

Policy Developments in Pre-School Education in Singapore: A Focus on the Key Reforms of Kindergarten Education

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Since 2000, the pre-school landscape in Singapore has been evolving and changing more rapidly than before. The interest of raising the quality of pre-school education is evident in the introduction of new policies and implementation of new initiatives in the last six years. These policy developments have resulted in significant changes in various aspects of the quality standards of pre-school education in Singapore. This paper presents the context of pre-school education policy and practice in Singapore and highlights recent key reforms introduced by the Ministry of Education (MOE) in order to promote quality kindergarten education.

Key Words : Singapore pre-school education, kindergarten education, policy and practice

Introduction

Singapore is a small and compact city-state in South East Asia that has a total land area of 704 km² and a rich racial and cultural diversity. Among the 3.61 million Singapore residents in 2006 (Department of Statistics, 2007), 75.2% are Chinese, 13.6% are Malays, 8.8% are Indians and the remaining 2.4% are of other ethnic groups. Besides having a multi-racial society, Singapore is also a country with no natural resources other than its people. With people as its only natural resource, Singapore is dependent on an educated workforce to drive economic development. Hence, it is not surprising that education is particularly valued in Singapore.

From the early days of independence, Singapore has adopted pro-business policies to attract foreign investments and nurture local entrepreneurship. Among these policies are low attractive corporate tax rates and tax breaks for new local and foreign corporations. As a small nation with no natural resources, Singapore saw it important that its citizens do not develop dependency on the nation to provide for their basic personal needs. Hence, a system of compulsory saving was implemented across the workforce, and saving was promoted in schools. With saving schemes, home ownership was made possible and this was further encouraged through subsidies from the government. Alongside with compulsory savings was a system of low taxes for individual income. Today, Singapore still maintains the lowest corporate and individual income tax rates in the world. Savings and home ownership are one of the highest in the world.

Singapore's population growth rates in recent years mirror those of many advanced economies. According

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to the Department of Statistics, the population growth rate of Singapore residents is decreasing from 1.9% in 1997, to 1.6% in 1999 and 1.4% in 2000. With various government initiatives in the last few years, the growth rate has increased slightly from 1.4% in 2000, to 1.6% in 2001 and 1.7% in 2002. In 2006, the growth rate was 1.8%. To change the mindset of young parents and to promote parenthood, Prime Minister Lee Hsien Loong (2004) announced at the National Day Rally Speech, incentives and pro-family policies such as centre-based infant care subsidy, longer maternity leave from two months to three months, a week of child care leave for one parent to attend to the child and lowering the levy rate for domestic helpers that are employed for child care at home.

The pro-family policies also address the economic and social changes that Singapore is facing in the last few decades. The move towards industrialisation after its independence in 1965 prompted a rapid increase in women entering the workforce. More young children are placed in child care centres or kindergartens. The responsibility of educating and nurturing a young mind is now shared between the family and pre-school educators and care providers.

Context of Pre-School Education Policy and Practice

Historically, the Singapore education system is based on a pragmatic approach whereby economic functionality remains a cornerstone of educational policies. Over the 42 years since independence, the government has actively sought to maximise Singapore's economic potential by investing heavily in building a first class formal education system catering for all from the age of seven. The aims of Singapore's education system have undergone three major paradigm shifts from a "survival-driven education" in the 1960s where the focus was on providing school places so that all citizens had access to learning basic numeric and literacy skills, and equipping them with technical skills needed to

support industrialization, to an "efficiency-driven system" in the late 1970s where the focus was on reducing attrition and to an "ability-driven system" initiated in 1997 where efforts were made to mass customise programmes catering to the diverse needs and talents of children to allow them to realise their potential as the nation moved into preparing children for a knowledge-based economy.

In Singapore, formal school education begins at Primary One where it is compulsory for all children to start school in January of the year which they would turn seven. Even though pre-school education before the primary years is not compulsory and is provided entirely by the private sector, the majority of Singaporean children are attending pre-school currently. Therefore, instead of mandating pre-school education for all, the government aims to target its efforts in areas which would give the greatest leverage on raising the quality of pre-school education, especially for children from less advantaged homes, and in getting the small number who do not attend pre-school to do so.

Pre-school education had not always been entirely provided by the private sector. The Ministry of Education (MOE) had previously experimented with the provision of kindergarten education within the formal education system in order to facilitate the learning of English Language and Chinese Language by admitting children into primary schools at the age of five. This took the form of a one-year Pre-Primary Programme (1979-1990) and the Preparatory-Year Programme (1991-1993) in selected primary schools. However, due to a significant increase in funding and manpower resources for an extra year of schooling, these experimental programmes had been terminated since 1994 to allow schools to concentrate on upgrading the formal education system starting at Primary One.

Overview of the Pre-School Education System in Singapore

Pre-school education in Singapore is made up

mainly of the child care sector and the kindergarten sector. Child care centres, which are licensed by the Ministry of Community Development, Youth and Sports (MCYS), provide care and education for children from two months to six years old. Kindergartens, on the other hand, provide education for four to six-year-olds and are registered with the Ministry of Education (MOE). All child care centres are regulated under the Child Care Centres Act (1988) while kindergartens are regulated under the Education Act (1958).

Singapore has a high pre-school participation rate of more than 95% of children ages four to six years being enrolled in either one of the 488 kindergartens or 721 child care centres. This excludes children who may be home schooled or receiving pre-school education in international schools, special education schools, playgroups and other enrichment centres.

Both kindergartens and child care centres, commonly referred to as pre-schools in the Singapore context, provide a formalized three-year pre-school education programme in Nursery classes for four-year-olds, Kindergarten One classes for five-year-olds and Kindergarten Two classes for six-year-olds. All pre-schools in Singapore are run by the private sector, including community foundations, religious bodies, social organizations and business organizations. In 2006, 77% of four to six-year-olds had attended MOE-registered kindergartens. Amongst this group of children, about 62% had attended kindergartens operated by the People's Action Party Community Foundation (PCF). This group of community-based kindergartens charges low fees and caters to a large number of children from the lower income families.

Under the Education Act, kindergartens have to be registered with MOE. A kindergarten is eligible for registration by MOE if it fulfils the following requirements: (i) suitable premises approved for use as kindergartens and meeting all health and safety requirements stipulated by the relevant authorities; (ii) a programme that is assessed by MOE to be appropriate for young children; (iii) principals and teachers meeting the minimum academic and professional qualifications

stipulated by MOE; and (iv) a properly constituted management committee to administer and manage the kindergarten efficiently. All registered kindergartens run a programme that lasts two hours for Nursery classes and between three and four hours for the kindergarten classes.

There is a universal government subsidy for child care fees and needy families are eligible for further financial assistance from the government or non-government agencies. Kindergarten fees are generally lower and financial assistance schemes are also available for poor children. Furthermore, families with more than one child can benefit from a government subsidy introduced in 2001, known as the Children Development Co-Savings (Baby Bonus) Scheme, to pay for their children's pre-school fees.

The Need for Quality Pre-School Education

It is now widely-recognized that quality early education is important as it helps in forming the abilities of a child for lifelong learning. With increasing challenges and competitions arising from globalization and a knowledge-based economy, the effective use of communications and information technology, and knowledge is the key to economic and social advancements. Education must equip our young with good values and dispositions, relevant knowledge and skills for the new economy and society in this new millennium. As such, now, more and more educators see learners as central to the learning process. They recognize the need to cater to different learners and they know that they must use flexible strategies to promote effective learning. Teachers are seeing themselves as facilitators in this learning process. Following the emphasis on learners, the curriculum has to take into account the needs for knowledge, skills, and dispositions to be developed through different means and strategies to cater to individual differences.

Kindergarten principals are increasingly required to be effective instructional leaders and classroom teachers

are required to perform as effective facilitators. Principals and teachers have to design curriculum and instructional activities in an integrated manner that enables holistic development of a child. Equally important is that kindergartens have to ensure that the curriculum creates a smooth transition for children to move from the nursery to kindergarten and from pre-school to primary schooling.

Recent studies on critical periods have continued to conclude that experiences during the first few years are important because they provide the foundation for all future learning and development. High quality early education programmes do make a difference (Bailey, 2002). Recent research briefs published pointed out that high-quality early childhood education enhances school readiness and reduces racial and ethnic achievement gaps (American Educational Research Association, 2005; Boots, 2005). It has become increasingly more essential to provide access to high-quality early childhood programmes to the most vulnerable children because of their greatest need and the higher return on the public's investment (Karoly & Bigelow, 2005).

Early education is linked to educational benefits resulting from effects on children's attitudes to learning, their self-esteem and task orientation, rather than pre-school-induced higher IQs (Cotton & Faires-Conklin, 2001; Zigler & Styfco, 2003). Studies on the Perry Preschool Project show behavioural differences between pre-school participants and non-participants are either maintained or increased over time (Schweinhart, 2005).

There is a wealth of research showing that children who start school behind their peers, particularly on more than one dimension of school readiness, have difficulty coping with the demands of formal education. As much as half of school failure may be attributable to gaps in learning and development even before school entry. It is generally believed that the cost of school "unreadiness" to society itself is great, not only in lost education and productivity costs, but also in increased remediation and compensatory services and public safety costs (Wertheimer & Croan, 2003).

Researchers studying the "Flynn Effect" (Plucker,

2002) have noted that over the past century, average IQ has been increasing at a rate of about three points per decade. This intellectual progress could be caused by a combination of factors that are related to the general progress in quality of life. Generally, the increased complexity of life is likely to stimulate an increased complexity of mind. Parents nowadays also tend to pay much more attention to their children, thus stimulating their cognitive development. This implies that the social divide between the families that have and have not would cause even wider achievement gaps for their children.

Key Reforms of Kindergarten Education in the Recent Years

Singapore has been paying increased attention to pre-school education in recent years. The stepped-up attention to the early years stems from stronger public awareness of the importance of quality early childhood education in children's learning and development. There is also a growing recognition that a long-term measure to combat social inequities is to offer children from less-advantaged homes with a good foundation for life-long learning and a good chance to succeed in life through quality pre-school education.

In 1999, MOE forged a policy framework to raise the quality of pre-school education in Singapore through judicious and measured involvement in high-leverage areas which will have a significant impact on future learning outcomes while retaining provision in the hands of the private sector. Under the policy framework, MOE has embarked upon various initiatives since 2000 which focused on defining desired outcomes, developing a curriculum framework, establishing systems and structures for teacher training, introducing self-appraisal for quality improvements, and enhancing school readiness of disadvantaged children.

The Desired Outcomes of Pre-school Education

In the last few years, there has been a general trend

among the Organization for Economic Co-operation and Development (OECD) countries (2001) to develop national pedagogical frameworks. This common framework is to ensure that children receive the same quality of learning across age groups and in diverse pre-school settings. This will also support continuity in children's learning from one stage to another. For example, children below the age of three will progress to the four to six-year-olds with little difficulty. Likewise, the transition for children from pre-schools to primary schools will also be smooth.

To ensure continuity of objectives and a smooth transition in learning from the pre-school years into the early primary school years, the Education Ministry issued a set of Desired Outcomes of Pre-school Education in 2000 that is aligned with the set of Desired Outcomes of Primary Education. The desired outcomes were put together carefully, in consultation with early childhood education professionals and practitioners and spell out what children should have acquired at the end of kindergarten education as follows:

- a) Know what is right and what is wrong
- b) Be willing to share and take turns with others
- c) Be able to relate to others
- d) Be curious and able to explore
- e) Be able to listen and speak with understanding
- f) Be comfortable and happy with themselves
- g) Have developed physical co-ordination and healthy habits
- h) Love their families, friends, teachers and school

The set of outcomes reflects values, dispositions and skills emphasizing the whole development of the child with focus on developing a happy and healthy child who is able to relate to others, communicate with others, and is curious and enthusiastic about learning. The Education Ministry explained that the desired outcomes were deliberately formulated to demonstrate that social and communication skills as well as positive dispositions are of significant importance and that pre-school education should be about preparing children for life-long learning, not just a preparation for the Primary One curriculum

(Wong, 2000). It was reiterated that while basic competencies in reading, writing and arithmetic are important and should not be overlooked, the enduring effects of a child's social and emotional competence are of even greater importance for the holistic development of a life-long learner.

A Kindergarten Curriculum Framework

Before 2003, Singapore's pre-school education was perceived as preparation for primary school, hence, many kindergartens tended to focus on academic skills through a didactic teaching approach that put their children through repetitious exercises and worksheets. In contrast, pre-school education in western education systems has traditionally been play-based. Children's spontaneous and imaginative play is organized constructively and purposefully through the use of songs, rhymes, stories, games and group activities. Children develop life-skills, problem-solving skills, creativity, and critical thinking through play, with minimal formalized structured programmes involved. As Singapore moves towards a knowledge-based economy, creativity and innovation are essential qualities required for success. In 2000, MOE embarked on a project to translate the desired outcomes into a curriculum framework with an aim to balance the provision of core knowledge with the need to nurture children's creativity.

In January 2003, MOE published a curriculum framework, "Nurturing Early Learners: A Framework for a Kindergarten Curriculum in Singapore". This curriculum framework is available to all kindergartens and child care centres, which are encouraged to use it as a guide to customise a suitable programme to meet the specific needs of their pupils. It seeks to lay a firm foundation for every child to engage in life-long learning through the integration of learning activities in the areas of aesthetics and creative expression, environmental awareness, language and literacy, motor skills development, numeracy, and self and social awareness. The framework recommends that early childhood educators adopt the "thematic approach" when designing

their curriculum, where all learning is integrated around a theme or topic. The curriculum framework is also underpinned by six core early childhood education principles that are widely recognized as essential for children to learn well and gain confidence at an early age. It emphasizes the holistic development of children in a supportive environment that encourages exploration and discovery through play and interaction.

To support kindergartens that wish to adopt the curriculum framework, MOE has conducted workshops and seminars to equip early childhood educators with pedagogical knowledge and skills to implement the principles of the curriculum framework. In addition, MOE offers guidance to kindergartens and obtains feedback from the ground through consultation visits. The curriculum framework had also been disseminated to all teacher training agencies to enable them to align their teacher training courses with the curriculum principles. Developers of curriculum materials were also briefed to encourage the development of appropriate resources and materials that are consistent with the curriculum principles.

Framework for Teacher-training and Accreditation

The OECD report (2001) highlights that one of the key driving forces behind high quality early years education is high quality teacher training and a high level of professionalism in the early childhood workforce. According to Khoo (2004), in-service training for pre-school teachers in Singapore was ad hoc and brief when it was first introduced in the early 1970s. These teachers would normally undergo some basic and fundamental training programmes in pre-school teaching that ranged between 60 hours and 120 hours. In order to enhance the standards and ensure consistency of pre-school teacher training, an inter-Ministerial Taskforce comprising representatives from MOE and MCYS, together with pre-school professionals and practitioners was formed in 2000 to develop a common training route for kindergarten and child care centre teachers and principals as well as an accreditation framework for the

teaching and leadership training programmes.

In 2001, the new Pre-school Education Teacher-Training and Accreditation Framework was jointly introduced by the Education Ministry and the Ministry of Community Development, Youth and Sports (MCYS). Under the new teacher-training framework, the minimum professional qualification for pre-school teachers is a Certificate in Pre-school Teaching (470 hours of training). All principals must complete 1200 hours of a two-tier diploma training to attain a Diploma in Pre-school Education-Teaching (700 hours) and a Diploma in Pre-school Education-Leadership (500 hours) by January 2006. In addition, MOE announced that by January 2008, one in four teachers must have a Diploma in Pre-school Education-Teaching and all other teachers must be at least certificate-trained.

To ensure quality standards and consistency in the training programmes provided by the various training agencies in meeting the new professional qualification requirements for the pre-school workforce, a Pre-school Qualification Accreditation Committee (PQAC) was jointly set up by MOE and MCYS to assess and approve training programme's course content, modes of assessment, trainer qualifications, training facilities and resources (Ministry of Education, 2000). The Education Ministry also announced that government will assist eligible non-profit kindergartens to meet the stipulated teacher and principal qualification requirements through an annual recurrent grant (Ministry of Education, 2001). Under the new initiative, qualifying kindergartens will receive S\$15,000 per diploma-trained teacher/principal and S\$7,500 per certificate-trained teacher. The grants received were to be used to attract and retain better qualified professional staff through more attractive pay schemes and better support for kindergarten's administration and teaching resources.

Continual Self-improvement

Besides having well-qualified and well-trained principals and teachers, kindergarten self-appraisal for quality improvement is another driving force behind

high quality pre-school education. Self-evaluation usually forms part of a quality assurance framework that is put in place to ensure quality early years education. To encourage Singapore kindergartens to work towards continuous self-improvement, the Education Ministry has developed and disseminated an instrument called “Pursuing Excellence at Kindergartens” (PEAK) to all kindergartens in 2003. The self-appraisal tool aims to help kindergartens examine and analyze their programme and processes so as to think of more effective ways of delivering educational outcomes.

Framework to Enhance School Readiness of Pre-school Aged Children

Studies in the United States of America have shown that children who have a good start in their early education years display better motivation and are more likely to complete high school. Currently, the vast majority of parents in Singapore recognize the value of pre-school education. Over 95% of each cohort of Primary One children in Singapore have received formal pre-school education. Therefore, there is a small group of children who do not attend pre-school each year.

It is generally observed in Singapore that among children who did not attend pre-school, a higher proportion of children from lower-income families were not school ready (Zulkifli, 2006). Children from middle to higher income families, especially those from English-speaking backgrounds, are more likely to have received adequate home support to build their confidence in communicating in English. Conversely, children from lower income families, especially those from non-English speaking homes, would tend to lack such support. Given the benefits of pre-school education, it is therefore important for the government to get as many of the children from lower-income families as possible to participate in pre-school education in order to help level up opportunities early in life.

Starting from 2006, needy families who send their children to eligible non-profit kindergartens can apply for help under an enhanced Kindergarten Financial

Assistance Scheme (KiFAS) which subsidises 90% of the monthly fees or up to S\$82 per month. For very needy families, a start-up grant of up to S\$200 per child may also be provided to help them pay for their child's registration fee, uniforms and insurance at the beginning of the school year starting from 2007. On top of KiFAS, several community-based organizations have also put in place a range of financial assistance schemes to help low-income families with the cost of sending their children to pre-school.

In March 2007 (Ministry of Education, 2007), MOE announced a framework to enhance school readiness of pre-school aged children through a targeted and three-pronged approach that involves:

- Identifying children with a weak language foundation, and providing focused language assistance while they are in pre-school;
- Identifying five-year-old children not attending pre-school, and making it possible for them to attend pre-school; and
- Identifying six-year-old children not attending pre-school during registration for Primary One, and encourage them to attend pre-school so as to gain exposure to the English Language and school socialization.

One of the initiatives under the framework is the introduction of a project called the Focused Language Assistance in Reading (FLAiR) in neighborhood kindergartens. Under the FLAiR project, selected second year kindergarten (K2) children would be provided with intensive assistance to help them in speaking, reading and other uses of English daily through dedicated time on a one-to-one basis or in small groups. In addition, MOE and MCYS are working with community-based organizations in conducting an outreach programme that focuses on reaching out to lower-income families who do not send their children to pre-school to encourage them to do so. To further reduce the number of children who do not attend pre-school, the Education Ministry has also started working with all primary schools in mid 2007 to identify children who are not attending pre-school at the point of the Primary One registration

exercise. Once identified, parents of these children will be assisted in obtaining places in pre-schools, where help will also be provided to the children to adjust to the learning environment.

Looking Ahead

The Singapore government has been paying increased attention to pre-school education in recent years. MOE has put in place structures and resources for systemic improvements in the kindergarten sector, particularly in the design of the kindergarten curriculum and the quality of kindergarten principals and teachers. Besides systemic measures, MOE has also embarked on active intervention measures to help kindergarten children who are struggling with English and those who are not attending pre-school. The policy developments and new initiatives in pre-school education in Singapore over the years have facilitated a positive direction towards achieving higher quality pre-school provision.

Moving forward, MOE will continue to review how the overall quality of pre-school education can be further enhanced, especially in the areas of teacher capacity and training, curriculum resources, and quality assurance. Greater attention will also be focused on ensuring children from lower-income families are able to access high quality pre-school education.

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