complex social and educational issues present a difficulty both for intervention design and evaluation practice (Rogers, 2008). An efficacious intervention must target multiple factors at multiple levels. There is recent evidence that in the context of Trinidad and Tobago several influential factors in gendered achievement operate at the school level (Geske & Ozola, 2009). Thus, Trong’s (2009) finding of higher risk among poor, rural boys in Reading may have to do with the quality of rural low achieving schools and not necessarily the nature of the community and parenting influences. However, even if the school is the primary focus, a single focused intervention such as masculinity training will not be efficacious if it does not target other players in the issue.

**Limitations in policy-making and intervention design**

Despite the intense theorizing on gender differences in the Caribbean, there are few well-developed local interventions targeting the achievement gender gap. In terms of interventions and policies, the gender gap has mostly been ignored in education reform. Bailey (2004), for example, noted that the highly successful large-scale education reform project, Reform of Secondary Education (ROSE) in Jamaica, which consisted of several interlocking initiatives, did not specifically target the gender achievement gap. The Trinidad and Tobago Ministry of Community Development, Culture, and Gender Affairs (2009a) has developed a revised policy on gender and development that broadly examines the problem of gendered achievement but is vague about the exact policies and strategies to be implemented. The Division has also implemented a male focused programme called “Defining Masculine Excellence” which targets males older than 14 years of age (Trinidad & Tobago Ministry of Community Development, & Gender Affairs, 2009b). The programme provides social and emotional competencies for males in vulnerable circumstances. Modules from the programme have been adapted for young offenders, media, and street theatre. Although useful, these interventions do not specifically address the issue of differential achievement in schools.

One of the greatest challenges to developing effective interventions within the Caribbean is the nature of policy formulation. Although the ideal approach might be evidence-based policy (Sutcliffe & Court, 2006); intelligent policy-making demands systems that can generate and make use of high quality information (Sanderson, 2009; Segone, 2009). Information generation within developing countries is often limited by (1) sensitivity of data in some issues; (2) inadequacy of the research infrastructure; and (3) absence of empirical data (Lewis & Simmons, 2010; Morrison, 2006). Developing countries are more likely to rely upon policies and recommendations from external agencies. Often these “recommendations” may come as a double-edged sword linked inextricably to the requirements for financing of the loan from the funding agency. This has been true of both the IDB and the World Bank, the latter having been criticized for some of its policies which fail to consider the local context (Hickling-Hudson, 2002). For the Caribbean, only in the last decade has the approach to policy transfer shifted towards gelling processes in which local knowledge and concerns are combined with international frameworks.

Perhaps the greatest hindrance to the effective policy formulation, however, lies in the nature of decision-making within small states. Small states are broadly defined as counties having populations of about 1.5 million persons or less (Bray & Hui, 1989). Theory on small states has explored the impact of scale on issues of education governance. For example, Rodhouse (1987) identified several features of the policy-making process. They included: (1) the small number of people involved in the activity, (2) the identification of ideas with certain people, (3) the merging of policymaking, implementer, and practitioner roles, and (4) economic stringency. Rodhouse argued that these features encouraged adoption of already developed ideas from larger systems. However, the effects of mismatch and incoherence
could be substantially larger in smaller systems. Notably, he observed that implemented policy might not lead to development because the latter required sustained effort, which is often impossible given limited resources. Both waste and experimentation could ill be afforded within small nation states, demanding more effective policymaking.

Isaac (2002) analyzed policy formulation in the region. She described both an informal and formal processes and the institutional environment. She found that policymaking was rarely proactive but more often in response to particular problems in the environment. Semi-formal or informal structures dominated the process, often without access to information from a research unit or a protocol for incorporating indigenous knowledge. In some cases, senior staff might be involved in formulating policy to be taken by the Minister of Education to the Cabinet. In other cases, an informal intellectual infrastructure was accessed, consisting of consultants or academic staff from Universities; but these were always used in an “as-needed” capacity. Isaac also identified the highly political nature of the process and the likelihood of having an inner circle of advisers, who might be direct beneficiaries of the policy. The politicisation of the process could impact upon the level of involvement of professional staff. Formal policy-making processes were often applied only within funded large-scale reform projects but, in this case, were bereft of creativity and synergy.

Issac (2002) further analyzed the capacity and infrastructure to supply high quality information under institutional environment. She considered two aspects, human resources and research, the later defined broadly in terms of knowledge creation. Isaac’s description of research in terms of knowledge and knowledge creation in education change is akin to the management construct, absorptive capacity. Zhara and George (2002) considered absorptive capacity to be the dynamic capacity embedded within the institution’s routines and processes enabling it to acquire, assimilate, transform and utilize knowledge. Such capacity captures the use of evidence in education policy transfer (Johnson, 2006). Isaac examined research sites within the Ministries of Education and the wider environment, noting their inadequacy in providing information for policy-making. This was linked to the limited number of technocrats, the generalist nature of work, and the lack of experience and training in conducting research.

Thus, Caribbean policy-making structures and processes are deficient in both evidence supply and evidence use (Segone, 2009). Limited absorptive capacity means that even when policy transfer is imposed from funding agencies, Ministries of Education will have great difficulty implementing these plans. Moreover, the limited ability to create indigenous knowledge and to contextualize an innovation means that the policy is not easily assimilated or adapted to fit the context. These inadequacies of institutional structure and processes will also impact upon the design of viable interventions that make use of indigenous information, as in the case of gender and achievement.

Single gender schooling in Trinidad and Tobago-A case study

In 2008-2010, the policy-making infrastructure in Trinidad and Tobago took the bold move to pilot a large-scale intervention designed specifically to redress what is believed to be a large gender gap favouring females in schools. The intervention was described as a pilot and included some 20 schools that were to be converted into single sex institutions gradually, starting in 2010. The Commonwealth Secretariat described this reform as “radical” and the largest of its nature targeting gendered achievement in the Commonwealth but also suggested that it represented international best practice (Commonwealth Secretariat, 2010).

The case study of policy-making in the single gender education project used information gathered from informal interviews, formal interviews, and document analysis. This data was used to analyze the intricacies of the policy-making process from several
perspectives both chronologically and thematically. This chronological analysis tracked several steps in the policy formulation process (Porter & Hicks, 1997). The themes developed for the analysis were: (1) stakeholder and technocrat involvement and ownership, (2) evidence and use, including knowledge transfer and/or use of indigenous or contextualized information, (4) politics and the emerging role of policy actors, and (4) institutional absorptive capacity.

Figure 3: Policy Actors and timeline for the Trinidad and Tobago Single Gender Intervention

Initiation, involvement, and evidence

Initially called the Single-Sex Conversion Project, this intervention was leaked to the Media on March 18th, 2010. Prior to this period, however, it appeared that significant planning had already occurred, led mostly by the Minister of Education. Thus, the level of involvement by technocrats in these early planning stages was not always clear and in informal discussions, some disavowed knowledge of the rationale for and processes leading up to the choice of intervention. The possibility that low stakeholder involvement could prove a source of conflict was probably the motivation behind the national consultation held on April 6th and 7th, 2010 and the policy paper distributed afterwards (Trinidad and Tobago Ministry of Education, 2010). However, as one interviewee said, this was most likely “consultation after the fact.”

The first day of the consultation targeted the general population and the second day included contributions by consultants, researchers, and key policy actors. At the conference,
teachers and other stakeholders expressed concern about the lack of consultation prior to conceptualization. Actively involved in the Conference was the Commonwealth Secretariat representative, Dr. Casmir Chanda, who was extremely supportive of the Government’s decision. She argued, “Countries will be looking at Trinidad and Tobago to see what the results are. If they get improved performance as a result then it will be a tremendous achievement – there will be many countries that will want to try it” (Commonwealth Secretariat, 2010). Indeed, the Commonwealth Secretariat had always demonstrated interest in the underperformance of both females and males; considering male underachievement to be a problem in some middle- and high-income countries (Jha & Kelleher, 2006).

Politics and policy actors

The period from policy formulation to adoption and initiation was extremely short, covering at most six months. However, during that time, several groups became involved in “a raging debate” on the issue (Pickford-Gordon, 2010). Figure 3 provides a timeline of events and lists policy actors involved in the arena of conflict (Porter & Hicks, 1997). The primary policy actors in the arena of conflict were the media, the Trinidad and Tobago Teachers’ Union (TTUTA), the Catholic Commission for Social Justice (CCSJ), the National Parent Teachers’ Association (NPTA), individual policy entrepreneurs, and several non-aligned and newer groups. The CCSJ appeared linked to the Education Discussion Group (EDG), which included many retired educators, some of whom were practicing Catholics. The role of these policy actors were critical because one year earlier a major local had been rejected first by the public and eventually by the Cabinet (Webb, 2008).

In the case of the single gender intervention, however, several groups were supportive, including the EDG/CCSJ and the NPTA, the former using the media to its advantage. The Teachers’ Union was initially opposed but later appeared to align itself with the CCSJ’s views. The role and involvement of the EDG/CCSJ therefore proved very critical in the eventual acceptance by the public. It is notable too that the interest in single gender education was first expressed by the EDG well before this project, as one member noted:

I came across this issue maybe three of four years ago or maybe longer and I decided to look into it. We have a group called the Education Discussion Group, we meet once a month here, and we have done that for the last five years. We have a number of people [12 active members] . . . We discuss a lot of these issues including this one, which just came up. I write this weekly article for the Express so I decided that I would look into it. At that time we had a talk from [a former principal of a secondary school] [who] had actually done an experiment, which she told us about; which I think is much better than what they [the Ministry of Education] is trying to do know even if it was on a small scale.

Some policy entrepreneurs, however, were strongly opposed to the policy, which they felt lacked foundation, as one University lecturer and media commentator noted:

How can you talk about improving the boys when you don’t understand the factors that influence student academic achievement? You have to look at those factors first and then you react to them or respond to them. . . . I don’t want you to tell me what happen in England and in the United States. . . . You cannot generalize from that.

Indeed, the Trinidad and Tobago Ministry of Education had not collaborated even with other Caribbean islands such as Jamaica. Some policy entrepreneurs considered the MOE conference for stakeholders held on April 7th 2010 as simply a charade in which the policy
was to be rubber-stamped. Some technocrats even took up adversarial positions against stakeholders.

The CCSJ was the prime mover in several forums through the involvement of John Spence, a retired emeritus professor in the natural sciences; Leela Ramdeen, a member of the Board of the Police Service; and David Subran, a retired educator. The CCSJ had positioned itself in the last decade as a powerful and influential voice in education. The CCSJ’s chairman had argued that with 119 primary schools and 21 secondary schools, the organization had a mandate to lead the way in education reform in general (CCSJ, 2010; Ramdeen, 2010). Spence was a main speaker at several forums, including those hosted by the Ministry of Education as well as the special general council meeting held by the Teachers’ Union to discuss the issue. Subran independently wrote several articles in the print media. CCSJ representatives also took up aggressive positions in the press against policy entrepreneurs who were opposed to the intervention. Thus, the influence of a single policy actor might be subtle and yet substantial, direct and sometimes diffused.

The motives of the different policy actors were neither singular nor clear. For example, although university lecturer Raymond Hackett strongly opposed the intervention, other policy entrepreneurs such as Kevin BaldeoSingh from the Trinidad and Tobago Humanist Association were supportive. BaldeoSingh’s (2010) major complaint was the inability of the Ministry of Education to evaluate the pilot intervention using an experimental design, which he considered “scientific.” These dynamics were possible in Trinidad and Tobago because of the small size of the nation state and the likelihood that influential people and organizations have several connections, allegiances, and alliances. These dynamic and fluid connections may have contributed to the unusually silent voices in the “raging debate,” as the representative of the Teachers’ Union observed when organizing for speakers to the special general council meeting:

We invited the University of Trinidad and Tobago - they did not send anyone. We invited the University of the West Indies, Institute of Gender and Development, because we felt this whole thing, and I am saying this very bold and brave, was in the national limelight and I felt it passing strange that [the] Gender and Development Unit of UWI was incredibly silent on the matter. This was a matter engaging national attention and no statements were forthcoming. I felt that unit and UWI abdicated their responsibility to the national community to add value to the debate and add guidance by the research they surely would have been doing.

Evidence and Evidence (mis)Use

The choice of single gender intervention did not appear aligned to the complex theories developed in the Caribbean on gendered achievement. Indeed, evidence for the impact of single gender education is even limited internationally, especially when high quality evidence is demanded (Mael et al., 2005; Gersten & Hitchcock, 2009). Mulholland, Hansen, and Kaminski (2004) found little difference in both single gender and coeducational classrooms although the period of treatment was only six months. No consistent body of evidence supports the assertion that single gender schools or classrooms leads to higher achievement among boys. There is some evidence, however, that girls might benefit more from single gender environments and boys from coeducational learning environments (Wong, Lam, & Ho, 2002). Indeed, the study of programmes in different countries suggests that positive effects for single gender environments are inconsistent and that context matters (Baker, Riordan, & Schaub, 1995; Feniger, 2010). One contextual factor that might lead to higher performance among single sex secondary schools in Trinidad and Tobago is that high achieving students tend to select the traditional schools at the Eleven Plus examination, which
happen to be mostly single-sex institutions. Jackson (2010) found that the primary enhancing effect was attendance with other high achieving peers rather than the gender composition. Indeed, he found that girls benefited more from this environment than boys did.

Nevertheless, during the debate some vociferously argued that the traditional success of single sex schools within Trinidad and Tobago supported the conversion policy. However, those who opposed the policy were more sceptical, including the Teacher’s Union. Thus, the Union’s First Vice President expressed disappointment that a formal study was never commissioned, noting that:

There are so many variables that account for the apparent superior performance of certain single sex schools that it is very difficult to pinpoint and say that it is only gender that is solely responsible in a significant manner for the better performance of our single sex schools. We also pointed out that there are also many coed schools which do exceptionally well. . . . so if you are using academic achievement we can debunk your argument.

Perhaps more significantly, however, little thought was put into designing the education experience within the 20 target schools, apart from general recommendations on teaching through one of the consultants. There was also little consideration of the Caribbean work on anti-school male identity and limited training for teachers involved in the intervention schools. Thus, the Ministry did little to clarify the black box of change, perhaps assuming that the primary effect might be through a changed learning and peer environment and not through teachers and teaching. This assumption contradicts the findings of Kutnick, Layne, and Jules (1997) in the lower secondary school in particular who noted that differential performance was aligned to differential teacher behaviour and expectations.

Another apparent oversight in which evidence appeared not to be used was the location of the schools targeted for conversion. The majority of the schools (10) were located in Victoria, but at the primary school level, this district had negligible differentials in Mathematics (0.08) and small sized differentials in Language (0.46), Science (0.20) and Social Studies (0.30). In an educational district like Port of Spain and Environs where the gender differentials in Language were medium-sized (0.59), there are only two schools to be converted and in Tobago where the Standard 3 Language differential is 0.61, no school is to be converted. Thus, the programme not only failed to take into consideration the nature of the differences between males and females but also the geographic location of these differences. It is likely then that the conversion programme is more symbolic than real, designed to target specific problems, with schools primarily chosen because of convenience.

**Absorptive Capacity**

Although the policy was eventually approved by Cabinet and initiated by the Trinidad and Tobago Ministry of Education, very few resources were invested in training teachers or in the design and implementation of the evaluation. The Ministry of Education traditionally has had little capacity in the both areas and the lack of financial resources made impossible the involvement of local or foreign consultants. As of December 2009, a proposal for a quasi-experimental evaluation had not yet been submitted to senior staff, despite external help to design the project. It therefore appears unlikely that baseline data will be collected in the first year.

The reason for this inadequacy relates both to lack of training and numbers of staff. For example, the DERE, who has the responsibility of designing and implementing the evaluation, has limited staff with shortages even the inter-departmental team formed to oversee the project. Likewise, although a consultant completed training for staff in the 20
schools, strategies have neither been documented nor disseminated. It seems unlikely that the current Ministry set up can facilitate the project, including learning from the project, which is the key goal. The representative of the Teachers’ Union had predicted such an outcome, noting that it made the real intentions for the conversion clear:

We were convinced that the Ministry of Education was going in the wrong direction . . . the Ministry of Education does not have the capacity; it does not have the human resources or research capacity to manage a sample size of twenty schools. . . . Knowing our Ministry of Education, we knew all along that there was no way that they were going to really and truly use this for research purposes. This was really a done deal. This was a political decision and they were trying and grasping for some ideas to justify it.

Educational Implications
The belief that Trinidad and Tobago can successfully contribute data to the international debate on the effectiveness of single gender schooling through this intervention is intoxicating but naive. The ability to generate and even to use credible evidence required much greater investment in evidence based systems. Considering the critical importance of context to successful design and implementation, however, it is necessary for small states like Trinidad and Tobago to adopt intelligent policy-making (Sanderson, 2009). This demands systems to both generate and use contextualized knowledge (Segone, 2009). There must also be substantial investment in institutions designed for generating data and research (Lewis & Simmons, 2010). Targets might include improving the absorptive capacity of Ministries of Education to make better use of indigenous knowledge in the development of interventions.

In this area of gendered achievement, substantial local evidence and Caribbean-based theory was available and a better approach would have been to work with individual schools or districts to develop indigenous strategies for specific problems faced, led by the data. Indeed, the problem of gender and achievement might be located within specific districts and specific schools. For example, both coeducational and single sex institutions can benefit from broad interventions such as contained in the action guide for developing a gender responsive school (Atthill & Jha, 2009). This holistic intervention pays attention to the wider context, whole school issues as well as teaching and learning. Built on the principles of action research, school practitioners have an opportunity to interrogate their own context.

Thus, the challenge for policy-makers and practitioners alike in countries like Trinidad and Tobago is to become efficient consumers of information and to distinguish between international best practice and contextualized approaches. For policymakers, priority must be given to developing the internal capacity of the Ministry of Education to produce research and foster greater linkages with research institutions in the environment. Additionally, as argued by Porter and Hicks (1997), some aspects of policy formulation will occur in the arena of conflict and therefore there is the need for information dissemination to the public. In the case studied, public perception often did not match the reality of the data or research and some information appeared inaccessible or even incomprehensible to even policymakers.

It certainly seems unwise, however, to adopt interventions without fully understanding the theorized mechanism of change prior to and during implementation. Experimenting low efficacy interventions might prove politically beneficial in the short-term if some level of success is achieved or if the interventions favour some elite group in the society. However, in the end, such activity might prove costly and even distracting for both practitioners and stakeholders. This is doubly true for a Ministry of Education with its very limited resources and low capacity. Also worrying is the failure to generate ownership among
practitioners, which is likely to impact negatively upon implementation and sustainability of the intervention.

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