# SPECIAL EDUCATION (SPED) SCHOOLS RUN BY VOLUNTARY WELFARE ORGANISATIONS FOR CHILDREN WITH SPECIAL NEEDS IN SINGAPORE

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## ABSTRACT

About 1 in 150 children in Singapore was diagnosed with developmental issues. This is higher than World Health Organisation (WHO) data, which is 1 in 160. The Singapore Ministry of Social and Family Development (MSF) decided to set up a steering committee to develop the 3rd Enabling Masterplan. The aim for this 5-year national plan is to empower and enable people with disabilities. There are many services developed in order to support these children from infant to school going age. As of 2010, there are 20 special education schools run by 13 different Voluntary Welfare Organisations (VWO). They run different programs catering different level of disabilities. This article is to discuss about the special education schools that are run by VWOs in Singapore, the comparison with mainstream schools, and also about inclusive education. The goal is to understand how different forms of education is affecting children with special needs in order to ultimately help placing these children in the appropriate school.

Keyword: Special education school, Singapore schools, Voluntary Welfare Organisation.

## 1. INTRODUCTION

About 1 in 150 children in Singapore was diagnosed with developmental issues. The number of children diagnosed with developmental issues increased 76% from 2500 people in 2010 to 4400 people in 2014. (MSF 2016) This increase in number of children diagnosed might be due to early detection and early diagnosis by a trained professional. (Scherzer 2012) Early intervention and education is key in the management of children with Intellectual disability.

These disabilities include Intellectual disability, Autism Spectrum Disorder, Cerebral palsy, and sensory difficulty (hearing/ visual). The ranges of the disability can be mild to severe. As a basic human right, being diagnosed with a disability should not deter a child from getting an education, same as any normal child. Education will maximise their potential in being independent, integrate in the community and having a gainful employment.

Generally, without assistance, students with disabilities do experience difficulties in mainstream schools. For example, students with sensory problems (blind/ deaf) might not be able to follow the teachings in mainstream school without sensory aids. Children with learning difficulties might require a slower pace in their learning process compared to other children. Other than that, these children might also display behavioural problems due to sensory overload (in people with Autism spectrum disorder), or unfulfilled needs or anxiety symptoms etc. (Kenneth K. Poon 2012). This highlights the need for support from a trained professional such as Special School Teacher (SST), Learning Behaviour Support (LBS) Specialist and Allied Educator (Zackery W, 2016).

Different types of education can be offered to children with special needs depending on their level of needs: General education (in mainstream school), Special Education (SPED) school, or Integrating SPED school with mainstream school (or inclusive education). In the recent years, there have been a lot of talks about inclusive education, whereby children with special needs should have the same opportunity to obtain the same education together with 'normal' children and they should not be excluded/ segregated.

Previous similar local research reviews are not up-to-date, as they were published before the formulation of recommendation from the 2nd Singapore Enabling Masterplan in 2016. (Poon 2013) (Lim 2000), studies comparing SPED schools and inclusive education in Mainstream schools showed mixed results, and although comparison studies have been done since the 1970s (Macy D.J, 1978), comparison studies in the local setting is still lacking. Due to the recent movement towards integrative education, decision making in placement for students with special needs are changing. This is the motivation for this paper, to establish the comparison between SPED schools and inclusive education in mainstream schools in various aspects and further guiding proper channeling to the appropriate schools.

This article discusses about an overview of SPED schools in Singapore, review of comparison studies between SPED school and inclusive education in mainstream school, the government policy/ initiatives in 'Inclusive education', discussion and suggestion for further research.

## 2. Method:

Databases included in the review of literature are Education Research Complete, ERIC, ProQuest Education Journals, SAGE Journals, BERITA- Malaysia/ Singapore/ Brunei/ ASEAN Database, Google Scholar. Information from Ministry of Education,

Ministry of Social and Family Development were sourced from their respective websites. Information were also obtained from each individual special education schools via their websites. For comparing between SPED schools and inclusive education in mainstream schools, only comparison studies were taken. Due to the lack of longitudinal studies comparing special education schools and inclusive mainstream schools, the author includes cross sectional studies and non-blinded study as well.

### 3. Overview of Special education (SPED) schools in Singapore:
### 3.1 History and progression of SPED Schools:
Special education (SPED) schools in Singapore were initiated by Voluntary organisations. Began in the 1940s for specific disability group. (example: visually impaired). (Yeo LS, 2011) Until 1988, there were 11 special education school run by voluntary organisations. During the time, the voluntary organisations created their own curriculum and hired their own teachers. In November 1988, the Minister of Education chaired the 'Advisory Council for the Disabled'. One of the council's recommendation in the 'Report of the Advisory Council of the Disabled: Opportunities for the disabled' was for the administration of SPED schools to be taken over by MOE which represent a shift from welfare to education supervision. (Mayung M. Quah 1990)

### 3.2 Schools
There are 20 special schools in Singapore catering 5000 students with various special needs. (MSF 2016) All special schools in Singapore are run by VWO, (Table 1) and funded by Ministry of Education (MOE) and National Council of Social Service (NCSS)

| Disability group | VWO | Age group |
|---|---|---|
| Mild intellectual disability, Mild autism | Association for persons with special needs (APSN) | 7- 12 years old |
| | | 17- 21 years old |
| | | 7-16 years old |
| | | 13-16 years old |
| | Metta Welfare Association | 7-18/21 years old |
| | Presbyterian Community Service | 7-18 years old |
| Moderate Intellectual disability, Autism | Movement of the Intellectually Disabled Singapore (MINDS) | 7-18 years old |
| Multiple disabilities | Asian Women Welfare Association (AWWA) | |
| | Rainbow Centre | |
| | Cerebral Palsy Alliance of Singapore | 7-18 years old |
| Autism | Singapore Resource Centre | 7-18/21 years old |
| | Autism Association Singapore | 7-18 years old |
| | St Andrew's Mission Hospital (SAMH) | 7-18 years old |
| Hearing loss | Canossian Daughters of Charity | 7-14 years old |
| | Singapore Association of the deaf | 7-18 years old |
| Visual Impairment, autism, hearing loss | Singapore Association of Visually Handicapped | 7-18 years old |

Table 1 (MOE 2017)

Majority of the Schools cater students in primary to secondary school age. The schools are run by charity organisation that are heavily funded by donations on top of government funds. For example, APSN received around 2million SGD from donation in year 2016. (APSN 2016), meanwhile MINDS received around 1.5 million SGD in the form of donation in year 2016. (MINDS 2016)

Each school has a team of professionals such as Psychologist, Speech therapist, Occupational therapist, Art therapist, Social Worker, and Job Placement Officers.

Application to these schools requires parents to download a common form for SPED schools in the Ministry of Education website. The students will require formal assessment by a psychologist. A medical report and School report is needed as well. In some of the schools, there is a waiting list to enter.

### 3.3 Programs:
These special education schools cater a wide spread of learning needs. Ministry of Education launched a SPED curriculum framework 'Living, Learning and Working in the 21st Century', (MOE 2015) however it is impossible to have a fixed

standardised syllabus as each students have different level/ type of disability. The syllabus are more individualised and flexible, based on each student's learning needs. For example, in one of the SPED School (Pathlight school), each student upon enlistment to the school, will undergo an 'Individual Education Plan' process whereby teachers, consultants and parents are involved in planning the syllabus.(MSF 2016)

### 3.4 Vocational education:
There are many facets to training people with intellectual disabilities in vocational skills. (Sheerman 2000) Data collected in the US showed that 48% of youth with Intellectual disability who received vocational rehabilitation in postsecondary education manage to obtain employment compared to 32% of youth without any vocational rehabilitation (Migliore 2008)

For students with intellectual disability in Singapore, they can undergo vocational training program resulting in a National Vocational Certificate. This is to prepare them for an independent life in the future. Delta Senior School (DSS) is certified as an Approved Training Organisation (ATO) while Metta School is certified as an Approved Training Centre (ATC). (MSF 2016)

It is known that transition period after school is the most critical juncture in someone's life. (Hogan 1986) About 40% of people in special education maintained latent in staying at home after finishing school. This group of people did not start working after graduated from school. (Wells 2003). Hence it is very important for graduates of SPED schools to get involved in this transition programme in order for them to get a kick start on employment. In 2014, a new programmed called School to work (S2W) transition programme was initiated. This programme include group internship supported by Job Coaches. Since the starting of the S2W programme, 80% were successfully employed with 83% maintained employed in the next 6 months. (MSF 2016)

### 3.5 Teachers
For SPED teachers, their work roles are demarcated into three main areas: (i) as educators to the special needs students and their caretakers; (ii) as managers in ensuring the operational functioning of extracurricular activities and school-related projects; and (iii) as administrators of their multi-layered portfolios and professional development (Wasburn-Moses, 2005; Perrault, 2011).

In 2014, in an effort to encourage teachers to specialise in special education, MOE launched an advanced diploma in special education and Masters program in special education. (MSF 2016)

Compared to mainstream schools, SPED schools in Singapore offer customised education plans to meet the needs of the student. On top of academic studies, they offer specialised programs for specific skills such as social and emotional learning programmes or self-help skills. The classrooms are kept small for higher student: teacher ratio. There are also physical facilities such as sound proof room for students with sensory sensitivity, gym/ pools for physiotherapy sessions. Each SPED school has support from allied health professionals such as a psychologist, occupational therapist, speech and language therapist, physiotherapist. Some schools offer Vocational Programmes with the aim for the students to be able to work independently after they leave the school. (MOE 2012)

### 4. Inclusive education in Mainstream school:
In the UNESCO Salamanca statement proclaimed that people with special needs should have access to 'regular schools' that should accommodate their needs. And urged all government to adopt the policy of 'Inclusive Education' (UNESCO 1994) Inclusion is defined as the practice of educating most children in the same classroom, including children with intellectual, emotional, or physical disabilities. (Yeo SL, 2011)

The Singapore government decided to create '5 year road maps' that will guide Singapore to become a more inclusive and caring country for people with disabilities. So far 3 Masterplans have been created, the latest being 'Enabling Masterplan 3' that started in 2017. (MSF 2016). In the first Masterplan in 2007, one of the committee's suggestion was integration between mainstream school and 'special school' systems, such as the 'special school within mainstream school' model. This has been encouraged in many countries. (Clark, Dyson, Millward & Robson, 1999; Winter, 2006; Takala, Pirttimaa, Tormanen, 2009 ).

In one of the SPED school, Pathlight Secondary School follows a 'Satellite School Model' where students are integrated into mainstream school on selected events/ classes. Over the years there is an increase in number of satellite partnerships between SPED and mainstream schools from 4 in 2008 to 16 in 2014. (MSF 2016)

### 4.1 Initiatives by MOE
Initiatives by the MOE for inclusive education in mainstream school include having Allied Educators (AED) who supports students with mild to moderate dyslexia and ASD. For example Recently MOE hired 400 **Allied Educators** specialising in Learning and Behavioural Support [AEDs(LBS)]. (MSF 2016)

Another initiative is a 'School Based Specialised Education Service' which is a joint effort from MOE and VWO, whereby VWO provides support to mainstream schools by having training and awareness talks (For example: MOE provided grants for Asia Women Welfare Association (AWWA) and Singapore Association for the Deaf for school based itinerant support for pupils with physical and sensory needs in mainstream schools) (Disabled People's Association 2016)

### 5. Comparison studies comparing SPED schools and inclusive education in mainstream schools
The age-old debate of special school versus inclusive education has been going on since early 1970s. Among all, arguments for inclusive education mainly center around benefits academically and socially, and arguments supporting special school is that

these students needs individualised learning plan depending on their needs. Studies comparing Special education school and mainstream schools have shown mixed result.

**5.1 Academic achievements**
Multiple studies suggested no difference in mainstream and special school in terms of the academic/educational advances. (Harris, 1990; Macy D.J 1978)) Another 2 year longitudinal study showed no difference in academic outcome of students with ASD whether in mainstream or special school. In contrast, special school students showed a better improvement in social and emotional behaviour. This study have found that support (ie: Speech and Language therapy) and parental factors are positive predictors to the students' outcomes. (Reed 2009) In contrast, another study showed that students in inclusive education made significant improvement in reading, but not mathematics than students in non-inclusive schools. (Waldron N.L 1998) This result is similar to a study done by Daniel et al (Daniel 1997) which suggest that students in inclusion classroom do not appear to have the advantage of consistent academic gains.

**5.2 Behaviour**
A study showed that Autistic students in special schools showed greater improvement in behavioural problems (conduct and hyperactivity) compared to peers in inclusive education in mainstream school. However students with ASD in mainstream schools showed better improvement in socialising skills. (Phil R, 2012). Another study showed that teachers and parents tends to report more behavioural problems in students in inclusive class. This study postulated 2 reasons for the higher behavioural problems in inclusive settings: 1. Teachers were not able to focus on general classroom behavioural management due to the intensive requirement to teach, 2. Students who are not able to follow the teachings tend to get bored and hence causing inappropriate behaviour. (Larry 1997)

**5.3 Social interaction**
A case control study comparing students with severe intellectual disability being placed in inclusive classroom versus students in special education classroom showed that students with severe disability in inclusive classrooms have longer contacts with students without disability, have more social contacts with peers across a greater range of activities and settings, receive and provide a higher level of social support behaviour, have larger friendship network and durable relationship with peers without disability. However this study only compares 2 different classrooms from schools with same aspects of special education service delivery (Kennedy C.H 1997)

**5.4 Self confidence**
Baker et al studied self-confidence and peer acceptance between students enrolled in inclusive education versus special education. Students with special needs who are being enrolled in inclusive education appears to have lower self-esteem compared to their peers in special school. In terms of peer acceptance, students in special schools seems to be more accepted by peers compared to students in mainstream schools. It seems that students in special schools have more self-confidence and their peers accept them more. (Baker JTA, 2003) Similarly, a study by Larry et all (1997) also produced similar findings about lower self esteem in inclusive setting

**5.5 Hyperactivity**
A cross sectional, parent and teacher rated study done in Ireland showed that students with Intellectual disability who attend inclusion schools were rated worst for hyperactivity and interpersonal social behaviour compared to 'segregated' schools. (Hardiman S, 2009)

**6. Conclusion:**
With the increase in number of young children diagnosed with Autism Spectrum Disorder/ Intellectual Disability/ Sensory Disability in Singapore, the demand for special education is increasing. SPED Schools in Singapore are well funded by the government, have a well-planned curriculum framework and are well supported by Allied Health Professionals (i.e.: psychologist, speech and language therapists, occupational therapist and physiotherapists).

With the current condition in Singapore schools, SPED Schools would be a good option for students with moderate to severe intellectual disabilities or behavioural problems due to the cohesive Allied Health support and facilities. And a more inclusive and integrative programme in mainstream schools with the support of Allied Educators might benefit children with mild intellectual disabilities. However, with the government's gradual inclination towards the movement of inclusive education, this might change. Regardless, as Mencap argued, only when mainstream school is able to provide high quality education to students with special needs, then the need for segregated special school will reduce. (Mencap 2016) In the meantime, there is an ongoing role for special education schools whereby SPED schools and mainstream schools can work collaboratively. (Shaw A, 2017)

**6.1 Implication for practice: Placement of students in SPED/ mainstream schools**
Currently students with special needs can be referred to SPED schools by parents/ teachers/ professionals. Although a Professional Practice Guideline for Placement of Students with Special Needs (MOE, 2011) is available, the guideline seems to be vague in terms of placement of a child with special needs. The guideline is also not updated after the publication of the second Enabling Masterplan in 2016 which recommended the need to expand initiatives to promote integration of children with special needs in mainstream schools. (MSF 2016). This change then requires an update in the placement guideline. Considering previous comparison studies as above, the guideline should be more specific in terms of aspects of the individual child that needs attention for example: academic achievement, behavioural problem, hyperactivity, social skills, and self-esteem. This then should guide the placement of the child. On top of that, by identifying the specific needs as above, trained teachers / allied educator/ policy maker can focus on appropriate intervention on these component which ever school the student goes to.

**6.2 Suggestion for future research:**
With the changes in integration in mainstream schools since the second Enabling Masterplan, a local comparison research should be done to study the effectiveness of this integration. Furthermore, a more focused comparison study comparing aspects like academic achievement, social interaction, behavioural problems and self esteems between SPED students and peers in inclusive education in Singapore can be done.

**References**

Association of Person with Special Needs (2016), *APSN Annual Report 2015-2016*, retrieved from http://www.apsn.org.sg/wp-content/uploads/2014/06/Download-Report-Contents.pdf

Clark, C., Dyson, A., Millward, A. & Robson, S. (1999) *'Theories of inclusion, theories of schools: deconstructing and reconstructing the "inclusive" school'*, British Education Research Journal, 25 (2), 157–177.

Disabled People's Association (2016) *Achieving inclusion in Education, understanding the needs of students with disabilities.* Retrieved from http://www.dpa.org.sg/wp-content/uploads/2016/07/Incusion-in-Education.pdf

Hardiman S, Guerin S, Fitzsimons E (2009) A Comparison of Social Competence of Children with Moderate Intellectual Disability in inclusive versus segregated School Setting, Research of Developmental Disabilities, volume 30, issue 2, Page 397-407

Harris, S.L., Handleman, J.S., Kristoff, B., Bass. L., & Gordon, R. (1990*). Changes in language development among autistic and peer children in segregated and integrated preschool setting.* Journal of Autism and Developmental Disorders, 20, 23-31.

Hogan DP, Astone NM. *The transition to adulthood.* Annual Review of Sociology. 1986;12:109–130.

Kennedy C.H, Shukla S (1997) Comparing the effect of educational placement on social relationship of intermediate students with severe disabilities. Exceptional Children. Vol 64, No 1 pp31-47

Kenneth K. Poon (2012) *'Challanging behaviors among children with autism spectrum disorders and multiple disabilities attending special schools in Singapore'* Research in Developmental Disabilities, Vol 33:2, 578-582

Larry G. Daniel & Debra A. King (1997) Impact of Inclusion Education on Academic Achievement, Student Behavior and Self-Esteem, and Parental Attitudes, The Journal of Educational Research, 91:2, 67-80,

Lim, L., Sang S.N. (2000), *Special Education in Singapore,* Journal of Special Education. Vol. 34 Issue 2, p104. 6p. 2 Charts.

Macy, D. J., Carter J.L (1978), Comparison of a mainstream and self-contained special education programme, The Journal of Special Education, Vol 12, No 3

Mayung M. Quah (1990) *Special Education in Singapore*, International Journal of Disability, Development and Education, 37:2, 137-148

Mencap (2016) 'Education, what we think'. Retrieved from https://www.mencap.org.uk/about-us/what-we-think/education-what-we-think

MINDS (2016) '*Movement of Intellectually Disabled Singapore: Annual Financial Statement'* Retrieved from http://www.minds.org.sg/Doc/MINDS%20AR1516%20Financials.pdf

*Migliore, A. & Butterworth, J., 2008. Postsecondary Education and Employment Outcomes for Youth with Intellectual Disabilities. DataNote Series, Data Note XXI. Boston, MA: Institute for Community Inclusion.*

Ministry of Education (2011) *Psychoeducation Assessment and Placement of Students with Special Needs, Professional Practice Guideline* Retrieved from https://www.moe.gov.sg/docs/default-source/document/education/special-education/files/professional-practice-guidelines.pdf

Ministry of Education (2012) *Choosing the Right School, A Parent's Guide for Children with Special Needs.* Retrieved from https://www.moe.gov.sg/docs/default-source/document/education/special-education/files/parents-guide-children-special-educational-needs.pdf

Ministry of Education (2015 April) *SPED Curriculum Framework*, retrieved from https://www.moe.gov.sg/education/special-education/sped-curriculum-framework

Ministry of Education (2017) *List of SPED Schools*, retrieved from https://www.moe.gov.sg/education/special-education/list-of-sped-schools

Ministry of Social and Family Development (2016, June) *Education,* Retrieved from https://www.msf.gov.sg/policies/Disabilities-and-Special-Needs/Enabling-Masterplan-2012-2016/Pages/Education.aspx

Ministry of Social and Family Development (2016, December) *'Positive Outcome of School-to-Work Transition Programme'* Retrieved from https://www.msf.gov.sg/media-room/Pages/Positive-Outcomes-of-the-School-to-Work-Transition-Programme.aspx

Ministry of Social and Family Development (2016), *Enabling Masterplan 2012-2016.* Retrieved from https://www.msf.gov.sg/policies/Disabilities-and-Special-Needs/Enabling-Masterplan-2012-2016/Pages/default.aspx

Ministry of Social and Family Development (2016), *3rd Enabling Masterplan 2017-2021, Caring Nation, Inclusive Society.* Retrieved from https://www.ncss.gov.sg/NCSS/media/NCSS-Documents-and-Forms/EM3-Final_Report_20161219.pdf

Phil R, Lisa A.O. Emma M.W, (2012) *'A comparative study of the impact of mainstream and special school placement on the behaviour of children with Autism Spectrum Disorders'* British Education Research Journal, Vol 38 (5), 749-763

Poon, K., Musti-Ra, S., Wettasinghe, M., (2013), *Special Education in Singapore*, Intervention in School and Clinic, Vol 49, Issue 1, pp. 59 - 64

Reed, P., Osborne, L.A. & Waddington, E. (2009) *The role of educational placement, educational provision, and parents, on the school performance of children with Autism Spectrum Disorders* in: J. Clements, J. Hardy & S. Lord (Eds) Transition or transformation? Helping young people with ASD set out on a hopeful road towards their adult lives (London, Jessica Kingsley), 140–163.

Scherzer, A. L, Chhagan,M., Kauchali, S., & Susser, E. (2012). *Global perspective on early diagnosis and intervention for children with developmental delays and disabilities.* Developmental Medicine and Child Neurology, 54(12), 10.1111/j.1469–8749.2012.04348.x.

Shaw A (2017) 'Inclusion, the role of special and mainstream schools' British journal of Special Education, Vol 44, No 3, pp 292-312

Takala, M., Pirttimaa, R. & Tormanen, M. (2009), *Inclusive special education: the role of special education teachers in Finland,* British Journal of Special Education 36, 162-172

UNESCO (1994*). The Salamanca Statement and Framework for Action on Special Needs Education.* Adopted by the World Conference on Special Needs Education: Access and Quality. Salamanca, Spain, 7-10 June. U, 2014)

Waldron N.L, McLeskey J (1998) The effect of inclusive school program on students with mild and severe learning disability. Exceptional children. Vol 64, No 3 pp 395-405

Wasburn-Moses, L. (2005). *Roles and responsibilities of secondary special education teachers in an age of reform.* Remedial and Special Education, 26(3), 151-158.

**Wells, T., Sandefur G.D., Hogan D.P. (2003)** *What Happens after the High School Years among Young Persons with Disabilities***? Social Forces 82.2 (2003) 803-832**

**Winter, E. C. (2006)** *'Preparing new teachers for inclusive schools and classrooms',* **Support for Learning, 21 (2), 85–91.**

Yeo, L. S., Neihart, M., Tang, H. N., Chong, W. H., & Huan, V. S. (2011). *An inclusion initiative in Singapore for preschool children with special needs* Asia Pacific Journal of Education, 31(2), 143-158

Zakary W (2016). *Special Education Teacher Preparation in Singapore Dual Education System.* Teacher Education and Special Education. Vol 39 (3) 178-190

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