Chapter 12
Closing the Achievement Gap in Singapore

Jason TAN

Unifying a Fragmented Set of Schools, 1959–1979

When the ruling People's Action Party (PAP), which has governed for an uninterrupted period of 44 years since 1959, first came into power at the head of a self-governing state, one of the key items on its policy agenda was education. This was because education was seen as a way to provide the manpower needed urgently for Singapore's industrialization plans. In addition, education was viewed as playing a crucial role in developing social cohesion in a multilingual, multiethnic, and multireligious society. This latter role gained greater prominence when Singapore became a full-fledged independent nation in 1965. The departing British colonial authorities had left behind an incoherent education system that was divided into four separate media of instruction: English, Chinese, Malay, and Tamil. Each of these school systems had its individual textbooks, curricula, examinations, and teacher qualifications and salaries. Those enrolled in Malay and Tamil medium primary schools lacked access to secondary and postsecondary schooling in these languages.

The PAP embarked on a series of measures during the 1960s and the 1970s in order to unify a fragmented set of compartmentalized education systems. These included standardizing textbooks, curricula, examinations, and teacher qualifications and salaries. In addition, the party built primary and secondary schools at a rapid rate in order to increase student enrollments. By 1966, primary education had become universal. This was a major milestone toward redressing a situation where schooling opportunities were relatively scarce.

Right from the beginning of its reign, the PAP declared that Singapore would operate on the founding principles of multiracialism and meritocracy. These ideals were supposed to ensure that all the major "races" (the official nomenclature was Chinese, Malay, Indian, and Others) would be treated fairly and equally, and that social mobility and advancement would be through one's individual merit as measured by examination performance. Students were supposed to compete fairly

J. TAN (✉)
Policy and Leadership Studies, National Institute of Education, Singapore, Singapore
e-mail: engthye.tan@nie.edu.sg

J. V. Clark (ed.), *Closing the Achievement Gap from an International Perspective*,
DOI 10.1007/978-94-007-4357-1_12, © Springer Science+Business Media B.V. 2014

on equal grounds, and the best performers would justly deserve rewards in the form of opportunities for subsequent educational advancement and better-paying jobs. The hidden message was that this system of meritocracy would invariably result in unequal educational and job market outcomes, but that these inequalities were just and fair.

Increasing Diversity (and Elitism) in Education from 1979 onward

After 2 decades of policies aimed largely at standardizing the school system and providing students with a one-size-fits-all curriculum, a major watershed occurred in early 1979 with the publication of a report that had been commissioned by the then Prime Minister, Lee Kuan Yew. The report tried to address major flaws such as high student dropout rates at both primary and secondary levels, which were compared unfavorably with those in France, Taiwan, Britain, and Japan (Ministry of Education 1979). The recommended solutions included instituting streaming policies at the end of the third year of primary schooling and at the end of the sixth year of primary schooling. Streaming was supposed to better address the diversity in students' learning capacities, by moving away from the rigidity of a one-size-fits-all curriculum. Students across different streams would be exposed to curricula of differing levels of difficulty (with provision being made for lateral movement across streams) in the hope that more of them would be able to remain longer in school and attain better literacy outcomes. As a result of the report's recommendations, streaming was institutionalized in primary schools at the end of 1979 and in secondary schools at the end of 1980. A subsequent Education Ministry report in 1991 recommended refinements to streaming while leaving the underlying premise of streaming untouched.

The 1979 report marked a new phase in Singapore's education development, namely, diversifying the education landscape after a two-decade experiment with providing a common set of experiences for all school students. Though the streaming of students was supposed to lead to improvements in the learning outcomes of all students, it also meant not only the institutionalization of unequal learning outcomes but also the de facto segregation of students, both within and across schools. For instance, a small number of more well-known secondary schools were allowed to enroll only students in the more prestigious streams. Further policy moves were made during the 1980s, this time to provide top-performing students with superior learning opportunities. These included the Gifted Education Programme (which allowed for greatly reduced class sizes), Art Elective Programme, Music Elective Programme, and Language Elective Programme. In addition, a select number of prestigious secondary schools were allowed to become independent schools, enjoying increased operating autonomy in matters such as fees, class size, enrollments, and teacher deployment, while continuing to receive substantial government grants.

Beginning in the 1990s, in response to a public outcry that such schools were elitist in nature, the government turned a number of secondary schools into autonomous schools, which would offer high-quality education while charging lower fees than the independent schools. By this time, the government was proclaiming the success of its streaming policies in reducing school dropout rates and ensuring the universality of secondary schooling. However, the introduction of various initiatives targeted expressly at students at the top end of the achievement spectrum further institutionalized the growing inequality of student learning outcomes. The Ministry of Education's official rhetoric about desired outcomes of education (Ministry of Education 1998) and twenty-first-century competencies (Ministry of Education 2010) begged the question about whether, in fact, all students were expected to attain equal outcomes and equal levels of competency (see, e.g., Ho 2012a).

In retrospect, these initiatives aimed at identifying and selecting the top layer of students were understandable in the light of Lee's entrenched elitist philosophy, which involved having a tiny educated elite of "top leaders" at the apex of what he termed a "pyramidal structure" governing a middle layer of "good executives" and the "well-disciplined and highly civic-conscious broad mass" (Lee 1966, p. 13). The education system had to be segmented accordingly so as to nurture the talents of the "top leaders," develop "high-quality executives" to help the leaders implement their plans, and train the "broad mass" to "respect their community and…not spit all over the place" (ibid., p. 13). An additional layer in Lee's thinking was his eugenicist beliefs and his abiding concern that the well-educated Singaporeans were failing to reproduce themselves in adequate numbers compared to their less-educated counterparts. This concern was so pressing that Lee attempted a short-lived policy that provided the children of female university graduates priority in admission to primary schools beginning in 1984. This policy was revoked after 1 year due to extreme public unhappiness (Saw 2012). Nevertheless, Lee persisted in his deeply held views and made periodic statements about the genetic basis of intelligence, creativity, and leadership qualities (see, e.g., "Entrepreneurs are born, not made" 1996; "How Singapore grooms its leaders" 2005; Lee 2011; Parliamentary Debates, 66, 1996, Cols. 331–345; Parliamentary Debates, 70, 1999, Cols. 1651–1653). Such remarks raise the question of the role of schools in addressing the achievement gap, and whether the gap is in fact bridgeable.

Yet another move in the direction of greater diversity and segmentation within the school system came in 2002 with the publication of an Education Ministry report that recommended that the top-performing secondary school students be allowed to bypass the national secondary school examinations and enjoy, instead, 6 years of secondary education before sitting for their university entrance examinations. The report also recommended offering these students a greater variety of terminal examination qualifications. The underlying idea behind bypassing the national examinations is to reduce the amount of time spent on coaching students for these examinations, thereby providing more time for these students to develop higher-order thinking skills, as well as nonacademic outcomes such as leadership skills. In the wake of the publication of this report, a few independent schools and autonomous schools began offering what are termed in local parlance "integrated

programs." These "integrated programs," which involved 6 years of secondary schooling before sitting for a major examination, were also offered in the newly established independent schools specializing in such fields as sports, mathematics and science, and the arts.

Interschool Competition: Fueling Inequality

The impact of all of these policy initiatives favoring the top-performing schools and students has been heightened, since the 1990s with the publication of the annual league tables of the academic and nonacademic outcomes of secondary schools. In addition, the introduction of a quality-assurance mechanism known as the School Excellence Model, along with an associated system of annual awards to schools based on their achievement in academic and nonacademic outcomes, has led to a strategic decision making on the part of some school leaders in terms of such matters as admitting students who are likely to prove to be "assets" to the school, and concomitantly reducing the intake of students who are likely to prove to be "liabilities." Furthermore, some schools have taken steps to reduce student enrollments in subjects that are deemed more difficult to do well in (Tan 2008). Anecdotal evidence would also suggest that some school leaders have reduced the number of cocurricular activities in order to better focus on activities that win awards and have also reduced opportunities for students to participate in activities purely for recreational as opposed to competitive purposes. These trends, which would appear to limit the opportunities of some students for development in both academic and nonacademic domains, have been given new life with the advent of the Direct School Admission (DSA) scheme in 2004. This scheme allows secondary schools, especially the independent schools and autonomous schools, discretion in admitting a certain percentage of their annual student intakes before the students receive their Primary School Leaving Examination (PSLE) results. The DSA scheme has intensified interschool competition for students with proven academic and nonacademic track records, and consequently limited opportunities for non-DSA students to enroll in cocurricular activities. In addition, parents and students have to engage in strategizing well ahead of the annual DSA exercises in order to chalk up a personal portfolio of success.

Another serious consequence of all the intense interschool competition, which is part of an overall marketization of education as a commodity, is that of a growing prestige hierarchy of schools and social stratification. There is already evidence that students from wealthier home backgrounds are overrepresented (as are students from the majority ethnic Chinese community) in independent schools (see, e.g., Tan 1993). In addition, the expansion of educational enrollments across the board has done little to reduce the intense competition for places in the more prestigious primary and secondary schools (as displayed, for instance, in the inflated property values in the vicinity of popular schools), which has in turn fueled the growth of the private tutoring industry (Tan 2009). The growth of this industry has consequences for closing the achievement gap, as there is evidence that poorer households find

private tutoring less affordable than wealthier households (Blackbox Research 2012). The growth of the tutoring industry is one manifestation of the phenomenon that some researchers have termed a “parentocracy,” where the role of parental, financial, social, and cultural capital becomes increasingly crucial in terms of active strategizing in order to ensure children’s success in school.

Trying to Reduce the Achievement Gap: Egalitarian Impulses

Reference has already been made earlier in this chapter to some of the adverse consequences of streaming students at the primary and secondary levels. Other consequences include de facto (although unintended) ethnic segregation within and across schools (see, e.g., Kang 2004). This is due to the fact that disproportionately large percentages of ethnic Malay and Indian students are streamed into the slower-paced streams at both the primary and secondary levels. These disparities result in ethnic Malay and Indian students (and working-class students) being underrepresented in most of the most prestigious schools and being correspondingly overrepresented in some of the least prestigious schools. There is also evidence that streaming has contributed to prejudice on the part of students in faster-paced streams, and on the part of teachers as well, toward students in slower-paced streams (see, e.g., Ho 2012b; Kang 2004). The public concern over the elitist trend in educational policymaking has been given added impetus since the mid-1990s because of the growing income disparities and the prospect of diminished upward social mobility for the less affluent sectors of the population (Ho 2010). The rapid influx of new immigrants over the past 2 decades, as a result of deliberate government policy, has heightened worry among parents, teachers, and local students about the added competitive element that talented foreign students are perceived to represent (see, e.g., Quek 2005). All of this simmering discontent boiled over during the 2011 general election campaign and contributed in part to a drop in the number of votes for the PAP (Chong 2012).

The PAP government’s response to the growing public disquiet over streaming and other elitist trends in educational policymaking has been mixed. On the one hand, it has claimed that all schools are good schools (see, e.g., Parliamentary Debates, 63, August 25, 1994, Col. 398) (a claim belied by the intense competition to gain admission into more prestigious schools), while on the other hand, it has stated that the independent schools are to be developed into “outstanding institutions, to give the most promising and able students an education matching their promise” (Parliamentary Debates, 59, January 6, 1992, Col. 18).

At a more concrete level, the PAP government has instituted measures that it claims will have a “leveling up” effect in helping students from less advantaged home backgrounds attain school success. One of these is the provision of financial assistance schemes, which have been in place since the 1960s, and which cater to the payment of school and examination fees, as well as the purchase of uniforms and textbooks. Second, there are financial subsidies for kindergarten students and

after-school student centers (Ministry of Finance 2012). Third, each school receives annual grants for activities such as arts appreciation and overseas learning experiences.

A major funding initiative known as Edusave was launched in 1993 by the then Prime Minister Goh Chok Tong. Goh claimed that the scheme would help equalize opportunities for all Singaporeans, with education as the main means of socioeconomic mobility, regardless of their family background. Furthermore, he claimed that the scheme would "temper our meritocratic free market system with compassion and more equal opportunities" to ensure that "all children, rich or poor, are brought to the same starting line, properly equipped to run" (Goh 1990, p. 25). The government declared that the Edusave Endowment Fund would provide each child between the ages of 6 and 16 with an Edusave account, into which the government would make annual contributions. The money in these accounts was to be used for educational purposes. In addition, all nonindependent secondary schools would receive annual per capita grants. Each school would establish an Edusave Grants Management Committee to decide on the allocation of its annual grants. These grants could be used for the purchasing of resources and equipment, the conducting of enrichment programs, and the hiring of administrative support services. Next, three new scholarships were announced. The first, the Edusave Entrance Scholarships for Independent Schools, would be awarded to the top 25 % of the students who qualified for admission to independent schools each year. The second, known as the Edusave (Independent Schools) Yearly Awards, would be awarded to the top 5 % of each year cohort in these schools. The third one, the Edusave Scholarships for Secondary Schools, would be awarded to the top 10 % of the students in nonindependent secondary schools. In subsequent years, the scheme was extended to students in special needs schools, primary schools, privately run Islamic schools, and institutes of technical education. Another extension of the original Edusave idea involved awarding Edusave Merit Bursaries to students from lower-middle- and low-income families who had performed well in school. The workings of the Edusave Scheme reveal government attempts to balance its meritocratic precepts with a healthy dose of social compassion.

Besides the Edusave scheme, various other government schemes have been put in place, especially in the light of the ongoing public disquiet over the prospect of a permanent underclass forming (Tharman 2012). These include the Infocomm Development Authority of Singapore's financial subsidies for disadvantaged and disabled students to own a computer and to obtain broadband access (Infocomm Development Authority of Singapore 2012). In addition, the Ministry of Community Development, Youth and Sports administers a Child Development Account scheme for every child under the age of 12. This account can be used to pay for childcare, kindergarten fees, medical services, spectacles, and computers (Ministry of Community Development, Youth and Sports 2012).

Beyond the provision of financial assistance, the Education Ministry instituted the Learning Support Programme (LSP) in the 1990s in all primary schools. This program aims to help students in the first 2 years of primary schooling, who have been identified by their teachers as lacking basic numeracy and literacy skills. The

students are taught separately in pull-out sessions in an attempt to bring these skills up to par. Apart from the LSP, no other official school-based schemes are in place specifically to address STEM achievement gaps at the primary or secondary levels of schooling.

Other Education Ministry policies have attempted to blunt the raw divisive edge of some elitist policies. For instance, over the past decade, there have been moves to blur some of the boundaries across different academic streams at the primary and secondary levels, to encourage greater interaction between primary students enrolled in the Gifted Education Programme and their other schoolmates, and to provide a greater semblance of upward mobility from lower- to higher-prestige academic streams. Recent official reviews of primary and secondary education have recommended the provision of additional resources, such as after-school study facilities in order to help students from disadvantaged home backgrounds. After years of a relatively hands-off attitude toward special needs schools, two Enabling Masterplans have been published in the past 5 years, calling for greater government involvement in the funding and running of special needs schools, improved professional opportunities for students in these schools, and more integration of students with special needs within mainstream and special schools (Poon 2012). Yet another sector of education that has received renewed official attention is the preschool sector, especially after the publication of an Economist Intelligence Unit report, in which Singapore scored relatively weakly in terms of preschool quality (Lien Foundation 2012). The report's findings have renewed public calls for the government to play a more interventionist role in the provision, funding, and regulation of preschools.

The Ethnic Malay Minority: Catching Up

Earlier on in the chapter, reference was made to the problems faced by ethnic Malay minority students. Forming 13.4 % of the Singapore population, the gap between them and their ethnic Chinese counterparts (forming 74.1 % of the population) has been the focus of considerable attention by both the PAP as well as the Malay community leaders for over 50 years. The constitution in the newly self-governing Singapore recognized the Malays as the indigenous people and explicitly proclaimed the government's responsibility "to protect, safeguard, support, foster and promote their political, educational, religious, economic, social and cultural interests and the Malay language" (Singapore Government 1958, p. 1). Limited affirmative action policies were introduced in the early 1960s, including the provision of free secondary and tertiary education, special bursaries and scholarships, free textbooks, and transport allowances. However, the government refused to accede to requests by the opposition Members of Parliament (MPs) for special Malay quotas in employment and trading licenses. Instead, Lee Kuan Yew claimed that such quotas would not benefit the majority of Malays. The Malay MPs kept urging the Malays to adopt correct mental attitudes in order to succeed and compete with the non-Malays (Parliamentary Debates 25, March 16, 1967, Col. 1337).

The issue of Malay educational underachievement reassumed center stage on the political scene in 1981, when the 1980 population census results revealed a growing underrepresentation of the Malays in the professional/technical and administrative/managerial sectors of the workforce. In addition, the Malays formed only 1.5 % of the total number of adults with university degrees. In August 1981, Lee urged the Malay leaders and educationists to give top priority to upgrading the educational level and training of the large number of Malays without a secondary education. As a result, the Council on Education for Muslim Children (or Mendaki, in the Malay language) was established in October that year. In his opening address at the Mendaki congress in May 1982, Lee claimed that "it is in the interests of all [Singaporeans] to have Malay Singaporeans better educated and better qualified" (Lee 1982, p. 6). He also promised government assistance in the form of making premises available for Mendaki, and by urging non-Malay teachers to help Mendaki. Lee also claimed that a government-run scheme would not match community-run efforts because the latter would be able to "reach them through their hearts, not just their minds" (Lee 1982, p. 9).

Over the past 30 years, Mendaki's efforts have revolved mainly around three main areas: conducting tutoring classes from primary to pre-university levels with a focus on examination preparation; providing scholarships, bursaries, and study loans for undergraduate and postgraduate students; and promoting Islamic social values that will support educational success. Ethnic Malays were allowed by the government to make voluntary monthly contributions from the Central Provident Fund accounts. In addition, a Mendaki-Ministry of Education Joint Committee was set up in 1989 as another visible gesture of support.

Less than a decade after the formation of Mendaki, a rival organization, the Association of Muslim Professionals (AMP), was set up in 1991 in order to address the lack of popular support for Mendaki due to its overly close political ties with the PAP Malay MPs. The AMP has focused on conducting educational programs, preschool education, family education, and promoting greater Malay economic participation. Shortly after the formation of the AMP, the government collaborated with ethnic Indian community leaders to establish the Singapore Indian Development Association in 1991 to tackle the problem of Indian students' educational underachievement. In the following year, the Chinese Development Assistance Council was established with government assistance in the wake of Goh Chok Tong's comments that the PAP's unsatisfactory performance in the 1991 general elections reflected discontent by the poorer ethnic Chinese, who felt neglected by the government's focus on helping the Malays. At the same time, the pre-existing Eurasian Association received government financial support for its endowment fund to finance education and welfare programs. The Mendaki-Ministry of Education Joint Committee was expanded to embrace these newer ethnic-based self-help groups.

The idea of using ethnic-based self-help groups has been controversial as critics have decried their incompatibility with multiracial ideals and have claimed that many of the issues facing educational underachievers might in fact be socioeconomic in nature rather than specifically ethnic. In response, the PAP has stuck to its assertion that a national body would not be sensitive enough to the needs of each

ethnic community. Community-based efforts are more effective because they draw on and mobilize deep-seated ethnic, linguistic, and cultural loyalties (see, e.g., Parliamentary Debates, 86, 2009, Cols. 1174–1176).

Thirty years after the formation of Mendaki, despite reductions in Malay students' dropout rates from primary and secondary schools and improvements in their performance in national examinations, quantitative gaps persist between the Malays and the ethnic Chinese majority. The limited official data on STEM achievement have revealed the steady gaps in ethnic Malay mathematics and science achievement at the national-level PSLE. (No STEM achievement data are available that highlight the effect of socioeconomic status.) For instance, the Malay and Chinese pass rates in mathematics in 2002 were 56.5 and 90.2 %, respectively. Almost a decade later, the respective pass rates in 2011 were 60.1 and 89.4 %. Likewise, the Malay and Chinese pass rates in PSLE science were 77.5 and 95.0 % in 2002, and 73.8 and 94.3 % in 2011, respectively. Mathematics pass rates in the national-level General Certificate of Education Ordinary Level examination show similar gaps, with Malay students' pass rates in 2002 and 2011 being 66.9 and 71.2 %, respectively, vis-à-vis ethnic Chinese students' pass rates of 92.2 and 92.8 %, respectively (Ministry of Education 2012).

In addition, the Malays continue to be grossly underrepresented at the universities even amid tremendous government efforts to expand higher education enrollments over the past two decades. Anecdotal evidence suggests that the Malay students are overrepresented in the slower-paced streams or achievement bands in primary and secondary schools and correspondingly underrepresented in the more prestigious streams or achievement bands. To date, neither the Mendaki nor the AMP has been able to show conclusively what impact, if any, they have had on improving the Malay educational achievement in general, or STEM achievement in particular. Nor have there been any research studies that establish the precise nexus of factors—cultural, educational, or structural—that account for the persistence of the interethnic educational achievement gap. The task of improving the Malay educational achievement has not been made any easier by Lee's entrenched view that "the Malays are not as hardworking and capable as the other races" (Plate 2010, p. 53) and his belief in the genetic basis of the Malays' educational shortcomings (Lee 2011, p. 188; Plate 2010, p. 53). Lee has claimed that despite official efforts to help the Malays,

> They will never close the gap with the Indians and the Chinese, because as they improve, the others will also improve. So the gap remains. They are improving but they are not closing that gap. That's a fact of life. (Lee 2011, p. 206)

Conclusion

This chapter has discussed the existence of educational achievement gaps along mainly social class and ethnic lines despite Singapore's much-flaunted international success in STEM assessment measures. It has discussed the PAP government's

claims that the education system plays a key role in maintaining a meritocratic society. It has also shown how certain education policies such as streaming and the diversification and segmentation of the education landscape have been motivated largely by the press to identify and select the future elite that will assume leadership roles in society. Official rhetoric has claimed that these efforts are logically superior to a one-size-fits-all system as they better cater to different learning needs. Since the 1990s, the marketization of education and the increasing competition among schools for awards in both academic and nonacademic domains has intensified the rush to recruit students who are "assets" instead of "liabilities," a trend that tips the balance in favor of students who have the requisite home support to do well in school. The proliferation of the private tutoring industry has further implications for the extent to which the achievement gap between the financially better-off and the financially disadvantaged can be bridged.

In response to the growing public disquiet over the elitist nature of some of these policies and widening income disparities, the PAP has claimed that "we cannot narrow the [income] gap by preventing those who can fly from flying….Nor can we teach everyone to fly, because most simply do not have the aptitude or ability" (Goh 1996, p. 3). At the same time, it has instituted various egalitarian policy measures that provide financial or pedagogical assistance in a concerted bid to reduce achievement gaps. These include the Edusave scheme, the LSP, and the Enabling Masterplans for special needs students. More recently, the PAP has come under pressure to improve the quality of preschool provision. To date, no specific school-based programs have been instituted to address the STEM achievement gaps, whether they be ethnic- or social class-based. Official STEM achievement data are scant and provide no hints of socioeconomic gaps, but of the ethnic Malay minority falling behind the ethnic Chinese majority at both the primary and secondary levels of schooling.

This chapter also highlighted the particular case of the Malays, who form the largest ethnic minority. It discussed the historical evolution of government thinking on addressing the Malays' educational problems and highlighted the formation of Mendaki in 1982. The official endorsement of an ethnic-based self-help approach paved the way for the formation of other such ethnic-based self-help groups such as the AMP. Despite criticism over the efficacy of these groups, the PAP has insisted that ethnic-based efforts are far superior to an ethnically neutral approach as they harness deeply seated ethnic loyalties. Evidence of the efficacy of the Mendaki and the AMP is equivocal to date, as no data have been presented about the contribution of their private tutoring schemes to improving ethnic Malay STEM achievement.

The chapter has highlighted the intensely political nature of education policy-making. It has shown the recurrent tensions between the PAP's elitist and egalitarian impulses, between Lee's deeply held eugenicist beliefs and the need to respond to voter discontent. Not only has Lee gone on record as saying that the Malays will never close the achievement gap, but he has also claimed that "we are trying to reach a position where there is a level playing field for everybody which is going to take decades, if not centuries, and we may never get there" (Parliamentary Debates, 86, 2009, Col. 1173). This latter statement would appear somewhat at odds

with the PAP's espoused meritocratic ideals. It is, however, a frank admission that the achievement gaps, including those in STEM subjects, in Singapore's education system are not amenable to quick-fix solutions but are, rather, permanent features of the landscape.

References

Adekile, A. (2012). Achievement gap. In J. A. Banks (Ed.), *Encyclopedia of diversity in education* (pp. 16–21). Los Angeles: Sage.

Blackbox Research Pte Ltd. (2012). Private tuition in Singapore: A whitepaper release. http://www.blackbox.com.sg. Accessed 25 July 2012.

Chong, T. (2012). A return to normal politics: Singapore general elections 2011. In D. Singh & P. Thambipillai (Eds.), Southeast Asian Affairs 2012 (pp. 283–298). Singapore: Institute of Southeast Asian Studies.

Entrepreneurs are born, not made. (1996, July 11). *The Straits Times*, 25.

Goh, C. T. (1990). Edusave–a dividend to our citizens, an investment in our future. *Speeches, 17*(5), 8–13.

Goh, C. T. (1996). Narrowing the income gap. *Speeches, 20*(3), 1–4.

Ho, K. W. (2010). Social mobility in Singapore. In T. Chong (Ed.), *Management of success: Singapore revisited* (pp. 217–241). Singapore: Institute of Southeast Asian Studies.

Ho, L. (2012). Sorting citizens: Differentiated citizenship education in Singapore. *Journal of Curriculum Studies, 44,* 403–428.

Ho, P. S. K. (2012b). "I have won a world championship and now I can retire": Exploring normal technical students' ways of unpacking academic expectations in Singapore. *International Journal of Educational Development, 32,* 111–119.

How Singapore grooms its leaders. (2005, November 18). *The Straits Times,* 22.

Infocomm Development Authority of Singapore. (2012). *Enriching a child's future*. Singapore: Author.

Kang, T. (2004). Schools and post-secondary aspirations among female Chinese, Malay and Indian normal stream students. In A. E. Lai (Ed.), *Beyond rituals and riots: Ethnic pluralism and social cohesion in Singapore* (pp. 146–171). Singapore: Eastern Universities Press.

Lee, K. Y. (1966). *New bearings in our education system*. Singapore: Ministry of Culture.

Lee, K. Y. (1982). Mendaki's task is to raise education of all Malays. *Speeches, 5,* 5–25.

Lee, K. Y. (2011). *Hard truths to keep Singapore going*. Singapore: Straits Times Press.

Lien Foundation. (2012). *Singapore's preschool education placed 29th amongst 45 countries on the Starting Well Index*. http://www.lienfoundation.org. Accessed 20 July 2012.

Ministry of Community Development, Youth and Sports. (2012). *Enhancements to the child development account (CDA)*. http://www.mcys.gov.sg. Accessed 28 June 2012.

Ministry of Education. (1979). *Report on the Ministry of Education 1978*. Singapore: Author.

Ministry of Education. (1998). *Desired outcomes of education*. Singapore: Author.

Ministry of Education. (2010). *Nurturing our young for the future: Competencies for the 21st century*. Singapore: Author.

Ministry of Education. (2012). Performance by ethnic group in national examinations 2002–2011. http://www.moe.gov.sg. Accessed 28 Feb 2013.

Ministry of Finance. (2012). *To the resident*. Singapore: Author.

Parliamentary Debates, 25, 1967; 59, 1992; 63, 1994; 66, 1996; 70, 1999; 86, 2009.

Plate, T. (2010). *Conversations with Lee Kuan Yew: Citizen Singapore: How to build a nation*. Singapore: Marshall Cavendish Editions.

Poon, K. K. (2012). The education of children with special needs: History, trends and future directions. In J. Tan (Ed.), *Education in Singapore: Taking stock, looking forward* (pp. 101–111). Singapore: Pearson.

Quek, T. (2005, February 13). China whiz kids: S'pore feels the heat. *The Straits Times,* 3–4.
Saw, S. H. (2012). *The population of Singapore* (3rd ed.). Singapore: Institute of Southeast Asian Studies.
Singapore Government. (1958). *Singapore (Constitution) Order in Council, 1958*. Singapore: Government Printer.
Tan, J. (1993). Independent schools in Singapore: Implications for social and educational inequalities. *International Journal of Educational Development, 13,* 239–251.
Tan, J. (2008). The marketisation of education in Singapore. In J. Tan, & P. T. Ng (Eds.), *Thinking schools, learning nation: Contemporary issues and challenges* (pp. 19–38). Singapore: Pearson.
Tan, J. (2009). Private tutoring in Singapore: Bursting out of the shadows. *Journal of Youth Studies, 12,* 93–103.
Tharman, S. (2012). Transcript of remarks by Mr Tharman Shanmugaratnam Deputy Prime Minister, Minister for Finance & Minister for Manpower at the PPIS 60th anniversary charity gala dinner. http://www.mof.gov.sg. Accessed 28 June 2012.