

Explaining Whole System Reform in Small States: The Case of the Trinidad and Tobago Secondary Education Modernization Program

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This paper analyzes drivers and impediments to secondary school reform in Trinidad and Tobago during the period from 1999 to 2009. International assessment data suggested limited progress on improving system quality and equity. Several policy levers and barriers have been defined in current system reform theory. However, explanations for the failure or success of education reforms in Commonwealth small states must also consider theory related to their unique contexts, namely smallness and colonial history. In this study, whole system reform theory is bridged with contextualized small state and postcolonial theories to analyze themes derived from a qualitative analysis of experiences in a major reform project for the secondary school sector. The identified barriers to change were ambiguity, coherence, and stringency and the contextualized drivers were leadership, support, and participation. Small state and postcolonial theory had added explanatory value, providing more precise insights into the specific impediments to change within these contexts.

The Context of Education Reform in Small States

In the recent past, education reform in countries of the Global South has been mostly externally directed by funding agencies such as the World Bank and Inter-American Development Bank (IDB). In such instances, uncritical transfer of best practice from donor countries may have impeded efforts at change (Ibrahim, 2010). Increasingly, however, the relationship between donors and recipients is dependent also upon the strength of the recipient country's economy (Johnson, 2006; Perry & Tor, 2008). Thus, less vulnerable countries have been able to develop collaborative partnerships with funding agencies in which indigenous sources of knowledge and local goals are used to plan and direct change (Tan, 2010). The issues of successful educational reform, use of indigenous knowledge in implementation, and uncritical education transfer are especially relevant to the small island nation developing states (SIDS) of the Anglophone Caribbean (Louisy, 2004).

Improving education systems as a component of social development is a critical developmental goal for SIDS, given the need to build economic resilience to help cope with the vicissitudes of globalization (Briguglio, Cordina, Farrugia, & Vella, 2009). Traditionally, the SIDS of the Anglophone Caribbean have invested heavily in education (Crossley, Bray, & Packer, 2011). However, the comparative lack of success in achieving sustainable reform points to the need for theory to better explain education change in these contexts (Louisy, 2004; Hickling-Hudson, 2006). Considering the social, economic, and political context of small island nation states is especially critical when considering education change and development. The SIDS categorization captures two notable contextual features of the Anglophone Caribbean: smallness and islandness. The feature of "islandness" may enhance the impact of contextual features associated with smallness such as vulnerability to economic shocks and natural disasters (Encontre, 1999). For SIDS, place vulnerability relates to economic, geographic, and socio-political factors (Briguglio, 1995; Turvey, 2007).

This paper analyzes the IDB funded reform of secondary education within Trinidad and Tobago, one of the high income nation states in the Anglophone Caribbean. The focus in particular is on identifying facilitators and barriers to whole system reform. In developing a theory of change, the paper attempts to bridge current system reform theory developed in a Western context with contextualized theories of change that apply directly to the features associated with SIDS (Crossley, 2008b). The contextualized theories used in this paper are small state theory which highlights social and economic features of small island states and postcolonial administrative theory, which explores the historical and political context. Interview and document data gathered from the implementing agencies for the reform project are used to capture and document the experience of change. Themes are then inductively generated from the text data. The explanatory framework bridging system reform and contextualized theories is then used to interrogate these themes.

The Trajectory of Reforming Secondary Education in Trinidad and Tobago

As shown in Table 1, since independence, Trinidad and Tobago has undergone three distinct periods of education reform and is currently within a fourth. The first reform was a 15 year education plan, extending from 1968 to 1983. The 15 year plan focused upon system expansion at both the primary and secondary level, with a proposal for universal secondary education up to age 14 (Alleyne, 1995). The second reform was focused upon improving the quality of basic education, with funding concentrated on the primary education sector. The third reform, the Secondary Education Modernization Program (SEMP), was designed to improve the quality of secondary education (IDB, 1999). The current reform, which began in 2009, is the system-oriented Seamless Education Project, focused, in part, upon the expansion of early childhood care and education, but also on further qualitative improvement in the primary and secondary sectors (IDB, 2006).

Table 1. Phases of Educational Reform in Trinidad and Tobago

Name of Program	Time Period	Primary Purpose	Funder	Size of funding (in USD)
15 year Education Plan	1968-1983	Expansion	World Bank	38.7 million*
Fourth Basic Education Plan	1996-2003	Quality	World Bank	51.1 million
Secondary Education Modernization Plan	1999-2009	Quality & Relevance	IDB	105 million
Seamless Education Reform	2009-2019	Quality & Efficiency	IDB	55 million

*Three loans

Improving secondary education, the target of SEMP, is critical to the developmental pathway of small developing states because it is linked directly to key skills and competencies required in the workforce (Atchoarena, Da Graca, & Marquez, 2008). However, reforming secondary education has proved to be a challenge both for countries of the South and the North (di Gropello, 2006; Supovitz & Weinbaum, 2008). In Latin America and the Caribbean, Wolff and Castro (2000) identified six key targets related to equity, quality and relevance in the IDB reform strategy for secondary education. In Trinidad and Tobago, modernization of the sector in SEMP involved both an expansion of opportunity and qualitative improvement designed to link outcomes to expanded and diverse opportunities in tertiary education, including high level skills training in the technical-vocational sector.

London (1991) has hypothesized that in the Trinidad and Tobago education system, several models of high school are in operation at the same time. Four distinct school models were instituted in the different periods of reform. The traditional schools, built prior to 1950, are mostly denominational and closely follow the British Grammar school model, with an intake of high performing students from the Eleven Plus examination. The second model is the Government secondary school built between the 1950s and 1970s during the period of nationalism. This model offers mostly academic programs, but student intake mean scores are lower than the grammar school. The third model is the new sector comprehensive schools (academic and technical vocational) built between the 1970s and 1990s with funding from the World Bank. This school usually receives students with the widest ability range, but student intake mean scores are lower than either the grammar or government secondary schools. The most recent model is the IDB funded SEMP high school built in the 1990s. These include both government and denominationally managed institutions. Holsinger and Cowell (2000) highlighted the difficulty of repositioning secondary education within postcolonial societies such as Trinidad and Tobago where the colonial version of the secondary grammar school remains the model most strongly desired by stakeholders.

As a reform project, the SEMP consisted of four interrelated elements: (1) quality improvement in curriculum, teaching-learning, and assessment, (2) equity enhancement, including physical de-shifting and upgrading of schools, (3) institutional strengthening and increased efficiency, and (4) studies for improved sector performance measures (IDB, 1999). These elements were also reflected in the organization of the coordinating unit, with project managers for each designated area. The quality improvement strand included several sub-projects in curriculum development, professional development, and teaching-learning strategies. The equity strand involved building and de-shifting^[1] schools to facilitate a more equitable and unified model of secondary schooling. Institutional strengthening dealt with capacity and management issues and included the decentralization component. Studies of improved sector performance were designed to provide information on what works, presenting a platform for further development. In the past, the funding agency's change strategy primarily involved institutional enhancement, but for the SEMP reform, added policy levers were leadership development and improved teaching and learning.

Judging the Effectiveness of the SEMP

The SEMP Program included a monitoring framework that focused on inputs rather than outcomes, such as improved student learning (Legall, 2005). Vegas and Petrow (2008) argued, however, that improving student learning remains the most critical challenge for reform in the region at this time, especially in light of the comparatively poor performance of several countries on international assessments. It might be useful, then, to compare the performance of students on large-scale assessments in the secondary sector before and after this quality focused reform. The Trinidad and Tobago secondary school population has participated in two international assessments, the 1991 International Association for the Evaluation of Educational Achievement (IEA) study and the 2009 Programme for International Student Assessment (PISA). The scores are not directly comparable because different assessment frameworks were used; however, judgments on relative performance can be used in a broad judgment of improvement.

In 1991, 14 year old students were tested in reading in 31 countries in the second IEA survey. The mean age of the Trinidad population was 14.4 years and the mean score was 479 for a ranking of twenty-fifth. In this early assessment of literacy skills in the secondary school, Trinidad and Tobago was the highest scoring country in the South above Thailand (477), Philippines (430), Venezuela (417), Nigeria (401), Zimbabwe (372) and Botswana (330). Notably, all of these countries scored below the international mean of 500 scale points. In the 2009 PISA, 65 OECD

and partner countries were tested. PISA measures achievement at age 15. Trinidad and Tobago's mean score in the 2009 PISA was 416 and the country was ranked 53. This score was significantly lower than that of Bulgaria, Colombia, and Thailand but higher than Colombia and Brazil. Thus, despite achieving universal secondary education in 2001 and instituting the SEMP reform in 1999, Trinidad's rank position on PISA reading remained more or less the same.

Explaining Whole System Reform

Sector reform projects like the SEMP are examples of large scale system reform in which policymakers are attempting to change several schools at the same time (Earl, Watson, & Katz, 2003; Fullan, 2009). Taylor's (2006) analysis suggested that there are multiple reform outcomes outside the narrow dichotomy of success or failure. For example, change can be temporary or transient, and not sustained over time. In 2006, the SEMP reform was reprofiled and extended to 2009. Interestingly, the reprofiling analysis suggested that much of the change to that point had been nominal, with mechanisms and structures for sustainability notably absent (Fernandez, 2006). The superficial nature of the change is also documented by Joseph (2010), who spent six years as a project manager in the coordinating unit.

Change and change theory associated with successful whole system reform have evolved differently in the North and the South. The anatomy of a large scale reform project in the North might consist of (1) government directed policy, (2) an agency involved in the reform process, (3) specific drivers of the change process, and (4) a change strategy that identifies specific implementation barriers. However, in the South, there is often much less direct government control and choice of strategy, especially if the project is externally funded. In reality, the change strategy might be borrowed, distorted or non-existent. Moreover, the lack of indigenous knowledge data or dialogue with stakeholders on the reform agenda might mean that the context of implementation is never fully captured by the plan or change strategy (Louisy, 2004).

A current explanation for system reform failure in Western contexts relates to the use of wrong drivers. Fullan (2011) identified four right and four wrong drivers. A right driver is a lead policy or strategy with a high chance of achieving the result whereas a wrong driver is a deliberate lead policy or strategy that has little chance of achieving the result. Right drivers identified were capacity building, teamwork, attention to pedagogy, and a systemic coherent vision for change. For Fullan, wrong drivers were accountability, individual and teacher leadership quality, investing in technology ahead of improved pedagogy, and installing fragmented policies. These strategies, when employed, redirect and even retard the change process and have little chance of succeeding. Fullan's theory is consistent with case studies of successful education change in high performing systems (Mourshed, Chijioke, & Barber, 2010).

Fullan's (2011) description of right and wrong drivers is congruent with his earlier work on the seven big ideas for system reform in education (Fullan, 2010). These seven big ideas are (1) all children can learn, (2) a small number of key ideas, (3) resolute leadership/stay on message, (4) collective capacity, (5) strategies with precision, (6) intelligent accountability, and (7) all means all. The first three principles along with the fifth are aligned to developing a systemic and coherent vision for change. Apart from policy drivers promoting successful change; an effective whole system reform strategy must also identify specific barriers to change (Hall & Hord, 2010). Although these ideas on system change were generated from school districts and national systems in the North, they might also be applicable to other contexts, including small island nation states. However, education change in the South is often influenced strongly by the political, social, economic and historical context and this must be considered in constructing change theory

(Hirosato & Kitamura, 2009; London, 1993; Navarro, Carnoy, & de Moura Castro, 1998).

The Value of Contextualized Theory

Context is often critical to change and implementation (Luke, 2011). It seems logical that context should matter, but the question is, to what extent does it factor in explaining system reform? Jansen (2009) observed that the history and context of the diversified communities in post-apartheid South Africa strongly influenced the process of system change. He argued that in such contexts, change was frequently challenging and contextualized; imbued with politics and emotion. It might be that examining contextualized theories of change will allow a more illuminating exploration of local barriers and point to particular levers that might forestall implementation failure. Contextualized theory makes use of indigenous knowledge and identifies specific constructs related to the context in focus. These theories may add value to our understanding whole system reform in the South and can be successfully combined with current theory used to explain system change in the North.

Two examples of such contextualized understandings of change are found in postcolonial and small state theories. These theories are especially applicable to the context of Trinidad and Tobago as a small island state with a British colonial legacy. Postcolonial theory accommodates the political and historical context and small state theory captures important social and economic issues. Postcolonial theory is especially useful when studying change because it interrogates the institutional environment, identifying structures and processes that have emerged and persisted from the colonial era (Bray, 1992; Hickling-Hudson, 2006). Focusing specifically upon the postcolonial public service within Caribbean space, Jones (1975) and Jones and Mills (1976) used an explicit postcolonial frame to develop institutional change theory. They identified value-assumptions, attitudes and practices passed on from the colonial era that persisted. These continue to act as barriers to innovation and change in the postcolonial civil service (Jones et al., 1997). De Lisle (2009) applied this framework to governance, leadership, and reform in the education sector of Trinidad and Tobago.

The constructs in postcolonial administrative theory are consistent with the work on administration in small states, as found in the work of Murray (1981), Baker (1992), Bray (1991), Bray and Packer (1993), and Schahczenski (1990). Small state theory is also especially useful in explaining system reform because it accommodates smallness as one of the unique features of several Commonwealth countries (Crossley, Bray, & Packer, 2011). The term “small state” has been applied to nation-states with populations below 1.5 million. The core of the argument is that small nation states are not just smaller versions of larger states, but are unique entities with processes that are sometimes different from those found in larger metropolitan countries (Bray & Packer, 1993; Crossley, Bray, & Packer, 2009). In the Caribbean and elsewhere, small state theory has been successfully used to explain the economic and ecological vulnerability of small island states and the functioning of education systems (Bacchus, 2008; Bacchus & Brock, 1987; Baldacchino & Farrugia, 2002).

Some theorists have argued that being small might be an advantage especially when it comes to processes involved in educational change. For example, in small states, one person might theoretically be able to have significant influence (Crossley, Bray, & Packer, 2009). In theory, it might also be easier to manage system change within small states. However, several features characteristic of developing small states may also present serious barriers to change. Bacchus (2008), for example, identified the following: (1) uneven development and variation, (2) economic stringency, (3) resource capacity, (4) communal relationships, and (5) cultural diversity.

These features have important implications for system reform in small states like Trinidad and Tobago, especially in the area of funding and resources. Uneven development and variation mean that schools in urban areas usually have better resources and qualified staff so that system improvement must be differentiated. Economic stringency means that many developing states are subject to uncritical transfer of education policies and goals as a result of external funding (Crossley, 2008a). Resource capacity will severely limit the pace of even externally funded reform because of shortages in skilled personnel. Communal relationships add a social and political dimension to implementation as will the demand of multiculturalism. Both features present a human face to the change process, with communal relationships or emotional attachments proving to be especially strong barriers to change (Evans, 1996; Jansen, 2009).

Table 2 (see next page) presents an analysis of the major features of the two contextualized theories used in this study. This analysis is focused upon institutional or organizational processes most influenced and on likely implementation barriers. The analysis also aligns each feature to Fullan's (2010) big ideas on whole system reform. As shown, many of the features identified in both postcolonial administrative and small state theory relate to collective capacity, identified by Fullan (2010) as an important driver for successful whole system reform. The "capacity" part of this term includes technical, financial and material resources as well as the ability of leaders and institutions to catalyze change (Smithers, 2011). The "collective" aspect implies the development of teamwork and complementary partnerships by actors involved in the process of change (Prahdan, 2010).

In the context of small states, collective capacity will be influenced not only by material and personnel scarcity, but also by the nature of the relationships, communication flow, and approaches to leadership. Thus, Baldacchino (2001) described how even service functions might become highly personalized and intertwined within a single individual, thereby limiting the professional quality of the service. Likewise, Boyce (1991) described the lack of flow of information between personnel within the Ministry of Education in Barbados and noted that "highly personalized atmosphere may sometimes create problems" (p. 122). These human resource issues become critical barriers to change when they prevent the development of collective capacity.

For postcolonial administrative theory, apart from the nature of leadership, the organizational processes most impacted upon are role ambiguity, collaboration, communication, and training. These processes can also become critical barriers to change in system reform because they can hinder the development of collective and internal motivation. In small states, poor communication from system leaders and ambiguity in assigned roles for whole system reform will inhibit severely the willingness of participants to "buy-in" because the vision of change is likely to be distorted. Likewise, the lack of attention to training and the absence of collaboration will work together to further limit the development of collective capacity.

Methods and Analysis

This qualitative case study made use data gathered from individual and focus group interviews, as well as the substantial documentation associated with the program. The interview and document data were obtained from the different units involved in implementing the SEMP in Trinidad and Tobago. These were the Secondary Education Modernization Program Coordinating Unit (SEMPCU), various departments of the Ministry of Education (MoE), selected units in the public service such as the Human Resource Division, and representatives of the funding agency. In all, eleven interviews were conducted. Ten individual interviews were conducted with SEMPCU project managers and MoE directors and a single focus group with the local representatives of the

Table 2. *Analyzing Drivers and Impediments to Whole System Reform Using Postcolonial & Small State Contextualized Theory*

Feature- behavior or processes	Institutional Process	Possible implementation barrier	Big Ideas (Fullan, 2010)
1) Consolidate power rather than delegate and collaborate	<ul style="list-style-type: none"> o Participatory leadership o Teacher empowerment o Collaborative cultures 	Strong resistance to developing collaboration and collaborative structures	Collective capacity
2) Privatize and confuse policy and administration issues	<ul style="list-style-type: none"> o Purposing & visioning 	Lack of clear overall vision and direction	A small number of key priorities
3) Obscure and deliberately make vague policy-making	<ul style="list-style-type: none"> o Communication o Role ambiguity 	Lack of involvement in decision making at the lower level/ Poor communication of vision and policy agendas	Collective capacity
4) Apply multiple standards in key administrative processes	<ul style="list-style-type: none"> o Role conflict o Fairness 	Unclear roles and processes Lack of trust	Strategies with precision
5) Authoritarian, paternalistic and conservative leadership	<ul style="list-style-type: none"> o Leadership o Powerlessness 	Inadequate leadership of change	Resolute leadership/ stay on message
6) Use of myth to control subordinates	<ul style="list-style-type: none"> o Communication o Role ambiguity 	Frequent miscommunication Lack of trust	Resolute leadership/ stay on message
7) Generalist ideology resulting in the belief that specialization and training is unimportant	<ul style="list-style-type: none"> o Training systems 	Limited support for training or capacity building during implementation/Poor resource management overall and at sites	Collective capacity
8) Uneven development & variation	<ul style="list-style-type: none"> o Lack of standardization in practice & expectations 	Multiple targets required/ Need for compensatory school systems	Intelligent accountability Strategies with precision
9) Economic stringency	<ul style="list-style-type: none"> o Material scarcity 	Lack of funding for key events	Collective capacity
10) Resource capacity	<ul style="list-style-type: none"> o Personnel scarcity and limited training 	Limited capacity	Collective capacity
11) Communal relationships	<ul style="list-style-type: none"> o Role conflict & ambiguity 	Unclear expectations/ Negative political and social influences	Collective capacity
12) Cultural diversity	<ul style="list-style-type: none"> o Role conflict 	Negative political and social influences	Collective capacity All children can learn

Postcolonial Administrative Theory

Small State Theory

funding agency, the Inter American Bank (IDB). Several documents associated with the program were also analyzed following the themes identified in the interviews. These included the various consultants' reports generated at the planning and implementation phases as well as monitoring reports and internal empirical studies (Andrews, Keller, & Wideen, 1998; Fernandez, 2006; Gift, 2005; Harris, 2002; Legall, 2005).

In generating codes and themes, three options were available to the researcher: (a) generate codes and themes from the data, (b) use a priori themes from whole system reform theory, and (c) use a hybrid approach, combining induction with a priori themes (Bernard & Ryan, 2009). In this study, the data analysis procedure chosen was inductive, with themes derived directly from the interview and document text. This ensured that the voices and meanings of change for the participants were prioritized and governed the development of the themes. In post analysis, these inductively generated themes were then compared and linked to the concepts identified in system reform and the contextualized theories.

Data from all interviews were first transcribed. This text was then coded separately by two members of the research team. The separately generated codes were then reviewed by the entire team and a tentative combined codebook was constructed. The codebook was then re-applied to the text of the transcribed interviews and collated documents, including consultant reports and implementation manuals. Further revision and application of the codebook was attempted before finalizing the new themes. The main analytic strategies used in the process were constant comparative and content analyses. Constant comparative analysis was used to identify latent themes and content analysis of codes was used to provide a judgment on the frequency of each theme (Leech & Onwuegbuzie, 2008). Each theme and sub-theme were attached to participant responses and displayed in tabular format, following Miles and Huberman (1994). These tables were used to generate Tables 3 and 4 in this paper.

Findings

Barriers to change

For the SEMP, barriers to change were often more important than drivers of change, consistent with the fact that many innovations had failed to take root. The barriers identified were grouped under three broad themes derived inductively: (1) ambiguity, (2) failure to connect, and (3) resource constraints. These themes were linked to each other, with failure to connect and resource constraints linked to ambiguity, the most frequently mentioned theme. Table 3 provides a listing of each main theme with illustrative or sample statements.

Ambiguity: its influence and consequences

This most frequently mentioned sub-theme captured the vagueness of the reform goals for both stakeholders and staff. Under the four major components of the program, several projects were run independently. Often, however, there was a lack of clarity in plans and intentions within the initial consultant reports and a failure to contextualize plans. Further, the overall change strategy to be employed was not readily evident in any of the initial planning documents reviewed. This may have resulted in the multiple and different understandings of the program's overall goals by stakeholders on the ground. This lack of clarity was evident even among senior personnel in the implementation and coordinating agencies. Commonly, therefore, even after the initial design, some innovations had to be further fleshed out during implementation [See Table 3 sample comments for ambiguity]. Although such refinement might be considered a normal part of the project cycle, the concern here was for changing conceptualizations and intentions of the projects.

Table 3. Themes, Sample Statements, and Sources for Barriers

Theme	Sample statements	Source
Ambiguity	[Projects] . . . which should be winding up, but they haven't delivered [yet]. A lot of what should have been delivered in most of the projects, which I see, the issue has been that the idea is sometimes not fully conceived. And therefore when it goes out to the supplier, they are now finding out things which ideally should have been seen before. So you end up now going through a cycle of refining before you actually get to implement each [project]. So a lot of the projects have had a number of cycles of refining.	SEMPCU Project Manager
	When we look at what the mobile labs, there are significant concerns. The whole idea of technology education is to get the children involved and yet the mobile lab is constructed as a demonstration facility. So again the point is even when you look at what it is you have now, there are some concerns about how well it was thought out, given all of [what we see]. When we look now at the process involved, we had an original tender, which went out a few years ago and a number of people were looked at and eventually they decided on one particular supplier. And what happened after they decided on that supplier was that the concept was again changed in one of a number of iterations [from] what they originally thought they needed.	SEMPCU Project Manager
Failure to connect people, ideas, and institutions	Many changes have been introduced in the Ministry of Education. The structure has changed and the leadership is committed to bring about a significant change in the organizational culture. But these initiatives are still in process, in the minds of some[,] they are not seen as a whole but rather as disconnected initiatives that could lead to the creation of many new units that could be overlapping or even outright duplications.	Reprofiling Report Fernandez, 2006, p. 5
	When [an innovation] is developed, it is transferred to the ministry and [then] it's out of our hands. We take the [innovation] from [its] embryonic stage, develop it, [but] once it's complete, [we] move on. That's what we did with NCSE 1 and that's what we did with the text book rental program. That's what happened with the [new] form one to three curricula. [And] now we are paying for the finalized documents, and we are printing them; but again we are not the owners; so we are waiting on them.	SEMPCU Project Manager
Resource constrained environment	I think because we didn't have enough project managers on the ground paying attention to the individual projects. We had one man, and this is the sense of what I got, and it's difficult to look after all these little things when you know you also have to focus on the big picture.	SEMPCU Project Manager
	We must have the human resource to deal with [implementing and sustaining the innovation]. We must get the human resource. I [just] do not see us coping if we don't have the human resource because we have just been spreading ourselves extremely thin, [and] we will be compromising the quality.	Director, Ministry of Education Unit

A failure to connect people, ideas and institutions

The second significant theme for barriers to change was the lack of connection between people, ideas and institutions. Perhaps the foremost way in which this was evident was in the lack of harmony between the coordinating arm (SEMPCU) and the implementing units (various arms of the Ministry of Education) with roles and functions often unclear in the complex process of implementation. The conflict between these two major agencies was further exacerbated by the tendency of both to renegotiate roles or to narrowly define their scope of work. Thus, from the perspective of SEMPCU, its role was solely to “develop” the innovation and “hand it over” to the appropriate divisional unit in the MoE [See Table 3, first sample comment for failure to connect]. The bar for success, then, had been lowered and the scope of “coordination” redefined to simply handing over projects rather than supporting and coordinating implementation (IDB, 1999). The conflict between the MoE and SEMPCU over roles resulted in many core implementation functions being neglected.

The lack of connection between individuals was apparent in the uneasy peer to peer and hierarchical relationships, sometimes with adverse consequences for project completion. Frequently, there was a lack of collaboration and teamwork across and within the agencies, making implementation especially difficult. For example, the implementation of some projects such as the new curriculum and assessment systems (the National Certificate of Secondary Education) cut across several divisional units of the MoE, but cohesion between the units during implementation was not always apparent [See Table 3, second sample comment for failure to connect]. The failure to connect people and structures was reinforced by a lack of connection between projects. The lack of connection between the different projects was also evident in the way project managers demonstrated leadership. This proved to be a major concern for the funding agency and highlighted the local lack of capacity in leadership and management.

Distorted implementation due to resource constrained environments.

Implementation efficiency was strongly affected by shortages in the quantity and quality of human and physical resources. The reform agenda of SEMP was exceedingly complex with more than 50 on-going sub-projects under way in any of the four major divisions at the same time. This problem was further compounded by several changes in personnel of the coordinating unit over the life of the project [See Table 3, sample comments for resource constrained environment]. Shortages in human resources might be considered a paradox, given the fact that the SEMP was designed to build capacity within the implementing units in the Ministry of Education. In several cases, however, projects were initiated and even completed without the requisite training or provision of new staff. This was true for the Division of Educational Research and Evaluation (DERE) who were responsible for the implementation of the assessment component of the NCSE.

Resource constraints also resulted from uncoordinated and inefficient planning. Indeed, the failure to set up an in-house monitoring and evaluation system was a good case study of how constraints might be artificially created through lack of planning and strategic leadership. Although an initial monitoring and evaluation program was supposed to be set up at the start of the project, posts were never filled despite more than 200 applications. Even with the extension to 2009, a comprehensive monitoring and evaluation system had still not been installed and consequently there was little hard data on changes in student outcomes. Poor planning and lack of collaboration interacted to enhance the effect of resource constraints environments. This was evident with the establishment of a professional development unit. Although the unit had been set up for more than two years, its vision, mission, and goals had not been established and consequently the unit remained poorly staffed.

Table 4. Themes, Sample Statements, and Sources for Contextualized Drivers

Theme	Example	Source
Strategic leadership	<p>[Interviewee 3] It has to come back to one point and that is the [holders of] office have to take responsibility for making sure that there is coordination throughout the Ministry [of Education]</p> <p>[Interviewee 1] That's a key point as well because the coordinating unit [SEMPCU] is [now] implementing the program for the Ministry of Education meaning [that communication must come] from the Minister and the Permanent Secretary who are ultimately the overarching people guiding the program</p>	Local Representatives of Funding Agency
Planning and support	[There was] extensive training throughout the three or four years. . . . The response we got from the principals was that they wanted some kind of a little more hand holding because a lot of them still [see this as] kind of a new requirement. So even though they've had the training from the RDAU, they [still] wanted somebody to probably come and sit down and just hand hold until they get the couple of few plans, you know, organized. And then you have the . . . consultants coming on board for the next month that look at [giving] principals and the heads and the deans more hand holding more support in developing their school plan.	Project Manager, SEMPCU
Stakeholder involvement	Part of the whole [problem] must be getting [the] concerns [those implementing the projects] and addressing [these] concerns because if you [are] not doing that you are not going to get the project to go anywhere.	Project Manager
Collaboration and communication	Well that's been my biggest problem. If I am [Manager of the function] for the Ministry of Education, I would like to think that everything that SEMPCU does must pass through me because if it doesn't, then we are a parallel organization operating. In any event whatever training SEMPCU is designing, developing, implementing or executing is training for my staff so it properly resides here and SEMPCU is in my view simply an executing agency. What has happened for the longest while is that SEMPCU operated independently of the Ministry of Education . . . so much so that people were on training and we didn't even know they were on training, and worse than that, [We had no influence in their selection].	Director, Public Service Unit

Establishing Contextual Drivers

In terms of drivers of change, four themes emerged. There were very few projects implemented with high fidelity and intensity, so that drivers were identified by analyzing the most critical barriers to change. From this perspective, the most notable drivers were (1) leadership, (2) planning and support, (3) involvement and commitment, (4) collaboration and communication. Table 4 provides a listing of the main themes with illustrative or sample statements.

Dynamic and strategic leadership

Strategic leadership at all levels was required to surmount the many tensions and lack of trust resulting from ambiguity over purposes and goals. The critical issue was the need for a clear and coherent vision to direct and guide change. This kind of leadership would provide clarity and commitment to a small number of goals. However, project managers at the Coordinating Unit were often unsure of who should promote the big picture. One project manager believed that it should be the Permanent Secretary or the Director of the Planning Unit, but the Permanent Secretary was not an education leader and the Planning Unit had not been directly involved in many of the reform projects.

Although personnel from the funding agency attributed reform failure primarily to a lack of collective capacity and believed that a phased approach could have helped the system better achieve its goals, the quality of educational leadership among Ministry personnel was also seen as important [See Table 4, sample comments for strategic leadership]. Strategic system leadership was especially absent at the top level of the MoE, with leaders, in the face of a lack of commitment by participants, often resorting to bureaucratic and restrictive management styles in an attempt to achieve symbolic rather than real successes. Although the SEMPCU had narrowly defined its own function as one of coordination, strategic leadership was also required from the top management of this agency to deliver on the reforms.

Improved planning and support

The high degree of ambiguity and lack of experience with successful change in the system made the provision of support necessary. The expressed need for support is best illustrated in the case of school based management and system decentralization [See Table 4, sample comments for planning and support]. The Ministry of Education had actually set up a specific unit to manage this process called the Restructuring and Decentralization Unit (RDAU). However, the RDAU also delivered piecemeal reforms. Indeed, school-based management had been almost disconnected from the overall decentralization thrust. It was clear that the training delivered was insufficient. Most stakeholders wanted additional and continued support. This issue highlighted the tendency of the implementing agencies to neglect providing sustained support for projects, a critical factor given the general lack of strategic leadership.

Increased stakeholder involvement

An emerging theme in the interviews was the reluctance by practitioners to accept and commit to the SEMP innovations. This was evident in the dramatic changes associated with installing technology education and the consequent need for changes in structure, training and teacher roles, and positions. Leaders in the implementation units had very different strategies for dealing with stakeholder resistance, but few were appropriate, given the traditional autonomy of teachers and the lack of supervisory capacity in the Ministry of Education. The leadership style during implementation appeared grounded in the colonial, restricting participation and decision-making by stakeholders. However, much of the resistance on the ground came from the lack of clarity associated with the innovations and the large number of disconnected projects [See Table 4, sample comment for involvement]. It was this ambiguity coupled with the newness of the innovations which led participants to demand continued support. However, enhancing participation and involvement was rarely considered by either SEMPCU or the MoE's divisional units, further exacerbating the situation.

Collaboration and communication

Although the units in the MoE were responsible for different projects, several projects crossed

departmental boundaries. Thus successful project implementation required a great deal of collaboration between units. Examples of such projects include the SEMP curriculum and the NCSE examination. The Ministry of Education had considered using cross-functional teams in its strategic plan, but this was never implemented. In reality, consolidating power ran counter to collaborative leadership. This meant that the divisional units sometimes competed for functions as in the case of the Professional Development Unit in SEMPCU, The Teacher Education and Teacher Professional Performance Unit (TETPPU), and the Human Resource Unit.

The case of the training function illustrated the dynamics of the conflict between agencies and units over roles. Three units had shared responsibility for training: human resources (HR), the newly formed TETPPU, and the institutional strengthening component in SEMPCU. HR's function ran across several Ministries, but the Director complained bitterly about other units' lack of cooperation [See Table 4, sample comment on collaboration and communication]. The HR director's language during the interview suggested that this conflict went much deeper than a simple lack of communication. Informal discussions with administrative staff of the different units suggested great discomfort over the shared function. Indeed, one of the project managers in SEMPCU believed that HR did not have the capacity to manage all aspects of training and that its role in the organization was badly defined. The Director of TETPPU was adamant that TETPPU should have an overarching role.

Discussion and Implications

This study focused upon whole system reform within the small island state of Trinidad and Tobago and explored the utility theories for explaining reform failure or success. Crossley (2008b) has proposed a bridging thesis, which promotes use of research and ideas from the North and South. This study attempts such bridging by utilizing whole system reform, small state, and postcolonial administrative theories applicable to explain education change in Trinidad and Tobago. Although the whole system reform framework put forward by Fullan (2010, 2011) proved useful in explaining some aspects of education change in this small island state, contextualized theory had stronger explanatory power when describing the barriers faced. For example, small state theory correctly predicted the strong negative impact of communal relationships and resource constrained environments, whereas postcolonial administrative theory identified strong barriers to change resulting from weaknesses in leadership, vision, and communication. These contextual features must be considered when developing change strategy for reform projects in small states (Crossley, 2012).

In terms of barriers to change, ambiguity, lack of connection, and the resource constrained environment were the most salient factors. The lack of resources and absence of connection were explained by small state theory, whereas postcolonial administrative theory predicted the ambiguity and lack of connection. Four important contextual drivers were identified: (1) participation, (2) communication and collaboration, (3) improved planning, and (4) strategic leadership and visioning. The links between each contextualized driver and barrier are illustrated in Figure 1. As shown, the lack of strategic leadership, planning and support limited the extent of visioning and this appeared to contribute directly to the high levels of ambiguity. There was also a direct link from planning and support to resource constraint. Participation and increased collaboration fuelled greater connectedness, which in turn impacted resource constraints and ambiguity. Increased participation resulted in greater participant commitment to the reform agenda. The relationships between the variables highlighted here are congruent with other analyses of SEMP implementation processes (Joseph, 2010).

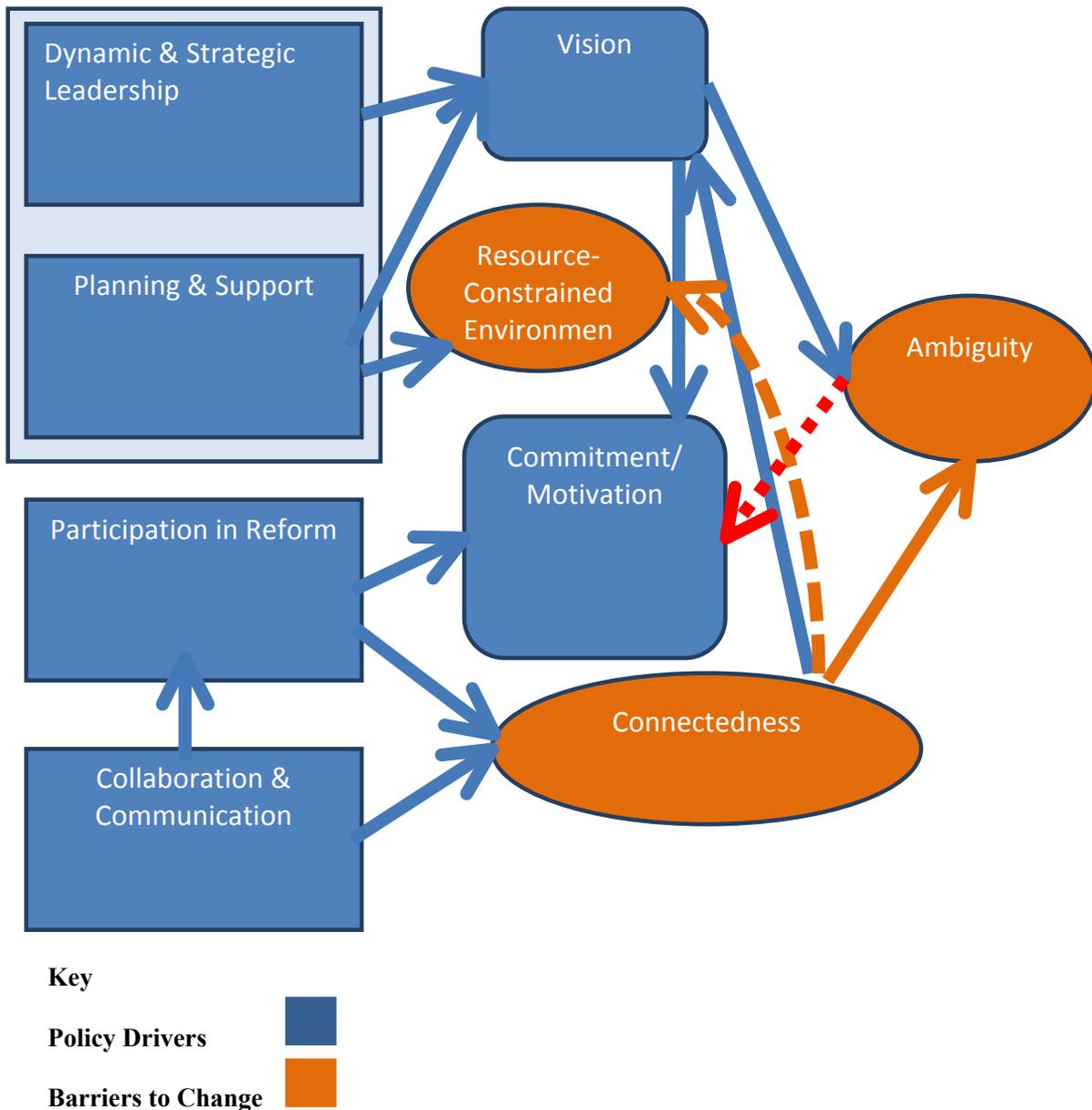


Figure 1. The relationship between contextualized drivers and barriers to change in the study of the Trinidad and Tobago SEMP.

The identified contextual drivers were consistent with Fullan’s (2010, 2011) analysis of the drivers of whole system reform. Increasing participation at lower levels parallels the use of internal motivation as an effective driver of change. The identification of collaboration and communication as drivers in this context was congruent with Fullan’s (2010) identification of collective capacity and strategies with precision as big ideas in successful whole system reform. Collaboration and communication were also consistent with Fullan’s (2011) focus on systemic rather than fragmented change. Improved planning also is the key to avoiding a fragmented approach. Strategic leadership is likely to have a direct impact on visioning, an important mediator variable captured in Fullan’s (2010) focus on resolute leadership and staying on the message.

This study offered rare insights into the bowels of the administrative structure for leading and managing whole system reform in an externally funded project on a small island state. Externally mandated and funded education change in these contexts often run the risk of failure because they fail to capture essential elements of the context. It could be that a high income SID such as Trinidad and Tobago might gain an advantage by directing and managing education reform without the direct involvement of an external funding agency. One benefit of this approach would be the opportunity to contextualize both goals and change strategy. However, substantial collective capacity in planning and managing change must be developed locally to support such an approach. Whether or not external assistance is sought, however, small states engaged in education reform must develop explicit and precise strategies to guide education change. In this regard, current system reform theories are useful, but are much more effective when supplemented by contextualized theories. These theories provide a clearer focus on change processes within the unique political, historical and social context of postcolonial small states.

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