

MATHEMATICS EDUCATION IN SINGAPORE - AN INSIDER'S PERSPECTIVE

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Abstract

Singapore's Education System has evolved over time and so has Mathematics Education in Singapore. The present day School Mathematics Curricula can best be described as one that caters for the needs of every child in school. It is based on a framework that has mathematical problem solving as its primary focus. The developments from 1946 to 2012 that have shaped the present School Mathematics Curricula in Singapore are direct consequences of developments in the Education System of Singapore during the same period. The curriculum, teachers, learners and the learning environment may be said to contribute towards Singapore's performance in international benchmark studies such as TIMSS and PISA.

Keywords: Mathematics Education, Singapore, Differentiated Curriculum, TIMSS, PISA

Abstrak

Sistem Pendidikan di Singapura telah berkembang dari waktu ke waktu sehingga memiliki sistem Pendidikan Matematika. Hari ini kurikulum matematika di sekolah dapat digambarkan sebagai salah satu yang melayani kebutuhan setiap anak di sekolah. Hal ini didasarkan pada kerangka kerja yang memiliki pemecahan masalah matematika sebagai fokus utamanya. Perkembangan tersebut dimulai dari tahun 1946-2012 yang telah membentuk kurikulum matematika sekolah saat ini di Singapura, yang merupakan konsekuensi langsung dari perkembangan Sistem Pendidikan Singapura selama periode yang sama. Kurikulum, guru, pembelajar (siswa), dan lingkungan belajar dapat dikatakan memberikan kontribusi terhadap kinerja Singapura dalam studi yang berstandar internasional seperti TIMSS dan PISA.

Kata kunci: Pendidikan Matematika, Singapura, *Differentiated Curriculum*, TIMSS, PISA

Singapore is an island, with an area of 712.4 square metres. The population is approximately 5.4 million of which more than one million are foreigners working in the country. The GDP per capita as of November 2013 is Singapore Dollars \$90,166. The two largest budget items of the government expenditure are Defense and Education. Education for primary, secondary, and tertiary levels is mostly supported by the state. All institutions, private and public, must be registered with the Ministry of Education. English is the language of instruction in all public schools and all subjects are taught and examined in English except for the "Mother Tongue" language paper. While "Mother Tongue" generally refers to the first language internationally, in Singapore's education system it is used to refer to the second language as English is the first language.

Education takes place in three stages: "Primary education", "Secondary education", and "Post-secondary education". Pupils begin with six years of primary school, which is made up of a four-year foundation stage and a two-year orientation stage. In the foundation stage the curriculum is focused on the development of English, the mother tongue, and mathematics. In the orientation stage pupils study