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TENSIONS BETWEEN MERITOCRACY AND EQUITY IN SINGAPORE

Educational Issues in Preparing a Workforce
for the Knowledge-based Economy

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Abstract

While Singapore's education success is often attributed to its meritocratic and rigorous education system, critics question whether Singapore's "brand" of meritocracy is now fit-for-purpose as the economy changes from an industrial to a knowledge-based economy (KBE). This paper argues that a KBE privileges intellectual and other talents across a larger spectrum of society than is presently rewarded and, consequently, tensions arise between meritocracy, social equity, and mobility. It highlights the roles played by schools and, in particular, education policy and leadership practice in both sanctioning and mitigating the adverse effects of meritocracy in the city state. It argues that Singapore leaders' pre-occupation with quality rather than equity results in important inequalities in learning experiences and opportunities for students of different socioeconomic backgrounds. It identifies the competencies needed by students in the KBE and how principal leadership can help address these in more equitable ways. Finally, it suggests how principals can contribute to Singapore's development trajectory by acting as agents of social change in realising a more socially just society, re-orientating their leadership to emphasise both quality and equity in learning, revisiting the definition of success in schools, and transforming them into learning organisations that are fit-for-purpose in the KBE.

Introduction

International comparisons of educational achievements have repeatedly highlighted Singapore students' high levels of academic achievement in reading, mathematics, and science (OECD, 2013a). While many analysts have credited the city state's stellar performance to its meritocratic and rigorous education system (Bellows, 2009; Lim, 2013), detractors have at the same time questioned the continuing relevance of this *modus operandus* as the Singapore economy experiences a structural shift from an industrial economy to a knowledge-based economy (KBE; Appold, 2001; Low & Vadaketh, 2014). In contrast to the industrial economy, the KBE privileges the generation, management, and dissemination of intellectual capital for innovation and economic returns (Harris, 2001). While at present this favors those who are most highly qualified and educated, we argue below that the intellectual and other talents required in the future KBE will embrace a much broader skill set across a larger spectrum of society. This fluidity in the meaning and recognition of talent engenders numerous tensions between the concepts of meritocracy, KBE, and social equity and mobility (Appold, 2001; Bellows, 2009; Lim, 2013; Tan, 2008).

First, talented individuals are usually identified early on in a meritocracy, and opportunities are given disproportionately to them throughout their educational and occupational careers (Mukhopadhaya, 2003). This is the case in Singapore. In contrast, "late developers" may participate in continuous learning and still distinguish themselves with their unique strengths and passions in the later part of their careers in a KBE, but without the full support and opportunity accorded those selected and privileged "early developers". Second, typical of meritocratic systems elsewhere, Singapore's system rewards individuals primarily for their academic achievements. However, we argue that evidence increasingly shows that in the KBE, there is the need to recognise and reward non-academic domains and soft skills (Tan, 2013b). A

key reason why due cognisance has not hitherto been given to these domains is that many of the fields of talent on which the KBE increasingly depends are still evolving and are characteristically ill-defined and hard to measure compared to academic achievement. Third, in Singapore's meritocracy, relatively few individuals – often regarded as elites – are validated with high levels of academic achievement (Mukhopadhyaya, 2003). In contrast, we argue that in order to flourish, the KBE depends on a workforce with more individuals of diverse talents, competencies, and skills than has been the case with pre-KBEs. This leads to the fourth and last point, that there is generally greater acceptance of outcome inequality in a meritocracy insofar as there is more equality of opportunity. That is, there appears to be greater affinity between equity and equality of opportunity than between equity and equality of outcomes. However, since our argument emphasises the need for the recognition of a broader range of outcomes to meet the workforce needs of a KBE, then there is a case for greater equity if not equality in the importance and status given to different outcomes, including both academic and non-academic.

Contextualising the argument in Singapore education highlights the roles played by schools and, in particular, education policy and leadership practice, in both sanctioning and mitigating the adverse effects of meritocracy in the city state. Accordingly, the aims of this paper are to investigate the instrumental roles that school principals play in affecting equity and social justice issues, and consequently their contribution to present social discontent. In the sections that follow, the paper first discusses the role of principals in the Singapore education system in contributing more to the provision of quality than to equity, and their influence on the learning experiences of students from different socioeconomic status (SES) families. It then examines implications in terms of the types of competencies and skills that students need to acquire in preparation for the KBE, and the career opportunities that the KBE affords them in developing their myriad interests and talents. Next, the discussion focuses on how principal leadership may further accentuate the social stratification of talents, competencies, and skills development in students in the nation's developmental trajectory toward becoming a KBE. The last and final section suggests how principals may re-orientate their leadership to emphasise both quality and equity in learning, revisit the definition of success in schools, and transform their schools into learning organisations that are fit for purpose in the KBE.

Meritocracy and Educational Equity in Singapore

Meritocracy

Singapore government leaders have emphasised and employed meritocracy, as opposed to nepotism or ascription, as the principle means of organising society and allocating resources for social mobility, since the nation achieved independence in 1965 (Bellows, 2009; Ho, 2012; Lim, 2013; Tan, 2008). Indeed, academically gifted students are identified very early on in their educational careers. These academically outstanding students are also streamed into more demanding curricular streams with prospects for attractive tertiary scholarships and rewarding careers, especially in the public service. Given such exclusive educational pathways and the socioeconomic implications that they bring, it is not surprising that many parents in Singapore invest

extensively in their children's education in the hope that their children will attain a standard of living that is better than that which they have themselves experienced (*The Straits Times*, 2008).

With subsequent career success, these academically gifted individuals are able to provide an even higher quality of education for their own children. In turn, this investment gives their children more opportunities to excel in their studies *vis-a-vis* their peers from relatively disadvantaged families (Tan, 2013a). In the same vein, the prospect of academic success leads to lucrative careers for these children when they graduate from university and join the workforce. In this way, educational success in the meritocratic system contributes to a cycle of social stratification and reproduction across generations. Indeed, public sentiments regarding the failings of the present meritocratic system and the curtailment of social mobility have not gone unnoticed. They have affected the patterns of voting in the last general election in 2011 and compelled the government to launch a series of nationwide conversations involving a broad spectrum of society aimed at understanding the erosion of the social compact between the government and citizens (Government of Singapore, 2012). Quite unsurprisingly, results of these conversations highlight the need to redefine meritocracy and its role in distributing opportunities and awarding resources in Singapore society.

Other publicly available statistics corroborate these perceptions of social stratification in Singapore (Bhaskaran et al., 2013). These include a deteriorating Gini coefficient over time (from .43 in 2000 to .45 in 2010), and ratio of income between the top and bottom deciles of the population (from 10.1 in 2000 to 12.9 in 2010); and uneven rates of income rising for the wealthy (top 1% to 2%) as compared to the bottom three deciles, which have experienced real income declines. With the accentuation of social stratification, young Singaporeans from poorer SES families have fewer opportunities to move up the social ladder, even if they are hardworking and talented. Some scholars have attributed this decrease in intergenerational mobility to the meritocratic characteristics of the Singapore's education system (Ng, 2013). The effects of social stratification on educational achievement are also 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 the implementation of meritocracy as the guiding principle governing the organisation of Singapore society has contributed to the social stratification of its citizenry, it is also logical to examine the availability of inclusive education policies and practices that may moderate these effects. To this end, the OECD (2008) framework of 10 steps for reducing school failure and dropout rates, and for making society fairer, provides a useful heuristic framework for gauging the degree to which an education system – in this case, Singapore's – embraces equity. These 10 steps, comprising factors related to design, practices, and resources, provide a basis for a set of criteria that could be used to examine the extent to which the Singapore education system promotes equity.

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First, under “design”, the OECD advocates limiting early tracking and streaming, and postponing academic selection; managing school choice so as to contain the risks to equity; providing attractive alternatives, removing dead ends, and preventing dropout in upper secondary education; and offering second chances to succeed from education. Measured against these four criteria, the Singapore education system does not promote equity satisfactorily because of its prolific testing and streaming which starts very early on at Primary 3 and continues throughout different levels of education (Lim, 2013; Ministry of Education, Singapore [MOE], 2014a, 2014c). Moreover, there is relatively little transfer of students between schools and streams (*Times Education Supplement*, 2012). Outstanding students are also able to enrol in schools providing specialised curricula in mathematics, technology, science, and the arts (MOE, 2014a), or even independent schools if their families can afford the fees. The majority of parents, however, have no choice other than to send their children to local “neighbourhood” schools. In upper secondary levels, the lowest-ability students are expected to join institutes of technical education (ITEs) to pursue vocational training, and only a small proportion have a second chance in pursuing tertiary education at the polytechnics for sub-degree courses. Similarly, only the very best students from polytechnics are able to “change track” and hope to enter the local universities (*Times Education Supplement*, 2012).

The second set of steps under “practices” comprises identifying and providing systematic help to those who fall behind at school; strengthening the links between school and home to help disadvantaged parents help their children to learn; and responding to diversity and providing for the successful inclusion of migrants and minorities within mainstream education. Measured against these three criteria, the Singapore education system again does not appear to promote educational equity satisfactorily. This is because low achievers and students with special educational needs have not been well catered for, especially in comparison to the case in Anglo-American education systems (Tam, Seevers, Gardner & Heng, 2006). Furthermore, low-SES parents may be unable to support their children’s learning as home tutorials are expensive.

The third set of steps under “resourcing” comprises providing good education for all, giving priority to early childhood provision and basic schooling; providing direct resources to students with the greatest needs; and setting concrete targets for more equity, particularly related to low school attainment and dropouts. Measured against these three criteria, Singapore does not measure up satisfactorily yet again. First, learning opportunities favour the most talented (Bellows, 2009; Ho, 2012; Lim, 2013; Tan, 2008) and standards of early childhood education vary, depending on parents’ ability to send their children to the best schools that are often expensive and privately run. The streaming policy, and different school types and curricula, also favour high achievers (Lim, 2013; MOE, 2014a, 2014c). However, the government appears to be giving more focus to providing resources to low achievers since the emergence of social discontent (MOE, 2012) after the results of the 2011 General Election. Finally, the Singapore Ministry of Education (MOE) does not set targets for each school with regards to school attainment and dropouts, but it does closely monitor performance targets for each school in the tightly coupled system (Dimmock & Tan, 2013).

Singapore's less-than-satisfactory scorecard in promoting equity in its education system warrants a critical review of the role of government policy and school principals. First, after the 2011 General Elections, the government appears to be more cognisant of the problems of educational inequity. Consequently, the MOE reinforces its commitment – at least rhetorically to date – to minimising the impact of socioeconomic background on student achievement (Lim, 2013; Mukhopadhaya, 2003) by implementing more equitable funding (MOE, 2014b), setting high expectations for every child, and providing quality teachers in each school (MOE, 2012). The MOE has also initiated the review of pre-school and primary school education, and launched the “every school a good school” initiative in recent years (Lim, 2013; MOE, 2012). Notwithstanding these policy initiatives to level the playing field, the myriad of commitments and measures have so far had only modest effects in reallocating resources that privilege high-ability students, mostly from high-SES families, to benefit low-ability students.

Preparation of Students for the KBE

Competencies and skills

The preceding analysis indicates that the Singapore education system, premised on principles of meritocracy, has failed to address equity in educational opportunities for students from different SES backgrounds. This inadequacy is further accentuated by the nation's development from an industrial economy to a KBE. In the KBE, economic value-added is generated when knowledge is mobilised to address consumer needs (Harris, 2001). Accordingly, the premium shifts from the pursuit of efficiency and quality to the generation of innovations. The transformation brings with it associated competencies and skills that are required for effective functioning in the KBE (Ananiadou & Claro, 2009).

Various scholars have attempted to articulate the nature of these competencies and skills (Ananiadou & Claro, 2009; OECD, 2013b; Powell & Snellman, 2004), but invariably these descriptions appear to be aligned to the information, communication, and social dimensions as conceptualised by Ananiadou and Claro (2009). First, in the information dimension, students need to be equipped with information, research and inquiry, and media literacy in order to effectively search, select, evaluate, and organise information. They also need creativity and innovation, problem-solving, and decision-making skills in order to demonstrate their competence in restructuring and modelling information, and developing new ideas. Next, in the communication dimension, students need to exhibit information and media literacy, critical thinking, and communication skills in order to communicate effectively with others. Furthermore, it is important for them to be able to work collaboratively and flexibly. In the social impact dimension, students need critical thinking and responsible decision-making skills so as to exercise social responsibility. They need to understand the social impact related to information and communication technologies, and the environment (Levy & Murnane, 2004).

In recognition of the growing importance of these competencies and skills, the MOE introduced the Curriculum 2015 (C2015) framework of desired student outcomes, skills, and mindsets (MOE, 2011a). The four key C2015 student outcomes

are the “confident person”, “self-directed learner”, “concerned citizen”, and “active contributor”. There are many espoused C2015 skills and mindsets contributing to the achievement of these outcomes. The confident person must be equipped with thinking, communication, collaborative, interpersonal, and leadership skills. The self-directed learner must possess self-management skills, problem-solving skills, information and media literacies, and technological literacy and skills. It is considered essential for the concerned citizen to develop multicultural literary, cross-cultural skills, and civic literacy. Finally, it is envisaged that the active contributor to the KBE needs planning, management, organisational, and innovative skills. All of these skills and mindsets signal a more balanced curricular approach alongside traditional academic subjects, not the mitigation of academic achievement.

Notwithstanding the articulation of C2015, the question then is the extent to which principals have provided equitable learning opportunities for students from different SES backgrounds by facilitating their acquisition of these competencies and skills. This question is particularly important in light of the meritocratic system of Singapore education premised on academic achievement. The tension between the implementation of C2015 outcomes and the need to sustain academic achievement has added implications for educational equity (Dimmock, 2012).

In particular, the academic preoccupation of principals has important bearings for students’ acquisition of KBE competencies and skills. More specifically, the emphasis on core academic learning in subjects such as mathematics and science means that principals may regard the development of KBE competencies and skills as tangential to academic learning, especially in academically less-performing schools. Hence, students in these schools are deprived of the opportunity to acquire critical attributes needed in the KBE. These students may come disproportionately from lower SES families as a consequence of the convergence of many factors in Singapore’s meritocratic education system. First, lower SES parents tend to enrol their children in so-called neighbourhood schools at the primary level (*The Straits Times*, 2007, 2011). These schools, as contrasted with elite schools, have less resource endowments and tend to offer less varied learning opportunities to their students. Therefore, these children are disadvantaged from having parents who have less human and material resources, that is, less social capital, to invest in their learning, and also by having lower quality learning afforded by the schools. Given the early streaming in the Singapore’s education system, these children have a higher probability of being streamed to less academically demanding tracks in upper primary and secondary levels. As argued above, these children have fewer opportunities to acquire KBE competencies and skills in schools where principals may be more preoccupied with raising the overall academic achievement levels of students.

Furthermore, there is some evidence that the overall SES composition of students in schools, over and above the individual SES backgrounds of students, influences the schools’ learning climate and students’ achievement levels (Hattie, 2009). Applying the same argument to the perspective of schools’ own endeavours in preparing students for the KBE, principals of neighbourhood schools in Singapore could be confronted with a preponderance of students who are less academically

able and who come from lower SES families. There is some research evidence that students from disadvantaged families may be less inclined to embark on careers in science, technology, engineering, and mathematics in the KBE (DeWitt et al., 2013). They could also be less cosmopolitan in their educational and career outlook (Weenink, 2008). They may have neither access to computers or the Internet at home, nor the dispositions and skills to harness technology to support their school learning (OECD, 2010). When they are given research assignments or interdisciplinary project work, they may not be able to obtain adequate support from their parents in terms of advice and resources (Monkman, Ronald & Theramene, 2005). At school, their learning experiences are more curtailed than their peers in elite schools who enjoy generous endowments from successful alumni. In summary, unless principals are committed to making compensatory provisions to overcome the SES-related impediments to the learning of KBE competencies and skills, low-SES students will not be adequately equipped with the critical attributes that the KBE requires.

Alternative talents

The academic preoccupation of principals also has implications for the development of alternative talents in students in the Singapore education system. As in other developed economies, the education system constitutes the primary conduit through which Singapore leaders' meritocratic ideals are operationalised and propagated (Appold, 2001; Bellows, 2009; Lim, 2013). In this regard, educational leaders at the ministry and school levels have overriding influence over legitimating particular forms of knowledge and credentialing deemed to be extant and important in the socioeconomic sphere (Meyer, 1977). These forms of knowledge are largely academic achievements, especially in the domains of mathematics and science, but include other technical domains that are regarded as instrumental to the advancement of the economy (Appold, 2001, Bellows, 2009; Lim, 2013; Tan, 2008). The tight coupling and structural alignment inherent in the Singapore educational system (Dimmock & Tan, 2013) further serves to strengthen this academic criterion validation. The allusion of some teachers using non-academic lesson time to extend the teaching of academic subjects showcases the degree to which some school leaders are tolerant, if not supportive, of an academically biased mindset (MOE, 2011b). The generous Singapore government scholarships awarded to high-achieving students epitomise the systemic endorsement of academic excellence over non-academic achievements (Appold, 2001; Bellows, 2009; Tan, 2008). The overall result is a narrow consensual definition of success premised on academic excellence (Low & Vadaketh, 2014). In this respect, the Singapore society may be little different in kind from other developed societies, although it may be more intense and generous in how it recognises and rewards academic success.

Paradoxically, principals' relentless pursuit of academic excellence – partly driven by MOE policy – has not gone unnoticed (MOE, 2012). In 2012, the MOE abolished the decade-long banding of schools by absolute academic results. In its place, schools are now described more holistically on the official MOE *School Information Service* website (MOE, 2015) in terms of a range of attributes including

geographical location, co-curricular activities, and niche programs. The Master-plan of Awards and School Excellence Model quality assurance frameworks have also been revised to encourage school leaders to embrace a more holistic perspective of education. Furthermore, school leaders are now required to craft a school homework policy for their own school so that students have more room for non-academic pursuits.

On another plane, and in support of our argument of the need to broaden recognition of talent and achievement, academic excellence is but one of the many dimensions of the evolving idea of multiple intelligences. Psychologists have long argued for a multi-dimensional perspective of human ability (Gardner, 2011; Zhang, 2013). For example, Gardner (2011) posited that there are nine “frames of mind”, each constituting a specific form of ability that is susceptible to development and nurturance. These abilities comprise logical-mathematical (logic, abstraction, reasoning, numbers, critical thinking) and linguistic (words, languages) intelligences – aspects allied closely to traditional notions of academic intelligence. However, there are also other forms of intelligences that are less commonly emphasised and developed in schools, namely spatial (spatial judgment and visualisation), bodily-kinesthetic (control of one’s bodily motions, handling objects skilfully), musical (sounds, rhythms, tones, music), interpersonal (sensitivity to others’ moods, feelings, temperaments, motivations; cooperation in groups), intrapersonal (introspection, self-reflection), naturalistic (nurturing and relating to natural surroundings), and existential (spirituality, philosophical perspective). These intelligences are largely unrecognised in the present credentialing process in the Singapore meritocratic educational system.

Singapore’s apparent obsession with perfecting assessment tools and identifying academically competent students may also have precluded educational leaders from devoting their energies to collectively understanding and mapping the implications of macro-socioeconomic developments, particularly the evolving nature of the KBE, its requirements regarding workforce skills, and attendant burgeoning aspirations of the young. There are arguably many indicators of this conspicuous lack of attention to developing skills demanded by the KBE – especially those of a non-academic nature. First, while it is true that more schools are developing non-academic niches as diverse as air rifle sports or environmental sustainability, most of these school-level educational programmes are not integrated into the mainstream curriculum or are only offered piecemeal to specific groups of students as after-school options. Furthermore, many secondary schools may have the “discretion” to admit a small proportion of students with demonstrated prowess in these niche areas, while the lesser mentioned fact is that eligible students should have first achieved a certain level of academic results before they can be accepted by these schools.

This reluctance to pay regard to the development of non-academic competences does not help students in exploiting opportunities and realising their myriad aspirations in the KBE. Affirming the need for schools to fill this void, Education Minister Heng appealed to educational leaders, academics, and members of the public during the MOE Work Plan Seminar 2011, as follows:

We need to cater to the diverse needs of Singaporeans and allow all to progress in life – not by prescribing one path for all, but to have a diversity of pathways and opportunities, regardless of background. Bridges and ladders for each, with no dead ends.... Aspirations will continue to change as Singapore becomes more developed and parents become more educated. Parents will want their children to do better than themselves... (MOE, 2011b)

Indeed, there are nowadays multitudinous job opportunities in the KBE that enable students to carve a niche for themselves according to their talents and interests. For example, students who may have a penchant for technology can find careers in the design and development of games and mobile apps, digital animation, computer software, robotics, or even cyber-security. Those who are interested in communication can join the new media or creative writing sectors. The health and aesthetics industry also afford opportunities for students who are enthusiastic about food science and technology, total wellness, lifestyle management and consultancy, spa management, and perfumery and cosmetic sciences. The environmentally conscious can contemplate employment in the water and clean technology industry. Finally, students who enjoy interacting with people can find a place for themselves in event, project, tourism, resort, or even social enterprise management. None of these developing sectors relies solely on academic knowledge; rather, they place a premium on so-called soft, non-academic skills. Notwithstanding the widening career opportunities available in the KBE, principals' academic preoccupation means that students who may be talented in non-academic domains may not have adequate opportunities to develop their potential. The consequences are magnified for low-SES students who do not have academic aptitude but nonetheless have other forms of talent that are not developed to the fullest in schools. Consequently, these students are deprived of the opportunity to succeed in life via alternative pathways that are otherwise available in the KBE.

Agency of Principals

Making schools "fit for purpose"

Given their strategic roles as allocators of resources and facilitators of learning opportunities in schools, principals can exert influence in enhancing equity in the development of students' KBE competencies, skills, and talents. First, they could endeavour to make their schools more "fit for the purpose" of the KBE (OECD, 2013b; Stukalina, 2008). To do so, they must first understand the complex interplay of values and priorities among the MOE, students, and parents. More specifically, they must appreciate the strategic value of human talent development in resource-scarce Singapore, the evolving nature of work in the KBE and the concomitant expectations that employers have of the workforce, and the aspirations of the population to enjoy a better quality of life regardless of their existing socioeconomic stations in life. These considerations must converge to compel principals to make

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schools more effective learning environments for all students across both academic and non-academic curriculum areas.

At the school level, principals could do more to involve a broader spectrum of stakeholders in the assessment of success in contemporary society. Understandably every school is different in its history, values, student composition, and priorities, so it would be helpful to engage different stakeholders to collectively determine the school's developmental trajectory in developing every student to his or her fullest potential. Having clarified their educational mandates in the KBE, principals would then be able to leverage their schools' unique strengths to proliferate programmes that reach out to students of diverse SES backgrounds. These programmes must equip students with KBE competencies and skills as well as develop academic and non-academic talents in students. After the General Election in 2011, there has already been some headway made at the system level via the series of national-level conversations involving educational leaders, teachers, parents, academics, and employers to revisit the meaning and relevance of the form of academic meritocracy that has served Singapore since independence (Government of Singapore, 2012). The proposed school-level assessment of student achievement would complement this initiative to provide a more complete understanding of schools' roles in providing holistic education to all students.

After clarifying these strategic imperatives, principals must understand the competencies and skills that the KBE requires, and the opportunities that afford different talents in students. Information on these requirements and opportunities would then provide a clear roadmap for principals to use in organising their resources to maximise student development (Stukalina, 2008). For instance, they could impress upon students (especially lower SES students) the importance of lifelong learning and education as social levellers. Next, they could enhance the access of low-SES students to information communication technology in their learning. They could also promote multidisciplinary education, peer and group learning structures, and pedagogical tools developing KBE competencies and skills, and multiple intelligences.

This backward mapping process could then be extended to identify the requisite leadership policies and practices that are most suited to support the teaching and learning systems (OECD, 2013b). For instance, Dimmock (2012) and Ng (2013) argued that by adopting a school design model that is fit for purpose, principal leadership should focus on leading teaching, curriculum, and assessment; be distributive in that teachers are empowered to enhance teaching and learning; and be community networked so that schools could leverage the combined resources of other institutions and the community (OECD, 2013b).

Redefining school leadership

The backward mapping that identifies principals as the ultimate point of leverage underscores the potential and agency of school leadership in influencing educational quality, and one that would be inclusive of equity. Given the importance of leadership, it is important that principals be challenged to revisit the philosophical underpinnings of their leadership. For example, although the notion of instructional

leadership has gained much traction with policymakers, academics, and school practitioners alike, its attendant focus on the technology of leadership for effective learning tends to preclude any elaborate customisation of leadership to cater for differences in student talents, interests, needs, and abilities. Indeed, an examination of the survey items comprising the commonly used Principal Instructional Management Rating Scale (Hallinger & Murphy, 1985) – which, despite being developed more than 25 years ago, is still the dominant calibration of school leadership practice on the ground – reveals that none of the 71 items measuring school leadership and management functions includes school leaders relating teaching to student characteristics (talents, competencies, skills) or to fostering inclusiveness (opportunities for all) in the school. In addressing the lacunae, school leaders must surely incorporate student characteristics, taking account of their diversity, in their leadership thinking and practice.

Importantly, leaders need to accept greater responsibility for ensuring teachers engage all students in learning. Education Minister Heng, at the MOE Work Plan 2012 Seminar, appealed to his audience comprising educational leaders, teachers, and academics to realise the importance of developing every student as an engaged learner. To this end, school leaders surely have a responsibility to create platforms to ignite the joy of learning in students, provide learning support, and design multiple pathways to cater to student learning differences (MOE, 2012). There is thus a need for schools to considerably improve the integration of KBE competencies and skills – comprising critical, creative, and inventive thinking; information, interactive, and communication skills; and civic literacy, global awareness, and cross-cultural skills – to realise the Ministry's vision of *Thinking Schools, Learning Nation* first espoused in 1997. Principals could support this endeavour by identifying appropriate school niche programmes and systematically providing appropriate diverse curricular and co-curricular learning opportunities for their students.

School leaders could also leverage and develop the institutionalised credentialing mechanism of assessment (Tan, Chow & Goh, 2008). More specifically, by enhancing the prevailing use of summative academic assessment to include more formative assessment they would enable student progress in developing their interest areas, and the acquisition of KBE competencies and skills, to be charted. Indeed, there is compelling meta-analysis empirical evidence that the provision of formative evaluation is a powerful and effective predictor of student achievement (ranked third out of 138 different predictors) – improving student achievement by 90% of a standard deviation (Hattie, 2009).

Engaging students, teaching KBE century competencies and skills, building niche programmes, and introducing formative assessment cannot be implemented without a supportive student-centred school culture and environment (Reyes & Wagstaff, 2005). The student-centred school is one where all students feel safe to take risks, to experiment, and make mistakes, in their learning. It is also one where all staff and students feel a sense of cohesion and community. Teachers in such a school respect students' diversity of talents, ideas, and problem-solving skills; understand that students' learning may be influenced by their feelings and attitudes;

and make every effort to incorporate real-life examples in their teaching so as to make student learning useful. Foreseeably, the implementation of these practices would help foster a learner-centred leadership that would contribute toward the revival of the “opportunity society” (Bhaskaran et al., 2013) – fostering the actualisation of potentialities of all students and, in turn, promoting social mobility in Singapore.

Conclusion

The city state of Singapore has witnessed a remarkable transformation from a backwater fishing village in 1819 to a modern metropolis today in less than five decades. The principles of meritocracy, alongside other qualities such as a high-calibre, forward-looking government, harmonious labour relations, and a motivated and cohesive society, have often been lauded as the bedrock of the phenomenal success (Dimmock, 2012). However, this paper argues that the same meritocratic principles that have enabled generations of Singaporeans to enjoy a higher standard of living and social mobility may now be increasingly dysfunctional in the endeavour to enable the mass of aspiring students to realise their potential.

At the school level, principals as chief implementers of the meritocratic education system tend to be unnecessarily obsessed with maximising students’ academic achievement at the expense of developing KBE competencies and skills, and alternative talents in their charges. The dysfunction of the existing form of meritocracy as practised in Singapore risks dulling creative potential (Appold, 2001). This has prompted its education policymakers recently to contemplate more fluid models of meritocracies that value alternative talents (Government of Singapore, 2012). This awakening is only timely, given employers’ frequent grouses that the education system has not prepared Singaporean workers adequately for the KBE (Low & Vadaketh, 2014).

To address this gap, educational policymakers and school principals have to rationalise how schools can better prepare students for the KBE and be cognisant of the socioeconomic implications that the journey entails (Tan, 2013b). It is therefore imperative that school leaders acknowledge the conflation of different talents, competencies, and skills, in addition to academic excellence, that individuals require to excel and find reward in today’s KBE. Coincidentally, it is vital that school leaders eschew elitism in favour of more equitable aspects of meritocracy, to enable as many students as possible to enjoy learning and to experience “success” in different ways. There is also a role for school leaders to redesign at least part of the school curriculum and co-curriculum, to create multiple avenues for students to carve niches for themselves according to their specific talents and interests. Collectively, these paradigm shifts would bring students’ schooling experiences more in synchrony with the potential affordances of the KBE, and, in the process, nurture individuals who are “fit for purpose” for fruitful employment and to be responsible citizens.

To implement these paradigm shifts, this paper argues that school leaders need to revisit their leadership values and priorities, and strive to achieve balance and synergy of quality and equity (Drucker, 1993) in their redesign of schools. Indeed, it is only by making the education system viable, equitable, and relevant in its

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curricular and extra-curricular provisions, that there can be genuine hope of educational sustainability (Townsend, 2010). When this new equilibrium is achieved, more students will be able to pursue their ambitions towards a more fruitful adult, social, and work life in the dynamic KBE of the future.

Note

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