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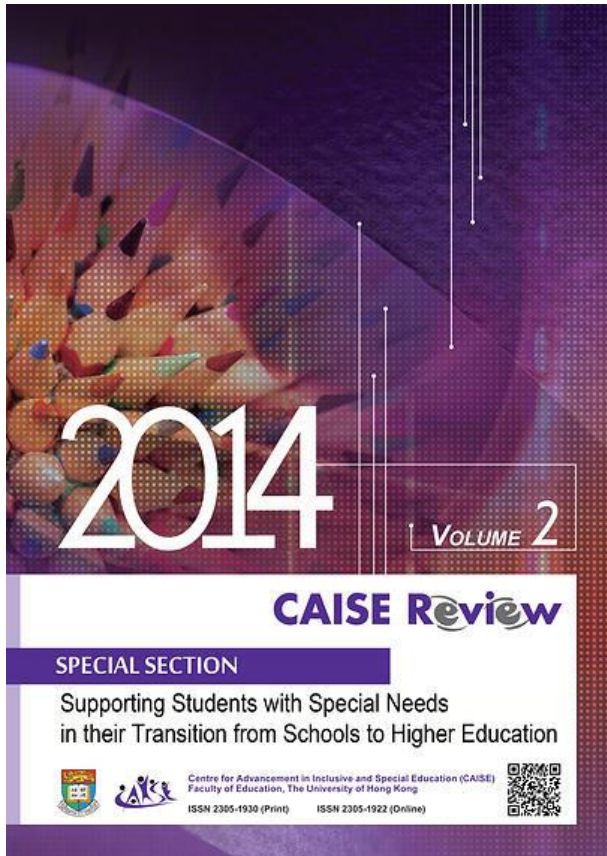
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Supporting Students with Special Needs in their Transition from Schools to Higher Education

**SUPPORT FOR STUDENTS WITH VISUAL IMPAIRMENT IN HIGHER EDUCATION IN SINGAPORE: CONSIDERING UNIVERSITY PUBLICITY MATERIALS CONVEYING DISABILITY SERVICES AND SUPPORT**

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**SUPPORT FOR STUDENTS WITH VISUAL IMPAIRMENT IN HIGHER EDUCATION IN SINGAPORE: CONSIDERING UNIVERSITY PUBLICITY MATERIALS CONVEYING DISABILITY SERVICES AND SUPPORT**

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This paper explores online resources in Singapore that reflect the current state of support in higher education for students with visual impairment. In the six institutions of higher education there was evidence of support being provided for students with disabilities — but the type and extent of support was variable, and messages conveyed to students were mixed. Provisions tend to be generic in nature, and do not necessarily address needs related to specific disabilities. If students with disabilities are to participate in higher education, clearer communication is necessary to enable them to make informed choices with confidence. Information needs to confirm that they will have the requisite support to afford them the opportunities associated with the university experience.

*Keywords:* disability services, education support, higher education Singapore, publicity material, students with disabilities, visual impairment

## **SUPPORT FOR STUDENTS WITH VISUAL IMPAIRMENT IN HIGHER EDUCATION IN SINGAPORE: CONSIDERING UNIVERSITY PUBLICITY MATERIALS CONVEYING DISABILITY SERVICES AND SUPPORT**

### **INTRODUCTION**

Education and training in Singapore are considered key contributors to the nation's economic growth and development. Together they drive the desire for improving educational qualifications and skill levels of the workforce. Having already built a strong and well-resourced education system, the government is focusing on bolstering post-secondary education.

Since the 1980s, polytechnic and university development has seen remarkable growth. The five polytechnics and the Institute of Technical Education are credible institutions meeting demands for post-secondary education (Gopinathan & Lee, 2011). For higher education, the participation rate is presently 27%; and efforts are in place to support a 40% participation rate by 2020 through the 6 institutions of higher education (UniSim, 2012; Lee, 2012).

Increasingly, students are presented with greater post-school choices. Yet making these decisions is often difficult for most high school students, which often affects their future life path (Veloutsou *et al.*, 2004). Most students begin the information gathering process for university entrance anything up to 18 months prior to enrolling. Preliminary stages include collecting prospectuses, visits to open days, talks by universities in schools, and general discussion of the topic in the penultimate graduating high school year (Brown, Varley & Pal, 2009).

### **CHOOSING A PATH IN TERTIARY STUDY**

Three contributing factors are reported to shape university choice decisions for the majority of students: course, location, and reputation (Moogan *et al.*, 1999; Price *et al.*, 2003). The nature of the course emerges as most important reason (Whitehead *et al.*, 2006), while academic reputation of the university and the subject also influence choice (Moogan and Baron, 2003; Briggs, 2006; Maringe, 2006). For students with disability the priorities may be different. Massie, Chair of the Disability Rights Commission (DRC), argues that students with disabilities have to find a university that can meet their needs, and then determine if there is an appropriate course available. Consequently, students with disabilities are presented with fewer choices as they need to discover where they will best supported (Parker, 2003).

This situation has an impact on the universities. Student recruitment is not just an administrative issue but must also involve appropriate information being conveyed in a timely manner to potential students. As Ralph and Boxall (2005) and Gurin *et al.* (2002) have

indicated, all universities need to attract a rich mix of students and staff; and recruitment must make use of publicity materials that welcome students from minority groups. If they fail actively to recruit students from minority groups, universities miss out on a creating a diverse learning environment. Students with disabilities are one such group. Evidence suggests that there is too little effort made to reach out to students with disabilities who depend on information about support services (Ralph & Boxall, 2005).

At the moment there is a paucity of research on support for students with disabilities in higher education in Singapore. However, more concrete steps are now being formalized to strengthen such support. One such effort, launched on 7 February 2014, was the inaugural Singapore Management University-Society for the Physically Disabled (SMU-SPD) Conference on the theme '*Building a Culture of Inclusion from within Institutes of Higher Learning*'. Recognizing that support for students with disabilities is in its nascent phase, the conference witnessed the signing of a *Memorandum of Understanding* between SMU and SPD. This agreement signaled the intention to develop research and practices to foster better inclusion of students in higher education (SMU, 2014). In addition, with Singapore ratifying the United Nations Convention on the Rights of Persons with Disabilities (UNCRPD) in 2013, there is greater expectation for improved inclusive education support to be offered in tertiary education.

Many more tertiary choices have become available in higher education institutions in Singapore, and it is important now to consider how messages concerning availability of facilities and services are communicated to potential students. This is especially pertinent for students with disabilities, when they decide on the institution able to best support their needs. For them, a university that offers a viable course of study, but without adequate support, virtually nullifies that option. Similarly, a university with good disability support but without adequate publicity of its services, fails to market effectively to the students in need.

For many students today, online communication is an important source of information. The World Wide Web has become almost indispensable for people in the work place or at home searching for information to aid problem solving and decision-making (Yang, Chen & Tsai, 2013). For students making university selection, the internet has emerged as a key source of information (Brown et al., 2009).

## **ROLE OF HIGHER EDUCATION IN POST-SCHOOL TRANSITION**

In studies investigating factors affecting successful transition to employment for young people with disabilities, a number of variables consistently emerge as key factors in securing employment. One critical factor is academic competence (Benz, Lindstrom, & Yovanoff, 2000; Bremer, Kachgal, & Schoeller, 2003). In fact, Kirchner and Smith (2005) argued that the higher the level of education completed the higher the employment rate in the labour force. Similarly, Shaw, Gold, and Wolffe (2007) reported a significant positive

correlation between employment status and educational attainment, and encouraged parents to ensure their children received the highest education possible.

### **SUPPORT IN HIGHER EDUCATION**

Most higher education institutions do offer support for students with disabilities. This is reported in Canada (Reed, Lund-Lucas, & O'Rourke, 2003), England and Scotland (Tinklin, Riddell & Wilson, 2004), and in the United States (Raue & Lewis, 2011). The literature reveals, however, conspicuous variability in the range and quality of provision for students with disabilities attending those institutions (Reed et al., 2003). Most institutions adopt a minimalist approach instead of developing resources for wide ranging services (Tagayuna, Stodden, Chang, Zeleznik, & Whelley, 2005). At a very minimum there needs to be testing accommodations, availability of note-takers, personal counseling, and advocacy assistance.

One particular group with special needs is that comprised of students with visual impairment. There is an obvious need for universities and training institutions to offer much more support and accommodations to these students if they are to reach their potential. Capella-McDonnall (2005) has suggested that completion of a higher education programme is the best predictor of employment for students with visual impairment.

### **IMPAIRED VISION**

Visual impairment includes a broad spectrum of conditions from no sight (blindness) to some useful residual vision. Vision loss usually results from incurable eye disease or accident. It is typically measured by assessing visual acuity and field of vision (Wong & Lee, 2010). Individuals with impaired vision normally require training in a variety of independent living skills, including orientation and mobility to facilitate safe movement (Griffin-Shirley, Trusty & Rickard, 2000). In addition, 'learning media assessment' evaluates an individual's potential for learning, and the methods and media needed to facilitate learning (Koenig & Holbrook, 1995).

In terms of further study and employment, there is compelling evidence to suggest that education participation and employment rates for these individuals are generally poor (Crudden, 2012; McDonnall, 2010; McDonnall & Crudden, 2009). Studies have described disappointing levels of educational and occupational attainment of people with visual impairments in the United States (Shaw et al., 2007; Wolffe & Candela, 2002) and in the United Kingdom (Simkiss, 2004). Adolescents and young adults with visual impairments are less likely to have a high school diploma, and are more likely to be underemployed (American Foundation for the Blind, 2006, Economic and Social Research Council, 2006).

As students with visual impairment make up only a small number of the registered students with disabilities in university, the generic accommodations offered are unlikely to be

adequate or appropriate for meeting their needs. For these students to succeed in higher education there are specific areas in which they require assistance, including support for reading, accessible materials (Braille books; large print; low vision aids), orientation and mobility instruction, audio-study notes for advance preparation, housing and finance, working with organizations, and class activities (McBroom, 1997; Reed & Curtis, 2012). Successful higher education experience will largely depend on whether or not such supports and accommodations are available. Evidence has confirmed that poor quality of alternate print formats, delays in delivery, poor access to computer-based materials, inability to participate in extracurricular activities, and lack of independence all represent impediments to success for students with visual impairment (Gallagher, Connolly, & Lyne, 2005; Harpur, & Loudoun, 2011).

This paper focuses on representation of disability support services through online publicity materials in Singapore's universities. While university admissions staff may be aware of the potential of applicants with disabilities, these prospective students need information on specific disability services prior to applying. The aim of the study was to discover what sort of information prospective students with disability find when looking online for the universities' disability services. The study focused on support for students with visual impairment, a group often finding the post-school transition phase particularly confounding (Wong, 2004a; 2004b).

## **METHOD**

The research was conducted in 2013 and involved a search for information from the six universities in Singapore. The focus was mainly on internet communications regarding their facilities and support services for disabled students. Where sources were less accessible, telephone or email queries were made to the admissions or relevant offices for follow-up.

The institutions involved were National University of Singapore (NUS); Nanyang Technological University (NTU); Singapore Management University (SMU); Singapore University of Technology and Design (SUTD); Singapore Institute of Technology (SIT); SIM University

## **FINDINGS**

From the six universities, supports and accommodations offered for students with disabilities were most visible in NTU, NUS, SMU and SUTD. There was variation in the way that information on support is communicated to students. Generally, the information is presented holistically, to meet the generic needs of students with disabilities, rather than detailing specific support available to students with visual impairment.

**NTU:** From the university websites NTU (2012) provides the most comprehensive information on support services offered for students with sensory or physical disabilities. It

covers three broad areas: building access; student accommodation; and academic and examination arrangements. *Building access* includes barrier-free access to and within buildings; availability of lifts with Braille buttons; accessible toilets; car parking spaces for persons with disabilities; ramps with tactile indicators at road crossings; use of non-slip materials and floor finishes for enhanced safety. *Student accommodation* includes availability of accessible rooms in Graduate Hall and Undergraduate Halls. *Academic and examination arrangements* refer to examination question papers with enlarged font; printed examination announcements for students with hearing impairments; students with physical impairments allowed to enter examination hall ahead of time; provision of customized tables; extra time for examination; and alternative test-taking provisions such as computers or separate rooms where necessary.

**SMU:** SMU (2013) takes a more general approach, and does not require students with disabilities to declare their condition or special needs when they enter their courses. The university leaves the student to contact the relevant programme leaders or managers if they require additional support. Some accommodations mentioned include: modification to method of assessments (tests, examinations) such as varying the weighting of marks; taking the assessment in a separate room; allowing extra time; providing additional or special equipment

**NUS:** The information offered by NUS was ambivalent. In the FAQ section of the Admissions Office information, the following declaration was provided:

*NUS is firmly committed to providing equal educational opportunities for all admitted students and ensures that there is no discrimination when evaluating students for admission. Information on disabilities or special needs will help the University develop a holistic profile of an applicant and determine the level of additional/special assistance required during the course of his/her undergraduate studies. While the University cannot guarantee provision of special aid to any student, nevertheless, our staff and faculty will do our best to support and facilitate the student's learning within the University (NUS, 2012a).*

The registration process requires prospective students to declare their disabilities, but it was not obvious how this information is actually then used to support them. Students with special learning needs are asked to inform NUS during application process if he/she requires NUS to provide special assistance. Students who require an extension of examination time must submit medical or other documentation detailing their special learning needs.

However, an application form for NUS Student Exchange Programme explicitly stated that NUS does not have a Disability Support Office (*Incoming Exchange Student Guide*, page 1, 8 under Health & Special Needs, 2013). NUS further qualified that 'NUS University Health



Centre cannot guarantee that all required special support will be available and in some cases, student needs to be evaluated onsite immediately upon arrival to see if he/she is suitable for the exchange in NUS' (NUS, 2012b).

**SUTD:** The only information on support for students with disabilities offered at SUTD is found under 'living accommodations'. The website states accessible rooms at the student hostel are available (which means rooms located near the lifts on the floors with lift landings). There was no information available on examination accommodations or other types of support (SUTD, 2013).

**SIT and UNISIM:** Both these universities offer degree programmes that partner with international institutions of higher education. For example, SIT offers degree programmes with the University of Glasgow and Wheelock College. Each of these partner universities has declarations of support for students with disabilities as well as support services (University of Glasgow, n.d.; Wheelock College, 2013). Similarly, UNISIM offers partnership with the Open University in the United Kingdom.

An example of a visually impaired student studying for an English Language degree, Lim Lee Lee, sought support from the Disabled Peoples' Office from the Open University, UK which not only provided accessible course materials but also contacted the Royal National Institute for the Blind in UK and provided recorded materials. For the local part of the curriculum, lecturers provided soft copies of course materials (UniSim, 2012).

## DISCUSSION

Judging from the information gleaned from these online resources four out of six universities provide some support and accommodation for students with disabilities. The depth of information is highly variable. With the exception of NTU (which offers relatively more information), details are generally scarce. Information on living accommodation and building accessibility is the most available, followed by information on support for examinations.

Little or no information is offered for specific types of disability, such as visual impairment. Except in the case of NTU (for enlargement of texts) no mention was made of provision of Braille and audio materials, orientation and mobility support, housing needs, facilitating collaboration with organizations and support to ensure class participation.

Without dedicated support for students with visual impairment, it is not unreasonable to expect that a general approach will be inadequate to meet their specific needs. This suggests that community resources are perhaps being relied upon significantly to support students in higher education.

In an ideal situation, each university would delegate the responsibility of support to different departments, including admissions office, students' affairs and accommodation. Having a dedicated office to oversee arrangements would ensure greater opportunities for organized effort for advocacy, coordination and representation. In this way, students and faculty members have someone to work with for guidance, especially in cases where there are disagreements or misunderstandings.

The information offered at NUS is disappointing. As the nation's oldest and leading university it is surprising to uncover that although there is a stated policy of equal opportunity, the institution is careful not to commit itself fully to students with disabilities. The cautionary approach signals a welcome to students with diverse needs, yet highlights the constraints and limitations. It is not unreasonable to interpret the response as a policy of 'non-commitment'. However, to be fair, there are examples of students with disability flourishing at NUS, and that provision of support was available. Yeo Sze Ling completed her tertiary education, from undergraduate to doctoral studies at NUS, with support in mathematics—a subject notoriously difficult to learn for persons with visual impairment (Toh, 2013). Are other faculties at NUS similarly committed and aligned to the university's vision for inclusion? It is interesting to note that Yeo's successes did not feature at all in the university's disability information materials, but instead emerged from social media sources.

Two universities, UNISIM and SIT, are in an interesting position with regard locus of support. Given that these universities work on a partnership model to offer degree programmes with international universities, it is encouraging to learn that where local resources are lacking, partner universities are filling in the gaps. However, in the event where partner universities do not offer support, the onus will fall on the home university. The question then is how effective is the local support? Ultimately, universities in Singapore need to be self-sufficient in meeting the needs of students with disabilities. Resources need to be developed internally rather than externally if a network of support is to be established long-term. This also raises the question of availability of community resources as a part of a network to forge partnerships in the provision of support. Inadequate community resources means the range of support is limited.

The current state of availability of information on support and accommodation services for students with disabilities is inadequate. Lack of critical information to guide prospective students can be construed as passive deterrence. Just as a course prospectus offers details of course curriculum, institutions of higher education must also begin to provide more comprehensive information on each of the available networks that provide support. To maintain diversity and inclusion within the student population there is much room for improvement in how universities market and communicate in-house disability services. This is critical information that helps students with disabilities feel confident that they have a chance of making a success of their tertiary education. In the case of visually impaired

students, independent study can only be effective if appropriate assistive technology and accessible materials in large print, audio, Braille and tactile media are available (Wong, 2009; Wong & Tan, 2012).

## CONCLUSION

Universities in Singapore are striving to compete with international institutions of higher education to develop a knowledge hub in Southeast Asia. It is vital that opportunities for students with diverse needs are not overlooked. As part of recruitment efforts, universities need to attract a diverse population of students by conveying appropriate messages. At the same time, these messages encouraging students with disabilities to enroll must be backed up by a reliable network of support.

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