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**School principals' contribution to educational inequity:  
An analysis of the structure-agency relationship in the  
centrally controlled education system of Singapore**

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Singapore's educational success is perhaps synonymous with high average student achievement in many international studies such as PISA and TIMSS. However, the high levels of student achievement also sit uncomfortably with pronounced inequity in educational opportunities and outcomes among students from different socioeconomic backgrounds. The present paper investigates the roles Singapore school principals as key policy implementers play in contributing to the state of educational inequality among students. More specifically, the analysis examines how school principals exacerbate – rather than counteract - educational inequality in their enactment of education policy premised on the principle of meritocracy. The analysis also examines the challenges with which at least some principals are confronted as they endeavor to exercise their professional autonomy to mitigate the educational inequality in the centrally controlled education system in Singapore. The analysis epitomizes the tension between systemic structures – inherent in centrally determined policies - and individuals' agency – for school principals - in contributing to educational inequality and inequity in a meritocratic, high-performing Asian education system.

**Keywords:** Singapore education; principals; meritocracy; structure; agency; equity



This article focuses on two phenomena, both of which are inextricably related. First, is the dynamic socioeconomic condition of Singapore, its rapid development, changing distribution and allocation of income, wealth and resources, and a political system founded on the principle of meritocracy that uncompromisingly sustains a unique form of government with elements of both democracy and autocracy. Second, is the role of education as a key instrument of meritocracy in sustaining both the political system and economic growth. Threading through the discussion is the central argument that the present conception of meritocracy is increasingly dysfunctional in inhibiting socioeconomic mobility.

From the start of Singapore's history as an independent Republic in 1965, the People's Action Party (PAP) has uncompromisingly adopted meritocracy as a key organizing and governing principle (Bellows, 2009; Ho, 2012; Lim, 2013; Tan, 2008). In the 1960s, Singapore was a Third World economy. By 2012, however, Singapore had the third highest per-capita GDP (\$56,700) in the world, ranking only behind Qatar and Luxembourg (Greenfield, 2012, February 22), and heralded as thriving on technology, manufacturing and finance. While this meteoric rise in GDP has received global acclaim, a growing income and wealth gap has been less widely acknowledged. Indeed, income disparity is growing faster than in most developed countries in Asia, including Japan, Korea, and Taiwan (Greenfield, 2012, February 22; Ngering, 2013).

Accounting for this rising inequality, one commentator typically argues that the capitalist laissez faire system that has driven Singapore's rapid economic growth is also the cause of its increasingly unequal distribution of income and wealth (Ngering, 2013). Government policies have actually exacerbated inequality, with three policies in particular being instrumental: education, fiscal, and manpower (Dhamani, 2014). First, education policies and resource allocation are strongly biased towards the cognitive elite, thereby favoring the well-educated, middle classes who are advantaged by first gaining entry to the best schools and universities, and then commanding the highest salaries, all of which form an upward spiral. Conversely, children excluded from the cognitive elite face a future with fewer opportunities. This Singaporean notion of meritocracy limits the options for large numbers of school students and subtly distorts the social fabric. Second, the progressive tax system tends to exacerbate instead of moderate the



inequalities with its small incremental increases compared to rising income levels. Third, given the global economy, the government's policy to attract foreign workers (constituting more than 30% of the labor force) also contributes to the growing income gap by leveraging top-end incomes for highly skilled expatriates and depressing salaries for semi- and un-skilled workers. Growing income inequality has recently led to some disquiet among the citizenry of Singapore, especially among the disenfranchised young and less well-off. In the 2011 general election, the Opposition made significant gains with the ruling PAP's share of the vote falling from 67% to 60%. The prime minister promised to work with the Opposition and to learn the lessons for future policymaking. More fundamentally, there is widespread agreement among critics that Singapore's interpretation and practice of meritocracy has contributed to both discontent and inequality (Government of Singapore, 2012).

Accordingly, the objectives of this paper are to discuss how education policies and school practices operationalize prevailing notions of meritocracy to impact equity in education in Singapore. The paper first reviews the concepts of meritocracy and equity in education, and their operationalization in the Singapore context. Next, it discusses the state of social and educational stratification in the Singapore education system. The third section outlines how school principals operating within the parameters of education policy contribute to or exacerbate educational inequity. The last section highlights the structural challenges principals face as they endeavor to exercise their professional autonomy to mitigate the educational inequality in the centrally controlled system in Singapore.



### **Meritocracy and equity**

Analysis of Singapore's implementation of meritocracy as a mechanism for social organization is dependent on the meaning of meritocracy as a concept, and its relationship with the social justice concepts of equality and equity (Young, [1958] 1994). First, equality implies that people be treated the same. Thus in education, all should get the same opportunities to learn and achieve the same outcomes. However, resources would need to be disproportionately allocated in favor of the disadvantaged in order to achieve these aims. Even at birth humans are unequal in terms of intelligence and personal characteristics. These inequalities widen as they grow older because of differences in socioeconomic conditions, parenting, peer group and school influences. Equality is thus an extremely challenging, albeit desirable, outcome to achieve in education (Lucas & Beresford, 2010). Furthermore, it appears just as, if not more, difficult to envisage all students achieving equal outcomes in a complex knowledge-based economy (KBE) - given the labor market needs for a range of workforce skills from highly skilled to unskilled - as it was in the case in the industrial economy of the past (Davis & Moore, 1945). Consequently, equality of opportunity is a more realistic goal than equality of outcomes, since the latter appears unachievable and even undesirable, given the diverse needs of a complex economy.

Equity on the other hand, implies fairness, justice, and even-handedness. It may not be feasible to treat every student equally or expect the same performance from them, but it is desirable that every student be given opportunities to maximize his or her learning potential. Paradoxically, achieving such a condition is antithetical to treating every student the same (equality); rather, it suggests treating them differently according to their needs, abilities, and aspirations. Hence, equality may not lead to fairness. Conversely, equity is fair in that it recognizes the need to treat people differently so as to provide opportunities for them to achieve success given their different circumstances.



Accordingly, the OECD defines equity as having two dimensions (Field, Kuczera, & Pont, 2007). The first is fairness, which implies ensuring that personal and social circumstances (e.g., gender, SES or ethnic origin) should not impede student achievement. The second is inclusion, which implies ensuring a basic minimum standard of education for all (e.g., everyone should be able to read, write, and do simple arithmetic). The two dimensions are intertwined: tackling school failure helps to overcome the effects of social deprivation which often causes school failure. Importantly, the OECD 2007 report on equity (Field, Kuczera, & Pont, 2007) goes on to argue that fair and inclusive (equitable) education is desirable for three reasons:

- A human rights imperative for all people to be able to develop their capacities and participate in society.
- The long-term social and financial costs of educational failure are high – leading to higher health, income support, child welfare, and security costs; contrariwise, the more educated a population, the higher tends to be its gross domestic product and standard of living.
- Increased migration poses new challenges for social cohesion and integration of minorities. Fair and inclusive education for migrants and minorities is a key to these challenges; equity in education is likely to enhance social cohesion and trust.

Meritocracy, related to educational equity, is conceptualized as the practice that rewards individual merit with superior education, social status, job position, and higher incomes (Tan, 2008; Young, [1958] 1994). Although what counts as 'merit' may vary, it is usually a combination of effort and talent (ability), inborn and acquired, as measured by academic and/or professional career success. In its wider sense, it can be used as the organizing principle for rewarding people and allocating societal resources in education, business, and across social strata (Davis & Moore, 1945). In a narrower political sense, it can be used to select those chosen to exercise political power. On the surface, meritocracy as a principle of reward is thus to be contrasted with systems based on wealth, birth and inheritance, nepotism and patronage.



## **Meritocracy, social stratification, and equity in Singapore**

### *Meritocracy*

In the Singapore context, government leaders have publicly promulgated doctrinal reliance on meritocracy, as opposed to ascription and nepotism, as the central socioeconomic philosophy underpinning societal organization and mobility. Indeed, meritocracy has been the primary means of allocating scarce resources and career opportunities in education, government and across society in general (Bellows, 2009; Ho, 2012; Lim, 2013; Tan, 2008). It has provided inspiration to many generations of Singaporeans investing in their children's education, with the hope of the latter escaping from the trappings of their socioeconomic backgrounds in order to attain a better quality of life. However, the Singapore government has used meritocracy as the legitimizing principle for selecting a small minority of very bright academically able early developers at school to form an intellectual and governing elite, after having been amply supported through elite schools and world-class universities.

With subsequent career advancement and success, these academic high-fliers have more resources to provide for their families, including quality of education for their children, thereby enabling their offspring to excel in the same meritocratic system that they themselves have benefited from (Tan, 2013b). In this way, the notion of meritocracy appears to be fundamentally at odds with the ideals of social equity and mobility. It is not surprising therefore, that passionate debates have surfaced recently in Singapore involving policymakers and members of the public concerned about the apparent adverse effects of meritocracy in perpetuating life chances for the privileged few, restricting opportunity for many, and consequently minimizing social mobility (Government of Singapore, 2012).

### *Social stratification*

Various income and education statistics indicate the degree of stratification and mobility in contemporary Singapore society (Bhaskaran et al., 2013). First, the Gini coefficient measuring the overall distribution of income across the different strata of the population deteriorated from .43 in 2000 to .45 in 2010. Tax systems



can be powerful mechanisms for re-distributing wealth between social strata, but as recognized earlier, Singapore's tax regime adopts generally low levels of tax, and while progressive, rises with income very gently. The ratio of income between the top and bottom deciles of the population also worsened from 10.1 in 2000 to 12.9 in 2010. Second, while the wealthy (top 1% to 2%) enjoyed sharp income rises, the bottom three deciles experienced real income declines, and the next two deciles experienced virtually no income growth at all during this period (Dhamani, 2014). Steep rises in income among the highest paid contrast with those on low incomes, with sharp rises in the cost of living naturally affecting the lower paid proportionately more. Consequently, young Singaporeans from poorer families – even if they have talent - have fewer opportunities to move up the social ladder. Some scholars have attributed this decreased intergenerational mobility to the meritocratic characteristics of the Singapore's education system. The effects of social stratification on educational achievement are most evident in the 2009 PISA results where Singapore had the third highest socioeconomic gradient predicting its students' reading achievement among the top 12 economies with the highest reading scores (Ng, 2013).

### *Equity*

While meritocracy as the guiding principle governing the organization of Singapore society is enshrined in education policy and practice, it is equally important to ask the extent to which education policy reflects equity. To this end, the OECD 2007 Report on equity in school systems (Field, Kuczera, & Pont, 2007) proposes a framework of ten steps for reducing school failure and dropout rates, and for making society fairer. This provides a useful set of criteria for gauging the degree to which the Singapore education system embraces equity. These ten criteria are grouped into three categories – design, practices and resourcing – and for each a brief application for Singapore is made.





*Design*

*1. Limit early tracking/streaming and postpone academic selection*

Singapore fails to meet this criterion. Although it has marginally postponed streaming until the last years of primary school, secondary schools organize students into three streams – Express/Special, Normal Academic (NA), and Normal Technical (NT) (MOE, 2014a). Moreover, there is relatively little transfer of students between schools and streams. Academic selection starts at the end of primary school and continues right through to tertiary and higher education.

*2. Manage school choice to contain equity risks*

The Education Ministry (MOE) has proliferated school diversity since the 1980s; however, its primary motivation has been to specifically nurture the most talented rather than to meet equity considerations. There are, for example, special schools for the gifted in mathematics, technology and science, and the arts (MOE, 2014a). Those who can afford to pay have a choice of some of the best independent schools in the world. In contrast, the majority of parents could only send their children to local ‘neighborhood’ schools.

*3. In upper secondary education, provide attractive alternatives, remove dead ends and prevent dropout*

On this criterion, Singapore achieves relatively well. The majority of students have clear educational paths beyond 16 years of age (MOE, 2014a). For example, the NT (lowest ability) stream students are encouraged to join Institutes of Technical Education providing excellent training in skills-based occupations. A few may join many of the NA stream in attending polytechnics for sub-degree courses, while some of the NA stream will join the Express/Special stream in going on to university.



*4. Offer second chances to succeed from education*

Although the opportunities for second chances are improving with more flexibility in accessing higher education, a trend reflected in the growing number of new universities, the existence of a full employment economy together with the pressure to retain a salary in paid employment, mitigate against many going to university as mature students.

*Practices*

*5. Identify and provide systematic help to those who fall behind at school*

In this regard, Singapore would not rate well. Generally, low achievers and those with special educational needs (SEN) have not been well catered for, especially when judged against provisions in Anglo-American education systems (Tam et al., 2006).

*6. Strengthen home-school links to help disadvantaged children to learn*

This is yet another aspect in which Singapore would rate lowly. Little attention is given to home-school links. However, somewhat paradoxically, a significant proportion of Singapore students' success in academic test results is attributed to strong parental support of schooling and private tutoring (MOE, 2012). Parental support is a prime factor in student achievement, but it is not down to strong school-home links. Moreover, poor families and low achievers are often unable to help their own children as home tutoring is expensive.



*7. Respond to diversity and provide for the successful inclusion of migrants and minorities within mainstream education*

While the Singapore government has sought to diversify education through its policy of specialist schools and curricula catering to the talented, its provision for low achievers has been less than impressive (Dimmock, 2011). Many foreign migrant workers come without families, so the system is spared the problem of catering for them. However, the population comprises three racial/ethnic groups – Chinese, Indian, and Malay – with significant differences in academic achievement between them that are perpetuated over time.

*Resourcing*

*8. Provide good education for all, giving priority to early childhood provision and basic schooling*

While Singapore's education standards are high by global standards, this should not mask substantial differences in curricular experiences and learning opportunities favoring the most talented (Bellows, 2009; Ho, 2012; Lim, 2013; Tan, 2008). Basic education may be universal, but little attention has been devoted to early childhood education, the standards of which vary enormously, although this is now beginning to be addressed (MOE, 2012).

*9. Direct resources to most needy students*

The prevailing philosophy of the government rests on students have different abilities and that the aim is to cater to those abilities by providing appropriate differentiated curricula, school types, and resourcing (Lim, 2013; MOE, 2014a). Policy is predicated on the expectation that students of different abilities will not achieve the same academic outcomes. Conscious of a future shortage of leaders, high achievers - who are seen as future leaders - are favored. However, since the 2011 election and the emergence of social discontent, the government appears keen to re-orientate resource allocation to provide more resources to low achievers. It remains to be seen how seriously the government takes the threat of



growing social discontent in terms of its investment in the education of the under-class.

*10. Set concrete targets for more equity, particularly related to low school attainment and dropouts*

The MOE does not set targets for each school in regard to school attainment and dropouts, but it does closely monitor both for each school. Superintendents will alert principals periodically if one or both are higher than usual and will check whether appropriate steps have been taken (Dimmock & Tan, 2013). Overall, principals would be concerned about these data and would be expected to take action in line with system-wide MOE policies.

*Government policy*

Results of the preceding analysis necessitate a critical review of the role of government policy and school principals in contributing to the lack of equity in Singapore's education system. First, since 2012, Singapore government pronouncements show a growing awareness of the problems of educational inequity, and the social divisions that it can exacerbate. At the system level, MOE claims it is continuing with the commitment of promoting educational equity by minimizing the impact of social background on student outcomes (Lim, 2013; Mukhopadhyaya, 2003; MOE, 2014b). This includes approaches such as putting in place system-wide policies such as equitable funding (MOE, 2014b), setting high expectations for every child and providing quality teachers in each school (MOE, 2012). For example, educational grants have been given to students between ages of 6-16 (Pupil Edusave) so that they can pay for their enrichment programs. Students, especially from disadvantaged families, will have equal access to these enrichment programs aimed at developing their talents. However, this measure is only now becoming available to the poorest families, and only brings them in line with entitlements the middle classes have enjoyed for some time. Poorest families can also apply for Financial Assistance Schemes if their household income is \$2500 or below to help offset some of their educational expenses.



Recent initiatives such as Primary Education Review (PERI), Pre-school Review and 'Every School a Good School' movement also form part of the effort to promote educational equity (Lim, 2013; MOE, 2012). PERI recommendations attempt to mitigate disparities in educational achievements by focusing directly on primary school education (Lim, 2013). Many of the recommendations are principled upon providing the most benefits to the least advantaged in the society. For instance, the recommendation that graduates teach in primary schools is a clear attempt at raising the overall teacher quality and ensuring an equitable distribution of teacher quality (MOE, 2012). A further measure is the introduction of holistic assessment in lieu of excessive high-stake examinations in the lower primary years (MOE, 2012) – a move also deemed to level the playing field for low-SES students. Widening student assessment in non-academic skills areas should help schools to focus on what counts beyond a basic education and in turn create opportunities for low-SES students to acquire these skills. Conducting school enrichment lessons before and after formal school, in speech and drama for example, can complement these skills and in turn improve student acquisition and use of English. But they are yet to be fully implemented.

While system-wide policies to promote elements of educational equity aimed at leveling the playing field for low-SES students have recently entered the MOE's policy agenda, such measures are generally mild in effect, aimed at re-dressing deprivation of resources and giving similar entitlement to that enjoyed by high-SES students for some time. However, merely equalizing entitlements is not compensatory. How these policies are played out depends very much on the commitment of principals and other stakeholders, particularly parents. At the primary school level for instance, one of the key issues that challenge school principals is convincing low-SES parents to give their children's schooling top priority amidst the other daily challenges they face. Principals often grapple with the absence of such students from school and enrichment classes as a result of other competing priorities of the parents. The determination of principals to ensure that parents are committed to ensuring that their children attend school and participate in the programs designed to close achievement gaps, will go a long way to ensuring greater educational equity in Singapore. Overall, a key message seems to be that principals are potentially influential agents in promoting equity, especially where system-level support exists. However, as argued in this paper, since Singapore education policy in general is



not noted for its strong advocacy of equity rather than meritocracy, a key issue becomes the extent to which principals at school level can still make a difference.

### **School principals and educational inequity**

While government policy remains largely a potential rather than actual force for educational equity, principals as leaders of influence at organizational level can also play a part in the allocation of equitable learning opportunities to students. In the sections that follow, four areas in which this influence contributes to or exacerbates inequity are discussed, namely school enrolment patterns, early streaming of students, preoccupation with academic performance, and tight coupling in the Singapore education system.

#### *School enrolment*

Educational differences due to socioeconomic characteristics are manifested in school enrolment patterns. As reported in The Straits Times (RI honours MM with new award, 2011, January 14), when high-SES parents enroll their children in primary school, they target 'elite' schools where there is a preponderance of students with more educationally qualified parents. On the other hand, children from less well-to-do families tend to enroll in neighborhood schools providing for the majority of students from average families. Results of a survey reported in The Straits Times (Students of top schools worry more about elitism, 2007, May 18) showed that 71% of students in elite schools spoke English at home, as compared to 34% in neighborhood schools. Furthermore, among those speaking English at home, children from elite schools came from wealthier families (median household income of S\$7100 per month) as compared to peers from neighborhood schools (median household income of S\$3560 per month). Former Prime Minister Lee Kuan Yew also publicly admitted that elite secondary schools have higher proportions of parents who are both university graduates (45% to 72%) as compared to neighborhood schools (7 to 13%) (RI honours MM with new award, 2011, January 14).



Notwithstanding the socioeconomic patterns in school enrolment, the question is how principals are creating a more level playing field for all their students. For example, principals of neighborhood schools may be unable to secure resources to match the substantial endowment funds that principals of elite schools can access from their students' parents or alumni. Elite secondary schools are also characterized by a high-achievement school culture where a large proportion of students aspire to go to the best universities and obtain prestigious government scholarships. On the other hand, many students from neighborhood schools may struggle to complete their studies and proceed to vocational training institutes or polytechnics. Given the low-SES backgrounds of students, principals of neighborhood schools may not be able to easily convince their students to raise their educational expectations and self-efficacy beliefs. Indeed, it is likely to be harder for a bright student to achieve the same outcomes in a low- than a high-SES school.

#### *Early streaming*

Principals are also not excused from playing a part in propagating among teachers, students, and parents, notions of the 'bell curve' distribution of individuals' intelligence in Singapore's meritocracy. Students with different levels of academic achievement are allocated different citizenship roles and responsibilities according to a state-defined hierarchy (Ho, 2012). For example, at one extreme, high-flying academic students are spotted early on as future elite cosmopolitan leaders; a second tier of globally-oriented but locally rooted mid-level executives and workers are identified for the middle tier; and local 'heartlander' followers at the other end of the spectrum, in decreasing levels of achievement. This stratification presupposes that students' ability can be reliably measured and compared across schools. It also assumes that ability at school can usefully predict, and align with, specific levels of leadership/followership in decades to come. In supporting this calibration, the government provides the best educational resources and opportunities to academically able students at



various levels throughout the education system. It is a system that institutionalizes and perpetuates inequities and immobility across the social system, as further argued below.

First, young primary school students at nine years old have the option to undertake the gifted education program (GEP) screening test focusing on their verbal, mathematical, and spatial abilities. Only the top 1% who meet the requirements leave the mainstream classes to join a select group of students in the GEP (MOE, 2014c). The GEP is staffed by highly qualified teachers, well resourced, and characterized by smaller class sizes as compared to mainstream classes. At the secondary level, some of the most academically inclined and competent students are streamed into academic tracks with a shorter timeline (Express/Special Streams) before they take their national examinations at the end of their secondary education. They also have more opportunities to learn their mother tongue languages (Chinese, Malay, or Tamil) at a higher level of proficiency. Other academically able students enrolled in the six-year Integrated Programs participate in research projects, some under the supervision of university professors, and are exempt from taking the secondary national examination (GCE 'O' Levels), ostensibly to enable them to develop higher-order competencies and skills with a view to focusing exclusively on 'A' levels (MOE, 2014a). At the university level, academically competent students may apply for government scholarships to sponsor their studies at the world's most elite universities. Upon graduation, those with scholarships to the best world class universities are bonded to return to Singapore to assume posts in key government ministries or statutory boards so as to ultimately assume senior leadership responsibilities (Tan, 2008). Clearly, the meritocratic system as it presently operates is elitist in its allocation of educational and career resources in favor of the few most academically competent. Contrariwise, it is the case that Singapore caters relatively well for the education of non-elite academic students. For example, middle-ability academic achievers continue their post-school education in polytechnics, with the possibility thereafter of progressing to local universities, while the lowest ability students are trained in ITEs, which are comparatively well resourced with up-to-date training equipment. The fact is that strong hierarchies are created early on in students' lives, with resources inequitably allocated, thereby privileging the few and disadvantaging the many. Furthermore, once a student is attributed a hierarchical position, there is generally little chance of mobility or transfer between streams or institutions.





The separation and streaming of students in the Singapore system at a relatively early age is anathema to egalitarian principles. At the age of 12, Singapore students take the Primary School Leaving Examination, resulting in entry to elite specialist secondary schools for a small talented minority, some of whom go on to win scholarships to the world's best universities. A further 60 per cent is placed in the Express stream to take the 'O' Levels, 'A' Levels and perhaps proceed to join university. A further 25 per cent is placed in the NA stream, with the rest put in the NT stream (usually about 13 per cent). While there is the possibility of transfer between streams, the proportion who actually switch is very small, usually below 5 per cent. The chances of anyone put in a normal stream at 12 finishing among the top 25 per cent who make it into a top Singapore university are small. NT pupils can theoretically sit 'O' levels, but are far more likely to go on to vocational study at the ITE. Our argument is not that vocational students are given a poor quality practical training. Rather it is that streaming at such an early age, with little chance of transfer later, privileges those with access to resources and knowledge early on, and disadvantages those without.

Meritocracy in the Singapore school system unduly favors those brightest academic achievers with highest levels of parental and socioeconomic resources at a very early stage in their lives, unquestioningly assuming that they will develop into the best leaders in adult life. It ignores the fact that many of the brightest achievers in adult life are late developers, while many outstanding young children fail to develop into successful achievers in their subsequent careers. Moreover, the system fails to develop the full range of talents across the student body, talents that are needed to reap the full economic benefits of a KBE (Tan, 2013a). Our point is that leaders at system and school level have done relatively little through policy and practice to counter these inequities.



*Preoccupation with academic performance*

Principals are also preoccupied with the academic performance of their students (MOE, 2012). This phenomenon may be argued to be partly a result of the competitive nature of education in Singapore, but also more fundamentally, a manifestation of the socio-cultural premium placed on achievement in Singapore society (MOE, 2012). The obsession with academic performance results in many principals implementing policies that promote academic achievement at the expense of holistic education. These policies include introducing periodic, standardized, summative assessment in their schools; implementing quick fixes to address deficiencies in students' academic achievement, such as admitting only students with academic potential, banding students by their abilities, and teaching students examination skills. These interventions tend to benefit higher socioeconomic status (SES) students. For example, more frequent summative assessment does not enable teachers to build on the prior knowledge of students from disadvantaged families (Reyes & Wagstaff, 2005). Ability banding has been shown to benefit higher ability students, who are usually from high-SES families, in terms of teachers' expectations and curricular rigor (Stevens & Vermeersch, 2010). Lower-ability students, usually associated with disadvantaged families, when grouped together may mutually reinforce a sense of learned hopelessness (Seligman, 1995). Furthermore, SEN students, especially those from low-SES families, would not be able to meet the academic expectations of schools, given their unique circumstances that need intensive support from schools.

Principals' obsession with academic performance may contribute to the viability of shadow education (Bray, 2007). More specifically, to meet the academic demands of schools, high-SES parents may enroll their children in expensive after-school enrichment programs designed to actualize their children's potential using state-of-the-art pedagogy and curriculum. These programs focus on teaching the academics, language and drama, music, arts and aesthetics, cooking, brain training, shooting, fencing, golfing, and social etiquette. On the other hand, low-SES parents may struggle to put their children in mass-market tuition classes targeted at helping the latter to pass their examinations. In schools, teachers may decide not to teach certain parts of the curriculum, as private tutors have already covered them in enrichment classes, but these teachers forget that not all students would have had the benefit of



attending out-of-school lessons. Consequently, these students are resigned to struggling on their own to 'catch up' with their more privileged peers. Commenting on this issue of private lessons, Education Minister Heng publicly cautioned that schools must not be run on the premise that all students would have private tuition outside school (MOE, 2012).

### *Principals' efficacy*

The tight coupling in the centrally controlled education system in Singapore may also mean that some principals may be circumscribed in their initiative and effort to promote equity. Indeed, a small study by Ong and Dimmock (2013) involving 12 principals found that some principals were impressively proactive in their leadership and management of low achievers, while others were less so. Furthermore, principals' engagement with their lowest streamed students was based on three perceptions - how they perceived streaming as practiced in the Singapore education system, their perception of NT students as a whole, and their personal expectations of these students. Grounded theory analysis classified the principals into three categories - 'realists/pragmatists', 'innovators/improvisers' and 'nurturers' - according to the extent they selectively engaged and promoted the learning of their NT students. Principals' pre-existing paradigms and conceptions regarding streaming influenced the way they managed their NT students. The study found that the extent of principal engagement and proactivity varied amongst the principals according to eight management areas - namely, (1) Streaming/Lateral Movement; (2) Monitoring; (3) Deployment of Resources; (4) Subject Offerings; (5) Enrichment Programs; (6) Managing Discipline; (7) Leadership Opportunities; and (8) Treatment of Students. The principals did not always share the same paradigms and conceptions with regard to streaming, the students themselves, and their expectations of students. Some principals were realists/pragmatists, in regard to streaming, subject offerings and leadership opportunities, abiding closely to MOE's guidelines. Yet these same principals were also innovators/improvisers in other management areas. For example, a principal was an 'innovator' in the areas of monitoring, managing discipline, and treatment of students, but a 'nurturer' in the areas of providing enrichment programs, and leadership opportunities. In other words, each of the 12 principals exercised



some characteristics of the different typologies - realist/pragmatist, innovator/improviser, and nurturer, with regard to the way they engaged the NT students, while possessing dominant characteristics enabling their overall location in one type. Ong and Dimmock (2013) concluded that while some principals more than others were proactively trying to compensate for disadvantaged NT students in their schools, there was a limit to what they could achieve, especially in a prevailing top-down system of control, and when government policy was not strongly enforcing equity through closing achievement gaps.

### **Professionalization of principals and autonomy**

Given the different leadership prerogatives and school practices that contribute to educational inequality, what could principals as professionals do in Singapore's centrally controlled education system? With regard to the professionalization of principals, a review of the extant literature indicates that the issue of principal professionalism has not been systematically discussed. This may be partly attributable to the paucity of consensual understanding among scholars of what principal leadership actually entails (Bush & Glover, 2014). In order to examine the degree of professionalization that principals in Singapore schools enjoy, it is therefore necessary to identify first, the key behavioral attributes of school leadership and second, the decision-making context in which their leadership is enacted.

In terms of principal attributes, Bush and Glover (2014) – writing from a distinctly Anglo-American and thus ethnocentric perspective - assert that despite the proliferation of different conceptual paradigms, few would challenge that -

‘school leadership is a process of influence leading to the achievement of desired purposes. Successful leaders develop a vision for their schools based on their personal and professional values. They articulate this vision at every opportunity and influence their staff and other stakeholders to share the vision. The philosophy, structures and activities of the school are geared towards the achievement of this shared vision’ (p. 5).



Inherent in this articulation is the compelling notion that principals ground their vision in clear personal and professional values, and that they assertively influence their organizational members to collectively achieve their vision (Day, Harris, & Hadfield, 2001; Southworth, 1993; Yukl, 2002). The ultimate stage is reached where schools become 'self-organizing' (Bain, 2007; Bain, Walker & Chan, 2011), with minimal intervention from government, and where school leaders (and teachers) enjoy large areas of discretion and autonomy to sustain and scale-up capacity building from within (Dimmock, 2012; King & Bouchard, 2011; Dinham & Crowther, 2011). In short – ubiquitous school-system evolutionary development is predicated on a professionally-led model of school system evolutionary development (Hargreaves. D, 2011). This appears to be the conceptualization underpinning the progressive stage-by-stage trajectory recognized and espoused by McKinsey&Company (Mourshed, Chijioke, & Barber, 2010).

### **Singapore Principals, values and mission**

Rhetorically, according to the Singapore MOE (2008), principals of Singapore schools are expected to be transformative agents who can equip students with the knowledge, competencies, and skills that are needed for the desired future. In particular, they are to be guided by sound values and a sense of purpose, to be able to inspire others to realize a shared vision, to grow teachers and other school staff, and to lead and manage change. The in-service training for all prospective principals is concentrated at, and monopolized by, the National Institute of Education (NIE), where programs espouse the development of capabilities in participants to handle complexities involved in the mission of equipping students with twenty-first century attributes (Ng, 2013). Toward this end, aspiring principals learn how to envision the future, contextualize theories to suit local needs, adapt to emerging contingencies, and collaborate with others.

However, the reality for principals in post is that they are largely circumscribed in the definition and articulation of their professional values (Dimmock & Tan, 2013). Indeed, they are expected to adhere more to the MOE



corporate values and vision, as expressed for example in the Desired Outcomes of Education policy, than develop their own personal and professional values (MOE, 2008). For example, they are required to consider the implications of education to nation-building (e.g., national cohesion) and to prepare students for the workforce (e.g., the knowledge-based economy) that the government envisions will benefit Singapore. Many values that are deemed to be sacrosanct in the Singapore education system such as meritocracy, use of examinations, bilingualism, use of English as the primary medium of instruction, and the secularity of schools emphasizing racial and religious harmony are also enshrined and systematically reinforced in policy articulations such as 'Thinking Schools, Learning Nation', 'Desired Outcomes of Education', 'Philosophy for Educational Leadership', and 'Ethos of the Teaching Profession' (Tan & Dimmock, 2014). Consequently, there is little room for alternative schooling models such as schooling for religious or purely epistemic ends that do not appear to benefit the nation more than either sectoral or individual student interests. Over time, it is only to be expected that many principals 'gradually begin to integrate their own personal and professional identities with the MOE's values, thereby internalizing the latter as their own, adopting them as a kind of "default" position for undergirding their leadership practice over time' (Dimmock & Tan, 2013, p. 331).

### **Central control and autonomy**

Recent scholars of Singapore education have described the relationship between the Ministry and schools in dialectical terms. Tan and Ng (2007) for example, report that Singapore, like other developed systems, has (since 1997 in particular), introduced major educational change to prepare its students to meet the challenges of a knowledge economy. They go on to discuss recent educational change in Singapore using the framework of decentralized-centralism, first proposed by Karlsen (2000). In exploring the dynamics of change in the initiation, content, levels and simultaneity of the reform process in terms of decentralized-centralism, Tan and Ng (2007) describe the ideological roots of the decentralized-centralism policy as the tension between functionalist and liberal forms of education in the Singapore context.



Recently, Chua (2014) referred to Singapore's unique emergent system of governance as centralized-decentralization (reversing Tan and Ng's terminology). Chua argues that while strong central decision making has been credited for Singapore's high performance on international tests such as PISA and TIMSS, concerns were raised about the degree of responsiveness and innovation that such a centralized system could support, especially when trying to shift schools to focus on 21<sup>st</sup> century skills. Consequently, he says, the Ministry started to give bounded autonomy to schools to make local decisions. For example, under the *Teach Less, Learn More* (TLLM) initiative, designed to reduce the over-reliance on rote learning and encourage schools to develop learning experiences that engage students, promote critical and creative thinking and support students' holistic development, schools were given more flexibility to develop their own pedagogical approaches (eg. inquiry based learning, problem-based learning) as long as these approaches were aligned to the intent of TLLM. The Ministry also created 'white spaces' in the curriculum for schools to develop their own unique courses and learning programmes. It has to be said, however, that these are mostly confined to the co-curriculum area. Since that time, the Ministry has pursued other policies that reflect a centralized-decentralized approach. For many years, according to Chua (2014), Singapore maintained relatively large class sizes of 40 students per teacher. However, when the Ministry decided to reduce class sizes, it did not dictate a particular size for all classes. Rather, it created a new matrix of student-teacher ratios that determined the overall allocation of teachers to schools, but left schools with the flexibility to determine the optimal class size for different kinds of students. Thus some schools have chosen larger classes for higher ability students and smaller for lower achievers (Chua, 2014).

That there is less centralization today than in the 1970s and 1980s is recognition that some decision making is best made in the schools by principals and teachers – since they best know local conditions. However, as Chua goes on to say, just as the flip side of some carefully calibrated increase in autonomy is increased accountability for results, from the Ministry's perspective, centralized guidance (such as the parameters of schools' student-teacher ratios) is needed to maintain coherence as a system. Chua (2014) argues that ultimately, the approach is designed to enable the system to reap all the benefits associated with tight coupling and a strong central authority without overly constraining the local professional class, and thus depriving the system of innovation and creativity.



In the end, however, making centralized-decentralization work, may well depend on the professionalism and capacity of superintendents and school leaders to resist rote compliance and learn how to make local adaptations that do not stray too far from policy makers' expectations. This last is peculiarly Singaporean. And as later discussed, the system of 350 schools is small enough to allow the Ministry and school leaders to believe that it can still be strongly controlled, if not micro-managed, from the centre.

If principals of Singapore schools may be said to operate in an environment characterized by relatively low levels of devolution of decision-making capacities from the center (i.e., MOE) to schools, the line of authority from MOE is organized around four geographical zones and then school clusters within the zones. The four zones are led by deputy directors, who work closely with a middle-tier (i.e. cluster superintendents) to advise and support principals. Decision-making power on school operational matters is delegated to principals. However beyond local operational issues, principals enjoy bounded autonomy in that they have to ensure that the overall developmental trajectory of their schools, in terms of student learning outcomes, curricular offerings and assessment, staff development and appraisal, resource management, and relationships with community stakeholders, is tightly aligned to that of MOE (Tan & Dimmock, 2014). They have to regularly report to MOE on how their schools contribute to the larger vision espoused by MOE, and therefore they do not enjoy devolution of decision-making power over the directions of their schools, arguably the most pertinent requirement of an archetypical decentralized and highly performing system. Teachers are allocated to schools by the MOE, and the large part of school budgets is also allocated to them. Thus principals enjoy little if any control over three main resources essential to their performance – curriculum, teacher selection and appointment, and finance (Dimmock & Tan, 2013). In this sense, it can be argued that the real locus of strategic decision-making resides in powerful bureaucrats in MOE headquarters. Hence compared with other high-performing school systems - Victoria (Australia), Ontario (Canada), and Hong Kong – Singapore principals have their powers seriously circumscribed in their professional roles and responsibilities. Although enjoying more latitude than in past decades, principals are still functioning as line managers (they are still classed as 'officers' of the MOE rather than as professionals) under tight supervisory and monitoring conditions, ensuring the efficient implementation of the center's





policies. It is this characteristic - the capacity to devise and efficiently implement pragmatic policies.- that Gopinathan (2007) claims is the prevailing culture that pervades the whole system; it has been the transformative lever propelling Singapore's development.

This fundamental relationship between MOE headquarters and schools has evolved but not substantively changed over time (Gopinathan, 2007; Gopinathan & Deng, 2006; Gopinathan, Wong, & Tang, 2008; Mourshed, Chijioke, & Barber, 2010; Tan & Dimmock, 2014). In the earlier phases of Singapore's educational development (survival phase: 1959-1978; efficiency phase: 1979-1996 – see Gopinathan, 2007), the MOE has employed various centralized approaches such as policy mandates, curricular and assessment standardization, managerialism for principals, leadership handbooks, and standard operational procedures - in the formulation and implementation of policy. In the present phase of development (ability-driven phase: 1997-present), the MOE has continued to exert strong control, albeit more subtly, over schools' leadership, direction and development. These more nuanced control strategies include supplanting top-down bureaucratic instructions with pro-MOE self- and peer-sanctions; controlling behaviors via the articulation of espoused national, corporate, and professional values; and implementing the cluster system to provide an intermediary between MOE and schools (Tan & Dimmock, 2014). In summary, the continued overwhelming influence of MOE has separately led scholars such as Tan and Ng (2007) and Ng (2010) to describe Singapore as having 'centralized' decentralization (p. 284), and Tan and Dimmock (2014) to characterize Singapore's educational governance as 'steering... from close proximity' (p. 757). In view of the bounded professional autonomy exercised by principals and teachers in an otherwise tightly controlled policy environment, we contend that principals are largely circumscribed in what they can do to equalize learning and achievement for all students.



## **Conclusion**

Mid-way through the second decade of the twenty-first century, growing social unrest caused by increasing wealth and income disparity is not unique to Singapore. What is unique however, is Singapore's meteoric rise over the last fifty years from a poor Third World nation to one with the highest per-capita GDP. This achievement is in no small way due to the government's adoption and interpretation of meritocracy as the principle instrument of social organization and resource allocation. It could be argued that its version of meritocracy has served Singapore well during the first fifty years of its growth. But it is increasingly apparent - with Singapore's evolution into a more diversified global knowledge-based economy - that this model of meritocracy is no longer serving its purpose. Privileging a minority at a young age and bestowing extraordinary resource (educational) benefits on them, while making it more difficult for others to succeed, is handicapping social mobility and underleveraging the nation's resources. Many early developers on whom resources are bestowed fail to make successful careers subsequently, and yet are supported with good jobs throughout their working lives. Equally, many late developers with high potential, are handicapped by lack of opportunity both during and after school. Restricted mobility in the school system caused by early streaming is replicated in society at large. The system-wide preoccupation with academic achievement also compromises the provision of holistic learning experiences to all students, particularly low SES students and students with special educational needs.

It is therefore in the government's interest to change the elitist meritocratic basis by which educational resources are allocated to a model that befits the 21st century KBE. This entails meeting the demands for a highly diversified and skilled workforce by encouraging all to succeed, and valuing the talents of all students equally, thereby promoting socioeconomic mobility. Even within the present system of meritocracy, however, and especially in transitioning to a more open, equitable system, principals have a crucial and diverse role to play. At the school level, they can proactively re-configure teaching and learning to promote quality and equity at the same time, deploying the best teachers to students most in need, and allocating compensatory levels of resource to low achievers and SEN students. Above all, they have responsibility to build an



inclusive school culture that values all students, their socio-cultural backgrounds, and their talents. To this end, all Singapore principals must perhaps first examine their own personal and professional values as anchors for creating a more equitable and inclusive school system.



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