

# ACHIEVING INCLUSION IN EDUCATION

*Understanding the needs of students with disabilities*



Produced by:



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# Contents

List of Abbreviations	4
Introduction	6
Structure	7
Methodology	7
<b>Part I: Educational Situation</b>	<b>9</b>
Background	9
Initiatives for pre-school children	10
Initiatives for students in mainstream schools	11
Initiatives for students in special education schools	14
Government subsidies and funds	16
<b>Part II: Barriers to Education</b>	<b>19</b>
Attitudinal barriers	19
Physical barriers	21
Information barriers	21
Systemic barriers	22

Transportation barriers	26
<b>Part III: Recommendations</b>	<b>27</b>
Attitudinal change	27
Information	28
Physical accessibility	29
Systemic solutions	30
Transportation solutions	34
<b>Part IV: Inclusive Education</b>	<b>35</b>
What is inclusive education?	35
Five myths about inclusive education	37
Conclusion	39
Glossary	40
References	44

# List of Abbreviations

<b>AED(LBS)</b>	Allied Educator (Learning and Behavioural Support)
<b>ASD</b>	Autism Spectrum Disorder
<b>ATF</b>	Assistive Technology Fund
<b>BCA</b>	Building and Construction Authority
<b>CRC</b>	Convention on the Rights of Children
<b>CRPD</b>	Convention on the Rights of Persons with Disabilities
<b>DPA</b>	Disabled People's Association
<b>IHL</b>	Institute of Higher Learning
<b>ITE</b>	Institute of Technical Education
<b>MOE</b>	Ministry of Education
<b>MSF</b>	Ministry of Social and Family Development
<b>NCSS</b>	National Council of Social Service
<b>NIE</b>	National Institute of Education
<b>SDR</b>	School-based Dyslexia Remediation
<b>SEN</b>	Special Education Needs
<b>SPED (School)</b>	Special Education School
<b>SSI</b>	Social Service Institute
<b>TSN</b>	Teachers trained in Special Needs
<b>UN</b>	United Nations
<b>VWO</b>	Voluntary Welfare Organisation

**“EVERY CHILD HAS A DIFFERENT LEARNING  
STYLE AND PACE. EACH CHILD IS UNIQUE,  
NOT ONLY CAPABLE OF LEARNING BUT ALSO  
CAPABLE OF SUCCEEDING.”**

**ROBERT JOHN MEEHAN**



# Introduction

The right to an inclusive education is articulated in both the United Nations (UN) *Convention on the Rights of the Child* (CRC) and the *Convention on the Rights of Persons with Disabilities* (CRPD).

Consistent with ratifying these conventions, the Singapore government expresses its commitment to inclusive education in an array of documents and policies, including the *Enabling Masterplan 2012 – 2016*.

Article 24 of the CRPD states the right of every person who have a disability to participate fully in an inclusive, quality education on an equal basis with people without disabilities. As a signatory of the CRPD, Singapore is obliged, under international human rights law, to respect, protect and fulfil the rights articulated within, including the right to inclusive education.

This publication tracks Singapore's implementation of Article 24 of the CRPD. Taking a rights-based approach, it seeks to draw together research findings to develop a clear picture of the educational situation of people with disabilities in Singapore and identify strategies to facilitate greater inclusion for students with disabilities. The underlying intention is to provide educational stakeholders with actionable insights to improve policies and practices.



For the full text of the UN CRC, please visit

[www.ohchr.org/en/professionalinterest/pages/crc.aspx](http://www.ohchr.org/en/professionalinterest/pages/crc.aspx)

For the full text of the UN CRPD, please visit

<http://www.un.org/disabilities/convention/conventionfull.shtml>

## Structure

The booklet provides for an in-depth examination of Article 24 as it is realised in Singapore. It is divided into the following four sections:

- **Part I: Educational Situation**  
How does Singapore's education system support and accommodate students with disabilities? How well do they meet the diverse needs of this group of people?
- **Part II: Barriers to Education**  
What are the barriers faced by students with disabilities in Singapore?
- **Part III: Recommendations**  
How can Singapore's education system better accommodate and support students with disabilities?
- **Part IV: Inclusive Education**  
What is inclusive education and how can we achieve it? What are the common myths associated with inclusive education?

## Methodology

The research was conducted with the support and active participation of various education stakeholders including persons with disabilities, families and caregivers of persons with disabilities, teachers and specialised personnel working with those with disabilities. It involved a two-pronged approach:

- **Online surveys** targeting 16 persons with disabilities, 14 mainstream teachers and one Allied Educator.
- Two **focus group discussions** with 12 persons with disabilities, 10 parents or caregivers of persons with disabilities, one teacher and four disability professionals, engaging a total of 27 participants.

An extensive literature search was carried out to supplement the conventional qualitative data collection methods. Where relevant, links are also made to recent national and international reports.



**EDUCATIONAL SITUATION**



**BARRIERS TO EDUCATION**



**RECOMMENDATIONS**



**INCLUSIVE EDUCATION**





# Part I:

# Educational Situation

## Background

For decades, student with and without disabilities have been perceived as belonging to the special education and mainstream education systems respectively. This is because Singapore has long maintained a dual system of education where its mainstream education system has remained largely separate from its special education system.

Students with disabilities who have the cognitive ability to handle mainstream curriculum and adaptive skills to learn in large group settings are commonly integrated into mainstream schools. Assistive technologies, and in some cases retrofitted facilities, allow these students to successfully integrate into a mainstream school environment. Those who require more intensive specialised support are enrolled in Special Education (SPED) schools, which have specially trained staff and para-medical personnel.

Today, there are a total of 20 SPED schools independently run by 13 voluntary welfare organisations (VWOs), which come under the purview of the Ministry of Social and Family Development (MSF). The Pathlight School and Singapore School for the Deaf, for example, are run by the Autism Resource Centre (Singapore) and Singapore Association for the Deaf respectively. Funding for these SPED schools is jointly shared by the National Council of Social Service (NCSS) and the Ministry of Education (MOE), as VWOs were of the view that the MOE should bear some responsibility for special education in the country.

Singapore's national education policy, specifically the *Compulsory Education Act (2001)*, codifies compulsory education for children of primary school age (this refers to children above the age of 6 years and below the age

of 15 years).

However, amendments to the *Compulsory Education Act (2019)* aims to include children with moderate-to-severe Special Educational Needs (SEN) with effect from 2019. This means that while previously, the decision about whether to send the child to school was left to the parents, the new amendment to the Act ensures that children with mild special needs who have the cognitive abilities and adequate adaptive skills will be attending mainstream schools, while children with moderate-to severe special needs will attend Government Funded Special Education (SPED) schools which will be recognized as 'national primary schools'.

The following sections briefly outline the various policies and programmes that are put in place to support students with disabilities.

## Initiatives for pre-school children

### DEVELOPMENT SUPPORT PROGRAMME

- Provides support and intervention for children with mild developmental needs in areas such as speech and language, social skills, motor skills, behaviour and literacy.
- Equips children with age-appropriate skills to optimise learning in preschools and be ready for primary education.
- For more information, please refer to <https://www.sgenable.sg/pages/content.aspx?path=/for-children/development-support-programme-dsp/>

<b>EARLY INTERVENTION PROGRAMME FOR INFANTS AND CHILDREN</b>	<ul style="list-style-type: none"> <li>• Provides therapy and educational support services for children in motor, communication, social, self-help and cognitive skills.</li> <li>• For more information, please refer to <a href="https://www.sgenable.sg/pages/content.aspx?path=/for-children/early-intervention-programme-for-infants-children-eipic/">https://www.sgenable.sg/pages/content.aspx?path=/for-children/early-intervention-programme-for-infants-children-eipic/</a></li> </ul>
<b>INTEGRATED CHILD CARE PROGRAMME</b>	<ul style="list-style-type: none"> <li>• Prepares a child for entry into mainstream primary education.</li> <li>• Provides a natural learning environment for children with disabilities to learn, play and socialise with their peers without disabilities.</li> <li>• Targeted at children with mild to moderate levels of disability in the following areas: visual impairment, physical disabilities, hard of hearing, speech delay, and development delay.</li> <li>• For more information, please refer to <a href="https://www.sgenable.sg/pages/content.aspx?path=/for-children/integrated-child-care-programme-iccp/">https://www.sgenable.sg/pages/content.aspx?path=/for-children/integrated-child-care-programme-iccp/</a></li> </ul>
<b>PRIVATE INTERVENTION PROVIDERS FOR EARLY INTERVENTION</b>	<ul style="list-style-type: none"> <li>• Provides therapy and learning support services.</li> <li>• For children with moderate to severe disabilities.</li> </ul>

## Initiatives for students in mainstream schools

<b>ALLIED EDUCATORS (LEARNING AND BEHAVIOURAL SUPPORT) [AEDs(LBS)]</b>	<ul style="list-style-type: none"> <li>• Introduced into mainstream primary and secondary schools in 2005.</li> <li>• Support students with mild to moderate dyslexia and Autism Spectrum Disorder (ASD) through in-class supports, small group specialised remedial work and/or skills training.</li> <li>• At least one AED(LBS) stationed at all primary schools and 81 secondary schools.</li> </ul>
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<b>MOE-AIDED DYSLEXIA ASSOCIATION OF SINGAPORE LITERACY PROGRAMME</b>	<ul style="list-style-type: none"> <li>• Supports students with dyslexia facing literacy challenges in mainstream schools.</li> <li>• Supports the development of comprehension, reading, writing, and language acquisition skills.</li> </ul>
<b>PRE-SERVICE TRAINING ON SPECIAL NEEDS</b>	<ul style="list-style-type: none"> <li>• A compulsory 12-hour module on special needs for all beginning teachers at NIE since 2005.</li> <li>• Equips beginning teachers with a basic understanding of students with special needs.</li> </ul>
<b>SCHOOL-BASED DYSLEXIA REMEDIATION (SDR) PROGRAMME</b>	<ul style="list-style-type: none"> <li>• A two-year intervention programme for Primary Three and Four students with dyslexia.</li> <li>• Conducted in small groups by trained school personnel using a remediation curriculum designed by MOE Reading Specialists.</li> <li>• Expanded to 60 more primary schools, covering a total of 121 primary schools in 2015.</li> <li>• Will be available in all primary schools by 2016.</li> </ul>
<b>SCHOOL-BASED SPECIALISED EDUCATIONAL SERVICES</b>	<ul style="list-style-type: none"> <li>• A joint effort by MOE and VWOs since 2011.</li> <li>• For example, MOE provides grants to the Asian Women's Welfare Association and Singapore Association for the Deaf for school-based itinerant support for pupils with physical and sensory disabilities in mainstream schools.</li> <li>• The support provided through these VWOs includes training for teachers and school staff, awareness talks for peers and advice on accessibility in schools.</li> </ul>
<b>SPECIAL EDUCATION NEEDS SUPPORT OFFICE</b>	<ul style="list-style-type: none"> <li>• Available at each publicly-funded university, polytechnic and Institute of Technical Education (ITE) College.</li> <li>• Provides holistic support for students with special educational needs, including in-class learning assistance and access arrangements.</li> <li>• Helps students with special needs tap into the Special Education Needs (SEN) Fund.</li> </ul>

<b>STUDENT DEVELOPMENT TEAMS</b>	<ul style="list-style-type: none"> <li>• Oversee the holistic development of all students by working with class form teachers to provide stronger socio-emotional support for the students and coordinating efforts among teachers teaching a particular level.</li> <li>• Will be set up in all schools by 2016.</li> </ul>
<b>TEACHERS TRAINED IN SPECIAL NEEDS (TSN)</b>	<ul style="list-style-type: none"> <li>• A core group of teachers in mainstream primary and secondary schools with Certificate level training in Special Needs.</li> <li>• Trained at the National Institute of Education (NIE), Singapore's sole teacher education institution since 2005.</li> <li>• Learn to plan instruction, adapt and differentiate curriculum to meet pupils' diverse needs.</li> <li>• Learn ways to build the capacity of their fellow teachers on the strategies and resources to support students with special educational needs.</li> <li>• Comprise 10% of teachers in all primary schools and 20% of teachers in all secondary schools.</li> </ul>
<b>TRAINING STAFF IN BASIC SPECIAL EDUCATIONAL NEEDS AWARENESS IN INSTITUTES OF HIGHER LEARNING</b>	<ul style="list-style-type: none"> <li>• As of 2015, more than 1,500 polytechnic and ITE staff have been trained in basic special educational needs awareness and support.</li> <li>• MOE aims to train all polytechnic and ITE academic staff similarly over the next five years.</li> </ul>

## Initiatives for students in special education schools

<b>DEDICATED TRANSPORT</b>	<ul style="list-style-type: none"> <li>• Funded by MSF and the Care and Share Movement, led by Community Chest.</li> <li>• Transports persons with disabilities from their homes to special education schools.</li> </ul>
<b>EXPANDED SPED SCHOOL FACILITIES</b>	<ul style="list-style-type: none"> <li>• For the past decade, MOE has committed \$150 million for upgrading and building of the 20 SPED schools to provide better facilities and meet the rising demand for places catering to specific disabilities.</li> <li>• For instance, in 2012, a new wing was constructed for Metta School, and the new and larger campus for Delta Senior School was completed in 2013.</li> </ul>
<b>ENHANCED PROFESSIONAL DEVELOPMENT OPPORTUNITIES FOR SPECIAL EDUCATION TEACHERS</b>	<ul style="list-style-type: none"> <li>• MOE launched an Advanced Diploma in Special Education and the MOE Masters Scholarship in Special Education in 2014.</li> <li>• MOE provides SPED schools \$1,100 annually for each SPED staff to engage in professional development activities, with SPED teachers each receiving an additional \$400.</li> <li>• MOE organises Curriculum Leadership Teams and Professional Learning Teams in every SPED school to drive curriculum transformation and to build a strong culture of professional dialogue and learning amongst staff.</li> </ul>
<b>FRAMEWORK FOR VOCATIONAL EDUCATION</b>	<ul style="list-style-type: none"> <li>• Outlines the vision and philosophy, principles, processes, and learning outcomes of vocational education.</li> <li>• Guides SPED schools in implementing a structured programme of vocational education that would effectively prepare their students to be employable.</li> </ul>

<b>IMPROVED VOCATIONAL EDUCATION PROGRAMMES</b>	<ul style="list-style-type: none"> <li>• Facilitated by MOE in 2010.</li> <li>• Leads to national certification in selected industry areas for SPED schools serving students with Mild Intellectual Disability.</li> </ul>
<b>IMPROVED SPED CURRICULUM</b>	<ul style="list-style-type: none"> <li>• Guides SPED schools in delivering a quality and holistic education.</li> <li>• Aims to equip SPED students with the required knowledge, skills and attitudes for living, learning and working in the 21<sup>st</sup> century.</li> <li>• For more information, please refer to <a href="https://www.moe.gov.sg/education/special-education/sped-curriculum-framework">https://www.moe.gov.sg/education/special-education/sped-curriculum-framework</a></li> </ul>
<b>SATELLITE PARTNERSHIPS</b>	<ul style="list-style-type: none"> <li>• Encourage mainstream schools located near SPED schools to conduct joint social and learning activities through platforms such as the Community Involvement Programme and Co-Curricular Activities.</li> <li>• MOE provides resources to support the conduct of satellite classes for SPED students in the mainstream schools such as funds for setting up of satellite classrooms and additional manpower in the form of an AED.</li> <li>• To date, 16 out of 20 SPED schools are involved in the satellite partnerships.</li> <li>• MOE aims to expand the Satellite School Model to every SPED school.</li> </ul>
<b>SCHOOL-TO-WORK TRANSITION PROGRAMME</b>	<ul style="list-style-type: none"> <li>• Co-developed in 2014 by MSF, MOE and SG Enable, which is a government-established body that offers services for persons with disabilities.</li> <li>• Helps graduating students from SPED schools bridge the transition from school to the workplace by developing more work and training options and pathways.</li> <li>• Participated by five SPED schools.</li> </ul>



## Government subsidies and funds

The Singapore government has launched a number of funding initiatives to make mainstream and special education accessible to and affordable for persons with disabilities. Below is a list of the subsidies available for persons with disabilities.

<b>ASSISTIVE TECHNOLOGY FUND (ATF)</b>	<ul style="list-style-type: none"> <li>• A means-tested subsidy of up to 90% of the cost of assistive technology devices, subject to a lifetime cap of up to \$40,000.</li> <li>• Can be used to acquire, replace, upgrade or repair assistive technology devices that aid in purposes of early intervention, education, training, employment, therapy, rehabilitation and/or independence in daily living.</li> <li>• Administered by SG Enable.</li> </ul>
<b>COMPUTER ACCESS TRUST FUND</b>	<ul style="list-style-type: none"> <li>• Subsidises the cost of computers and computer-related assistive equipment for SPED students.</li> <li>• Administered by SG Enable.</li> </ul>
<b>EDUSAVE GRANTS</b>	<ul style="list-style-type: none"> <li>• Given to SPED schools to organise enrichment programmes or purchase additional resources.</li> <li>• Administered by MOE.</li> </ul>
<b>EDUSAVE PUPILS FUND</b>	<ul style="list-style-type: none"> <li>• A yearly contribution of \$200 to each SPED student who is a Singaporean citizen.</li> <li>• A yearly contribution of \$240 to SPED students taking mainstream secondary curriculum and vocational education programmes.</li> <li>• Used to pay for school fees and enrichment programmes organised by schools.</li> <li>• Administered by MOE.</li> </ul>

<b>ENHANCED PILOT FOR PRIVATE INTERVENTION PROVIDERS</b>	<ul style="list-style-type: none"> <li>• Offers additional choices in Early Intervention Programmes for children who have been referred to Early Intervention Programme for Infants and Children.</li> <li>• Helps parents defray the cost of enrolling their children in selected Private Intervention Centres.</li> <li>• Administered by the Service Development and Management Division of MSF.</li> </ul>
<b>OPPORTUNITY FUND GRANTS</b>	<ul style="list-style-type: none"> <li>• Given to SPED schools to level up co-curricular development opportunities for Singaporean students from lower income households.</li> <li>• Administered by MOE.</li> </ul>
<b>PARENT SUPPORT GROUP GRANT</b>	<ul style="list-style-type: none"> <li>• Gives all schools an annual top-of of up to \$2,500 to engage parents and involve them in their children's education.</li> <li>• Enables schools to better engage parents and promote parent-child bonding by organising activities such as parent education workshops, school parent-engagement projects, and community projects.</li> <li>• Administered by MOE.</li> </ul>
<b>SPECIAL EDUCATION FINANCIAL ASSISTANCE SCHEME</b>	<ul style="list-style-type: none"> <li>• A full waiver of school fees, free textbooks and uniforms and a 75% waiver of examination fees for needy Singaporean students in MOE-funded SPED schools.</li> <li>• Administered by MOE.</li> </ul>

<b>SPECIAL EDUCATION NEEDS (SEN) FUND</b>	<ul style="list-style-type: none"> <li>• Set up by MOE to provide funding support to Singaporean students with physical, hearing or visual impairment studying at the ITE, polytechnic or University.</li> <li>• Can be used to purchase assistive technology devices and supporting services such as signing interpretation and Braille printing.</li> <li>• A subsidy cap of \$5,000 for students with physical impairment and \$25,000 for students with visual or hearing impairments.</li> </ul>
<b>STRAITS TIMES SCHOOL POCKET MONEY FUND</b>	<ul style="list-style-type: none"> <li>• Provides pocket money to children from low-income families to help them through school.</li> <li>• Can be used for school-related expenses, such as buying a meal during recess, paying for transport or using it to meet other schooling needs.</li> </ul>
<b>TAXI SUBSIDY SCHEME</b>	<ul style="list-style-type: none"> <li>• Persons with disabilities who need to travel by taxi for school purposes receive up to 50 per cent subsidy for taxi fares.</li> <li>• The means-tested subsidy amounts vary depending on whether applicants are Singapore citizens or Permanent Residents, per capita monthly household income and distance travelled from home to school.</li> <li>• Administered by SG Enable.</li> </ul>
<b>VWO TRANSPORT SUBSIDIES</b>	<ul style="list-style-type: none"> <li>• A means-tested subsidy of up to 80 per cent for persons with disabilities taking VWO-arranged specialised transport to access school services.</li> <li>• Subsidy amounts vary depending on whether applicants are Singapore citizens or Permanent Residents, per capita monthly household income, and whether applicants are wheelchair users or ambulant.</li> <li>• Administered by SG Enable.</li> </ul>





# Part II:

## Barriers to Education

Singapore has made significant progress in ensuring that people with disabilities are able to participate fully and equally in the education system. But there are still various barriers faced by those with disabilities. These barriers take a variety of forms; they relate to attitudes, policies, practices, infrastructure and/or the environment.

### Attitudinal barriers

#### ATTITUDES OF PRE-SERVICE MAINSTREAM TEACHERS

Singapore mainstream teachers who did not undergo prior training in special needs generally possessed negative attitudes towards people with disabilities (Thaver, Lim, & Liau, 2014). They showed ambivalent feelings towards inclusive education and expressed a preference for special school placements for students with disabilities. Such attitudes can dramatically affect the success and effectiveness of their instruction.

#### BULLYING, TEASING OR HARASSMENT

Children with disabilities are significantly more likely than their peers to be victims of bullying. Children with ASD, for example, may have difficulties with social interaction and the inability to read social cues, which can lead to higher frequencies of verbal and physical attacks. And those who have physical disabilities such as wheelchair users and people with cerebral palsy may lack the physical strength to defend themselves.

Bullying has adverse consequences. Victims may suffer from depression and anxiety, and develop negative self-perceptions and health issues. Some victims also perform poorly in school due to difficulties concentrating during lessons, school avoidance or absences.

## DISABILITY DENIED BY PARENTS OR UNREALISTICALLY MINIMISED

Parents sometimes deny or do not inform a school about their child's disability. Some may also insist on sending their child to a mainstream school despite being informed by the teacher that their child requires specialised support from specially trained staff in SPED schools. This creates problems for both the child and his or her teachers who may be ill-prepared to meet the specific educational needs of the student.

*I found getting parental support to be tough as some parents might not be receptive to the feedback and suggestions given, even though they realised that their children displayed the same*

*behaviour at home. ”*

**Primary School Teacher**

*I can understand that as a parent who feel hesitant about disclosing their child's disability because there is stigma*

*attached to that diagnosis. ”*

**Parent of a child with a disability**

## PREJUDICE BY PARENTS OF STUDENTS WITHOUT DISABILITIES

Some parents may be resentful that the class in which their child is learning includes one or more students with disabilities and/or special needs. They believe that typically developing students will be disadvantaged by lesson disruptions, learning will be compromised by teachers having to cater to students with lower learning ability, and peers with special needs and/or disabilities will exhibit aggressive behaviours.

## Physical barriers

### LACK OF SPECIAL NEEDS FACILITIES

Since 2008, all new schools have been built in accordance with the Building and Construction Authority (BCA) Code on Accessibility in the Built Environment 2013. Where technically feasible, existing schools have been upgraded with basic accessibility when they undergo major restructuring, such as through the Programme for Rebuilding and Improving Existing Schools (PRIME) and enhancement of infrastructure as part of the Primary Education Review and Implementation (PERI) recommendations.

But some schools remain physically inaccessible. As of May 24, 2016, only 87 secondary schools are resourced with facilities and/or programmes to support students with disabilities, and even then their special needs facilities and/or programmes do not cater to all types of disabilities (Ministry of Education, 2016). In addition, only 55 primary schools are resourced with full disabled-friendly facilities (Ministry of Education, 2016). As a result, some students with disabilities attend schools far from where they live because those institutions offer support or accessibility others do not.

## Information barriers

### INSUFFICIENT INFORMATION ON DISABLED-FRIENDLY FACILITIES AND SUPPORT SERVICES IN MAINSTREAM SCHOOLS

Parents often find themselves struggling to enrol their child in a school due to the lack of information given on the available facilities and support services. They may not know which school is suitable for their child and if the principal or teachers are prepared to accommodate their child's needs. As a result, most parents depend on word-of-mouth recommendations.

## Systemic barriers

### AMBIGUITY ABOUT INCLUSIVE EDUCATION

There is a lack of clarity on what is “inclusive education” in Singapore. Policymakers, service providers, families, caregivers and even persons with disabilities have contesting views on what “inclusive education” should be. Some tend to describe inclusion as only placement in a mainstream classroom, while others mistakenly assume it is a one-size-fits-all approach.

Furthermore, there is no coordinating or national policy about inclusion from which mainstream and SPED schools can develop their inclusive programmes and practice. What forms of exclusion are necessary or even desirable? Should we build more SPED schools to support persons with disabilities or try to include them into mainstream education? The absence of ethical guidelines or guiding principles on what counts as inclusion creates confusion and pedagogical inconsistencies in schools.

### AMENDMENTS TO THE *COMPULSORY EDUCATION ACT (2019)*

As mentioned earlier, the *Compulsory Education Act (2001)* automatically exempts children with special needs and/or disabilities. However, with the 2019 amendment to the Act, children with mild-to-severe disabilities will be included in the *Compulsory Education Act*. This also ensures that a child’s education is subject to Government scrutiny.

This legislation enhancement includes children with disabilities into the aims of Compulsory Education. They will be able to share in a curriculum that aims to provide a common knowledge base, thus ensuring that these children are provided with vocational and higher education opportunities. This enhancement also encourages the long-term mainstreaming of people with disabilities in society as children in mainstream schools will have the opportunity to interact regularly with their peers with disabilities at an early and formative age. In addition, SPED students are covered by the obligations of Compulsory Education. As such, issues like truancy will be dealt with in the same way as it is done to children in mainstream schools.



## DIFFICULTY IN TEACHING MAINSTREAM CURRICULUM

Some students with disabilities may lack the cognitive ability and adaptive skills to handle mainstream curriculum and learn in large group settings. These children often require more time and individual attention from their teachers.

*It was very difficult to get them to understand certain concepts but I still have to teach them as they are sitting for the same test papers as the rest. ”*

**Primary School Teacher**

## HIGH TURNOVER RATE OF SPECIAL EDUCATION TEACHERS

The high turnover rate of SPED teachers is mainly caused by occupational – physical, psychological and emotional – stress. There are various causes of occupational stress such as high job demands that need to be completed on a regular basis, lack of clarity about their responsibilities or goals, low salaries, and lack of supervisor support. The high staff turnover has affected the delivery of services in SPED schools which in turn has affected the development of the children.

## INADEQUATE TEACHER TRAINING ON SPECIAL NEEDS

The pre-service course at NIE does not offer trainees the depth of learning, particularly the practical learning and hands-on experience exchanges that are needed to prepare teachers for the real-life challenges they will face in managing a class which includes students with disabilities. In addition, there are no follow-up trainings to help existing teachers to keep developing their understanding of disability.

*The pre-service training that I have received allows me to know more about the theories with regard to the common profiles (ADHD, ADD). However, the lack of strategies and skills required often prove to be a challenge as the training does not equip me with the skills required for application in the classroom. Moreover, the special needs cases that I had in my classrooms were not as common. E.g. Global language delay, receptive and expressive language disorders and comorbidities. ”*

**Primary School Teacher**

### INSUFFICIENT ALLIED EDUCATORS

It is exceedingly difficult to attract and retain AEDs. There are at least three reasons for this predicament. The first has to do with remuneration. AEDs(LBS) are paid much lower salaries compared to mainstream teachers. Moreover, AEDs(LBS) have limited opportunities for career progression. Compared to mainstream teachers who can aspire to take on three different job/career tracks, AEDs(LBS) can only look forward to take on higher level appointment as Senior AED(LBS). Another reason for the high AEDs(LBS) turnover rate is the work environment. Some AEDs(LBS) felt that they have low status in their schools, had teachers who were too busy to work with them, or principals who did not understand special education (Lim, Wong, & Cohen, 2010).

The lack of specialist support adds a substantial burden on teachers who do not have the prior training in teaching the adapted curricula and in managing a class which includes students with disabilities.

*The current system is still trying to have one Allied Educator who specialises in special needs in every school. Despite their expertise, the number of cases may sometimes be overwhelming for one person to manage. Thus, we may require more of such specialists to work hand in hand with teachers. ”*

**Primary School Teacher**

## INSUFFICIENT FUNDS TO PURCHASE ASSISTIVE TECHNOLOGY DEVICES AND SUPPORTING SERVICES

Persons with disabilities and families from middle income households struggle to purchase the necessary assistive devices and supporting services because they do not meet the means testing criteria of the ATF. In addition, the subsidy cap of \$25,000 of the SEN Fund is too low for students who are deaf/hard of hearing who require regular notetaking and sign language interpreting services for their studies.

## LACK OF APPROPRIATE VOCATIONAL TRAINING OR QUALIFICATION

Vocational training provided by SPED schools has not kept up with the changing job market which sees increased globalisation and automation, and an emphasis on specialist skills such as accounting, graphic design, teaching and administrative work. Some roles will dry up while others will be outsourced or filled on a project basis. As a result, SPED graduates who were trained to perform simple manual jobs may find themselves out of jobs.

SPD (formerly Society for the Physically Disabled), for example, has seen orders for its book binding and restoration services plunge by about 40 per cent since 2010 (Tai, 2015). Many of these books and journals are now published online. Bizlink, a non-profit organisation that provides employment services for persons with disabilities, has also lost contracts for printing and packing of red packets because businesses are outsourcing jobs to other countries in the region (Tai, 2015).

## LARGE MAINSTREAM CLASS SIZE

Primary school teachers often feel overwhelmed and ill-prepared to handle too many children with special needs and/or disabilities in a large class.

*Given the typical class size of 30 to 40, it can be taxing for teachers who are not specifically trained in special needs to manage their behaviour or learning needs and the parents' expectations, especially when there are special requests to look*

*out for their children. ”*

**Primary School Teacher**

## PROFESSIONAL AMBIGUITY OF ALLIED EDUCATORS

AEDs(LBS) face role confusion because some schools have limited understandings of their roles. Some schools expect AEDs(LBS) to be miracle workers in “fixing” students with special needs and/or disabilities, while others doubt their professional training and give them little to no opportunity to share knowledge with teachers and families (Lim, Wong , & Cohen, 2010). As a result, AEDs(LBS) find themselves taking on other roles such as a relief teacher, social worker, and administrative support (Lim, Wong, & Cohen, 2010). This role confusion prevents AEDs(LBS) from concentrating on their actual job, which is to support teachers in working with students with special needs and/or disabilities.

## SATELLITE PARTNERSHIPS

SPED school students are not given full and equal opportunity to participate in satellite partnerships. This is especially so for students who have behavioural and communication challenges.

*Schools are so pressured to show outcome. Those who are selected tend to be better abled. For those who are less verbal and may have some behavioural challenges like my son, they never get selected. They will not be on stage or the recipients of such partnerships. ”*

**Parent of a child with a disability**

## Transportation barriers

### HIGHCOSTOFTRANSPORTATION

Some students with disabilities have physical impairments which make independent utilisation of public transport problematic for them. Parent availability to transport students is not always possible, particularly where both parents work. And transportation costs, while subsidised by the Government, are still high for lower-income people with disabilities.



# Part III:

## Recommendations

The recommendations listed here are illustrative of possible solutions based on the feedback received at our focus group discussions and surveys. Whether a specific recommendation is feasible or practical depends on a deep understanding of the circumstances, which goes beyond DPA's expertise and also the scope of this research. Nevertheless, these suggestions can provide useful fodder for discussion between education stakeholders.

### Attitudinal change

#### DISABILITY AWARENESS

- MOE could include a Disability Awareness module in the Character and Citizenship Education subject for mainstream schools to raise awareness and understanding of disability.
- Mainstream schools should participate in disability-related events such as the Purple Parade and engage disability organisations to conduct periodic disability awareness talks for the whole school community.
- Mainstream schools could hold events that include teachers, students, parents and disability organisations to encourage positive attitudes towards children with disabilities and publicise their right to education.
- Mainstream schools could organise school trips to VWOs providing direct services to people with disabilities such as the Handicaps Welfare Association and SPD (formerly Society for the Physically Disabled) to provide students, teachers and even parents opportunities to interact with the staff and members at the organisations.

- SPED schools should organise school trips to mainstream schools to provide opportunities for their students to interact with their typically developing peers. Contact is an important element to include within the SPED curriculum for SPED students who would typically have had little or no contact with mainstream society. This is especially so for students who are not recipients of satellite partnerships.

### **OUT OF CLASS SUPPORT**

- Kindergartens and mainstream schools could pair children with and without disabilities as part of a daily buddy system, teaching them how to play and interact with each other. The buddy could also monitor and provide help to his or her peer outside class, if necessary.

## **Information**

### **EXTEND AND RAISE AWARENESS OF GOVERNMENT SCHEMES**

- Most persons with disabilities are either unaware of the various schemes or do not know how to tap into them. MOE, MSF and SG Enable should conduct publicity campaigns to familiarise the public with the schemes.

### **INFORMATION AND SUPPORT FOR PARENTS**

- Mainstream schools should conduct parental educational programmes such as seminars on special needs and/or disabilities to raise general awareness and help parents of this group of students better understand and cope with the realities of their children's disabilities.
- Mainstream schools should provide parent-to-parent support groups, which are divided by disability types and facilitated by specialised personnel such as an AEDs(LBS), school counsellors and TSNs. The groups will provide support or see that appropriate support is available to parents of children with disabilities.
- Mainstream teachers and AEDs(LBS) should hold frequent discussions with parents and families on their child's academic and social/behavioural

progress. This will not only help parents build greater trust and confidence in the teacher's competence and reliability, but also encourage parents to get involved in their child's learning and social and emotional development.

- MOE could provide more information about the disabled-friendly facilities and support services available at all mainstream schools on their website to help parents make the decision about which school to enrol their child into.

## Physical accessibility

### ACCESSIBLE SCHOOL BUILDINGS

- MOE could work with the BCA to upgrade all existing school buildings with essential accessibility features such as disabled-friendly toilets, wheelchair lifts and ramps. MOE could also encourage the management of private schools to make their buildings accessible and to tap into the Accessibility Fund. Making all schools physically accessible will ensure that students with disabilities can enrol and participate in any school community. If MOE is already aiming to make all schools accessible, they could expedite the process and provide more information about the project timeline and its expected completion date.



The Accessibility Fund co-pays up to 80 per cent of the construction cost of basic accessibility features.

For more information, please refer to

<http://www.bca.gov.sg/friendlybuilding/Contents/Contents.aspx?Id=45>



## Systemic solutions

### APPROPRIATE VOCATIONAL TRAINING IN SPED SCHOOLS

- SPED schools should review their existing vocational training and qualifications to ensure that their students are equipped with the skills and knowledge necessary to compete in the open job market today.

### CLARIFY AND DEFINE INCLUSIVE EDUCATION

- MOE should work with MSF to develop a leading, coordinating or national policy about inclusion to guide mainstream and SPED schools in developing their inclusive programmes and practices. This should be done through meaningful consultations with education stakeholders to take into account the pluralism of values and views of inclusive education.

### CLASS SIZE AND DISTRIBUTION OF STUDENTS WITH DISABILITIES

- MOE should have a policy on the allocation or distribution of students who have disabilities in the mainstream classroom. One possible guideline is that a teacher should not have more than one kind of disability in one classroom. Another possible guideline is a reduction in class size when there is more than one student with special needs and/or disabilities in that classroom. A third guideline is the option of asking teachers how they feel about having a student with a disability in their class because how they feel will affect their future success with those students.

### MAINSTREAM CURRICULAR ADAPTATION AND DIFFERENTIATION

- MOE could work with mainstream and SPED schools to develop specialised classes for students who have moderate to severe or multiple disabilities. These classes could be taught by specialist teachers such as AEDs(LBS) or SPED teachers using a modified or adapted curriculum within mainstream schools. For example, a child with moderate intellectual disability could be taught mathematics, science and languages in the specialised classroom that uses a mixture of communication methods, and could then join a regular class for physical education, music, arts, and co-curricular activities.



## REVIEW FUNDING SCHEMES

- MOE and MSF could review the SEN Fund and ATF to ensure that all students with disabilities are able to purchase the assistive technology devices and support services required for their learning needs. MOE and MSF could increase the subsidy cap of the SEN Fund and the means testing of the ATF to cover more persons with disabilities from middle income households. They should also extend the SEN Fund to students doing part-time studies.

## STATISTICS AND DATA COLLECTION

- Mainstream schools and IHLs should establish a database of students with identified or suspected disabilities to improve schoolwide planning. The database could help school administrators better allocate students across all classes to avoid overburdening a teacher with too many students with disabilities in one class.
- MOE should establish a database of children with disabilities to monitor and evaluate their educational progress and identify any barriers which prevent them from progressing to higher education.

## TRAINING AND RETENTION OF AEDS(LBS)

- MOE should provide ongoing professional development for AEDs(LBS), given the breadth and known limitations of their initial preparation. Such programmes can include formal and informal in-service training and continuing learning opportunities such as engaging in discussion groups with teachers, therapists, counsellors and educational psychologists.
- MOE should clarify the roles of AEDs(LBS) in relation to that of mainstream teachers and decide on mentor-mentee relationships. A coaching structure could then be developed to provide opportunities for AEDs to co-teach with mainstream colleagues to build resource capacity. Better integration of AEDs(LBS) into school communities will help facilitate the exchange of professional knowledge between mainstream teachers and AEDs(LBS).
- MOE could reassess the role of an AED(LBS) and deploy AEDs(LBS) as a consulting teacher or resource person on special needs and/or disabilities to share differentiation of content (what students learn), processes (how students learn) and product (how students know what they have learned).

Additional responsibilities and skills will make the job more attractive and increase the retention rate of AEDs(LBS).

- MOE could conduct public education to enhance the image of AEDs(LBS). A professional image is vital in attracting quality staff, as most would want to take up a career where they are being recognised.
- MOE should raise the compensation and benefit packages of AEDs(LBS) to attract and retain talent.
- MOE should provide more career development pathways for AEDs(LBS). Like their mainstream colleagues, AEDs should be allowed to progress to leadership roles in schools and MOE's headquarters.

### **TRAINING AND RETENTION OF SPECIAL EDUCATION TEACHERS**

- SPED schools should develop more career development pathways to attract and retain SPED teachers.
- SPED schools should raise the compensation and benefit packages of SPED teachers. This would be possible if SPED schools come under MOE's purview as their teachers would have access to the same salary scale and benefit packages as their mainstream counterparts.
- MOE should provide ongoing professional development for SPED teachers. Such programmes can include formal in-service training courses and ongoing learning opportunities such as participating in the disability programmes offered by the SSI.
- MSF should conduct public education to enhance the image of SPED teachers. A professional image is vital in attracting quality staff.

### **TRAINING FOR MAINSTREAM TEACHERS**

- MOE and NIE should provide ongoing professional development for existing teachers to help them constantly reflect on their attitudes and practices towards students with disabilities. Again, such professional development can include formal in-service training courses and ongoing learning opportunities such as participating in the disability programmes offered by the Social Service Institute (SSI).

- MOE and NIE should supplement teacher training with disability-specific hands-on experiences to give a stronger sense of reality to the teachers' learning experiences. For instance, MOE could directly involve disability organisations, people with disabilities and parents of children with disabilities in designing and delivering the training. MOE could also feature guest trainers and speakers from diverse stakeholders such as professionals with disabilities and community members in their teacher training.
- MOE and NIE should give teachers 'exposure' to working with children with disabilities in their teacher training. They could have teachers work some voluntary hours with a VWO or other facility/event for children with disabilities. Contact could act to reduce prejudice and increase greater openness towards children with disabilities and inclusion in education.
- MOE and NIE should train all mainstream teachers on inclusive education. It is not just a separate or one-off project for the attention of the AEDs(LBS) and TSNs. Rather, inclusive education is an approach and philosophy that cuts across all aspects of education. Thus it is vital that every teacher, working at any level of the education system, should learn how to make education more inclusive, even if they do not become 'experts' in it.

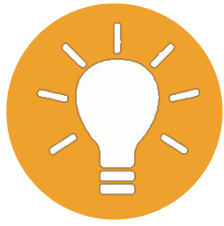


The Social Service Institute (SSI) is a social service hub for training, practice, resource and career services for the sector. It offers a variety of programmes useful for teachers such as *Working with Children with Special Needs: Overview of Intellectual Disability, Multiple Disabilities and Developmental Delay*. For more information on the SSI, please visit <http://www.socialserviceinstitute.sg/>.

## Transportation solutions

### REVISE TRANSPORT SCHEMES

- MSF could revise the Taxi Subsidy Scheme and VWO Transport Subsidies to make transport more affordable for those who require specialised transport or taxis to get to school. One possible way is to increase the amount of subsidy or the means-testing to cover more persons with disabilities from lower-middle income households.



## Part IV: Inclusive Education

Since Singapore's ratification of the UN CRC and CRPD, the topic of inclusion has been placed at the forefront of Singapore's educational agenda. Yet there has been no deeper discussion surrounding the educational philosophy and approach. When 'inclusion' is ill-defined, it is impossible to design and evaluate the extent that an education programme or policy is adequately inclusive. To this end, this section offers a working definition of 'inclusion education' and dispels several myths associated with the educational approach. It is not meant as an authoritative opinion on how inclusion should be practised in Singapore.

### What is inclusive education?

Inclusive education is based on the premise that all individuals with disabilities have a right to education, without discrimination or exclusion. It is an educational approach and philosophy that looks into how education systems can be modified or improved to respond to the diversity of learners.

*Inclusive education is an ongoing process aimed at offering quality education for all while respecting diversity and the different needs and abilities, characteristics and learning expectations of the students and communities, eliminating all forms of discrimination. ”*

**Conclusions and Recommendations of the 48th Session of the International Conference on Education, Geneva, November 2008.**

Ideally, inclusion allows children with and without disabilities to learn and play together at the same regular classes at mainstream schools with additional, individually tailored support as needed.

It requires physical accommodation (i.e. ramps to entrances, lifts instead of stairs, and disabled-friendly toilets), as well as a child-centered curriculum and pedagogy that respond to the individual student's capabilities and place his or her needs at the core. It also requires active consultation with families and communities who have the intimate knowledge and expertise regarding the needs and abilities of persons with disabilities.

The diagram below outlines the components required to achieve an inclusive education system.



It may seem daunting to implement inclusion in schools, but the process should be seen as a journey that can be tailored to meet local needs and demand. Some may want to progressively implement inclusive practices, while others may choose to adopt school-wide reform. Regardless of how it is done, inclusion will open up more opportunities for students with disabilities to participate in the learning process on an equal basis with others.

## Five myths about inclusive education

The lack of clarity about inclusive education has given rise to misconceptions. It is the responsibility of policymakers, teachers, school professionals and other education stakeholders to recognise the myths as they may become barriers to the widespread implementation of inclusive education.

### **1. Inclusion has a negative impact on students without disabilities.**

Many research studies have shown that the academic performance of students without disabilities is not affected by the presence of students with disabilities in the classroom. In fact, the achievement of all students improved when schools adopt an inclusive approach to education (Theoharis & Causton-Theoharis, 2010). Moreover, the presence of students with disabilities in mainstream classrooms could provide learning opportunities and experiences that might not otherwise be part of mainstream curriculum, especially relating to appreciation for diversity and equity.

### **2. Some students with disabilities are too disruptive to be included in mainstream classrooms.**

When students with disabilities are being disruptive in classes, it is possible that they are not receiving adequate support and accommodation. Some students with disabilities may have difficulty communicating with their peers and teachers, and thus require assistive technology as a means of expressing their needs. Other students may face sensory processing difficulties in a noisy classroom and school, and need assistance managing the sensory input. Teachers should always attempt to communicate with the student and his or her family members to understand the reasons behind his or her behaviour.

### **3. Students with moderate disabilities who cannot keep up with the pace or difficulty of mainstream curriculum should not study in mainstream schools.**

Students with disabilities do not need to meet the same academic standards as their peers without disabilities in order to be successfully educated in a mainstream classroom. But they should be held to high academic standards. To that end, students with moderate to more severe disabilities might need a modified curriculum that is reduced in depth, breadth, and complexity. The modified curricula could be taught at specialised classes by specialised teachers within mainstream schools. In this way, students with disabilities can still benefit from access to mainstream education curriculum, but at a different pace and in a manner that best suits their learning style.

### **4. Segregating students with disabilities has been effective.**

SPED schools have the expertise to accommodate a wide range of disabilities and may be the right option for those with more severe or multiple disabilities. However, the outcomes of systematic, segregated special education are unacceptable: social alienation from mainstream society, limited higher education and employment prospects, and diminished quality of life. Given that the open job market today requires formal certification, persons with disabilities should receive mainstream education and obtain educational degrees and certificates equally with others in order to complete and be part of the workforce.

### **5. Inclusive education means “one size fits all”.**

Including children with disabilities into the mainstream organisation and curriculum of a school does not imply that all children receive the same curriculum at the same pace and in the same way. Quite the contrary, inclusive education is about changing or adapting structures, methodologies and systems to meet the unique needs and abilities of all students.



# Conclusion

Since the early 2000s, Singapore has made significant efforts towards the development of more inclusive processes in the education system. MOE and MSF have worked with VWOs to increase quality support for students with special needs and/or disabilities in both mainstream and SPED schools.

However, these piecemeal initiatives are not good enough. They fail to address the institutionalised barriers impeding change: the lack of clarity of inclusive education; inadequate teacher training; the continued focus on segregated special education; prejudices among teaching professionals; and the lack of sufficient engagement with and respect for the expertise and potential contribution of families of persons with disabilities.

This booklet has provided broad guidance on how policymakers and education service providers can go about removing these barriers. Some are realistically achievable by the following year, while others will require more time for planning and preparation.

Regardless of when or how they are implemented, all proposed solutions will require education stakeholders to work together. The effort to achieve equity in educational opportunity will take time and a sustained commitment from every person involved. This is not only a responsible way to realise Article 24 of the UNCPRD, and an obligation on the part of the Singapore government, but it will also bring long term benefits for all children and the wider society.

# Glossary

- Access:** Suitability of a building or other structure for use by people with disabilities. In a broader sense, access also include making forms and information accessible to people with visual or cognitive disabilities; making alarms and signals accessible to people who are deaf or hard of hearing; and making services such as education and transport accessible to people with disabilities.
- Accessibility:** The degree to which a building or other structure provides access for (mainly physically) disabled people. In Singapore, this is determined primarily by the Building and Construction Authority's Code on Accessibility in the Built Environment.
- Accessible:** In the case of a facility, readily usable by a person with disabilities; in the case of a program or activity, presented or provided in such a way that a person with disability can participate, with or without auxiliary aid(s); in the case of electronic resources, accessible with or without assistive computer technology.
- Autism Spectrum Disorder / ASD:** People with ASD find it difficult to understand and use non-verbal and verbal communication, have difficulty understanding social behaviour, which affects their ability to interact with others, find it difficult to think and behave flexibly, which may be shown in restricted or repetitive activities, and may

experience over- or under-sensitivity to sound, touch, taste, smell, light or colours.

- Assistive technology:** An umbrella term that includes assistive, adaptive and rehabilitative devices for people with disabilities. Assistive technology promotes greater independence by enabling people to perform tasks that they were formerly unable to accomplish, or had great difficulty accomplishing, by providing enhancements to, or changing methods of interacting with, the technology needed to accomplish such tasks.
- Barrier:** Obstacle preventing a person with disability from living independently, working, travelling and/or having access to buildings, services, forms and information.
- Convention on the Rights of Children / CRC:** Singapore signed the CRC on 2<sup>nd</sup> October 1995. Article 23, in particular, affirms that children with disabilities have the right to special care and support, as well as the other rights codified in the CRC.
- Convention on the Rights of Persons with Disabilities / CRPD:** Singapore signed the CRPD on 30<sup>th</sup> November 2012 and ratified it on 18 July 2013. CRPD came into effect for Singapore on 18 August 2013.
- Developmental disability:** General term for a number of conditions involving mental and/or physical disabilities arising before the age of 18 years.
- Disability:** A result of the interaction between persons with impairments and attitudinal and environmental barriers. Persons with disabilities include those who have long-term physical, mental, intellectual or sensory impairments which, when in interaction with

various barriers, may hinder their full and effective participation in society on an equal basis with others.

- Dyslexia:** A specific learning difficulty which mainly affects the development of literacy and language related skills. Areas of difficulty include: working memory, organisation, reading comprehension, handwriting, punctuation, concentration, sequencing words and numbers. Students with dyslexia may also mispronounce common words or reverse letters and sounds in words.
- Hearing impairment:** Refers to individuals who have partial loss of hearing.
- Inclusion:** A philosophy that addresses, first and foremost, the need for cultural transformation. It advocates that any person with a disability should be accommodated freely, openly and without pity, without restrictions or limitations of any kind.
- Inclusive education:** An educational philosophy and approach that advocates the right of persons with disabilities to quality education, without discrimination or exclusion. Inclusive education allows children with and without disabilities to learn and play together at the same regular classes at mainstream schools with additional, individually tailored support as needed.
- Rehabilitation:** Planned process with defined goals, timeframes and means in which professions and/or services cooperate in assisting the efforts of a person to achieve best possible functioning and coping capabilities, thereby promoting independence and participation in society.

<b>Special Educational Needs:</b>	Refers to a child who has a learning difficulty or disability which calls for special educational provision to be made for him or her. A child of compulsory school age or a young person who has a learning difficulty or disability if he or she has a significantly greater difficulty in learning than the majority of others of the same age, or has a disability which prevents or hinders him or her from making use of educational facilities of a kind generally provided for others of the same age in mainstream schools or mainstream post-16 institutions. (UK SEND Code 2014)
<b>Special Education Schools / SPED Schools:</b>	Refers to schools which are specifically organised to make special educational provision for pupils with special educational needs.
<b>Speech delay:</b>	Inability to produce normal or age-appropriate speech - language is developing in the right sequence, but at a slower rate.
<b>Visual impairment:</b>	Fully or partially reduced functioning in one eye's or both eyes' ability to detect and/or process images. Caused by a wide range of biological and environmental factors, loss of vision typically arises in young people from a genetic/biological condition or injury to part/s of the eye.
<b>Vocational education:</b>	An education offered by voluntary welfare organisations to prepare people with disabilities for a specific trade in selected industry areas. It directly develops expertise in techniques related to the jobs.
<b>Voluntary Welfare Organisation / VWO</b>	Provides welfare services and/or services that benefit the community at large and is not profit-making.

# References

## Books

- Calderbank, D. (ed.). (2009). *Towards Inclusive Education for Children with Disabilities: A Guideline*. Thailand: UNESCO Bangkok.
- Foreman, P. & Arthur-Kelly, M. (eds.). (2014). *Inclusion in Action*. South Melbourne: Victoria Cengage Learning Australia.
- Forlin, C. & Ming-Gon, J. L. (eds.). (2008). *Reform, Inclusion and Teacher Education: Towards a new era of special education in the Asia-Pacific Region*. New York: Routledge.
- Rieser, R. (2012). *Implementing Inclusive Education: A Commonwealth Guide to Implementing Article 24 of the UN Convention on the Rights of Persons with Disabilities*. United Kingdom: Commonwealth Secretariat.
- Russo, C. J. (ed.). (2011). *The Legal Rights of Students with Disabilities: International Perspectives*. United Kingdom: Rowman & Littlefield Publishers.

## Press releases

- Ann, S. (2014, November 12). Special Education (SPED) Conference 2014. Retrieved November 25, 2016 from <http://www.moe.gov.sg/media/speeches/2014/11/12/address-by-ms-sim-ann-at-sped-conference-2014.php>
- Chua, A. C. K. (2013, July 11). To retain special educators, cut burnout rate. *Today*. Retrieved May 23, 2016 from <http://www.todayonline.com/voices/retain-special-educators-cut-burnout-rate>
- Lai, L. (2013, November 11). More aid for special schools' training needs. *The Straits Times*. Retrieved May 23, 2016 from

<http://yourhealth.asiaone.com/content/more-aid-special-schools-training-needs>

Lim, T. L. & Lim, W. (2011, December 7). Support for Students with Special Needs. *The Straits Times*. Retrieved May 23, 2016 from [http://www.smu.edu.sg/sites/default/files/smu/news\\_room/smu\\_in\\_the\\_news/2011/sources/TODAY\\_20111207\\_1.pdf](http://www.smu.edu.sg/sites/default/files/smu/news_room/smu_in_the_news/2011/sources/TODAY_20111207_1.pdf)

Ministry of Education. (2008, May 29). MOE Continues to Boost Support for Students with Special Needs in Mainstream Schools. *The Straits Times*. Retrieved May 23, 2016 from <http://www.nas.gov.sg/archivesonline/data/pdfdoc/20080529995.pdf>

Ministry of Education. (2010, March 10). MOE to Provide Greater Support for Special Education. *The Straits Times*. Retrieved December 23, 2015 from <http://www.moe.gov.sg/media/press/2010/03/moe-to-provide-greater-support.php>

Ministry of Education. (2014, November 12). Five Special Education Schools Onboard School-To-Work Transition Programme. *The Straits Times*. Retrieved May 23, 2016 from <http://www.straitstimes.com/singapore/education/five-special-education-schools-start-new-school-to-work-transition-programme>

Ministry of Education. (2015, March 2). All Primary Schools to Benefit from School-Based Dyslexia Remediation Programme in 2016. *The Straits Times*. Retrieved December 23, 2015 from <http://www.moe.gov.sg/media/press/2015/03/all-primary-schools-to-benefit-from-school-based-dyslexia-remediation-programme-in-2016.php>

Ministry of Education. (2014, March 7). Stronger Partnerships to Support Access to Opportunities In Schools. *The Straits Times*. Retrieved December 23, 2015 from <http://www.moe.gov.sg/media/press/2014/03/stronger-partnerships-to-support-access-to-opportunities-in-schools.php>

Ministry of Education. (2010, November 12). New Framework for Vocational Education in Special Education (SPED) Schools. *The Straits Times*.

Retrieved May 23, 2016 from

[http://www.nas.gov.sg/archivesonline/data/pdfdoc/20101119003/press\\_release\\_voc\\_ed.pdf](http://www.nas.gov.sg/archivesonline/data/pdfdoc/20101119003/press_release_voc_ed.pdf)

Ong, A. (2013, October 1). PM Lee pledges more help for Special Education students. *The Straits Times*. Retrieved May 23, 2016 from <http://www.straitstimes.com/singapore/pm-lee-pledges-more-help-for-special-education-students>

Tai, J. (2015, May 18). People with disabilities losing jobs to technology. *The Straits Times*. Retrieved May 23, 2016 from <http://www.straitstimes.com/singapore/people-with-disabilities-losing-jobs-to-technology>

Teng, A. (2013, September 25). MOE workplan: Schools to have teams overseeing students' holistic development. *The Straits Times*. Retrieved May 23, 2016 from <http://www.moe.gov.sg/media/press/2013/09/student-development-teams-enhancing-quality-of-student-experience-in-all-schools.php>

## Websites

Australian Human Rights Commission. (n.d.). *Access to Education for Students with a Disability: Barriers and Difficulties*. Retrieved November 30, 2015 from <https://www.humanrights.gov.au/publications/access-education-students-disability-barriers-and-difficulties>

Building and Construction Authority. (n.d.). *Accessibility Fund*. Retrieved November 23, 2015 from <http://www.bca.gov.sg/friendlybuilding/Contents/Contents.aspx?Id=45>

Ministry of Social and Family Development. (n.d.). *Education*. Retrieved November 30, 2015 from <http://app.msf.gov.sg/Policies/Disabilities-Special-Needs/Enabling-Masterplan-2012-2016/Education>

Ministry of Education. (n.d.). *Edusave for SPED students*. Retrieved May 24, 2016 from <https://www.moe.gov.sg/education/special-education/edusave-for-sped-students>



- Ministry of Education. (n.d.). *Resources to support mainstream students with special needs*. Retrieved May 24, 2016 from <https://www.moe.gov.sg/education/programmes/support-for-children-special-needs>
- Ministry of Education. (n.d.). *SPED Financial Assistance*. Retrieved May 24, 2016 from <https://www.moe.gov.sg/education/special-education/financial-assistance-for-sped-students>
- Ministry of Education. (n.d.). *Teaching in Special Education Schools*. Retrieved May 24, 2016 from <https://www.moe.gov.sg/education/special-education/teaching-in-special-education-schools>
- Ministry of Education. (n.d.) *The SPED Curriculum Framework – Living, Learning and Working in the 21<sup>st</sup> Century*. Retrieved May 24, 2016 from <https://www.moe.gov.sg/education/special-education/sped-curriculum-framework>
- Ministry of Education (n.d.). *Vocational Education*. Retrieved May 24, 2016 from <https://www.moe.gov.sg/education/special-education/vocational-education>
- SG Enable. (n.d.). *Enhanced Pilot for Private Intervention Providers (Enhanced PPIP)*. Retrieved November 30, 2015 from <https://www.sgenable.sg/pages/content.aspx?path=/schemes/intervention-programmes/enhanced-pilot-for-private-intervention-providers/>
- The School Pocket Money Fund. (n.d.). *About Us*. Retrieved November 30, 2015 from <https://www.spmf.org.sg/about>

## Articles

- Beco, G. D. (2014). The Right to Inclusive Education According to Article 24 of the UN Convention on the Rights of Persons with Disabilities: Background, Requirements and (Remaining) Questions. *Netherlands Quarterly of Human Rights*, Volume 32/3, 263-287. Retrieved November 27, 2015 from [http://www.included.eu/sites/default/files/documents/de\\_beco\\_nqhr\\_32.3.pdf](http://www.included.eu/sites/default/files/documents/de_beco_nqhr_32.3.pdf)

- Cologon, K. (2013). *Inclusion in Education: Towards Equality for Students with Disability*. Retrieved November 27, 2015 from [http://www.cda.org.au/literature\\_159457/Inclusion in Education - 2013 PDF](http://www.cda.org.au/literature_159457/Inclusion_in_Education_-_2013_PDF)
- Kaplan, I. & Lewis, I. (2013). *Promoting Inclusive Teacher Education: Introduction*. Thailand: UNESCO Bangkok.
- Kaplan, I. & Lewis, I. (2013). *Promoting Inclusive Teacher Education: Methodology*. Thailand: UNESCO Bangkok.
- Thaver, T., Lim, L., & Liao, A. (2014). Teacher variables as predictors of Singaporean pre-service teachers' attitudes toward inclusive education. *European Journal of Research on Social Studies, Volume 1, Issue 1, pp. 1-8*. Retrieved November 27, 2015 from <http://www.included.edu/sites/default/files/documents/e010101.pdf>
- Lewis, I., & Bagree, S. (2013). *Teachers for All: Inclusive Teaching for All Children with Disabilities*. Retrieved November 27, 2015 from [http://www.sightsavers.org/wp-content/uploads/2015/09/IDDC\\_Paper\\_Teachers\\_for\\_all.pdf](http://www.sightsavers.org/wp-content/uploads/2015/09/IDDC_Paper_Teachers_for_all.pdf)
- Lim, S. M., Wong, M. E., & Cohen, L. (2011). *Exploring the Emerging Identities of Special Needs Officers in Singapore Primary and Secondary Schools*. Retrieved February 1, 2016 from [https://repository.nie.edu.sg/bitstream/10497/4531/1/NIE\\_research\\_brief\\_11-003.pdf](https://repository.nie.edu.sg/bitstream/10497/4531/1/NIE_research_brief_11-003.pdf)
- United Nations Children's Fund. (2011). *The Right of Children with Disabilities to Education: A Rights-Based Approach to Inclusive Education in the CEECIS Region*. Retrieved November 27, 2015 from [http://www.unicef.org/ceecis/IEPositionPaper\\_ENGLISH.pdf](http://www.unicef.org/ceecis/IEPositionPaper_ENGLISH.pdf)
- Yeo, L. S., Neihart, M., Chong, W. H., & Huan, V. (2010). *Inclusive Education in Singapore Primary School Classrooms*. Retrieved November 27, 2015 from [https://www.nie.edu.sg/files/NIE\\_research\\_brief\\_13-009.pdf](https://www.nie.edu.sg/files/NIE_research_brief_13-009.pdf)



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