



Singapore

Education for All 2015 National Review

This report was prepared by the relevant national authorities in view of the World Education Forum (Incheon, Republic of Korea, 19-22 May 2015). It was submitted in response to UNESCO's invitation to its Member States to assess progress made since 2000 towards achieving Education for All (EFA).

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The paper can be cited with the following reference: "Education for All 2015 National Review Report: Singapore". For further information, please contact: efa2015reviews@unesco.org

NATIONAL EFA REPORT - SINGAPORE

CHAPTER 1 INTRODUCTION

DEVELOPMENT OF THE EDUCATION SYSTEM IN SINGAPORE

Singapore has come a long way since its independence in 1965. In the first two decades of independence, our primary concern was to survive and build a nation out of immigrants. The government had to quickly recruit enough teachers and build enough schools to cater to the entire population, so as to equip everyone with basic skills that made them employable in labour-intensive industries that were attracted to Singapore. In the next two decades, the focus shifted to improving customisation of education to reduce drop-out rates. The system was thus geared to become more efficient despite limited resources, through streaming and provision of a standardised curriculum to safeguard a baseline quality of teaching and learning for all students.

Since the mid to late 1990s, the focus of the education system shifted to developing a broader range of skills such as critical thinking and creativity as the country transited into a knowledge-based economy. The Ministry of Education (MOE) also devolved more autonomy to schools to encourage innovation and cater to a wider variety of interests and aptitudes in students. “**Thinking Schools, Learning Nation**” was adopted as our vision in education—describing our desired outcome of a nation of thinking and committed citizens, nurtured in an education system capable of meeting the challenges of the 21st century. Efforts were started to nurture a stronger spirit of Innovation and Enterprise among our students.

Teach Less, Learn More was a movement that was introduced in mid 2000s for teachers to spend more time preparing for their lessons so that they can teach each lesson better, and in so doing allow our students to learn more. Besides improve the quality of interaction between teachers and students, there has been a shift in focus towards equipping students with knowledge, skills and values that prepare them for life, rather than to be focused only on the imparting of content knowledge. Teaching thus became more focused on developing understanding, critical thinking and the ability to ask questions and seek multiple solutions.

Currently, MOE, in partnership with our schools, is moving towards developing a more “**student-centric, values-driven**” education system, guided by the need to cover the three key dimensions of breadth, depth and length¹, and characterised by

¹ **Breadth:** Broad in providing opportunities and multiple pathways, in an open and inclusive system, to develop different talents in each child to the fullest. Broad and holistic education, to allow each child to discover their interests and strengths over a wide range of disciplines, and create connections across different domains of knowledge.

Depth: Deep values and a deep commitment to Singapore and fellow Singaporeans, built on a strong core of values and character. Depth and rigour in the foundation of numeracy and bilingual literacy, in critical and inventive thinking, in communication, collaboration and information skills, and in civic-literacy, global-awareness, and cross-cultural skills.

Length: Lifelong Learning, with age-appropriate learning at each stage catered to the child’s pace of development. Learning for the long haul of life and not just for exams.

four key attributes: “Every Student, an Engaged Learner”, ‘Every School, a Good School’, ‘Every Teacher, a Caring Educator’, and ‘Every Parent, a Supportive Partner’.

OVERVIEW OF EDUCATION SYSTEM IN SINGAPORE

There are opportunities for every child in Singapore to complete at least ten years of general education, with drop-out rates before the completion of ten years of education at less than 1%. The school system features a national examination at the end of the primary (6 years), secondary (4 to 5 years) and junior college (2 to 3 years) stages. Besides the junior colleges, there are also many diverse opportunities in polytechnics and the Institute of Technical Education (ITE) providing secondary school graduate with non-academic progression pathways. In recent years, we have also moved towards a more porous, flexible and diverse education system, aimed at providing students with greater flexibility and choice at all stages of their education journey. Upon completion of their primary education, students can choose from a wider range of schools and programmes that cater to different strengths and interests. There are more lateral bridges, with bridging programmes that allow students to transfer across parallel courses of studies. To allow a greater range of student achievements and talents to be recognised, secondary schools, junior colleges, polytechnics and universities also have flexibility to admit a percentage of their intake using transparent and meritocratic school-based criteria in the form of direct or discretionary admissions.

A cornerstone of Singapore’s education system has been and remains the bilingual policy, which aims to help each child learn English and his Mother Tongue to the best of his abilities. Being proficient in English allows them to plug into a globalised world. Being proficient in Mother Tongue provides a link to their heritage and Asian cultural roots, and provides them with a competitive edge economically with the rise of China and India, and the integration of ASEAN.

In Singapore, the education system is set up to bring out the best in every child, in every domain of learning, in every school, at every stage of their education journey, whatever their starting point – be they children with different types of aptitudes and different levels of potential, children from lower socioeconomic backgrounds, children with special learning needs or children from different ethnic groups. Statistics show that our education system provides opportunities for every child to advance based on merit, regardless of family background. Financial assistance is provided to needy students so that all Singaporeans, regardless of their financial circumstances, can benefit from the best opportunities in education. At the same time, both Special Education schools and mainstream schools collectively cater to the educational needs of students of school-going age who have a range of special learning needs. MOE has also taken steps to be more inclusive in its bilingual policy for students of different races, such as introducing non-Tamil Indian languages and other languages that students can take as the Mother Tongue language in schools.

CURRENT DEVELOPMENTS

Some of the specific areas which are being looked at include government-run pre-school education, programmes that provide holistic support to level-up all students, expanding post-secondary options, and supporting students with special needs. At the same time, the education system is being recalibrated towards a more holistic education centred on values, while refreshing approaches to achieve the basic goals of education. These developments are very much in line with the Millennium Development Goals for education and the six Education For All (EFA) goals, which Singapore supports, and which Singapore has by and large been achieving.

CHAPTER 2 TRACKING PROGRESS

2.1 BRIEF INTRODUCTION TO THE PROCESS OF ASSESSING PROGRESS TOWARDS ACHIEVING EFA GOALS

This assessment is conducted by the MOE in Singapore. It draws mainly from policy documents and statistics produced by MOE, the Ministry of Finance and the Department of Statistics in Singapore. The main limitation of this report is that some of the data for the indicators associated with each of the six goals are not published.

2.2 PROGRESS TOWARDS ACHIEVING THE GOALS

2.2.1 GOAL 1: EXPANDING AND IMPROVING COMPREHENSIVE EARLY CHILDHOOD CARE AND EDUCATION (ECCE), ESPECIALLY FOR THE MOST VULNERABLE AND DISADVANTAGED CHILDREN

Singapore sees the value of a good pre-school education to help children develop self-confidence and social skills; to nurture values such as sharing, taking turns and being responsible; to build a good foundation for the learning of languages; and to develop the disposition for learning, such as curiosity and the courage to try new things. The Singapore Government as a whole is investing significantly in pre-school to provide opportunities and enhance social mobility for all Singaporeans, particularly for those in lower income groups who may need more support initially. The current priority is thus to raise the quality of programmes while keeping fees affordable.

Recent initiatives in this area include the introduction of an accreditation standard, SPARK, in Jan 2011 to assess the quality of ECCE providers, as well as a national curriculum framework for ECCE in Singapore. All pre-schools can participate in SPARK for self-assessment to improve the quality of their own programmes, and seek external assessment by MOE-accredited assessors when they are ready.

The Early Childhood Development Agency (ECDA), reporting to both MOE and the Ministry of Social and Family Development, was recently set up to integrate the Government's approach towards ECCE. MOE will oversee the development of kindergarten curriculum and educators' guides, sharing of teaching and learning resources to complement the revised curriculum framework for kindergartens and leveraging on existing programmes in our institutes of higher learning to provide high quality training and professional development for kindergarten-level teachers. Participation in ECCE programmes is optional, but participation is close to 99% for the year just before the start of primary school.

2.2.2 GOAL 2: ACHIEVING UNIVERSAL PRIMARY EDUCATION

Compulsory Education was implemented in Singapore in 2003 to ensure that all children of compulsory school age born after 1st January 1996, and who is a citizen of Singapore residing in Singapore, attends a national primary school regularly, unless he/she has been exempted from compulsory education, e.g. a child with special needs, a child attending a designated religious school, or a child receiving home-schooling. A child of 'compulsory school age' refers to one who is above the age of 6 years and who has not yet attained the age of 15 years. The Compulsory Education Act is enforced by officers from the Compulsory Education Unit, MOE.

Currently, almost the entire cohort attend the 6-years of primary education, with less than 1% of each cohort dropping out in the secondary education school years, as compared to 5% ten years ago. More than 95% of each cohort progress on to post-secondary education, compared to around 85% a decade ago. Moving forward, the government will aim for every student to complete secondary education, and go on to pursue a post-secondary qualification.

2.2.3 GOAL 3: ENSURING THAT THE LEARNING NEEDS OF ALL YOUNG PEOPLE AND ADULTS ARE MET THROUGH EQUITABLE ACCESS TO APPROPRIATE LEARNING AND LIFE-SKILLS PROGRAMMES

For youths who have completed secondary education, post-secondary education options include pre-university courses, polytechnics, ITE, tertiary arts institutes (LASALLE & NAFA) and private education providers. Pre-university courses prepare students with sufficient academic rigour to access university courses; polytechnics provide applied-learning environments in market-driven and career-oriented courses but also allows some of its students to further their education in universities in related fields; ITE aims to equip its students with technical skills and knowledge to meet the workforce needs of various industry sectors but also allows some of its students to further their education in polytechnics in related fields; tertiary arts institutes offer specialist creative education, including degree pathways; while private education providers offer yet another pathway for those who wish to upgrade their knowledge and skills in areas not covered by the publicly-funded institutions. Enrolment rates for

pre-university courses, universities, polytechnics, LASALLE, NAFA and ITE can be found in the Education Statistics Digest 2013².

Singapore supports those wishing to continue their Continuing Education and Training (CET) through the Workforce Development Agency (WDA), set up in 2003. WDA was set up to help the workforce cope through training and skills upgrading as the economy continued to restructure in the face of rapid technology advancements. It was given a clear mission to lead, drive and champion workforce development, enhancing the employability and competitiveness of Singapore's workforce. WDA has significantly expanded the CET infrastructure over time, which now includes a network of five career centres; more than 40 CET Centres offering quality training and career services; a national Singapore Workforce Skills Qualifications (WSQ) framework, covering close to 30 industries and the Institute for Adult Learning (IAL), which aims to enhance the capabilities and professionalism of adult educators so as to broaden and deepen their expertise.

In 2008, the CET Masterplan was launched to prepare the Singapore workforce for the future and maintain a competitive advantage for Singapore. The programmes form a lifelong learning system that enables workers to stay relevant, find their niche based on their past experiences and seize opportunities in new growth sectors. The plan aims to enhance the careers of all Singaporeans. As of 2013, there are 33 Singapore Workforce Skills Qualifications (WSQ) frameworks introduced by WDA. In addition, there are now more than 1,000 training programmes available island-wide within the WDA network of CET centres, which cover new growth sectors such as finance, information and communications technology, tourism, hospitality and digital media. New CET centres will also be set up to provide for key growth areas including aerospace, precision engineering, process manufacturing, portable manufacturing, service industries, logistics and supply chain management, allied healthcare, community and social services, workplace safety and health, and adult training.

Besides WDA programmes, working professionals wishing to further their studies while balancing a career may also undergo CET at the post-secondary institutions including the ITE, the polytechnics, the universities, the private education providers and the IAL.

To smoothen the integration between applied learning in education institutions with industry-led skills certification in adulthood, MOE has set up a CET Office within the Higher Education Division (HED) which works closely with the Work Development Authority (WDA). The main role of the CET office is to evaluate, review and develop policies to support CET implementation at ITE, polytechnics and universities. At the same time, they engage economic agencies and the industry to identify the scope of CET conducted in ITE, polytechnics and universities, recommend CET initiatives and

² Ministry of Education, Singapore. 2013. *Education Statistics Digest 2013*. Pp 33-35, 39-41. <http://www.moe.gov.sg/education/education-statistics-digest/files/esd-2013.pdf> (Accessed 24 January 2014)

facilitate collaborations involving the post-secondary education sector, school sector, industry bodies and economic agencies.

2.2.4 GOAL 4: IMPROVING ADULT LITERACY

Adult literacy is not a major issue in Singapore. For adult learners who wish to resume or continue with academic upgrading at the secondary level, ITE offers MOE-subsidised lessons for levels from Secondary One Normal to GCE 'N' and GCE 'O' levels, under its General Education Programme. Enrolment and completion of these programmes are not publically available.

Table 1 shows the literacy rate and percentage of residents with secondary or higher qualification in 2012. Singapore has attained a high literacy rate for women, with literacy rate for resident females aged 15 years and over improving from 90.6% in 2004 to 94.4% in 2012. Detailed statistics and analysis of education attainment of Singapore Resident non-students from 2002-2012 is available in 'Profile of Singapore Resident Non-Students 2002-2012' (2013).³

Table 1: Education and Literacy (%. 2012)

| | |
|---|-------------|
| Literacy Rate among residents aged 15 yrs & over | 96.4 |
| Male | 98.5 |
| Female | 94.4 |
| % with Secondary or Higher Qualifications among resident non-students aged 25 yrs & over | 67.7 |
| Male | 70.8 |
| Female | 64.9 |

Source: SingStats, 2013⁴

2.2.5 GOAL 5: ACHIEVING GENDER EQUALITY IN EDUCATION

Singapore has ensured gender equality in education with every child given equal opportunity to access education and to pursue their goals within the education system, based on the principle of meritocracy. Enrolment indicators disaggregated by gender indicate a healthy balance of male and female students at all levels of education, as seen in Table 2 below. International benchmarking studies such as TIMSS, PIRLS, PISA, etc., have also consistently demonstrated that female students in Singapore are even able to outperform male students in certain learning domains.

³ Zhiwei, T. 2013. *Profile of Singapore Resident Non-Students, 2002-2012*. http://www.singstat.gov.sg/Publications/publications_and_papers/education_and_literacy/ssnmar13-pg1-7.pdf (Accessed 24 January 2014)

⁴ Department of Statistics Singapore, 2012. *Latest Data for Education & Literacy*. http://www.singstat.gov.sg/statistics/latest_data.html#16 (Accessed 24 January 2014)

Table 2: Gender Parity Index for Primary, Secondary and Tertiary Students (2007 – 2012)

| | Gender Parity Index (GPI)⁵ | | | | | |
|-----------|--|-------------|-------------|-------------|-------------|-------------|
| | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 |
| Primary | 0.99 | 0.99 | 0.99 | 1 | 1 | 1 |
| Secondary | 1 | 1 | 0.99 | 1 | 1 | 1 |
| Tertiary | 1.01 | 1.03 | 1.01 | 1.08 | 1.1 | 1.09 |

Source: Ministry of Education, Singapore, 2013

In MOE, special attention has been given to educational materials and curriculum to ensure that gender stereotypes are not perpetuated and that girls and boys have equal access to various educational resources and opportunities. For example, textbook illustrations depict a balanced image of men and women, where women engage in activities and occupational groups that may be traditionally associated with the male gender (for instance, science, engineering, medicine, soccer, etc.).

In terms of curriculum, girls and boys alike are free to choose either the science or arts stream in secondary school; while in primary school, all students take the same core subjects. Home Economics – previously taught primarily to girls – has now been renamed as Food and Consumer Education at the lower secondary, and as Food and Nutrition at the upper secondary level. These subjects, as well as Design and Technology, are now electives which both girls and boys are able to study.

2.2.6 GOAL 6: IMPROVING QUALITY OF EDUCATION

Much of the government's efforts in education in recent years have been to improve quality of the education system. This includes improvements to the physical learning environment, provision of resources and introduction of intervention programmes.

In terms of the physical environment, MOE initiated a major Programme for Rebuilding and Improving Existing Schools (PRIME) in 1999 to redevelop schools to the latest standards. New and upgraded facilities include computer laboratories, media resource libraries, IT learning resource rooms, pastoral care rooms and health and fitness rooms. Classrooms and staff-rooms would also be bigger with more interaction areas. More recent efforts include the new provisions in primary schools

⁵ GPI is the ratio of girl's enrolment ratio to boy's enrolment ratio in primary, secondary and tertiary education

based on recommendations of the Primary Education Review and Implementation (PERI) committee, including the provision of indoor sports halls, outdoor learning spaces, venues for performing arts, specialised music rooms, after-school student care centres, etc.

Currently, 28% of primary schools and 20% of secondary schools are equipped for Barrier-Free Accessibility (BFA) compliance, providing access for students with physical disabilities. These include toilets, slope ramps on every level, and lifts that are geographically distributed so that students who need to use the facilities are able to access them easily. Since 2008, all new schools have been built with barrier-free accessibility.

At the same time, MOE will resource schools with more teachers who will work with our senior specialists, as well as researchers from the National Institute of Education (our teaching training institute) to constantly improve programmes and approaches through action research, and determine the relative effectiveness of each of these for different students. Pupil-teacher ratio in primary schools in 2013 has improved to 17.6, down from 25.9 in 2000. In secondary schools, it has improved to 14.2 in 2013, down from 19.2 in 2000. Detailed statistics on teacher numbers and academic qualifications can be found in the Education Statistics Digest 2013⁶.

Singapore has been building up the quality of teachers since the early 2000s and the latest Teaching and Learning International Survey (TALIS) 2013 findings show that the teaching force in Singapore is well-trained and supported, dynamic in its practice and committed to the profession. Recognising that teachers are key to the delivery of quality learning experiences for all students, MOE has put in place strong professional development support for teachers to upgrade their teaching skills throughout their career.

In Singapore, 98% of teachers had received their pre-service teacher education at the National Institute of Education, which equips them with knowledge of the learning process and a repertoire of pedagogical skills and classroom techniques to help students learn, in addition to systematic training in content and pedagogy for the subjects that they are deployed to teach. Beginning teachers are supported in their transition from their pre-service training to becoming full-fledged teachers through induction and mentoring programmes overseen by more experienced teachers in the schools to which they are deployed.

98% of Singapore teachers take part in professional development activities, which include courses and workshops, peer observations, education conferences and professional learning networks. To better support our teachers in their core work of teaching and learning, MOE has also taken steps to ease their administrative duties and support them in various functions.

⁶ Ministry of Education, Singapore. 2013. *Education Statistics Digest 2013*. Pg 15. <http://www.moe.gov.sg/education/education-statistics-digest/files/esd-2013.pdf> (Accessed 24 January 2014)

The national curriculum at every level and in every subject is reviewed once every six years, with a mid-term review in the third year of implementation. This ensures that the curriculum meets the needs of the nation, community and the individual. MOE has processes to ensure that textbooks and learning materials used in schools are aligned with the national curriculum. In Singapore, curriculum and pedagogy for each subject area are reviewed in tandem, with curriculum planners tasked to develop learning and teaching strategies appropriate to the respective syllabuses.

Generally speaking, teachers are encouraged and trained to create student-centred and engaging lessons through pedagogy that considers the following:

- Students' readiness to learn and their learning styles;
- Experiences of learning that stretch thinking, promote inter-connectedness (synoptic abilities) and develop independent learning;
- A tone of environment that is safe, stimulating and which engenders trust;
- Assessment practices that provide information on how well students have performed and provide timely feedback to improve learning; and
- Relevant and meaningful content that makes learning authentic for students.

In the Primary Education Review and Implementation (PERI) Committee Report, some examples of pedagogies that apply across subjects include 'learning by inquiry', 'learning by interacting', 'learning by doing', 'learning in and of the real world' and 'learning by reflecting'.

At different levels of the education system, various means have been utilised to improve the quality of education offered to all students. In pre-schools, the government provides literacy assistance for children from lower-income backgrounds from a non-English home environment. In schools, students learn better through new pedagogies verified by research - such as the recently introduced Strategies for English Language Learning and Reading (STELLAR) for English Language literacy and the Concrete-Pictorial-Abstract Approach for numeracy.

For students with weaker foundations, there are specialised early intervention programmes such as Learning Support Programmes for English and Mathematics to help them level up. Schools are also encouraged to offer different teaching methods, different teaching arrangements and personalised learning resources to better support learning of all students. Allied Educators (Teaching and Learning) have been recruited to co-teach with trained teachers to help students with different learning needs learn better.

International comparative studies such as the Trends in International Mathematics and Science Study (TIMSS), Programme for International Student Assessment (PISA) and Progress in International Reading Literacy Study (PIRLS) indicate that student outcomes generated by the education system in Singapore is of high quality. The same studies also indicate that the results of the low-performing students have been improving over the years. A summary of Singapore's scores and ranking at some of recent international benchmarking studies is given in Table 3:

Table 3: Singapore's performance in TIMSS, PISA & PIRLS

| International Benchmarking Studies | | Score | Ranking |
|------------------------------------|--------------------------------|-------|-----------------|
| TIMSS (2011) | Grade 4 Maths | 606 | 1 st |
| | Grade 4 Science | 583 | 2 nd |
| | Grade 8 Maths | 611 | 2 nd |
| | Grade 8 Science | 590 | 1 st |
| PISA (2012) | Paper-based Reading | 542 | 3 rd |
| | Paper-based Maths | 573 | 2 nd |
| | Paper-based Science | 551 | 3 rd |
| | Computer-based Reading | 567 | 1 st |
| | Computer-based Maths | 566 | 1 st |
| | Computer-based Problem Solving | 562 | 1 st |
| PIRLS (2011) | Grade 4 Reading | 567 | 4 th |

Source: Ministry of Education, Singapore

2.2.7 RESOURCES AND FINANCIAL MANAGEMENT TO ACHIEVE THE GOALS

The government has doubled the investment in education over the last decade – from S\$6.5 billion in 2003 to S\$11.6 billion in 2013. Table 3 shows the public expenditure on education from 2007 to 2013. It also shows that the percentage of government expenditure on education remained fairly constant at about 20-23%, and constituting about 3% of GDP over this period.

Table 3: Public Expenditure on Education (2007 – 2013)

| Financial Year | Public expenditure on education | % of Government expenditure | % of GDP |
|----------------|---------------------------------|-----------------------------|----------|
| 2013 | S\$11.6 billion | 21.8% | 3.1% |
| 2012 | S\$10.5 billion | 21.0% | 3.1% |

| Financial Year | Public expenditure on education | % of Government expenditure | % of GDP |
|----------------|---------------------------------|-----------------------------|----------|
| 2011 | S\$10.7 billion | 23.1% | 3.3% |
| 2010 | S\$9.9 billion | 21.8% | 3.1% |
| 2009 | S\$8.7 billion | 20.7% | 3.1% |
| 2008 | S\$8.2 billion | 21.6% | 3.1% |
| 2007 | S\$7.5 billion | 22.8% | 2.8% |

Source: Ministry of Finance⁷

Further breakdown of government expenditure on education – development and recurrent expenditure by level of education – is available in the Education Statistics Digest 2013⁸.

2.3 SUMMARY OF GAPS AND REMAINING ISSUES

In summary, the Singapore education system has progressed significantly since 2000 in terms of the six EFA goals. Of these, the government is currently paying more attention to Goal 1 in improving provision of ECCE. Quality of education, with reference to Goal 6, will continue to be a focus of the government's agenda as MOE strives to bring out the best in every child. In striving towards a student-centric and values-driven education, MOE is currently aiming for every student to acquire a broad and deep foundation for his lifelong journey of learning and life. As such, adjustments are being made to the education system for schools to provide “breadth, depth and length” in the children's school experience.

“Breadth” refers to valuing every child, ensuring that we provide opportunities and multiple pathways in an open and inclusive system. “Breadth” is also about giving each child a broad and holistic education for them to explore and discover their interests and talents. “Depth” is about developing deep values, a deep commitment to Singapore and a deep foundation of literacy, numeracy and 21st century competencies. “Length” is about lifelong learning – as learning never stops, schools should plant in our students the seeds of lifelong learning – and learning for life.

⁷ Ministry of Finance, Singapore. 2013. *FY2013 Budget Highlights Statistical Annex*. Pp 8-9. http://www.mof.gov.sg/budget_2013/download/FY2013_Budget_Highlights_Statistical_Annex.pdf (Accessed 24 January 2014)

⁸ Ministry of Education, Singapore. 2013. *Education Statistics Digest 2013*. Pp 45-49. <http://www.moe.gov.sg/education/education-statistics-digest/files/esd-2013.pdf> (Accessed 24 January 2014)

2.4 RECOMMENDATION AND FUTURE PERSPECTIVES

In terms of future perspectives, MOE recognises that each child is different, and the system needs to be flexible enough to allow each to learn at their own pace, customised to their different learning styles and learning needs at that point in time. MOE is also increasing its focus in character and citizenship education to develop students with empathy for others, a regard for the common good and a shared sense of responsibility for Singapore's well-being and future.

CHAPTER 3 REVIEW OF EFA STRATEGIES AND SECTOR MANAGEMENT

In Singapore, education development has enjoyed strong political support which has translated to financial support for programmes and initiatives. The strong tri-partite relationship between the Ministry, the National Institute of Education and schools has ensured strong alignment between policy, planning and implementation. These are crucial factors that have had significant impact on our efforts to improve the quality of the teaching profession and the education system in Singapore.

CHAPTER 4 EMERGING CHALLENGES AND GOVERNMENT PRIORITIES

4.1 MAJOR EMERGING DEVELOPMENT CHALLENGES

Some emerging challenges that will affect education development in Singapore include:

- Volatile and uncertain globalised and information-rich world – there are many more millions joining the global marketplace, each wanting a better life, and technology is driving changes fast than ever. In education, we need to equip our next generation to be highly skilled but also flexible and adaptable.
- As Singapore develops and a larger proportion of our population becomes better-off, further improvements to our peoples' social-economic well-being will be more incremental and high social mobility that we had experienced in the past will become harder to achieve. Our education system must continue to provide opportunities for all regardless of their starting point. We must remain inclusive as a society and provide opportunities for our children from different backgrounds to grow up together.
- Singaporeans are a competitive people and our expectations and aspirations are much higher today than ever.
- Our aging population and tightening labour market as a result will make it harder to attract and retain the right people in the teaching profession.

4.2 EVOLVING SHIFTS IN NATIONAL EDUCATION POLICY DIRECTIONS IN LIGHT OF RECENT DEVELOPMENTS AND EMERGING CHALLENGES AT OUR STAGE OF SOCIO-ECONOMIC DEVELOPMENT

Other than the areas of improvement already identified in Chapter 2, there are some other key areas which MOE has identified for future development, including reducing the over-focus on examinations and grades, ensuring continued social inclusion and mixing, further efforts at improving special needs education and increasing industry involvement in applied education pathways.

REDUCING OVER-FOCUS ON EXAMINATIONS AND GRADES

Consequences of an over-focus on examinations and grades could include:

- Students are not developed as well-rounded individuals, as there is less emphasis on values and character;
- Students 'study to the test' and teachers respond by 'teaching to the test' rather than stimulating their curiosity and a lifelong love of learning;
- Students choose subjects and schools offer subjects based on how easy it is to score good grades, and not on their intrinsic value;
- Lack of recognition for other forms of talent – in the arts, sports, music, applied skills etc.;
- Stress related to competition and high stake examinations; and
- Proliferation of the tuition industry to help students improve their grades.

To address this, MOE is broadening the scoring system for the Primary School Leaving Examination (PSLE), to use broader grade bands rather than the digital scoring currently used. This would help reduce excessive competition to 'chase the last point', and provide space to educate and develop students more holistically.

ENSURING CONTINUED SOCIAL INCLUSION AND MIXING

There are concerns that in some schools, students admitted in a meritocratic way are nevertheless increasingly tending to come from similar, higher social-economic backgrounds, and have primarily strong academic abilities but may be lacking in other areas of their holistic development. Without the opportunity to interact with students from different backgrounds and academic abilities, students may not be able to develop empathy, and society may lose its cohesiveness. To address this, some changes have been made to the admission procedures to enter Primary and Secondary schools to allow for a continued diversity of students in our schools.

Within schools, there has also been effort to encourage greater interaction among students with different strengths, including the introduction of subject-based banding in primary schools to replace academic streaming of students in Primary 5 and 6. Subject-based banding provides flexibility for students to take a combination of

standard or foundation subjects, depending on their strengths in each of these subjects. MOE is currently piloting subject-based banding at the Secondary level too.

IMPROVING SPECIAL NEEDS EDUCATION

MOE will also continue to support children with special needs. Government funding for this area has progressively increased in recent years. Now, the funding per student in a special school is much more than in a mainstream school. MOE also provides professional support to Special Education schools to refine, customise and implement their curriculum. For children with mild special needs in mainstream schools, allied educators (learning and behavioural support) provide support to teachers, to help these students learn better. All schools will also have a core group of teachers trained in supporting students with special needs.

INCREASING INDUSTRY INVOLVEMENT IN APPLIED EDUCATION

As the economy evolves and the economic environment becomes more dynamic and complex, demand for a wider range of skills, competencies and expertise will increase. To prepare and empower our youth to thrive in the economy of the future, MOE is currently looking to strengthen the applied education model in Singapore. This will likely include the strengthening of industry linkages to provide work-relevant training for students, enhancing educational and career guidance, and the pursuit of industrial research, innovation and enterprise activities in educational institutions.

CHAPTER 5 CONCLUSIONS AND RECOMMENDATIONS

While Singapore has achieved healthy indicators for Goals 2, 3, 4 and 5, we will continue to work towards improving the outcomes under Goals 1 and 6, through well-considered policies, sustainable effort and careful implementation of the plans as outlined in this report. The government would also be seeking the views of other stakeholders in planning for Singapore's future educational development, and to more deeply involve parents and the community, in delivering the desired outcomes of education together.

Prepared by: Ministry of Education, Singapore

Date: Jul 2014