



The development of the support system for students with visual impairment in higher education institutions

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Abstract

This research was to examine the current situation of support services available for students with visual impairment in higher education institutions and to propose the guidelines for improvement of support services available for students with visual impairment in higher education institutions. The participants were 227 undergraduate students with visual impairment, 46 university staff, and five university administrators. The research instruments included two sets of questionnaires for staff and undergraduate students, and the interview questions for university administrators. While quantitative data were analyzed through descriptive statistics and cluster analysis, qualitative data were analyzed with content analysis and grouping technique, and used narrative approach in reporting the results. The results showed that current situation of support services available could be categorized into three levels: high support system—high potential to provide support services, medium support system—medium potential to provide support services, and low support system—low potential to provide support services. However, all three groups provided high social and financial support, and medium physical support. The results also found that students with visual impairment needed essential support and were able to access support services in five domains including social, financial, physical, general support, and testing accommodation. In fact, the university administrators have adopted the policies of the Higher Education Commission by establishing Disability Support Service Centers as well as including support services for students with disabilities as a part of educational quality assurance.

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Introduction

People with visual impairment is one of the disability categories having received education in higher education since

1962 with the unofficial provision of support services. In 2003, the Higher Education Commission launched the policy to accept students with disabilities in higher education institutions together with providing appropriate support services. However, lack of readiness and barriers still exist in the educational system for students with visual impairment in higher education institutions. In particular, most learning materials and supplementary documents are available in printed format, so students with visual impairment are unable to access them and do not benefit from those media (Guerette

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& Smedema, 2011, p. 130). In fact, the educational system in universities is not user friendly for students with visual impairment, which becomes a real obstacle for those with visual impairment (Phunong-Ong, 2010). The perception, attitude, and understanding of staff in valuing students with visual impairment based on their physical appearance also becomes a key factor impacting the lives of students with visual impairment in and out of the classrooms. A result of these factors may cause an increased dropout rate of students with visual impairment. In 2013, it was reported that 2,695 students with disabilities studied in universities across the country. Among those students, 459 were students with visual impairment (roughly 17.03%) who attended 48 higher institutions, where 46 were closed universities with attendance of 303 students and two open universities with attendance of 156 students.

Literature Review

Support services are widely acknowledged as the key factors that assist students with disabilities to succeed in higher education. In the United States, support services are provided based on the principle of reasonable accommodations. The higher education institutions are responsible to provide reasonable accommodations to student with disabilities to guarantee equal access to educational opportunities. However, reasonable accommodations are provided as long as they do not give unfair advantage, fundamentally alter the program, or cause undue hardship to the institution (Howe, 2013). To endorse that principle, most higher education institutions establish a disability service office to work with students with disabilities in identifying helpful accommodations to facilitate their access to an education.

According to the NCES report, typical accommodations in higher education institutions were provided as the following means: 93 percent gave the accommodation of extra exam time; 77 percent provided note takers; 72 percent had faculties providing course notes; 71 percent offered alternative exam formats; and 70 percent provided adaptive equipment and assistive technologies (Raue & Lewis, 2011). Although these accommodations are used most often and are helpful to students with disabilities, it is important to look at the individual needs, the types of disability, and the severity of disabilities when determining educational support services. The research indicated that students were more likely to succeed with using accommodation when the support service was specific to individual needs (Stodden, Whelley, Chang, & Harding, 2001).

In addition to academic support services, social support from others is useful to students with disabilities in higher education. Support from others could assist with adjustment, increase the chance for success, and improve the student's self-efficacy. For some students with disabilities, social supports are already established upon entering higher education institutions. They looked for friends and surrounding neighbors to show interest and understanding about their

educational pursuits (DeWitz, Woolsey, & Walsh, 2009). In fact, support services on campus are also important for academic and social integration. The research showed that as students were involved in group projects, studying with peers, and interacting with others in their program, they were likely to feel a sense of accomplishment and greater academic self-efficacy. For students with disabilities, peers with disabilities could also become role models and resources to increase understanding of useful academic strategies and confidence so that they could ask for appropriate accommodations (Thoma & Getzel, 2005). Other supports on campus could be counselors, faculties, and staff. Faculties and staff usually worked to make student learning the highest priority and assist students in their educational endeavors. For students with disabilities, the likelihood of success is impacted by attitudes and services received from faculty and staff (McCleary-Jones, 2008). Therefore, when faculty members showed understanding and awareness when accommodating the needs of students with disabilities, it could have a positive impact on goal attainment of students with disabilities.

In Thailand, many scholars have studied the general guidance of providing support services for students with disabilities in universities. Several studies found that assistive technology was identified as the essential means for students with visual impairment access to learning materials and supplementary documents. The studies also addressed financial support and testing accommodation as the significant factors in promoting academic success of students with visual impairment (Amornrattanapong, 2004; Anuprasuit, 2001). To develop the administrative system of disability support services centers in higher education institutions in Thailand, Udombiriyasak (2009) found that the success factors of disability support services centers in helping students with disabilities achieve their academic goals included: the close collaboration of staff, related internal agencies, and instructors; financial support for development; and giving opportunities for students with disabilities.

In summary, those studies indicated that several problems and obstacles still existed in providing support services for students with disabilities in higher education institutions. In fact, it was found that there were more problems and challenges in providing support services for students with visual impairment because such required unique technology and support that was different from students with other types of disabilities. One of the goals in providing support services is to assure the equal opportunity and accessibility of students with visual impairment so that they can achieve their academic goals. According to existing problems and literature review, it was found that there were many students with visual impairment attending universities and they tended to continually increase. However, the visual ability of these students might become a significant limitation and obstacle in their education particularly in an educational system mainly requiring visual ability as a means of learning. These issues called attention of the researcher to examine the current situation of support services available for students with visual

impairment in higher education institutions and to propose the guidelines for improvement of support services available for students with visual impairment in higher education institutions. In this study, SEAT Framework was used as a conceptual framework to explain the structural management of support services system for students with visual impairment. The components of SEAT Framework included S—Students, E—Environment, A—Activities, and T—Tools (Chontanont, 2003).

Methodology

This research was conducted through a mixed method with obtaining of quantitative and qualitative data. With the use of purposive sampling method, 276 participants were selected from 46 closed universities currently serving students with visual impairment, and those participants could be categorized into three groups.

Participants 1: 46 staff who were responsible for taking care of students with visual impairment from 46 universities.

Participants 2: 227 students with visual impairment from 46 universities.

Participants 3: 5 university administrators who were responsible for taking care of support services for students with visual impairment from 5 universities.

Data Collection

The data were collected through questionnaires and individual interviews as following: (1) the questionnaires were mailed to staff and all questionnaires were completed and returned; (2) telephone interview was used to reach students with visual impairment for responding to the questionnaires with the assistance of research assistant; and (3) in-depth-interview was conducted for data collection for university administrators.

Data Analysis

While quantitative data were analyzed through descriptive statistics and cluster analysis for describing demographic information, qualitative data were analyzed with content analysis and grouping technique, and used narrative approach in reporting the results.

Results

The results were reflected from the practices of 46 staff, the voices of 227 students with visual impairment, and perspectives of five university administrators. The data were employed through cluster analysis and hierarchical cluster analysis technique by executing all variables for categorizing the participating universities into three groups including high support system, medium support system, and low support system.

Group1: High support system (HSS) consisted of 16 universities (34.8%). These universities had their own Disability Support Services and also had a high potential to provide support services for students with visual impairment. The support services of these universities were found high in all domains except the area of providing friendly physical environment, which was shown as moderate. These universities could be the model agencies having the prepared competencies to provide students with visual impairment with effective support services. These effective support services led to the educational opportunities by providing financial aid, social support, learning support, testing accommodation, volunteering, additional tutoring, professional training, and assistive technologies.

Group2: Medium support system (MSS) consisted of 12 universities (26.1%). These universities had a medium potential to provide support services for students with visual impairment. Although the support services were provided with high attention, it could be done only for the low cost activities such as seeking financial aid and social support from external agencies. In addition, the universities in this group had no funding for providing assistive technologies.

Group 3: Low support system (LSS) consisted of 18 universities (39.1%). These universities had a low potential to provide support services for students with visual impairment. While the support in seeking welfare was high, learning, instructional and budgetary support were low.

However, those results were based on the investigation of each domain. When looking at the results specifically into each activity, it was found that all universities in three groups provided support services for students with visual impairment in a high level. Those support services aimed for meeting the initial needs of students with visual impairment.

The Needs in Receiving Support Services of Students with Visual Impairment in the Universities.

The results demonstrated that students with visual impairment had individual needs, required accessibility to support services, and opportunities provided by universities. The results could be described as two groups of activities.

Group 1: The group of activities that were highly essential for students with visual impairment to benefit, and which more than 30 universities provided, could be categorized into five domains and 18 essential activities. The first domain was social support from staff, nondisabled students and volunteers consisting of nine activities: providing workshop to exchange knowledge and ideas of teaching students with visual impairment among students with visual impairment, staff, instructors and nondisabled students; training instructors to be knowledgeable in teaching students with visual impairment; support of staff in learning activities; promoting understanding of staff to offer solely necessary assistance to students with visual impairment; promoting acceptance in potential of students with visual impairment among staff; arranging extra session to exchange knowledge with nondisabled classmates; promoting acceptance in potential of students with visual impairment among nondisabled students; promoting understanding of

nondisabled students to offer solely necessary assistance to students with visual impairment; and providing peer support in the classroom for students with visual impairment. The second domain was teaching, learning, and testing accommodation including three activities: giving extra time for testing; providing separate room for testing; and allowing use of computers for testing. The third domain was financial support consisting of seeking government funding for students with disabilities; and seeking external funding for students with disabilities. The fourth domain was physical environment including providing accessible walkways on campus; and providing elevators equipped with Braille buttons and announcement. The fifth domain was general support including providing orientation to get familiar with campus facilities; and providing counseling services and academic advice.

Group 2: The group of activities that were also highly essential for students with visual impairment to benefit, but which less than 30 universities provided, could be categorized into three domains and 21 essential activities. The first domain was social support from staff, nondisabled students and volunteers including providing readers for testing; launching the project of voluntary support for nondisabled students; promoting the involvement of students with disabilities to participate in social activities with nondisabled students in and out of classrooms; launching the project of voluntary support for staff; disseminating the right understanding in the life of people with disabilities to nondisabled students; providing orientation and mobility training for staff; providing assistive technology training for staff; providing Braille training for staff; disseminating the right understanding in the life of people with disabilities to staff; launching the project of voluntary support for nondisabled students; providing volunteers to support for searching information; providing volunteers for general support; providing volunteers to help formatting assignments before submission; providing volunteers to help creating accessible learning materials; providing voluntary readers; and providing voluntary tutors. The second domain was learning and instruction consisting of providing extra tutoring; and providing assistive technology training. The third domain was general support including collaborating with external agencies to support students with visual impairment; organizing meeting to give service information to students with disabilities; and making an individualize service plan.

However, these findings were not sufficient to explain how to develop the guidelines in providing support services for students with visual impairment in the universities. Thus, it was necessary to seek further information from the university administrators to find out how to formulate the policies to support students with visual impairment in the universities.

The University Policies in Providing Support Services for Students with Visual Impairment

The results reflected the policies supporting students with visual impairment based on the perspectives of the university administrators. Those policies were reflected through the following principles.

1. Acknowledging the educational rights and opportunities of students with disabilities. The universities adopted the policy of the Higher Education Commission as a guideline to provide support services for students with disabilities. This policy aimed at providing students with disabilities with equal opportunity and equal access. This policy could also create the smooth working process among staff across campus and promote educational opportunities for students with disabilities to be as equal as their nondisabled peers.

2. Checking the policy implementation to assure the effectiveness of policy implementation in disability support services. The university administrators agreed to include the disability support service policy as one of the indicators of educational quality insurance. This could also create good collaboration among staff across campus and create awareness of staff to provide equal education and opportunity for all students.

3. Establishing the Disability Support Services Center. The vice president or the chair of special education department was assigned to serve as a director of the center while the staff were mainly responsible for taking care of providing support services for students with disabilities. The center was also overseen by the committee to ensure the effectiveness of policy implementation. The missions of the center as directed by the university administrators included: providing support services for students with disabilities across campus; collaborating with staff across campus to provide support services and promote positive attitude and correct understanding toward students with disabilities; providing counseling services or collaborating with experts across campus to deliver counseling services in order to reduce stress; seeking external collaboration to further provide support services for students with disabilities; producing various types of learning materials with attention paid to individual needs; and providing testing accommodation in accordance with individual needs such as having a test in Braille, providing a test reader, allowing use of computer and necessary devices for testing, and giving 50% extra time for testing.

4. Building physical environment. The university administrators launched the policy of building friendly physical environment as required by the law and meeting the principle of universal design. In particular for students with visual impairment, the university administrators agreed not to build a specific environment for them but suggested to prepare them with orientation and mobility training so that they could create their own mental maps.

Discussion

The research results indicate that the support of universities is a means to empower students with visual impairment in overcoming educational barriers at higher education level. By increasing educational opportunities for people with disabilities, the higher education institutions must be well-prepared to include students with disabilities and to provide effective support services. This is in agreement with the

statement by Yamnoon (2008) asserting that higher education institutions, as state agencies, must provide disabled students with legal rights to access and benefit from any public entities as well as social welfare and any additional aids (e.g., accessing information and assistive technologies for communication, and accessing public media as a means to benefit from other public goods and services. The study by Udompiriyasak (2009) on the topic of development of the administrative system of disability support services centers in higher education institutions supported that the success factors of disability support services centers in helping students with disabilities achieve their academic goals included: the close collaboration of staff, related internal agencies, and instructors; financial support for development; and giving opportunities to students with disabilities. Many studies have proven that these support services play significant roles in improving educational quality of students with disabilities (McCleary-Jones, 2008; Raue & Lewis, 2011; Stodden, Whelley, Chang, & Harding, 2001; Thoma & Getzel, 2005). It was clearly found in the research results that most of participating universities provided those services to support students with disabilities.

Conclusion and Recommendation

The results showed that the current situation of support services available for students with visual impairment in universities could be categorized into three levels: high support system—high potential to provide support services, medium support system—medium potential to provide support services, and low support system—low potential to provide support services. However, all three groups provided high social and financial support, and medium physical support. The results also found that students with visual impairment needed essential support and were able to access support services in five domains including social, financial, physical, testing accommodation, and general support from staff. In fact, university administrators have adopted the policies of the Higher Education Commission by establishing Disability Support Services Center as well as providing support services for students with disabilities as part of educational quality assurance.

The research results lead to the creation of a framework for developing the support services system for students with visual impairment in higher education institutions by using Choltanon's SEAT Framework as the following guidelines.

1. Providing support for students with visual impairment (S—Student). This is to provide support solely for individuals with visual impairment in the following areas: providing on campus orientation and mobility training for students with visual impairment in order for them to get familiar with the environment of the campus; and providing computer and assistive technology training for students with visual impairment so that they can use those skills for independently learning.

2. Building friendly environment (E—Environment). Friendly environment includes social and physical environments as following: building physical environment

with the principle of universal design and legal requirement such as installing elevators equipped with Braille buttons and announcement, and making accessible walkways; and arranging social environment through promoting the correct understanding and positive attitude of staff, nondisabled students and volunteers toward students with visual impairment as well as offering assistance to students with visual impairment as necessary.

3. Providing learning, teaching and evaluation support (A—Activity). This area includes: allowing students with visual impairment to choose their own educational choices so that they can apply to their future jobs; providing a wide range of accessible learning materials and assistive technology devices for students with visual impairment; and providing testing accommodation by providing separate room, giving 50% extra time for testing, allowing use of computer and necessary devices for testing, and having a test in Braille, digital files or providing a test reader as necessary.

4. Creating working tools (T—Tools). This area consists of: adopting policy of the Higher Education Commission as a guideline for providing support services for students with visual impairment; establishing the support service center for students with visual impairment; including disability support services as a part of educational quality insurance; making individualized service plan as a guideline for support; providing counseling service program; collaborating with external agencies to provide additional support services for students with visual impairment; and seeking financial support at the Higher Education Commission for students with disabilities.

Beyond above recommendations, it is strongly suggested for future research to select a specific issue and intensely study it in order to come up with the practical guidelines for dealing with that problem.

Conflict of Interest

There is no conflict of interest.

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