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A Research Agenda in School Leadership and Organisational Change for Singapore

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ABSTRACT

This paper argues that it is timely for Asia to generate cultural- and empirical-knowledge bases in school leadership that will speak to the specific interests of Asian students, educators and practitioners. It queries the continuation of the present dominant Anglo-American perspectives, as developed Asian societies gather the resources and expertise to launch significant research programmes in school leadership and organisational change. The paper reports a planned large scale research programme for school leadership and organisational change in Singapore. Support for such a programme from all three major stakeholders – the Ministry of Education (MOE), the National Institute of Education (NIE) and school leaders and teachers –is conditional on it leading to school improvement and better student outcomes. The paper sketches the politico-cultural-economic conditions of Singapore in which such an agenda has been formed; describes the main features of the research programme, and then relates its features to a possible broader Asian and international research agenda in school leadership. The planned Singapore programme has congruence with an international research agenda advocated by scholars for future research in the field of educational leadership.

Introduction and background

As we move towards the end of the first decade of the 21st century, the Asian economies are recovering more strongly and quickly than their Anglo-American and European counterparts, from the worst global recession for 80 years. The economies of China and India are renewing their continued growth at unprecedented levels, indicative of their growing world influence in global economics and politics. As the world order rebalances in economic and political influence towards the Asian ‘economic giants’, we need to pose the question, ‘Will cultural and education perspectives follow suit?’ For more than 60 years, the field of educational leadership has been largely dominated by Anglo-American perspectives. It is timely to question whether this is the moment for Asia in particular to develop its own perspectives and question some of the ‘western paradigms’ that have either been applied to the region or been taken-for-granted assumptions. As a ‘westerner’ in Singapore, I am excited by the prospect of

the rise of Asian cultures and to be involved in research in Asian education. Thus two meaningful questions spring to mind at this time – What form should an Asian research agenda on school leadership take, that will distinguish it in reflecting Asian perspectives and theories, and at the same time, enable it to contribute to a global agenda? And second, twenty years from now, ‘Will Anglo-American perspectives still be as dominant as they are currently’?

As a ‘westerner’ researching in Asia I am aware that the domination of Anglo-American perspectives is a function of two forces: the first is the cultural and economic superiority translated into knowledge generation and dissemination that the West has enjoyed over the last 60 year or so; the second is the non-emergence of a powerful research agenda in the Asian region, despite the economic miracles of Japan and more recently, China and India. As we stand poised to enter the second decade of the 21st Century, however, the availability of research funds for school leadership in some Asian countries is beginning to outstrip those in the traditionally dominant west. As argued elsewhere (Dimmock & Walker, 2005), it is timely for an Asian research agenda that challenges some of the western perspectives and generates its own empirically-based Asian theories and conceptions. The shape of devolved, decentralised systems, distributed leadership, leadership for learning, community building, and even the relevance and meaning of democracy in school may well take very different forms in Asian hierarchical societies from the Anglo-American world.

As a key part of my brief in generating a research agenda in Singapore, I experience two compelling responsibilities. One is the desire to contribute epistemologically and ontologically to the development of the field of educational leadership – both content-wise and methodologically. The other is more pragmatic and takes cognisance of the context and culture, and the needs and priorities, of the stakeholders in the system in which I work, and which funds me. When these two responsibilities align, there are compelling synergies.

Educational policy and practice in Singapore, as elsewhere, is strongly influenced by the politico-cultural context. Although minimal empirical research on school leadership and organisational change has been conducted to date in Singapore, any future research agenda – even that conducted by academics - is likely to be shaped by government priorities and interests. Consequently, the interplay of factors, or the dynamic, that academics normally consider when shaping a research agenda are somewhat differently weighted and possibly more pronounced in Singapore.

An understanding of the specific contextual conditions to leadership research in Singapore is thus crucial in designing a research agenda. Strong centralised control by the Ministry of Education (MOE) remains the prevailing characteristic – partly explained by the need to build nationhood since the mid 1960s - and the smallness of the island state. It can further be argued that the achievement of high quality among Singapore schools is a brand that the Singapore government is keen to see continued. That the population numbers less than 5 million and the school system comprises 360 schools are compelling enablers for continued centralised MOE control. The political dominance of the People's Action Party (PAP) since the birth of Singapore in 1965 perpetuates stability in the political control of education, but ensures that the interests of the nation state are consistently promoted and prioritised. In many ways, and for decades, this has benefited all sectors of education (Gopinathan, 2007; Gopinathan, Wong, & Tang, 2008). It has for example, avoided the 'dysfunctionalities' of democracy in securing synergy between stakeholders and it has channelled resources to meet targeted goals. Lacking natural resources, minerals, commodities and water, Singapore is entirely reliant on its human capital. Accordingly, the government has spared no effort in investing in its human resources through education and training.

Somewhat paradoxically, MOE control over policy and practice might have led to the building of a robust empirical research base in school leadership and change centralised and located in the MOE. This has not proved to be the case, and the policy making process remains largely uninformed by research, a consequence of the void that exists. The smallness of the system, closeness of control enabled by geography and logistics, and until recently, relative homogeneity of the system, have all contributed to the MOE's ability to exercise its policy making functions without recourse to systemic empirical research data. This status quo, however, is changing rapidly as policy seeks to create a more diverse, flexible and heterogeneous school system.

If the MOE has not sought to conduct systemic research on school leadership and change, what of the only higher education institution in Singapore with a monopoly of the training and preparation of teachers and school leaders – the National Institute of Education (NIE)? Its close relationship with the MOE has until recently seen it focus almost exclusively on meeting system needs for pre- and in-service teacher training. Over the past 25 years, NIE has gained a reputation for its middle level and aspirant principal level leadership preparation programmes, but little if any empirical research on school leadership and organisational change has been conducted. However, new institutional structures since 1991 (when NIE

became part of Nanyang Technological University), and since 2007, when it assumed the same criteria for promotion as its parent University, are promulgating change. NIE is now part of the Nanyang Technological University (NTU), positioned as a global research-intensive University. All NTU academics (including NIE staff) are now expected to be research active.

All of the features and conditions discussed so far (MOE centralised control, a monopolistic leadership and teacher training institution, a lack of previous leadership research and the small size of Singapore) contribute to shaping a desirable and feasible future research agenda in leadership and organisational change. From the perspective of academics involved in leadership at NIE, what then are the considerations influencing their research agendas? It has already been remarked that very little previous empirical research specifically on school leadership has been undertaken. A number of academics have, however, successfully published on educational policy, including aspects of policy related to leadership..

Four forces and conditions presently intertwine to shape a leadership research agenda in Singapore: i) MOE priorities regarding present and future policy and practice in schools; ii) principals', teachers' and other stakeholders' perspectives, problems and issues; iii) academics' interests and expertise as they juggle local and international research trends and agendas, and iv) NIE as the higher education conduit through which MOE funding is channelled and through which customary practices of research proposal writing and reviewing are conducted.

The implication of the above conditions is that academic researchers are wise to seek consensus across the four fields to secure an agreed school leadership research agenda that stands a chance of being launched. It is clear that the MOE is more likely to agree to fund proposals if the research agenda aligns with their own policy and practice priorities. It is also evident that such an agenda must be central and meaningful to the practitioner community – school leaders, teachers and other stakeholders – if it is to embrace their commitment and involvement, and if it is serious about influencing and improving practice. At the same time, the academic and researcher voice needs to be strongly represented – academics are less likely to commit to a research agenda if it appears unrelated to their interests and expertise.

However, academic researchers have responsibilities to different constituencies – institutional, local, national and international. The latter in particular remains largely dominated by Anglo-American perspectives. The so-called 'international' agenda is in fact an Anglo-American

agenda, whose hegemony of ideas and concepts is rooted in developed country contexts and given a universalism, only because of the unequal knowledge generation and dissemination process. If Singaporean and Asian researchers are to make purposeful contributions to these agendas, they need to engage in research that dovetails with the needs and interests of others at these levels, but forge their own culturally- and empirically- based theories. For example, if NIE researchers are to meaningfully participate in international conferences and publish in international journals, their research agendas must be considered relevant and worthwhile by the international academic community - presumably by addressing many of the same 'hot' issues. Finally, the NIE and its internal review panels judge the worthiness and quality of the research agenda/proposals, ensures that external reviewers judge them on their merits and works closely with the MOE in assessing value for money.

A further vital consideration in the design of a future Singaporean (Asian) leadership research agenda is the existing knowledge base (as tentative as it may be) of the field of educational leadership. Construction of future research agendas should connect with our present state of knowledge. What is presently known about educational leadership? In this respect, a number of scholars have recently summarised the knowledge base. Robinson (2007), for example, conducted a meta analysis on leadership studies to identify five main leadership dimensions and their effect sizes on student outcomes. Her results for the five dimensions and their effects are – i) small effects – ensuring an orderly and supportive environment, and establishing goals and expectations, and strategic resourcing; ii) moderately large – planning, co-ordinating and evaluating teaching and the curriculum; iii) large – promoting and participating in teacher learning and development. Leithwood and Jantzi (2000) and Silins and Mulford (2002) investigated the connections between distributed leadership and student learning. These Canadian and Australian studies, respectively, found that distributing a larger proportion of leadership activity to teachers has a positive influence on teacher effectiveness and student engagement.

The above studies speak to a leadership knowledge base that is rapidly developing in relation to three areas in particular: instructional leadership (leadership for learning); distributed leadership; and the relationship between leader and teacher learning and development (professional learning communities). None of these is discrete; rather, all are interrelated. A fourth area that deserves recognition for its ubiquitous effects on all of the foregoing three forms of leadership is leader preparation and development. Hallinger (2003) aptly summed up the state of knowledge globally on this field, as follows:

Recruitment and Selection to programmes

- *Few programmes were designed to recruit talented school leaders.*
- *Unsystematic selection procedures.*
- *Low standards for admission to university-based leadership programmes.*
- *Low quality of aspirant leaders applying for self-selected educational leadership programmes.*

Training Content

- *Lack of coherence in traditional university-based leadership programmes.*
- *Lack of adequacy in preparing graduates to effectively assume leadership positions.*
- *Content does not reflect the realities of the principals' workplace and work life.*
- *Little attention is given to the manner in which principals influence teaching and learning in schools.*

Delivery System

- *Too theoretical and biased towards the norms and culture of the university as opposed to the needs and interests of practitioners.*
- *University professors were distally connected to what school principals face in practice.*
- *Too dominant on using lecture and discussion (tutorial) style of instruction.*
- *Lacks application of adult learning theories.*
- *Clinical experiences are weak.*
- *Low, non-existent, unenforced and inappropriate standards in leadership programmes.*
- *Lack of appropriateness of programme content.*
- *Performance criteria are slippery, functioning more as symbolic rituals than entry gates to more advanced work.*

While these are generalisations to which there are noteworthy exceptions, we should expect the quality of leadership to be responsive to the quality of leader preparation and development. Given this importance, future research agendas need to incorporate on-going research on leader preparation and development.

A research agenda for Singapore school leadership and organisational change

All three main stakeholders – the MOE, NIE and school leaders and teachers – agree on the need for a major research programme for school leadership and organisational change in Singapore. They agree that such a programme must be justified by the outcome of school improvement, and specifically, better student outcomes.

The void in leadership research in Singapore means that there is firstly, strong justification for establishing baseline data, and secondly, such a study should be comprehensive in embracing a wide spectrum of leadership and organisational change. In addition, the smallness of the school system – 360 schools – makes it feasible to collect system-wide data, thereby avoiding difficulties of sampling. Establishing baseline data also provides a platform for subsequent phases of a research agenda focusing on 4 core leadership themes (leadership for learning, distributed leadership, professional learning communities, and leader preparation and development) and eventually, on intervention studies aimed at specific school improvement practices in the four core areas.

The significance of this leadership research agenda is to take Singapore from a position of having a non-existent research base on school leadership to one of having a system-wide, comprehensive and sustained programme aimed at school improvement. If it can achieve this goal, it may be unique.

Figure 1 shows the overall design and sequence of the research programme advocated. It is structured into 3 phases:

phase 1 - a baseline study (with three stages)

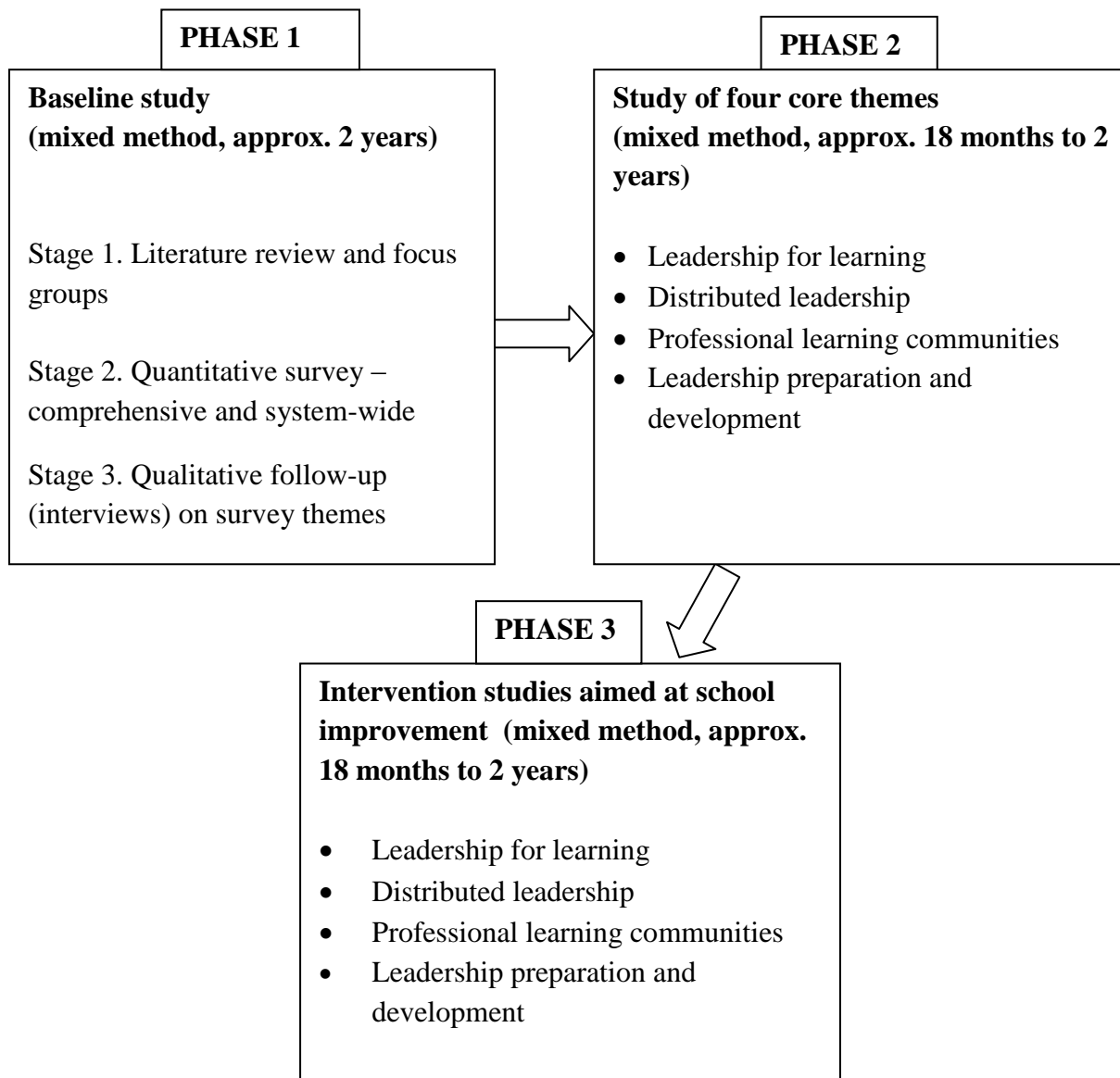
phase 2 - a study focused on four core themes

phase 3 - a series of intervention studies aimed at school improvement.

Below is an outline of the three phase research programme advocated: the baseline study, a focused study of four core themes, leading to a third phase of intervention studies in those four themes.

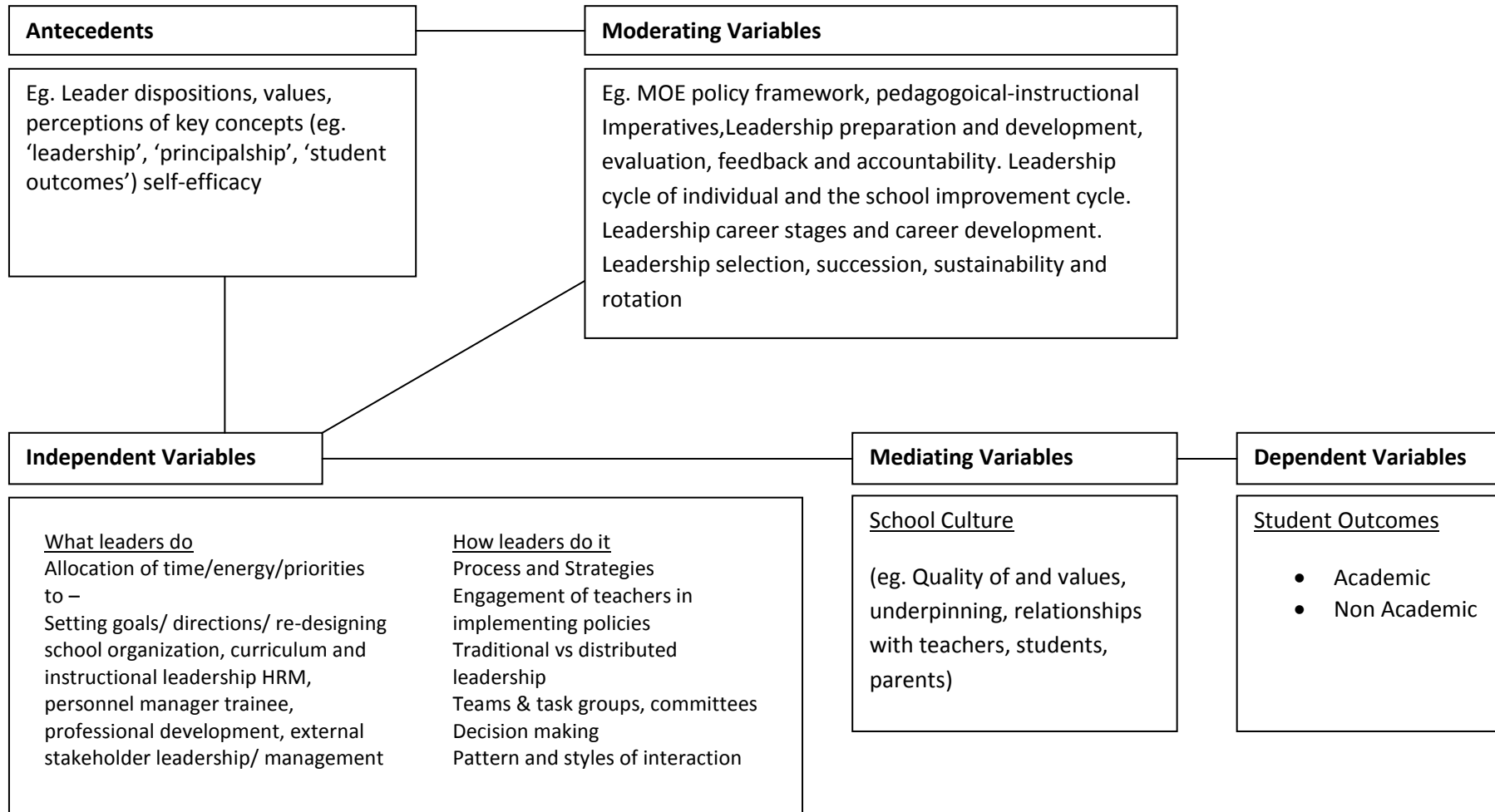
Figure 1.

Overall design of research programme in school leadership in Singapore



The baseline study advocated is essentially mapping the present landscape of leadership practices and school organisational characteristics across primary and secondary schools and junior colleges in Singapore, and is inclusive of independent, autonomous and neighbourhood schools. It aims at covering leadership in schools (including senior, middle and teacher leaders) rather than just principals' leadership. This is justified by the realisation of the benefits to school improvement and student learning when leadership is seen as a generative rather than zero-sum activity. It is broad ranging in scope – including leaders' dispositions and attributes, values and perspectives, knowledge and skills. Figure 2 depicts the main design features of the proposed baseline study. The core themes are expressed as variables in Figure 2 and grouped and labelled as antecedent, moderating, independent, mediating and outcome or dependent. The grouping of themes into particular types of variable will depend on the purpose and aims of each study. The ultimate research questions that need addressing will be and will always remain – how does leadership contribute to improved school practice and student learning outcomes? This key question in the Singaporean context can be expressed as – To what extent, and with what effect, are principals and other school leaders, and schools as organisations, effectively committing to, and driving the implementation of MOE policy aimed at improving outcomes for all students?

Figure 2. A Framework for Leadership Research in Singapore showing the relationship of variables (modified from Leithwood and Day, 2007, p.5)



Scope and core themes of a baseline study

To gain understanding of -

- i) Leaders' values, knowledge, skills and dispositions (especially, but not exclusively, principals) – actual matched against potential/ideal – for school type, age and gender
- ii) Leaders' perceptions of the nature of the relationship with key stakeholders; in particular, MOE, cluster superintendents, teachers, students and parents –actual matched against expected/ideal and teacher perceptions
- iii) Leaders' and teachers' perceptions of key MOE policies and policy congruity with their own values and priorities
- iv) Leaders' perceptions of their actual contribution to, and implementation of, MOE policies matched against the expected/ideal; balancing centralised control with principal empowerment
- v) Leaders' work lives – actual patterns of work, time and energy use matched against the expected/ideal in achieving priorities and teacher perceptions
- vi) Leaders' work lives – actual strategies, processes and methods used in exercising leadership and engaging teachers, matched against the expected/ideal and teacher perceptions
- vii) Leaders' de facto sense of self-efficacy and effectiveness compared with their ideal and teacher perceptions
- viii) Leaders' methods of culture building matched against teacher perceptions
- ix) Leaders' evaluation of present formal leadership preparation and development programmes matched against their present and future needs
- x) Leaders' perspectives of the 'fitness for purpose' of present school organisational structures and processes, matched against their perceived ideal present and future structures
- xi) Leaders' and teachers' perceptions of leadership and teaching as alternative career paths
- xii) Leaders' and teachers' perceptions of the selection process for the principalship
- xiii) Leaders' and teachers' perceptions of present practices regarding leadership succession and sustainability
- xiv) Principals' perceptions of the rotation system and the extent to which it meets school needs and individual principals' career needs.

Who benefits from a comprehensive baseline study of school leadership?

Three main beneficiaries should gain from such a study. First, academic researchers at NIE will have for the first time, a wealth of data relating to a wide range of leadership policies and practices. This data will contribute to personal, local, regional and international research agendas. Moreover, the comprehensiveness of the baseline will enable capacity building by embracing many academics at NIE in developing and honing their research skills. Second, the practitioner community in school will benefit since for the first time they will have systemic data on their leadership practices. Not only will this enable them to reference an empirically based body of professional knowledge, but each principal will be able to gauge their own set of practices and performance against system-wide norms. Since the main justification for research is arguably the improvement of practice, practitioner leaders are the most important beneficiaries through increased professionalism. Third, above all, the MOE will gain by accessing for the first time, system-wide, robust, empirically-based data across leadership and organisational change, on which to generate more informed decision- and policy-making.

Baseline research methods

The baseline study will adopt mixed quantitative and qualitative methods, aiming to achieve coherence, integrity and synergy between them (Creswell, 2003). Specifically, the project design will be structured in three stages, as follows:

Stage 1: Qualitative methods and Review of International Literature

The purpose of Phase 1 will be to generate a valid instrument for Phase 2 (the Survey). As no known previous instruments exist from either Singapore or overseas that have attempted to map baseline data across the spectrum of leadership practices, it is imperative that key subjects of, and participants in, the study have an input into instrument construction to authenticate the direction and content of the survey.

For this first stage of Phase 1, group focused interviews will be conducted with principals, other school leaders, teachers, and MOE representatives in order to elicit ‘insider’ perceptions and experiences of key issues congruent with the aims and objectives of the project.

Responses gained from the group-focused interviews will help refine the major scales of the Survey.

In addition, the Survey instrument will be aligned with and validated by outcomes from a review of international literature. In the absence of similar comprehensive baseline studies conducted elsewhere, the review will take cognisance firstly, of research projects and instruments that have been conducted overseas on particular leadership themes of relevance to this study. A number of such research projects, for example, have been conducted since 2004 on principals' instructional leadership and student learning outcomes. Secondly, reviews will also be conducted of the international literature on leadership practices of central importance to this study. These, inter alia, will focus on the latest research findings on instructional and distributed leadership, leadership and PLCs, and leader preparation and development.

Stage 2: A Quantitative Survey of Principals, Middle and Teacher Leaders (system-wide)

The purpose of Phase 2 will be to collect system-wide data across a large number of scales and items, as indicated in the objectives above. Instrumentation will be piloted and tested for validity and reliability.

Specifically, the Survey will collect -

- i) Descriptive data of a factual kind (eg. leaders' use of time on tasks)
- ii) Relationship data (eg. enabling connections to be drawn between say, leaders' sense of self-efficacy and their use of time, or between their own perceptions of being an instructional leader and others' perceptions of them as such; or between their dispositions and their perceptions of being a leader); key relationship data will focus on similarities and differences between leaders' perceptions of their present or actual practices, knowledge, skills and dispositions and those they regard as desirable and exemplary for school improvement, teaching quality and student learning.

The Survey will be administered through OMR (Optimal Mark Recognition) procedures.

Stage 3: Qualitative study of complex issues elicited by the survey

The purpose of stage 3 of the baseline will be to investigate more fully, some of the complexities of responses elicited from the Quantitative Survey (stage 2). In particular, while

the Survey will have elicited *what* are principals' practices, stage 3 will explore the *why* and *how* questions in regard to principals' practices.

Stage 3 will investigate more fully and at the same time, triangulate, many of the complex connections elicited in the survey, such as those, for example, between leaders' self-efficacy and their willingness and ability to implement key policies; the rotation system by which principals are moved between schools after 5 years and the school improvement cycles; the tensions between the principals' full workloads and their ability to achieve priorities. It will aim at improving understanding of some of the tensions and conflicts experienced by principals and other leaders.

Phase 2: Study of four core themes (18 months – 2 years)

While the baseline study will yield useful data across the whole spectrum of leadership, it will not investigate four core themes in depth. These themes have been identified by MOE policy priorities aimed at optimising the contribution of leadership to school improvement and student learning outcomes. Conveniently, the MOE priorities align with – and almost certainly derive from - recent international research evidence on four clusters of leadership practices that impact on school improvement and learning outcomes (listed below).

Identifying them as discrete leadership domains is to distort the reality that they are interlinked and interdependent. For example, instructional leadership may be exercised through a distributed format. However, not all instructional leadership is necessarily distributed, just as not all distributed leadership is instructional. The building and resourcing of PLCs has obvious links to instructional leadership. And leader development potentially if not actually impacts the other three domains.

Phase 2 is planned as an essentially Qualitative (but with some mixed methods) in-depth investigation of the 4 priority themes of –

- instructional leadership
- distributed leadership
- PLCs
- Leader preparation and development.

It will rely on semi-structured interviews (with individuals and groups); semi-structured observations (including videoing); and documentary sources, such as diaries generated by participants, as well as ‘official’ and more formal documents including MOE and school policies, SEM data, student outcome data and minutes of meetings. Instrumentation, such as interview schedules and observation checklists, will conform to checks of trustworthiness, and will include member checking, the keeping of audit trails, and will meet criteria such as longevity in the field (thus complementing the quantitative baseline survey). The varied research methods will also enable triangulation to be achieved – both within Phase 2 itself and between Phase 1 and 2. It will also incorporate inter-researcher monitoring and standardisation of data recording and interpretation.

Phase 3: Intervention studies in four core areas (18 months - 2 years)

A third phase of the research agenda derives from the baseline study and four core theme studies and focuses on intervention with the aim of improving leadership practices in those four core areas.

The comprehensiveness of the baseline study and focused study of four core leadership themes will provide valuable data on current perspectives, values, and practices across the range of leadership roles and functions in Singaporean schools. Both phases will provide evidence of what leaders currently do when exercising leadership, and the processes and strategies they use. It will also indicate the variability of perspectives, values and practices across the system, together with those aspects of leadership appearing ‘strong’ across the system at present and those considered less so. Programme strategy for the 5 years is so designed as to achieve connectivity from the baseline through the focused core studies to the intervention studies. Specifically, the baseline and focused core studies will contribute to the intervention studies by -

- i) Justifying the selection of focus themes
- ii) Clarifying assumptions to underpin the intervention studies, and
- iii) Informing design and methodology.

Intervention studies will trial, implement and evaluate leadership practices and organisational change that strongly advocate and promote innovations aligned with current and future MOE

policy, current NIE research findings relating to pedagogy, learning and assessment (Hogan, 2009) and international leadership research (Leithwood & Jantzi, 2008, Leithwood & Mascall, 2008; Hallinger & Heck, 2009a, Hallinger & Heck, in press). Design research (see Riehl and Firestone, 2005) is advocated for the intervention studies

Outline of research design and methodology for intervention studies

The aim of the intervention studies is to trial particular leadership processes and behaviours that promise substantial, sustainable and scalable school improvement and organisational change. Accordingly, the design principles of the intervention studies will include -

1. Findings from the baseline and focused core studies
2. Literature reviews of evidence-informed practices from relevant, valid and reliable international research
3. Design research methods that allow in-depth analysis and evaluation of the connections and linkages between multiple and complex sets of influence involved in innovations and interventions; theory is developed at the same time as the intervention is trialled and evaluated
4. A case study approach to schools and leaders selected to maximise variation of school type and location.

Since two key outcomes of the intervention studies centre on promoting effective leadership practices that are both sustainable and scalable, the sampling strategy of school and leader types becomes important (eg. typicality versus a-typicality), as does the strategy for embedding innovatory practices within schools (sustainability) and across the system of schools (scalability). A further aim is the development of theory at the same time that interventions seek the improvement of leader and schooling practices.

Theoretical and methodological considerations of the Singapore research agenda in relation to the Asian region

The project intends to maximise the benefits from a mixed method approach, using the respective strengths of quantitative and qualitative methods. The baseline on-line survey, for example, will enable system-wide factual, and less complex relational data to be economically collected. Qualitative interviewing, observation and documentary sources in

Phase 2, on the other hand, will provide rich in-depth data to address more complex, subtle and multi-dimensional connections between say leaders and teachers, investigating relationships between what leaders do, why they do them, how they do them and with what consequences and effects. Quasi-experimental, and design research (embracing elements of action research) using multi-case studies to represent varied school contexts, is appropriate for meeting the intervention studies that subsequently need to be sustainable and scalable.

Appropriate choice of method for fulfilling each phase and stage of the research agenda is important for meeting the various goals and objectives of the research programme, and has larger significance for the advancement of educational leadership as a field in Asia and beyond. Given the poorly developed state of empiricism in and theorising on Singaporean school leadership (a conclusion that applies to other parts of Asia), an important goal of researchers is to build and construct socio-culturally relevant empirically-based leadership theories for these systems. A mixed method approach, particularly using the potential of qualitative grounded methods, conducted on a larger scale than in the past, using multiple case designs, holds promise for theory generation. The aim should be the generation of systematically collected empirical data that in turn facilitates the construction of leadership theories pertaining to Singapore (and other Asian systems) that enriches the international body of theory and literature. It may even challenge as well as enrich some of the previously taken-for-granted assumptions and values underpinning the Anglo-American literature, models and theories. The research agenda outlined in this paper should enable the theorising of Singapore leadership practices that will in turn contribute to Asian perspectives on leadership.

In a field hitherto dominated by Anglo-American perspectives, theories and conceptualisations, relatively little empirical research has been conducted on leadership in other socio-cultural settings, including and especially Asia. The knowledge base on educational leadership across the various cultures of Asian societies – Hong Kong, Mainland, Taiwan, Singapore, Malaysia, Thailand, Japan and Korea – is poorly developed. Some researchers have argued for, and even suggested, conceptual models to aid the development of a cross-cultural branch of the field, taking account of cultural similarities and differences. (Dimmock & Walker, 1998a, 1998b, 2005; Hallinger & Kantamara, 2000).

How well does the Singapore research programme fit an international research agenda in school leadership?

Many of the features of the Singapore research agenda are coincidentally congruent with ideas for a new agenda for educational leadership proposed by Firestone and Riehl and colleagues (Firestone & Riehl, 2005). These authors argue that future research in educational leadership –

Will be broader, deeper, more comprehensive and more complex than much current research.this argues for more programmatic research, in which research topics are investigated through interrelated sets of studies that progress from identifying problems to describing current situations, explicating processes, developing novel interventions, and assessing those interventions in many different contexts. These tasks cannot all be accomplished in single studies (Firestone & Riehl, 2005, p. 169).

The Singapore programme certainly matches these conditions. They are not easily met, however, requiring large budgets and research teams and substantial research experience. The future research agenda mapped by Firestone and Riehl (2005) and their co-authors, covers both methodological and substantive content, each of which is addressed in turn below.

In terms of research methods, Riehl and Firestone (2005) claim that experimental methods are likely to be of limited application in leadership research although funding bodies and governments tend to like them. However, in oversimplifying complex situations involving multiple interrelationships, and in failing to take account of varied school contexts and looking for straight cause-effect processes and outcomes, they are of limited use. The Singapore programme does not seek to use experimental research methods. It will, however, use quantitative survey methods as part of the baseline study in order to elicit less complex data.

Instead of experimental methods, Riehl and Firestone (2005) advocate the following strategies as more promising approaches:

- Comprehensive case studies – focusing particularly on leaders’ cognitive processes – the meanings and understandings they form and negotiate regarding the foundations of their practices – eg. how they interpret ‘leadership’ and what they think they already know and need to know in terms of leadership content knowledge, especially in relation to supporting teachers. How do leaders think they influence teacher

thinking? Driscoll and Goldring (2005) also advocate case study research for studying leadership within the school and its whole community.

- Design research – defined as the process through which theories are developed, tested and refined in context. Design research features cycles that iterate design, enactment, analysis and re-design as it seeks to understand how outcomes are the “joint product of the design intervention and the context” (Design-Based Research Collective, 2003, p.7).

Design research can be said to add a more theoretical element to what many currently recognise as action research. However, design research is probably of greater appeal to academics than action research, since most academic-researchers are interested in linking theory with practice rather than simply improving practice. In design research, theory is developed at the same time as innovations and interventions are undertaken. If school leadership theory is not currently well developed on a particular topic, then grounded qualitative methods might be used to generate theory prior to applying the Design research strategy. Further applications of design research are advocated by various scholars to the study of instructional leadership (eg, how leaders communicate with teachers) (Riehl and Firestone, 2005), communities of practice or professional learning communities (Smylie, Bennett et al, 2005) leadership preparation programmes, and to longitudinal studies mapping changing school and leadership contexts over time (Driscoll and Goldring, 2005). In terms of the Singapore research programme, comprehensive case studies are a planned feature for all three phases. And design research is considered the basis of Phase 3, the intervention studies.

In regard to the substantive content areas of a new leadership research agenda, Firestone and Riehl (2005) and their co-authors advocate the following:

- A renewed focus on how leadership influences student outcomes – from multiple perspectives, including social justice, especially reducing achievement gaps by race/ethnicity, social class, and gender. This aspect of leadership, while regarded as sensitive in Singapore, deserves a prominent place in the research agenda for that reason (leadership for social justice deserves special prominence in Asian leadership research).
- New conceptions of teaching and learning are triggering new agendas for, and changing traditional notions of, instructional leadership research that derived from the

effective schools movement. The new focus is on how leaders can create contexts that are conducive to improvements in teaching – a focus that masks considerable complexity. Five research questions are posed to indicate the future direction –

- i) What leadership practices contribute to improved teaching and learning?
 - ii) What do leaders need to know in order to support improved teaching and learning?
 - iii) Who are the leaders for improving teaching and learning?
 - iv) What patterns of leadership distribution contribute to improved teaching and learning?
 - v) In what ways does distributed leadership relate to notions of ‘professional community’ (emanating from sociological and school improvement – see Louis and Kruse, 1995) and ‘communities of practice’ (deriving from cognitive psychology – see Wenger, 1998)?
- A focus on the student community; in particular – How do leaders contribute to an inclusive community for all students?
 - A concentration on the professional community; in particular –
 - i) How does the organisation of teacher communities and teacher interaction affect teacher learning?
 - ii) How do leaders contribute to the organisation of teacher communities, and which leaders matter for which purposes?
 - In relation to building the school and neighbourhood community - How do leaders build, and what do they need to know, in order to create and support effective school and neighbourhood communities?
 - In regard to policy - How do leaders interpret policy, particularly in regard to diverse and often conflicting expectations and accountabilities from stakeholders?
 - In regard to leader preparation, -
 - i) What are the knowledge, skills and commitments of effective principals?
 - ii) What is the distribution of this set of knowledge, skills and commitments in the current leader workforce?
 - iii) What are the processes by which leaders learn this knowledge, and these skills and commitments?
 - iv) How effective are specific approaches for preparing leaders?

Without the space to comment in detail on the above research directions, it is clear that five main themes emerge – leadership for learning; distributed leadership; leadership and community development (student, professional and neighbourhood); leader interpretation and sense making of policy, especially accountabilities; and leader preparation. Four of these form the core of the Singaporean programme (Phases 2 and 3) and the fifth (leader policy interpretation) is a central part of the Phase 1 baseline study.

Conclusion

This paper argues strongly that it is timely for an Asian research agenda in school leadership and organisational change to be launched. Among the aims of such an agenda should be the generation of empirical data that in turn promises to lead to distinct and culturally-based theories of leadership and school improvement. Developing and theorising Asian studies of leadership holds potential for speaking specifically to Asian educators, policy makers and practitioners, reducing the over-reliance of Asian educators on Anglo-American paradigms and perspectives, and enriching educational leadership as a global-international field of research, policy and practice.

The paper has explicated a planned, system-wide and comprehensive programme of research across Singapore schools. It has outlined the politico-cultural and institutional contexts that define the parameters within which such a programme is able to develop in Singapore. It has also described the research agenda and related it to the broader regional landscape of Asian research, and a larger international research agenda advocated by American scholars. Two key resources are necessary in order to deliver the expected outcomes of the Singaporean research programme. The first is finance (for which the project is reliant on the MOE and NIE research administration); the second is human resources, or intellectual-research capital. There is clearly a big task to be undertaken in going from a situation of relatively little research to a large scale, comprehensive research programme. In this regard, research capacity building will assume major importance, as will the phasing of the research programme over at least 5 years or more.

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