

Disability support for students with special educational needs at institutes of higher learning in Singapore: A historical perspective to developments in education policy

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Quality education and lifelong learning is highly valued in Singapore. With improved disability support for learners with special educational needs and disabilities, increasing numbers complete their secondary schooling and wish to continue into post-secondary education. Countries such as Australia, the United Kingdom (UK) and the United States of America (USA) have a more extended history of legislation to protect the rights of people with disabilities, inclusive education at tertiary level and a more extensive research base. In contrast, limited research has been conducted in this field in Singapore. This article explores the historical background to education policy, and the interpretation of these policies for the education and support of learners with disabilities at publicly funded universities in Singapore. Data collection comprised historical and current local policy documents, parliamentary records collected from Hansard, and information collated from university websites. Criterion sampling methods were used to collect documents to focus on shifts in education policy over time. Gateway webpages relevant to disability support offered to students were gathered from university websites in Singapore to gain an understanding of the interpretation of education policy. Findings reveal the Singapore government's historical reluctance to be directly involved in the provision of educational assistance for people with disabilities. Whilst there have been changes over the last two decades and disability support is gradually improving, information on university websites remains inconsistent, meagre and could even be considered invisible. University websites need to provide more in-depth information to encompass a range of special educational needs and disabilities. There is also a need to collect data to ensure policy and support are appropriate to student needs.

Keywords: special educational needs and disabilities; disability support; institutes of higher learning; education policy; historical perspective

Introduction

One of the central tenets of the Convention on the Rights of Persons with Disabilities (CRPD) highlights education for people living with disabilities as a human right (United Nations,

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2006b). This supposition is based on evidence that people with disabilities are more likely to live in poverty due to difficulties accessing health care, education and employment (World Health Organization & The World Bank, 2011). Most countries globally have signed and ratified the CRPD; Singapore adopting it in 2013 (Disabled People's Association Singapore, 2015). Since then, Singapore has committed to promoting and supporting inclusive education and providing disability support at publicly funded institutes of higher learning (IHL) (Republic of Singapore, 2014a).

Since Singapore's independence in 1965, the education system has transitioned from efficiency towards an ability-driven system; from quantity to quality (OECD, 2011). In the late 70s, secondary education was streamed so that those who failed the Primary School Leaving Examination were funneled into vocational institutes, which gained a negative image as being a "dumping ground" (Goh & Gopinathan, 2008:32). Two decades later, Prime Minister Goh's speech, *Shaping our Future: Thinking Schools, Learning Nation*, paved the way for developing a knowledge-based economy and lifelong learning. To maximise the development and harnessing of talents and abilities, enhancements included the use of technology, increasing resources and funding, and offering a more comprehensive range and flexibility of educational pathways (Lee et al., 2008).

As the Singapore Government has steadily placed greater importance on post-secondary education and lifelong learning, there are now six autonomous universities, meaning they receive funding from the Singaporean government but have the flexibility to develop independently. Varying in age, size and specialist focus, over 65,000 students were enrolled across the six institutions in 2017 (Ministry of Education Singapore, 2017).

The two oldest universities, also have the greatest number of enrolments. They offer a wide range of subjects with a research focus. Sharing many similarities, they both have large undulating campuses and are rated in the top 100 universities globally (THE Rankings, 2019). There are two specialised universities. One is focused on management subjects using a broad-based American modular style of tertiary education. The other smaller institution specialises in design and technology. The final two are described as universities of applied learning, offering industry and practice-based courses. One has satellite campuses attached to each of the five polytechnics, providing pre-university courses, spread across the island. The other, promoting lifelong learning, is the only university of the six to offer part-time bachelor degree courses, resulting in a demographic of more mature students (Ministry of Education Singapore, 2017).

Compared to many countries in the West, the provision and support for students with special educational needs and disabilities (SEND) who wish to continue post-secondary education in Singapore, has occurred only recently over the last two decades. This article aims to present a historical perspective of educational policy with a focus on post-secondary education of students with SEND in Singapore with an analysis of how autonomous universities have interpreted these policies.

Materials and Methods

To understand the historical context, global and local policy documents were selected via the internet (Bowen, 2009), allowing for a longitudinal perspective (Bailey, 1994). Criterion sampling of documents was based on the selection of global and local public policy documents that addressed educational provision for learners at IHL with varying educational needs. Four primary sources were used for analysis: Education Acts, parliamentary debates, three Enabling Masterplans and gateway webpages providing information about disability support services offered to students with SEND at autonomous universities in Singapore.

In the first place, the CRPD and reports produced by organisations such as the UN and WHO were sought. Much of the educational policy developed in Singapore regarding students with SEND continuing their education at tertiary level, stems from the CRPD (Ministry of Social and Family Development Singapore, 2016c).

At a local level, three sources of government documents were chosen. The first source was Education Acts. The second source was the use of Hansard. Dating from 1955, verbatim transcripts of government debates are available to the public via the parliamentary website (Parliament of Singapore, n.d.). Analysing parliamentary debates at the time of educational reform helped to gain a greater understanding of the reform process. Keywords used for searches were collected as themes became evident during the reading of debates. Some words were chosen due to historical usage, whilst others were terms particular to Singapore. The list of search words included: cripple, incapacitated, handicapped, disabled, Education Act, compulsory education, special education, tertiary, institutes of higher learning, special needs education, many helping hands, disability AND post-secondary, Convention on the Rights of Persons with Disabilities, Enabling Masterplan, university sector review. The third governmental source analysed was the three Enabling Masterplans, a series of five-year plans, which have been compiled by successive steering committees and aim to make recommendations to improve the lives of and provisions for people living with disabilities in Singapore. Proposals for disability support at IHL was the focus.

The second type of document selected were promotional materials aimed at students with SEND. Universities in Singapore provide public information through their websites as part of the recruitment process to reassure these students of the institution's support. The collection of these types of documents provided the opportunity to analyse the interpretation of public policy, as well as the impression the university presented.

Data analysis was based on modified grounded theory methods. Since documents were taken from a specific time period, they were analysed for comparisons of changes over time in the evolution of debate and policy concerning education and disability. Table 1 is a sample of collated data resulting from searches conducted of parliamentary debates using a range of keywords.

Table 1. *Sample of collated data from parliamentary debates*

Debate Title	Volume (Sitting)	Date	Memo	Quote
Debate on The Governor's Address	1 (3)	27 Apr 1955	Labour Front propose compulsory schooling. Discussion – compulsory education is not needed.	The Chief Minister: Then we have these quibbles. Why have we left out the word “compulsory” from “compulsory education”? Is it the same thing as education for all? Sir, we need no compulsory education today. Our youth are thirsting for education. We need to give them the opportunity to slake that thirst, and our duty is to provide, and we shall seek to fulfil that duty to provide, the opportunities for education.
Committee of Supply – Head K (Ministry of Education)	88 (22)	8 Mar 2012	Request again to provide systematic support for students with SEN	Sir, it is time for MOE's post-Secondary institutions, such as the Universities, Polytechnics and ITEs, to catch up with their more progressive peers in the world to grant more systemic and structured provisions for students with special needs. As a global education player, it is time for Singapore post-Secondary institutions to catch up with their peers. The numbers may be small but how we treat and support them is watched by the rest.
Head K – Ministry of Education (Committee of Supply)	89 (10)	7 Mar 2014	Increase in bursaries and higher thresholds. Nos SS continuing education 96%. Announceme	Starting this year, therefore, each publicly-funded university, polytechnic, ITE college and the arts institutions – in other words, NAFA and LASALLE – will set up a Disability Support Office on campus to provide one-stop support for students with special education needs. They will also set up a disability support website

Debate Title	Volume (Sitting)	Date	Memo	Quote
			nt of DSOs and funding.	to provide information on the special needs support available in their institutions.

Examining the historical background to disability support at IHL in Singapore helps to contextualise attitudes and developments. Due to the recency of proposed support for students with SEND at IHL, there has been little exploration of how policy has been interpreted by the publicly funded universities.

Findings

The historical overview explored the influence of the British Government in shaping education, whilst Singapore was still a British Colony. After its gradual independence from the British in 1963 and then breaking away from the alliance created with Malaysia, Singapore became fully independent and joined the Commonwealth in 1965, (Commonwealth Secretariat, 2020). The following 50 years have been described as ‘nation-building’ using ‘tough love’ to keep ‘state welfare low and targeted, stringent’ by placing responsibility not only on the State but also on the individual and community (Lee, 2013:5).

As a result of the Compulsory Education Act 2000 and increased government funding for learners with SEND supported through mainstream and special education (SPED) schools, many more are attaining entry requirements for university studies. Table 2 provides a timeline of key events since the Compulsory Education Act 2000, which built on facilities, resources and support staff, known as allied educators, introduced into mainstream schools to support ‘those with mild disabilities and those who are able to cope with mainstream education’ (Republic of Singapore, 2000c:115).

Table 2. *Timeline of key events relevant to support provided to learners with SEND at IHL*

2000	2003	2005	2007-2011	2012-2016	2013	2014	2017-2021
Compulsory Education Act	Facilities & resources provided in	Allied Educators introduced into schools	1st Enabling Masterplan	2nd Enabling Masterplan	CRPD Ratified	Disability Support at IHL	3rd Enabling Masterplan

2000	2003	2005	2007- 2011	2012- 2016	2013	2014	2017- 2021
schools							

The Enabling Masterplans, inspired by Prime Minister, Mr Lee Hsien Loong’s vision for an inclusive society (2004), suggest areas for improvement. Other countries, such as Australia, the UK and the USA, have legislation and standards to ensure the accessibility of education at tertiary level. However, Singapore has chosen not to rely on legislation, preferring to foster a philosophy of ‘many helping hands’ (Republic of Singapore, 1991:11) by working alongside Social Service Agencies (SSA) formerly known as voluntary welfare organisations (VWO).

Each Masterplan acts as a road map, providing frameworks, strategies and recommendations for effectively supporting people with disabilities of Singapore. With each successive masterplan building on the preceding one, many of the recommendations have been enacted by the Singaporean Government, who in the same period signed and ratified the CRPD.

Developments in support for learners with SEND at IHL in Singapore, contextualise current policies and practices. Continued lobbying in parliament, ratification of the CRPD and the Enabling Masterplans pushed the government to commit to providing support for students with SEND continuing education at IHL. This has taken the form of the establishment of Disability Support Offices (DSO), the provision of information on websites and financial assistance known at the SEN Fund.

Historical Background: British Legacy and Birth of a Nation

When Parliamentary debates became available to the public in 1955 (Parliament of Singapore, n.d.), Singapore was still a British colony but was gradually gaining elements of independence when it became partially internally self-governing and held the first election of the Legislative Assembly (Commonwealth Secretariat, 2020). The UK had set up the Welfare State after World War II as part of a programme of anti-poverty measures and introduced the provision of state-subsidised health services, housing and education up to tertiary level (Encyclopaedia Britannica, 1998).

These principles are evident in one of the first parliamentary addresses sent by the Right Honourable Alan Lennox-Boyd to be read by the Governor (Singapore, 1955b:6) where ideas for support were based on medical models of disability (Heery & Noon, 2017). This instilled the idea that these groups needed to be removed from society and looked after so that ‘the Government will also care for those who are handicapped in mind, body or character. Plans are in hand for accommodation of mentally deficient children’ (Singapore, 1956:12).

Simultaneously, modelling itself on the British Labour Party, the Labour Front (Chia, 2010)

proposed free compulsory primary education. However, this was deemed unnecessary during parliamentary discussions, arguing that there needed to be enough schools for all school-aged children (Singapore, 1955a:24). Nevertheless, the Education Act of 1957 saw the gradual formalisation of education, placing emphasis on registration of schools, teachers, annual inspections and collection of fees (Singapore, 1957a).

Once Singapore gained independence in 1965, access to education became a focal point for the Government. The aim was to improve the quality of education at all levels, expand facilities at secondary and post-secondary institutes, and diversify the development of education, recognising the need to establish national unity and tolerance within a multi-racial society (Republic of Singapore, 1965). By 1968, Prime Minister Mr Lee announced:

Of the total number admitted to Primary I every year, over 50 per cent go on to complete four years of academic or technical secondary education, over 10 per cent reach University entrance standards; over 5 per cent of the best go on to University and other tertiary institutions. (Republic of Singapore, 1968:13)

During the early years of the Republic, educational provision for the people with physical disabilities concentrated on vocational training and employability, delivered, in the main, by voluntary organisations. In his address, Minister of Social Affairs, Inche Othman Bin Wok, acknowledged that training centres and workshops were still in the developmental stage and that the Ministry was unable to assess whether there were sufficient facilities since reliable statistics were unavailable as to the number of people who needed such training. However, he stated that ‘The voluntary organisations are doing a good job in this field’ (Republic of Singapore, 1971:7), implying that direct Government intervention was not needed. Instead, in his address on the *Education for the Handicapped*, President Dr Benjamin Henry Sheares proposed:

To set up a Special Education Unit to co-ordinate the efforts of the Government and voluntary organisations in vocational rehabilitation for various handicapped groups.

This Unit will help them adjust as much as is possible in their social and economic lives, and to enable them to lead useful lives. (Republic of Singapore, 1972a:26)

The rhetoric at this time centred on a medical model of rehabilitation, and that policy expected everyone to contribute to society. This fit the premise that Singapore could not afford to establish a welfare state, describing it as a ‘syndrome’, fearing that such a move would lead to abuse of the system (Republic of Singapore, 1972c:36). Endorsing the President’s statement, Parliamentary Secretary to the Minister for Social Affairs, Mr Chan Chee Seng, claimed:

The Government’s intention is to assist everyone to achieve the fullest degree of social and economic adjustments and usefulness of which he is capable. It is for this reason that an all-out effort has been made by the Social Welfare Department to assist the

handicapped, the destitutes and other needy persons, to obtain gainful employment so that they need not continue to depend on public assistance. (Republic of Singapore, 1972c:37)

Even though the Government promoted the notion that everyone should be useful to society and self-supporting, they remained reluctant to be directly involved in the education of children with disabilities. By the 1990s, the expression ‘many helping hands’ began to appear based on the premise that the Government would work with SSA to help Singaporeans that needed special assistance (Republic of Singapore, 1991). A decade and a half later, this view was being challenged as an outdated mindset and degenerating ‘to a ‘many-bosses-to-report-to’ syndrome’ (Republic of Singapore, 2006b, 2009:36).

Compulsory Education Act 2000

First suggested in 1955, the topic of compulsory education continued to be raised over the years in parliamentary debates (Republic of Singapore, 1982b, 1982a, 1990a, 1990b, 1993c, 1993a, 1993b, 1994, 1999c, 1999b). Its introduction was proposed at different times to tackle issues of early leavers, truancy, opportunities for education and access for low-income families. The counter-arguments specified that Singaporean families had a strong desire for education, claiming that compulsory education would not resolve these problems, preferring instead to find alternative solutions. For example, to tackle the issue of 15,000 premature leavers in the 1980s, the Government offered vocational training options (Republic of Singapore, 1982a) using automatic registration for those who did not follow academic streams (Republic of Singapore, 1982b). In 1993, the Government argued that dropout rates were low compared to other countries and did not warrant implementing compulsory education (Republic of Singapore, 1993a), citing:

The experience in many developed countries which have compulsory education is that, despite all their best effort and all their enforcement and having big teams of truant officers going round to try and catch these people, the drop-out rate is very high. (Republic of Singapore, 1993b:48)

When the issue of compulsory education was raised again in 1999, Minister for Education, RAdm Teo Chee Hean, proffered two main reasons why the Ministry had decided against implementation. The first emphasised the importance of balancing parental and state responsibility. The second centred on the issue of enforcement and wishing to avoid a judicial approach to non-attendance, preferring to contact and counsel parents (Republic of Singapore, 1999a).

Within two months of the last parliamentary request to consider compulsory education, the Government made a U-turn, reasoning that they would explore feasibility when Prime Minister Mr Goh Chok Tong expressed alarm in his speech on *Developing each and every*

Singaporean:

Every Singaporean matters... We have cut down our school dropout rate. So it shocked me to learn that each year some 1,500 children, or 3% of a cohort, are not even registered for Primary One in national schools. The Ministry of Education has argued against compulsory education because the number of non-registration is considered small. But every Singaporean matters. And every Singaporean child should be given the same head start in life, i.e. to attend school. I favour compulsory education. (Republic of Singapore, 1999b:68)

During initial debates concerning the Act, it was suggested that the greatest beneficiaries would be children with disabilities who were non-attenders for a variety of reasons. It was argued that introducing compulsory education would require the Government to provide sufficient resources and support for parents. Mr Loh Meng See, MP, questioned whether Singapore was 'ready to deploy proportionately more resources to equip these children to cope with independent living' (Republic of Singapore, 2000a:38), sowing the seed for exempting children with disabilities from the Act.

During the second reading of the Compulsory Education Bill, various MPs put forward arguments to justify the inclusion of children with disabilities under the Compulsory Education Act based on principles of non-discrimination and non-segregation. Senior Minister of State for Education, Dr Aline K. Wong, explained that through the joint effort with the National Council of Social Service and VWO, funding for SPED schools was four times that of mainstream schools. Additionally, Ministry of Education funded 90% of each of the new purpose-built SPED schools, as well as seconding teachers and principals to these schools when requested. She argued, therefore, that SPED schools should be 'outside the ambit of the Compulsory Education framework' not wishing to prescribe 'penalties for parents who fail to comply' (Republic of Singapore, 2000c:115).

The Compulsory Education Act, which came into force in 2003, encompasses six years of education in national primary schools (Republic of Singapore, 2000b). The Compulsory Education (Exemption) Order of 2002 exempted 'any child who is unable to attend any national primary school due to any physical or intellectual disability' (Republic of Singapore, 2002:1). Although learners with more severe needs were exempted from the Act, the Government reiterated that there would be an extension of provisions in mainstream school for those with 'mild disabilities' (Republic of Singapore, 2000c:115). This support included increased training pathways for teachers, the introduction of allied educators, and improved detection and assessment of learning differences (Republic of Singapore, 2014a:83). Even so, calls continued to be made for learners with disabilities to be included under the Act (Republic of Singapore, 2001, 2003a, 2010b, 2011a).

Enabling masterplans

As of 2020, Singapore was working towards its 4th Enabling Masterplan, each making recommendations to be implemented over a five-year span. Work on the first plan began in September 2006 when a steering committee was appointed (Republic of Singapore, 2007b). The committee used a life stage approach reviewing available services and support from birth to adulthood. Recommendations were formulated considering the outcomes of consultations held with different stakeholders, including people with disabilities, families, professionals, practitioners and employers. Following principles of the many helping hands approach, the suggestions covered six main areas of focus and included proposals for integrating education (Ministry of Social and Family Development Singapore, 2007).

In terms of support for students at IHL, it was acknowledged that it varied between the institutions and was limited to accommodations for physical and sensory disabilities, implying conditions such as learning disabilities were neglected. Consultations with professionals revealed a need for planned professional support for students who needed it (Ministry of Social and Family Development Singapore, 2007). Ms Denise Phua Lay Peng, MP, first suggested in 2010, ‘that every secondary school and tertiary institutions such as the ITE, Polytechnics and Universities, be staffed with a minimum of one Allied Educator or Psychologist to support those students with special needs’ (Republic of Singapore, 2010a:68). Even though the Enabling Masterplan had noted otherwise, Senior Minister of State for Education, Mr S Iswaran, responded, ‘I would like to re-emphasise the point that, currently, our post-secondary education institutions, whether it is ITE, polytechnics or universities, leverage extensively on their internal resources to try and accommodate the needs of special-needs students’ (Republic of Singapore, 2010b:14), inferring that enough was being done to support students with SEND at IHL.

However, the Government did manage to implement many of the initiatives, from the first Enabling Plan 2007-2011. For example, prior to 2009, students studying at SPED schools could not graduate with vocational or academic qualifications (Ministry of Social and Family Development Singapore, 2012), meaning they were unable gain entry to university. This change demonstrates the gradual shift in mindset to recognise the potential of students with SEND to achieve academically and unlock opportunities to continue education.

Continuing the life course approach, the second Enabling Masterplan 2012-2016 was more ambitious, placing greater emphasis on lifelong learning and employment. The introduction included the statement, ‘Education has long been regarded as the cornerstone for individuals to be independent, self-supporting and contributing members of society’ (Ministry of Social and Family Development Singapore, 2012:iii). The plan raised concerns about the lack of transition planning from school to IHL. Information was not readily available to parents, whilst feedback from stakeholders stressed that students with SEND at IHL were facing challenges accessing integrated support services (Ministry of Social and Family Development Singapore,

2012).

The steering committee advised for the first time that the Ministry of Education should provide and fund structured education support in all IHL. An additional focus was on assistive technology, based on findings that such technology was underutilised due to a lack of awareness and coordination of resources at a national level, alongside a shortage of specialists in the field. As a result, the steering committee recommended the existing Assistive Technology Fund be enhanced twofold: increase the number of subsidies that people with disabilities could apply for as well as widen the scope to all people with disabilities (Ministry of Social and Family Development Singapore, 2012), as opposed to including only those with physical and sensory impairments.

There was a notable shift in the 3rd Enabling Masterplan 2017-2021. For the first time, the steering committee was more diverse to include ‘persons with disabilities, caregivers, leaders and professionals in the disability field, SSA and government agencies’ (Ministry of Social and Family Development Singapore, 2016a:2). This may account for the proposition to view disability as a spectrum, especially with the noted trends of an ageing population, improved life expectancy of people living with disabilities, and increasing numbers of children assessed on the autistic spectrum.

With a greater emphasis on employment pathways, the 3rd Enabling Masterplan recommended that a more coordinated approach was needed for students with SEND as they transition from school to IHL and work. Suggestions included the use of peer support and vocational preparation programmes (Ministry of Social and Family Development Singapore, 2016a), placing an expectation on IHL to be proactive in sourcing and supporting students in their internships.

Ratification of the Convention on the Rights of Persons with Disabilities

The CRPD was first mentioned in parliament in 2011 when Non-Constituency Member, Ms Sylvia Lim, raised several criticisms. She referred to a government report submitted to the United Nations in which it was stated that Singapore was exploring the provisions of the Convention. In her address to parliament, she argued that Singapore fell short of international benchmarks. She focused on Article 7, regarding children and disabilities and, in particular, Article 24 in which it states, ‘Persons with disabilities are not excluded from the general education system on the basis of disability’ (United Nations, 2006b:17). She reasoned that since children with physical and intellectual disabilities were exempt from the Compulsory Education Act, it would be considered discrimination since they do not experience the same legal rights to education as other Singaporeans. Specifically, she drew attention to the fact that parents of children with special needs carry a heavier financial burden since SPED school fees are means-tested. In defence, Minister of Finance, Mr Tharman Shanmugaratnam, outlined that Singapore was doing more than many countries who had already signed the CRPD in the

region, referring back to the Enabling Masterplans ‘that addresses the needs of the disabled comprehensively, not just the hardware aspects, barrier-free accessibility, but also the software—education, employment opportunities, the whole spectrum of issues that we want to address satisfactorily’ (Republic of Singapore, 2011a:20).

The Government announced that they would sign the CRPD in 2012 (Republic of Singapore, 2012c), but not the Optional Protocol (Republic of Singapore, 2012b). The Optional Protocol provides a reporting and complaints mechanism for violations of rights under the CRPD, which are investigated by the Committee on the Rights of Persons with Disabilities (United Nations, 2006a). The Government rationalised that enough local platforms existed to raise complaints and that the recently formed Enabling Masterplan Implementation Committee would work to meet the obligations of the Convention.

Provision of Disability Support at Institutes of Higher Learning

During its infancy, it was recognised that the independent nation needed to develop its human assets, since it lacks natural resources. Education, therefore, has always been at the forefront in terms of developing human capital (Lee, Hung & Teh, 2016). By the 1970s, secondary education was being restructured to provide more technical and vocational options to meet increasing demand in the employment sector. As a result, this emphasis was expanded to post-secondary options (Republic of Singapore, 1972b, 1975). From the 1980s, economic growth was linked to quality education (Republic of Singapore, 1981:23).

By the end of the decade, plans were afoot to increase the research capacity of the only existing university and to convert the technical institute to a full university with the possibility of opening a third university (Republic of Singapore, 1989). As tertiary education continued to expand, the aim was for 40% of school leavers to qualify for a polytechnic or university place (Republic of Singapore, 1991). Over a ten-year period, the number of university places doubled in the hope that 20% of each cohort would gain a university education (Republic of Singapore, 1995).

Gradually, parliamentary discussions began to emerge about the numbers of students with disabilities reaching IHL. For example, it was revealed that the number of learners with hearing impairments at university had more than doubled over the two-year period between 1996 to 1998 (Republic of Singapore, 1999c). Concurrently, the University Sector Review of 2002 aimed to open up opportunities. It explored whether improved standards of diploma qualifications by polytechnic students could allow more of these students to continue to university. It was envisioned that ‘the proportion of polytechnic graduates admitted into our universities will increase three-fold after the restructuring of the university sector’ (Republic of Singapore, 2003b:132). This potentially opened pathways for students with SEND to continue their education as tertiary education was starting to be seen as a necessity (Republic of Singapore, 2004).

The Singapore Government continued to increase support for learners with SEND, promoting the idea of ‘levelling up through education’ with promises to improve training and resources to allow more children with mild to moderate SEND to be integrated into mainstream schools (Republic of Singapore, 2006a:21). The combination of increased resources and educational pathways meant that more learners with SEND were reaching university. The Enabling Masterplans and continued lobbying by Ms Phua, MP, called for more systematic, consistent support for students with SEND at IHL (Republic of Singapore, 2010a, 2011b, 2012a, 2013).

In March 2014, the Minister of State for Education, Ms Sim, explained that students and stakeholders had been consulted to create an ‘overarching vision for students with special needs in our IHLs’, announcing that two initiatives would start the following academic year (Republic of Singapore, 2014a:113). The first would be the introduction of one-stop offices for disability support on the campuses of institutes of technical education, polytechnics, arts institutions and publicly funded universities, providing pre-admission assistance to ensure a smooth transition through to graduation. The second initiative was that each IHL would create a website with information about the type of support available.

Alongside these developments, it was also announced that a government-sponsored SEN Fund would be made available at ITE and polytechnics for students with physical and sensory impairments to help with the cost of assistive technology devices and support services such as interpreters and note-takers. The autonomous universities had agreed to provide the same. When questioned why other disabilities would not benefit from such a fund, Minister of State for Education, Ms Sim, claimed that these students were already directly supported by IHL (Republic of Singapore, 2014b).

The following year, Ms Sim gave an update on support provided. Each ITE, polytechnic and autonomous university had set up a DSO that also administered the SEN Fund. As these structures were new, the IHL were meeting every three months to share good practice. Each IHL was conducting training and awareness-raising sessions for academic and administrative staff on effective ways to support students with varying challenges (Republic of Singapore, 2015b). However, Ms Phua, MP, highlighted experiences of student support across the IHL was inconsistent (Republic of Singapore, 2016), findings corroborated by qualitative interviews conducted with disability support officers. The researchers concluded that across the IHL, there was:

Considerable ambiguity and heterogeneity in defining and implementing DSOs and disability support services across the IHLs. Variations in the organisational structures, support services, facilities and programmes are present. The findings highlighted the absence of a formal and professional training pathway for the role of Disability Support Officer, which is essential for the provision of quality disability support services in IHLs. (Yap, 2019:53)

In early 2020, it was announced that the SEN Fund for ITE and polytechnic students would have an extended scope. During their studies, a student may use up to SG\$70,000 for sensory disabilities and SG\$5,000 for physical disabilities and learning, social and behavioural differences such as dyslexia, attention deficit disorder and autistic spectrum disorder. The justification given for the difference in funding was that assistive technology and support costs for students with sensory impairments are considerably higher (Republic of Singapore, 2020).

Gateway webpages

Since web searches are often the catalyst for exploring tertiary options, gateway webpages were analysed in this study to verify whether government assurances of creating a one-stop-shop for disability support and offering financial assistance through the SEN Fund were translated into the information made available on each institution's website. Webpage searches were conducted on 28 May 2020, providing a snapshot in time of information provided. The webpages included in the analysis were those in connection to disability support and student wellbeing, such as counselling services and peer support groups. In analysing the data, the following were explored:

- Ease of finding information based on word searches and navigation, although accessibility tools were not used.
- Tone of voice and language used in the messaging
- Images displayed
- Academic support offered
- Non-academic support offered
- Availability of the SEN Fund
- Counselling support offered
- Peer support services
- Internship, graduation and employment support

Overall, findings showed that each university names its offices differently, which may add a level of complexity for students looking for disability support specifically. In all cases, the initial information focused on the physical accessibility of buildings with examples given of lift access, ramps and disabled parking allocation, whilst some of the larger campuses offered mobility orientation and internal transport. Only two of the universities explicitly stated they provided support for students other than those with physical and sensory impairments. They all offered free counselling and similar academic accommodations such as extra time, special seating arrangements, larger printed font for the visually impaired and printed copies of announcements for Deaf and hard of hearing students. All but one university gave details of the process for requesting support. Only one university had evidence of other faculties cross-referencing disability support services on their webpages.

Discussion

Documents such as the CRPD, developed through the lens of human rights advocates under the Western-democratic model of individualism are problematic since the assumption that human rights and citizenship rights are mutually integral insinuates serious shortcomings (Soldatic & Grech, 2014). The city state of Singapore is unique on many levels. Post-colonially, the government took a different route, adopting Confucian values of collectivism (Lee, 2021). The resulting high level of political stability and social peace, has come at the expense of liberties such as freedom of speech and the right to participate in public and political life whilst the government remains resistant to enacting anti-discrimination legislation (Think Centre, 2011). Although Singapore has gradually signed and ratified conventions such as the CRPD, it remains fearful of scrutiny by, for example, refusing to sign the Optional Protocol.

Over the years, many issues raised in parliament and by interest groups have taken time to be implemented. Back in 1971, it was suggested that a national ‘register of handicapped persons’ be created (Republic of Singapore, 1971:88). At a policy level, if the Government aims to increase educational pathways and hence diversity, institutions need to conduct research to understand the effectiveness of policies, resources and support so that measures can be tested and refined (Moody & Thomas, 2020). For example, systematic collection of statistical data about the number of students with SEND enrolling and graduating from university may help institutions make comparisons with the non-disabled population in order to investigate and address discrepancies (Ebersold, 2011).

Only more recently has the Government decided to collect data on disabilities through the national census, last conducted in 2020 (Republic of Singapore, 2019c). Even though the government has started to collect such data, Singapore still has some way to go. The Data Disability Report that reviewed disability questions in national population censuses reveals that Singapore failed to include any functional difficulty questions (Mitra & Yap, 2022). Such data would be valuable at a global level as the UN aims to attain its commitment to the Sustainable Development Goals (United Nations, n.d.-b).

Although the Enabling Masterplans do not carry legislative weight, they have been influential in encouraging the Government to follow many of the recommendations made over the years. The Government has often shown reluctance to fulfil some of the proposals, such as opening a national office on disability to coordinate policies and, latterly, implementing the CRPD (Ministry of Social and Family Development Singapore, 2007, 2016a). However, in other areas, the publication of the Masterplans has compelled the Government to act, such as the announcement in 2016 that students with SEND would finally be included in the Compulsory Education Act (Teng & Goy, 2016) after years of lobbying by various MPs and organisations.

The starting point for many students exploring post-secondary options is to conduct online research (Brown et al., 2009; Diamond et al., 2012) with the university website forming a ‘key

part of the evaluation process by shaping initial impressions of an institution' (Winter & Chapleo, 2017:192). First impressions are essential (Winter & Chapleo, 2017), and although students are unlikely to base their choice of university solely on information found on university websites (Diamond et al., 2012), the internet is often repeatedly returned to during the decision-making process. Therefore, institutions need to ensure their information is up-to-date, easy to navigate, meaningful and accessible. Although research indicates that the selection process for university choices in other countries, such as the UK, is complex, the options available in Singapore may be less so due to limited choice because of the country's small size.

It would seem only a little progress has been made since Wong analysed publicity materials about disability support provided by each university for visually impaired students. In 2014, two of the universities provided no information about support for students with disabilities, whereas today, all six universities provide information about disability support. He found that the most information centred on living accommodation and building accessibility, which was still true in 2020. He noted the generic nature of the information was highly variable and did not address specific concerns for these students, and concluded that the information available was inadequate (2014). Today, the information that can be accessed via university websites is inconsistent and tends to be generic and, in some cases, scant.

The university webpages tended to emphasise physical accessibility, so that students with diverse needs may not see themselves represented, deterring them from seeking available assistance. Visibility of services for students with SEND need refinement and enhanced targeting to improve communication with greater clarity and reach (Brown et al., 2009). Relevant webpages need to be easily navigable (Harvey & Maruca, 2020) and provide more concise and broader ranging information about the disabilities and challenges supported; not only to identify services provided but also to address specific concerns (Beckett & Glazzard, 2019; M. E. Wong, 2014), sending the message that it is safe to raise anxieties or ask for help.

Conclusion

The historical background to the development of inclusive education sheds light on the slow but gradual changes as the Singapore Government initially resisted but has chosen to become progressively involved in social welfare and education of students with SEND. Some argue the advantage of having the same political party in power for more than 55 years has led to consistent and measured development of educational provision (Lee, Hung & Teh, 2016). Others are frustrated by the slow adoption of inclusive educational practices that is truly supportive of the needs of students with SEND.

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