

Equity and Access to Tertiary Education for Students with Disabilities in Indonesia

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Table of Contents

Table of Contents	2
Acknowledgements.....	4
Summary	5
Glossary	6
Introduction.....	7
Background and Rationale for the Study	7
Theoretical Framework	8
Purpose and Objective of the Research Study	9
Methodology	9
Participants	9
Students with disabilities.	9
University personnel.	9
Procedure and Instruments	10
Life history interview.....	10
Questionnaire for university personnel.....	10
Data Analysis	11
Coding procedures.	11
Trustworthiness.....	12
Results.....	12
Students Life History Interviews.....	13
Life trajectory.....	13
Disability.....	13
Schooling.	14
Family support.	14
Inclusion.....	15
Accessing higher education.	15
Discriminatory attitude.	16
Infrastructure.....	18
Availability of trained staff and teaching modification.....	18
Accessible physical environment.	21
University Personnel Questionnaires.	21
Senior management personnel.	22
Faculty members.....	22
Librarians.	23
Information technology employees.....	23
Staff from admission services.....	24
Staff from internship offices.	24
Discussion.....	25

TERTIARY EDUCATION FOR STUDENTS WITH DISABILITIES

Individual Level.	25
Reflections.	26
Recommendations.	27
Institutional Level.	27
Reflections.	28
Recommendations.	29
Ideological Level.	30
Reflections.	30
Recommendations.	31
Limitations of the Study.	32
Conclusion.	33
References.	34

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TERTIARY EDUCATION FOR STUDENTS WITH DISABILITIES

Summary

People with disabilities have the fundamental right to education. It is equal and inalienable and must be made accessible to all human beings, regardless of differences. This vision is supported by the United Nations which emphasizes that students with disabilities are not mere “objects of charity” but participants who can advocate for their own right to receive academic training. In Indonesia, legislation guarantees appropriate educational services for each person with disabilities at all levels of the system. In reality, the focus is on young children. Hellen Keller International (www.hki.org, 2010) estimates that less than 4% of 1.5 million of Indonesian children with disabilities have access to basic education. There is no provision for students with disabilities within the higher education system where their number is even lower, due to environmental and attitudinal barriers.

The purpose of the study is to identify the barriers faced by students with disabilities within the tertiary education in Indonesia. In a two-stage process, 30 students with disabilities from seven different universities and two inclusive high schools have been interviewed using a life history approach. This was followed by a questionnaire completed by staff working in three universities who were asked to provide their perspective. The staff surveyed included professors, administrators, and librarians.

Barriers are discussed according to three levels of students’ inclusion: individual, institutional and ideological. Mainly, students with disabilities and university personnel stated the difficulty to register and be accepted within a university, the absence of support services for students with disabilities, little adapted academic materials, inadequate personal training programs, lack of accessible structure and funding, and poor inclusive policies to guide the university. Recommendations for implementing meaningful access to higher education institutions for students with disabilities are discussed.

Keywords: Higher Education, Tertiary Education, Disability, Indonesia

TERTIARY EDUCATION FOR STUDENTS WITH DISABILITIES

Glossary

Higher / tertiary education	The terms ‘higher education’ and ‘tertiary education’ are often used interchangeably to refer to education that is more advanced than secondary education. Both terms "broadly refers to all post-secondary education, including but not limited to universities. Universities are clearly a key part of all tertiary systems, but the diverse and growing set of public and private tertiary institutions in every country—colleges, technical training institutes, community colleges, nursing schools, research laboratories, centers of excellence, distance learning centers, and many more—forms a network of institutions that support the production of the higher-order capacity necessary for development" (World Bank, 2010).
Higher education system in Indonesia	Most of the Indonesian higher education institutions are under the jurisdiction of the Ministry of Education while some religious universities such as the State Islamic Universities fall under the umbrella of the Ministry of Religious Affairs.
Disabilities	Individuals with disabilities are defined as those with physical, sensory, emotional, intellectual, learning, health or other disabilities that may be visible or invisible, stable or progressive, occurring at birth or during childhood (WHO, 2001).

Equity and Access to Tertiary Education for Students with Disabilities in Indonesia

Introduction

Background and Rationale for the Study

Social, economic, and political exclusion has long deprived people with disabilities of the possibility of leading meaningful and independent lives, and limiting their opportunities for choice, growth, and leadership. In education, many are still denied the basic right to literacy and numeracy with approximately 90% of children with disabilities not attending school in developing countries (UNESCO, 2010). During the past twenty years, the international community has enacted a number of declarations and conventions to change the fate of people with disabilities. For example, the Salamanca Statement (UNESCO, 1994) declares not only to provide equal access to education for people with disabilities but also to educate everyone under the same roof, a clear statement supporting inclusive education. The Education for All movement is an international commitment to provide quality education for children, youth, and adults (UNESCO, 2010) while the target two of the Millennium Goals (United Nations, 2000) aims for universal primary education. The Convention on the Rights of Persons with Disabilities (United Nations, 2007) asserts that all State Parties (e.g., a country that has ratified the Convention) must ensure an inclusive education system at all levels of the curriculum.

In Indonesia, people with disabilities are protected by the 1997 Law No. 4 that recognizes equal opportunities in all aspects of life. Article 6 (1) of that same law guarantees appropriate education services for all people with disabilities at every level of education. The 2004 Bandung Declaration on Inclusive Education demonstrates the country's commitment to develop an inclusive educational environment for children with disabilities. Indonesia has also signed the 2007 Convention on the Rights of Persons with Disabilities. However, despite important legislative efforts over the years, Indonesia has not ratified the Convention. It means that Indonesia is not legally bound to implement the Convention and report to the United Nations. The reality is that little is done to empower

TERTIARY EDUCATION FOR STUDENTS WITH DISABILITIES

and educate Indonesians with disabilities, to facilitate their access to the job market or to enhance their quality of life. The inclusion of people with special needs remains difficult with disability being perceived as a matter of fate and a burden largely borne by the family. In education, the focus is primarily on young children with no provision for students with disabilities within the higher education system. According to Helen Keller International, less than 4% of 1.5 million of children with disabilities have access to educational services in Indonesia (www.hki.org, 2010).

Similarly, the efforts made toward inclusive education are not automatically translated into equal opportunities within the higher education system. The World Declaration on Higher Education (UNESCO, 1998) elaborates on the alarmingly low percentage of students with disabilities in universities, independent of the country's level of development (Gabel & Danforth, 2008). In Indonesia, there is no provision for students with disabilities within the higher education system and no data is available. The absence of significant policies, the poor elementary and secondary education systems for students with disabilities, and the numerous environmental and attitudinal barriers they meet prevent them from obtaining university degrees. While higher education is, among others, key to nation building, Indonesians with disabilities are not yet participating.

Theoretical Framework

The present research study will be based on the theoretical framework of Farmer, Riddick and Sterling (2002) which states that the participation of students with disabilities in tertiary education is located at three levels: Individual, institutional and ideological. The individual level refers to the personal experiences of the students and their inclusion within the university. The institutional level is linked to the organization of the universities and colleges to facilitate provision of services to support the academic journey of students with disabilities. Finally, the ideological level focuses on rights, policies, and equal opportunities in supporting access and entitlement to education (Hadjikakou & Hartas, 2007). The discussion of the study will draw upon this framework.

TERTIARY EDUCATION FOR STUDENTS WITH DISABILITIES

Purpose and Objective of the Research Study

The purpose of the study is to assess the barriers faced by students with disabilities within the higher education system in Indonesia. The objective is to provide concrete recommendations to broaden participation and improve the chance of success of students with disabilities. The primary audience is government policy makers, institutional leaders, World Bank teams, and other colleagues in donor agencies working on equity-related policy issues in the field of disability. The findings of the study should also be relevant to academic staff involved in research on the issues of equity and access to tertiary education by students with disabilities in Indonesia.

Methodology

Participants

Students with disabilities. Students with disabilities were located through word of mouth as the network in Indonesia is quite small. Students were selected using the following criteria: (a) They are registered as either full or part-time students in a tertiary education institution; or are in the process of registering in a tertiary education institution; or have been denied access to a tertiary education institution, and (b) they have an identified disability according to the definition of the World Health Organization (2001; See Glossary).

University personnel. To seek a broader perspective of the barriers of students with disabilities in higher education institutions, personnel of universities completed an anonymous questionnaire. Six categories of employees have been identified. They are:

- Senior management personnel (deans of university and deans of faculty and department),
- Faculty members (professors and lecturers),
- Librarians,
- Information technology employees,
- Administrative staff from the admission service,
- And staff from the internship office.

TERTIARY EDUCATION FOR STUDENTS WITH DISABILITIES

Procedure and Instruments

In a two-stage qualitative procedure, thirty students with disabilities from seven higher education universities and two inclusive high schools participated in the study. All the institutions were located either in Yogyakarta or Solo, in Indonesia. All students were interviewed using a life history approach. It was followed by the distribution of a questionnaire to 75 staff working in three universities who were asked to provide their perspective. The staff represented a range of the different services available in higher education and included professors, administrators, and librarians.

Life history interview. To capture students with disabilities' experiences and perceptions in depth, life history interviews were used. The interview guide was based on the Student Life History instrument of Morley (2009). Students with disabilities were first contacted by phone and given an explanation of the study by a trained research assistant who asked them if they were willing to participate. Upon acceptance, participants met with the research assistants who provided a guarantee of confidentiality and advised participants that they could withdraw from the study at any point. Each participant signed a written consent form. They were also given 50.000 Indonesian Rupiahs to cover travel expenses. One week after the meeting, participants were contacted to check the transcript of their interview to make any necessary modifications, if deemed necessary.

Questionnaire for university personnel. For the purpose of the study, a questionnaire was designed to identify barriers for students with disabilities from the perspective of university personnel. The questions were similar and adapted to each of the six categories of staff previously identified. For example, questions for the heads of the faculties focused on the provision of services in regard to academic support and reasonable accommodations for students with disabilities within their faculty, while questions for the librarians dealt with library accessibility, such as books in alternative formats or special staff to assist students with disabilities.

The draft questionnaire was first pilot tested by two professors and two employees from the library to determine if the questions elicited the desired information, whether any of the items needed to be rephrased and to verify that the questionnaire could be

TERTIARY EDUCATION FOR STUDENTS WITH DISABILITIES

completed within 30 minutes. After minor modifications mainly linked to the design of the questionnaire, data was collected using the following procedure. The questionnaire consultant contacted the administration of each university. She explained the purpose of the study, the confidentiality guarantee and the option to withdraw at any time. Once authorization was obtained, the consultant sought volunteers in other departments of the university. The questionnaires were then administered to participants in the presence of the consultant who explained the purpose of the study and answered questions.

Data Analysis

The students' interviews were transcribed verbatim. The data was then hand-coded and analyzed according to themes. The staff questionnaire data were analyzed both qualitatively using themes as well as quantitatively using descriptive statistics with percentage when applicable.

Coding procedures. Coding involved labeling all written narratives generated through open-ended questionnaires and interviews for systematic analysis (Miles & Huberman, 1994; Patton, 1990). In this study, qualitative content analysis of the interviews was first deductive using three general categories related to barriers based on the literature on higher education and disability: Student life trajectory, inclusion, and infrastructure. Student life trajectory refers to the personal history of the students before entering tertiary education. Questions included topics related to the difficulties they face in their early years as well as with family, education, and influences. Inclusion refers to the academic experiences of students with disabilities in terms of social accessibility and attitudes. Infrastructure is linked to the provision of services and the physical environment.

The deductive analysis was followed by an inductive breakdown with a hierarchical coding generated from the collected data. Researchers looked for expressions of an idea through single words, phrases, sentences, or paragraphs in the transcriptions of the raw data. These *coding units* were then ordered as *first* and *second-order themes*. For instance, if a student said: "I don't have the possibility to use university bathrooms because they are not adapted for wheelchair", the sentence was analyzed as one coding unit, and then ordered as "equipment" (e.g., first-order theme) and "physical

TERTIARY EDUCATION FOR STUDENTS WITH DISABILITIES

accessibility” (e.g., second-order theme) under the “infrastructure” general dimension. The qualitative content of the questionnaires was classified by categories of university personnel.

Trustworthiness. A method proposed by Lincoln and Guba (1985) was used to assess trustworthiness and to establish credibility, transferability, dependability, and confirmability. Five naturalistic techniques were employed. The techniques were: (a) triangulation, (b) member check, (c) peer debriefing, (d) saturation of the themes, and (e) thick description. First, the findings were triangulated using qualitative and quantitative data (e.g., life history interviews and a descriptive questionnaire), and by having three higher education institutions, as well as two distinct groups of participants (i.e., students with disabilities and university personnel). Thus, credibility and confirmability were improved because the findings emerged from several perspectives.

Second, a member check was conducted with each student (Lincoln & Guba, 1985). They read the transcript of their interview to verify the integrity and accuracy of the collected data. This member-checking process provided another source of credibility. Third, peer debriefing by experts in content methodology was conducted throughout data collection and analysis to continue strengthening credibility. The research team met to verify the code books and the hierarchical coding. Dependability of results was established with a transparent coding process, and through ongoing communication between the research assistants, the coordinator, and the researchers.

Fourth, the strategy of conducting multiple life history interviews and accessing many individuals’ perspectives allowed for saturation of the themes, with no new topics emerging at the end of the data collection. Finally, a thick description of the themes with quotes from the interviews were included in the results section to facilitate the transferability of results.

Results

Data collection included life history interviews of 30 students with disabilities. Twenty-five of them attended seven universities, three others applied to a higher education institution and were accepted while two students tried to register but were refused. Nineteen students had visual impairments, six were deaf, while five had various

TERTIARY EDUCATION FOR STUDENTS WITH DISABILITIES

physical disabilities. The interview focused on the life trajectory of the students in order to reach tertiary education and their experience in their current university. In addition to the interviews, a questionnaire was used for the university personnel. It was intended to explore their perspectives regarding the barriers they face in dealing with students with disabilities. Sixty six people completed it including professors, senior management employees, and staff from various departments.

Students Life History Interviews

Life history interviews revealed a number of barriers faced by students with disabilities in accessing and experiencing higher education. Those barriers related to various personal and social factors that we classified under three general categories: (1) Life trajectory, (2) Inclusion and (3) Infrastructure.

Life trajectory. Higher education is a stage that cannot be enjoyed by a majority of young people with disabilities in Indonesia. For most interviewees, their acceptance in a university and their success is the result of hard work, determination and long struggle against discriminatory attitudes and inaccessible social and physical environments. The information shared by each student covered their disability, schooling and family support.

Disability. Among the participants, 20 were born with disabilities. During the interviews, most participants discussed their condition quite openly. However, when they needed to recall negative experiences they encountered throughout various stages of their life, participants struggled to control their emotion. For example, one participant with visual impairment believed that his blindness contributed to his parent's divorce. It was clear from the interview that the situation had significantly lowered his self esteem and was an ongoing emotional burden that was not yet resolved. Five other students became disabled in their early years as a result of sickness or an accident. For instance, Suhadi, a 22 years old graduate with visual impairment explained:

I wasn't born legally blind. I just had low vision. So when I was a child, my parents tried their best to cure me. At one point, they brought me to a traditional healer. This man gave me some sort of powder that I needed to take like a prescription. I vaguely remember the healer telling my parents that the powder

TERTIARY EDUCATION FOR STUDENTS WITH DISABILITIES

was made from the essence of bird or fish... something like that. Instead of making my eye better, the powder made me completely lose my sight!!

Poor health care and services including pregnancy complications, misdiagnosis, slow or late intervention in medical conditions, use of the wrong treatment, and reaction to medicine seemed to be the major causes of disability among the participants.

Schooling. Having a disability since birth or the early childhood has meant that many students experienced challenges as soon as they began schooling. For instance, some of them started the elementary school at a later age than their peers, i.e., at the age of nine or ten instead of six. In fact, Indonesian schools for students with special needs are commonly residential. Their locations might be far from home and many parents often decide to postpone the education of their children until they are old enough to be sent away from home.

With the exception of two participants with physical disabilities who spent their entire education in a regular school, all the interviewees attended segregated elementary schools for children with special needs. However, some, who were not born with a disability or who were undiagnosed during their early childhood, started at the neighborhood elementary school later to be transferred to a segregated elementary school. Afterward, all the interviewees went to regular high schools, since most segregated high schools in Indonesia are mainly for students with intellectual disabilities. They explained that segregated high schools do not encourage and sufficiently prepare students, both academically and socially, for university life. One master student with visual impairment said that “those who graduate from segregated high schools do not have the energy to enroll to university because they are not familiar with the reality of life”. Inclusive high schools however provide additional assistance that takes the form of tutorials outside school hours with specialists, commonly known as *guru pendamping*, as well as technical assistance to access textbooks, handouts or other school material.

Family support. When asked about family support in regard to their education, the interviewees reported positive experiences and little barriers. Most of their parents did not consider their child’s disability as grounds for not receiving education. On the contrary, most interviewees acknowledged that by having understood the barriers their

TERTIARY EDUCATION FOR STUDENTS WITH DISABILITIES

children faced in accessing school, most parents had made serious efforts to ensure their children had access to education. In other words, families were reported to support interviewees' education, although there were differences in the ways parents showed their support and involvement. This mainly depended on differences in their social and economic background with poorer families having difficulties to access sources of information. A number of students also mentioned that their parents and siblings had been fully involved in their education. For instance, they provided technical support in the daily process of learning with the reading and the audio taping of text books or the learning of lessons. Many students also reported that they received the same treatment as their siblings and some described being exposed to the same parental expectation in terms of school achievement. Vita, an 18 years old high school student with hearing impairment explained:

My mom always said that she never saw me as person with a disability. For her, I am normal and therefore, as she did with all my brothers and sisters, she always expects me to have good grades and to give my best at school. She even chose for me the university I should attend. Well I am pretty good at my school, I always do well, but sometimes I feel a little pressure.

Other students reported that their parents expressed their support by letting their children decided what they thought was the best for themselves, i.e., the school they wanted to attend or whether or not they would continue in tertiary education. Not all parents in this study could provide financial support for their children's education. Three students explained they had to be financially independent since high school. Fortunately, two of them received full scholarship from the government, while one student described that his musical talent has enabled him to earn money to support his education.

Inclusion

Inclusion remained difficult for students with disabilities, either in their community or on the campus. They were often integrated physically but not fully included in all activities. The inclusion barriers are classified into two sub-categories: Accessing higher education and discriminatory attitudes.

Accessing higher education. Most of the interviewees stated that they had planned to pursue higher education since they were in high school. The experience of

TERTIARY EDUCATION FOR STUDENTS WITH DISABILITIES

other students with disabilities they knew who had successfully graduated from university was an important factor behind their decision to apply. The majority of students selected certain universities that - based on experiences of others - welcomed students with disabilities. In addition, many of these students graduated from high school with good grades and had received support and encouragement from teachers and parents to continue their education.

Nevertheless, the admission process was not without challenges. Although Indonesia has enacted a disability act that stated the right of people with disabilities to receive education, the 1997 Article 6 (1) of Law No. 4, discriminatory policy continues to exist. Students highlighted many universities and colleges require the applicant to be free from physical or mental disabilities, known in Indonesian language as “*sehat jasmani and rohani*.” This specific requirement often becomes a ground for universities to reject potential students with disabilities as they are often seen as “having bad health”. In many cases, students explained that their first choice of universities were refused because the administration felt that their resources were too limited to provide services i.e., not enough staffs, little skills, and limited equipment. Moreover, students’ lack of access to subjects such as statistics or geometry during high school is seen as an issue to choose a department of study. It is a widely accepted tradition that students with disabilities can only apply to special education program. Therefore, many students have been conditioned by parents, teachers and friends to choose this specific program. Other barriers in accessing higher education related to the university admission exam. The exam is a national standardized entrance test with technical procedures that is not accessible for student with disabilities yet. This was experienced by Jelita, a student with cerebral palsy, who did not pass the university entrance exam. She was not provided any assistance and therefore, was not able to transfer her answers into the required computer form.

Discriminatory attitude. Students recalled earlier in their life that the positive attitude of their parents was not always shared with others. The majority of students interviewed experienced various forms of negative and discriminatory attitudes from peers and neighbors within their community. One student described how much he had

TERTIARY EDUCATION FOR STUDENTS WITH DISABILITIES

difficulty making friends during his childhood, partly because some parents in his neighborhood asked their children to avoid him so as to not be contaminated by his “disease”. The fact that the majority of students were educated in residential schools located far away from their home also contributed to their social exclusion. The residential school often functioned as a rehabilitation center and therefore, some students continued to live in the school/center even after finishing their studies there and entering an inclusive high school or university. For this reason, many spent very little time in their own home and became strangers within their community. Tatang, a student in the bachelor of law program with visual impairment, stated:

Well, I don't really have friends in my neighborhood because I've been living in the dormitory for years. I visit home only once a month or even less as I get older and need less the support from my parents. Well, I know some people in my neighborhood, but most of them, I think, see me more as a guest or even as a complete stranger. Friend that I have are mostly from the dormitory.

Experiences of students showed that discriminatory attitudes were also observed among professors at the university level. The most common experience is being exempt from a particular class, mostly science subjects like statistics and physics. Students are not required to come. Such exclusion is largely due to the professor's lack of skill on how to make the subject accessible. Unfortunately, students explained that instead of discussing how to solve the problem with them, most professors simply excluded or ignored them. Dina, an education bachelor with visual impairment illustrated this tendency:

It's very often that I do not do the class assignments. I found the professors are okay with it. I think they never expected me to do the task, assuming that I am unable to do it. Well... some professors simply do not care, some others perhaps feel pity; whatever the reasons are, I am often excluded and left behind.

Professors' attitudes towards students with disabilities were viewed by the interviewees as a key to the learning process. More precisely, it was a determining factor for whether or not professors will provide teaching and learning modifications of any

TERTIARY EDUCATION FOR STUDENTS WITH DISABILITIES

kind. It mainly depends on how the professors saw them. Siwa, a bachelor student in sociology with cerebral palsy stated:

When professors assume that we are able to do the task, they are going to give us the opportunity to be included and they will make sure we understand the lesson. But when their mentality is “ Well... you are a disabled student, you cannot do anything” then they will ignore us without even bothering to try.

Infrastructure. “We can admit you but we won’t be able to provide specific facilities for you”. This quotation - stated by an admission staff to one of the students interviewed - represents the common response of the universities toward students with disabilities. Since there is no specific legislation on tertiary education relative to disabilities, universities and colleges are not required to provide services or reasonable accommodations to meet students’ learning needs. Students explained that some universities were willing to welcome them but the responsibility of inclusion rested on the student themselves. This means that no support, provision or adjustments in any forms were provided by their universities, except for one that recently opened a Center for Disability Studies and Services to facilitate the inclusion of students with disabilities. Generally, data from the interviews showed an absence of support and provision such as the availability of trained staff and teaching modification, adaptation of exams and assignments, accessible resources and services, and an accessible physical environment. Too often, these barriers were coupled with a lack of awareness and understanding of disabilities.

Availability of trained staff and teaching modification. According to the responses of the students, most of the professors had not been trained to teach students with disabilities. They never received guidance from the university to support their teaching, nor did they have special educational background from their previous training or personal experience with disabilities. They were, for instance, unaware that students with hearing impairments needed alternative methods of teaching to follow the lecture such as the oral explanation of the lesson written on the board. Setiawan, a 24 year-old student with a hearing impairment, in the bachelor of education program said:

TERTIARY EDUCATION FOR STUDENTS WITH DISABILITIES

Most of professors give their lecture orally with very limited or no visual material, sometimes not even a note on the board. This is a serious problem because it requires me to pay full attention in order to read professors' lips and the exercise is very demanding. What make things worse is that sometimes, they say everything too fast and I fail to catch the words. There are also times when professors need to explain concepts in foreign languages. They do not write anything down on the board, so how am I supposed to understand what they are saying? To be honest, I fall asleep very easily during lectures because most of the times, I don't understand.

Such situations have led some students to the view that tertiary education is meaningless because they cannot fully participate in classes due to the absence of the teaching modifications. Amin, a 23 years old student with visual impairment, stated:

It is often the professor distributes teaching material in hard copy (handout). The professor does not even bother to give me a copy of the handout because they know that I cannot read it. You can imagine how I feel, no one likes to be left out. I think it never occurred to the lecturers that I need an alternative format of the text.

Students with visual impairments said that there were some courses that were simply inaccessible because they require the use of images. Some participants noted that mostly, professors were technically unable to substitute the visual component with an accessible medium. Riadi, a 18 years old student with visual impairment in the bachelor of special education program, explained:

One of the compulsory courses in my program is ophthalmology, it's about eye and anatomy. This course is totally about pictures, and although my program is special education, the university and the lecturer do not have a substitute medium. So, I tried to ask questions and make things understandable for me. Most of the time however, I do not know what to do except sit down in the class and understand nothing. The same thing with statistics. I took it twice and always get a D or even F. The teacher has no clue how to explain it to me without symbol. I finally passed the course simply because in my program, they (e.g., the teachers)

TERTIARY EDUCATION FOR STUDENTS WITH DISABILITIES

do not know what to do, they just, ... you know... made me pass, what else is there to do??

Adaptation of exams and assignments. Exams are often considered the most important part of the academic activities and it was therefore a major source of anxiety for students with disabilities. Across universities, adjustments were made when taking exams. Some reported that their department allowed them to receive assistance during the exam, others noted that some professors replaced the written exam with an oral one. Students highlighted however, that given the absence of government policies, these concessions were the individual decision of universities, professors or, even exam invigilators and based on one-on-one cases. It is not surprising to find that many students with disabilities reported challenging experiences in regard to exams. In some cases, a professor or an invigilator denied a student's need of an assistant which then forced the student to leave the exam room. Some students also have been refused additional time to complete a test. Others stated that an oral exam was not always a solution since some students found it easier to express their answers in written form; others felt that an oral exam created more pressure than a written one.

In one university participating in this study in which formal support for students with disabilities was available, the interviewees stated that an official request has been made by the Center for Disability Studies and Services to the Dean's office to allow students with disabilities to take exams independently. They require departments to provide accessible forms of exams, i.e., soft files or adaptive computers. These modifications, if accepted, would allow students to access exam independently without being reliant on an assistant's help.

Accessible resources and services. Beside issues related to teaching and exams, the absence of accessible resources was another main issue for students with disabilities. With the exception of one university, students explained that libraries did not have a Braille collection and only a few books were available in electronic version. It means that a student with a visual impairment had to rely on friends to access academic books or scientific journals. Moreover, many interviewees found libraries' services to support students with disabilities insufficient or totally lacking. Library staff tended to not be

TERTIARY EDUCATION FOR STUDENTS WITH DISABILITIES

helpful or understanding of students' needs. Nadira, a 22 years old student with visual impairment in the bachelor of education program, reported:

I still vividly remember my experience on my first visit to the library. I needed a book and I asked a staff there where I could find it. Instead of getting the book for me, you know what her answer was "You are blind so you are not going to find the book even if I told you the place. Next time you come here, please remember to always bring a friend who can help you finding the book you want!"

Accessible physical environment. Although the Indonesian government has passed a regulation that requires public spaces to be accessible for people with disabilities, it has not being implemented yet. In the seven universities attended by the students with disabilities, only two were reported to have minimal physical adaptations, namely ramps for wheelchair users. Other forms of physical modifications such as special toilets for students with disabilities, lifts, designated parking spots, or Braille signs were not found. Moreover, many interviewees stressed that the design of their universities often did not take into consideration their needs and, more importantly, the safety and security of people with disabilities in case of fire or earthquake. Fajar, a 21 undergraduate student in law with a visual impairment, stated:

I can say that this university is seventy percent accessible. There is disability office that provides reasonable support for us. The physical infrastructure, however, is terrible. The campus areas are filled with water canals that have been left open and they are very dangerous for people like me. I've fallen in canals many times. I also find people are totally unaware that parking everywhere (not in designated areas) is really bad for us. I've many times bumped into a bike or a motorcycle on my way to the class or library.

University Personnel Questionnaires.

For the second part of the study, the research team distributed 75 questionnaires to three different universities. Six groups of university personnel were targeted and included: (1) senior management personnel, (2) faculty members, (3) librarians, (4) information technology employees, (5) administrative staff from the admission service,

TERTIARY EDUCATION FOR STUDENTS WITH DISABILITIES

and (6) staff from the internship office. The response rate was 88%, meaning 66 questionnaires were completed which is considered very high.

Data from the questionnaires confirmed information provided in the interviews – mainly the absence of provision, reasonable accommodations and other adaptive services for students with disabilities. Staff also explained why universities were so little inclusive. The results of the questionnaires are described according to the perspective of each staff's category. Their answers varied depending of their responsibilities.

Senior management personnel. Overall, the three deans of the universities contacted were aware of the lack of support to students with disabilities on their campus. They explained they did not have clear guidelines from both the Ministries of Education and Religious Affairs to implement special services for those who needed them. Two deans were unsure how to guide and authorize all departments to become inclusive. The other dean welcomed the ideas of his staff when they came to him a few years ago to create an office to support students with disabilities. He recognized that there were still major progress to make but his university was on the right track.

In general, the eight deans of faculty and department surveyed also stated the lack of directive from higher instances. Various reasons were given to explain the situation. One said that only a very limited number of students with disabilities were attending his program; another underlined the fact that his staff did not have the skills to provide special services; while a last one stated that it was related to the faculty's limited budget. Mostly, it was noted that faculties did not have policies for students with disabilities so reasonable accommodations depended on individual initiatives of professors.

Faculty members. The previous interviews with students revealed a number of challenges experienced in the teaching-learning process such as the absence of modifications and the professors' limited awareness of their needs. The 34 faculty members surveyed confirmed these points. Twenty seven (80%) of professors and lecturers stressed the unavailability of accessible resources, such as textbooks for students with disabilities as well as their limited skills in meeting the students' special needs. However, 10 (30%) of the faculty members highlighted their initiative to converse with students with disabilities about the possible challenges they faced in classes. Seven (20%)

TERTIARY EDUCATION FOR STUDENTS WITH DISABILITIES

of the faculty members said that they provided modifications in their classroom such as placing students with hearing impairment in the front row during the lecture. They also adapted academics resources with for instance soft files for students with visual impairment. Twenty four (70%) of the professors and lecturers confirmed that they made adjustments for exams, either by allowing student to have an assistant during the exam or by providing the exam in an alternative format. Faculty members stressed that most of their students with disabilities had difficulties understanding abstract concepts and it affected their ability to complete assignments or succeed in exams. Faculty members perceived this issue more as a student's flaw rather than an indication to provide accessible teaching methods.

Librarians. In term of library services, three out of the six participating staff explained that they faced barriers in providing the following adaptive services to students with disabilities: Resources in alternative formats, online services, accessible library orientation, and a separate room equipped with adaptive computers and technologies. Library staff gave various reasons to explain these barriers including a lack of university or library policies, their limited skills to manage a disability, the difficulties in communicating with students with special needs and other responsibilities which made it impossible for them to provide extra services for student with disabilities. However, the three other librarians stated that they did not see any difficulties in providing services as long as the head of the library authorized special arrangement. They also mentioned that it was their duty to support students, independent of their abilities.

Information technology employees. Six participants from the universities' computer centers filled in the questionnaire. Two employees mentioned that while they faced no barriers when communicating verbally with students with disabilities, they encountered difficulties in informing students about their services because mostly, they were not adapted. Three staff out of six had equipment supporting the academic journey of students with disabilities, e.g., voice-input software, electronic reading machines, and computer screen readers. The other three explained that there was no need to provide adaptive computers or technologies to students with disabilities because they often had a friend who could access computers for them. When asked if students with disabilities

TERTIARY EDUCATION FOR STUDENTS WITH DISABILITIES

could participate in technology training, two participants responded positively stressing that all students had equal opportunities. The four other staff said that while students with disabilities were allowed, the reality is that they were not interested. Overall, four staff noted that the barriers in providing technology and computers service were due to the absence of university's policy, the limited staff available, and the low priority given to students with disabilities.

Staff from admission services. Four administrative staff from the admission services acknowledged that the absence of adaptive computers meant that most of their services were inaccessible for students with disabilities. This included registration, course addition and withdrawal as well as thesis submission. As a result, students usually needed to bring a friend to assist them in accessing those services. Two staff also believed that it would be difficult to make their services accessible for students with disabilities because they had limited personnel and they could not offer additional support.

Staff from internship offices. Concerns expressed by students with disabilities for their third year during their internship were not shared by the five staff in the field. They explained that since their internship was a group activity and not an individual one, students with disabilities had friends who could assist them; staff did not need to make special arrangements. In response to the question whether or not their office currently provided clear guidelines or accessible pre-departure orientation, all the respondents stated that this was not necessary since orientation was always provided in group. For example, students with visual impairments could grasp the content by listening. Yet, the staff acknowledged that for practical reasons, students with disabilities were often placed in an institution that dealt with disabilities, such as a special school or rehabilitation center.

Overall, the answers of the universities personnel suggested variability in the provision of services, mainly because of a lack of structures, policies, and support to the staff. University personnel while aware of the needs of students with disabilities, they felt they did not have the power to provide services and believed it was not part of their duties.

Discussion

The purpose of the study was to assess the barriers faced by students with disabilities within the higher education system in Indonesia. The objective was to provide concrete recommendations to broaden participation and improve the chances of success of students with disabilities. Thirty students with disabilities from seven universities and two inclusive high schools were interviewed while 66 staff from three different universities completed questionnaires.

The main findings highlight the effort students with disabilities have to make to access tertiary education. Their inclusion depends of their own will and their own fight to get an education. University personnel stated that they welcome students with disabilities but they will have to adapt to their environment by themselves. De Vroey (2000) explains the difference between inclusion versus integration. Inclusion is a respectful process that supports diversity based on the belief that everyone has an active role to play in the community. It is about citizenship and taking care of each other. Integration however, has a “more limited meaning, simply describing the structural process of providing measures for participation, without the necessary relational involvement.” (De Vroey, p. 24). The results of the study reflect the integration of students with disabilities in tertiary education but limited inclusion. Students with disabilities are tolerated as long as they do not disturb the functioning of the university. The study embraces the framework of Farmer, Riddick and Sterling (2002) which suggested that tertiary education’s provision be discussed at the individual, institutional, and ideological levels.

Individual Level.

Overall, the major barriers relative to the personal experiences of students with disabilities and their inclusion to either reach tertiary education and/or attend universities and colleges are: (a) poor preparation to pursue studies at earlier levels of the curriculum, (b) rejection from universities because of the “bad health” of students with disabilities and a justification based on the universities’ impossibility to provide support to students in their condition, (c) attitudinal discrimination by university personnel and other students, (d) lack of awareness and understanding toward disabilities’ issues, (e)

TERTIARY EDUCATION FOR STUDENTS WITH DISABILITIES

underestimation of the impact of a disability, and (f) minimization of the disability or the belief that students will naturally adapt to university's life.

Reflections. The experience of students with disabilities in the Indonesian higher education system is a personal and individual effort reflecting a strong determination to pursue studies. While often being supported by encouraging families and helpful teachers, Indonesian students with disabilities in higher education institutions have a strong personality and are often involved in the fights for the rights of people with special needs. They can be charismatic leaders and strong advocates to change the fate of others with disabilities, which differ to other people with disabilities who have a tendency to be shy. Students with disabilities are in a constant struggle to prove that they are capable of succeeding just like anybody else at the university. When they can pass the non-adapted national exam, some do not understand why they have to be directed toward the study special education. Most of the students want to decide their major and not to teach other people with disabilities based on the fact that they themselves have special needs. At the same time, the study reveals a very strong bond and solidarity between the students with disabilities and other people with disabilities in general. Most of the interviewees want to improve the conditions of individuals with special needs and think that they can make a difference thanks to their experience and training. Participating students with disabilities were spirited, courageous, and determined.

The life trajectory of students with disabilities is a combination of struggles and accomplishments to reach higher education institutions. As such, the results in the category "life trajectory" are not predominantly a recall of barriers to access university and colleges. Quite the opposite, students shared not only some of the barriers they overcame but mostly highlighted the predominant role of families and teachers in their capacity to attend tertiary education. The rejection at the university of one student with hearing impairment who wanted to register was based on her low academic achievement, not based on her disability. However, because she attend an inclusive high school and do not have a sign translator to follow the verbal explanations of teachers, she finds it difficult to be successful. She has ambitions she cannot pursue because of the poor adaptations made at the high school level, even in an inclusive environment. More studies

TERTIARY EDUCATION FOR STUDENTS WITH DISABILITIES

are needed among a broader sample of people with disabilities who want to access higher education but are not capable, either because of low grades or because of their disability.

Challenges students experience on the campus, in classes, or during their internship can have however, a major impact on their confidence; they can feel perceived as having a lower intelligence, particularly the ones with languages difficulties. This adds to the environmental barriers and the constant fight they have to be accepted and included. Students with disabilities do not want to be dependant of their friends to study but are thankful they have them to be accompanied to classes, read books out loud or share notes. They do not know how they could do it without them. Interviewees believed it is not other students' responsibilities to support them but the institution. Similar to the study of Prima (2004), challenges are even greater when university personnel tend to underestimate their disabilities, minimize it, or forget its impact. Other preconceived opinions as to what they can or cannot do and stereotyped judgments are also difficult to deal with. Staff who are supportive, open-minded and sensitive to their disabilities often have a great impact on their confidence and their success. They are capable of pushing students further in their studies and to excel by giving the best of themselves.

Recommendations. Students with disabilities should not have to rely on their own efforts to be included in tertiary education. Article 6 (1) of Law No. 4 (1997) which guarantees appropriate educational services for each person with disabilities at every level of education should be implemented with the support of the Ministry of Education. The disability of students should not be minimized or underestimated. They should receive all the support they can to go through studies at the tertiary level. As such, there is a definite need to create an inclusive culture on the campus as opposed to a passive one, with university personnel sensitive to disability. This will be possible if not only clear policies are enacted by the Ministry of Education to guide universities, but if we assure they are implemented.

Institutional Level.

Overall, the major barriers stated by students with disabilities and university personnel in higher education relative to the organization of the institutions to facilitate the provision of services are: (a) technical difficulty to register within a university, (b)

TERTIARY EDUCATION FOR STUDENTS WITH DISABILITIES

national admission exam not adapted (c) absence of support services for students with disabilities, (d) non-existence of directive guidelines to promote inclusion, (e) limited funding, (f) lack of qualified personnel and professors capable of supporting students, (g) poor teaching modifications, (h) lack of adapted academics resources, (i) limited adaptation of assignments and sessions exams, (j) inaccessibility of the physical environment, and (k) lack of adaptive technologies.

Reflections. The university personnel had a great interest in answering the questionnaire as demonstrated by the high rate of completion (88%). They were interested in sharing their perspectives, with responses suggesting they had given thought on the topic but never had the opportunity to express their views. However, most of the staff felt powerless, did not really know what to do with students with special needs, and felt that students will simply adjust alone or with the help of their friends to the university life. All participants, including students with disabilities, expressed a great deal of flaws at the institutional level with little or no provision of services.

The provision of services is often perceived as favoritism. The fact that students with visual impairments might need extra time to complete an exam using a Braille document is seen as preferential treatment. University personnel want to be fair to every student and they sometimes consider reasonable accommodation as unfair. One professor said that:

I was fine before when I was teaching English, the little number of students with disabilities in my class were never a problem but now I have to make all these adaptations. I do not want to be unfair to the other students of the class.

University personnel tended to justify the limited efforts made to include students with disabilities by saying that they do not want to discriminate against other students. They do not want to focus on one individual in particular. Some questioned the intelligence of students, associating disability with lower IQ, and wondered if students with disabilities should be in higher education. Because the culture is not inclusive, staff do not always understand that making adaptations is a question of rights and equal opportunities to learn when having different abilities. A student with cerebral palsy with clutches cannot study properly if there is no lift at the library or staff to help getting the book needed. There is

TERTIARY EDUCATION FOR STUDENTS WITH DISABILITIES

no favor giving there. In order for non-discrimination to occur, it seems that all university personnel need policies from higher instances to engage in reasonable accommodations. Policies accompanying by clear guidelines can facilitate the access to tertiary education for all students with disabilities.

Recommendations. The national admission test to enter university has to be adapted by knowledgeable disability specialists to respect different abilities. Each university must establish an Office for Students with Disabilities to clearly be pro-active. The mission of such office is to provide support for students with disabilities to respond to individual needs and to encourage independence and empowerment while respecting the academic requirements of the university. The inclusion of students with disabilities has to be facilitated by skilled staff able to support this multi-faceted process. The authors of this study established the Centre for Disability Studies and Services at State Islamic University (UIN) Sunan Kalijaga, the first centre of its kind in Indonesian tertiary education. Similar initiatives are hopefully expected in other higher education institutions in the coming years.

There is an urgent need to reappraise systems of funding at the Ministry level so universities have the budget to implement inclusive practices in their institutions. At the same time, universities have to systematically incorporate funding for inclusive higher education practices in their budgets. If services are not provided by the university, students with disabilities should have access to funds for note-taking, sign language interpretation, the production of texts in alternative formats, tutoring, adapted transport, as well as material resources such as the transcription of course content into Braille. In addition, scholarships to defray the cost of tuition and scholarships based on high grades should be made available to create equal opportunities and encourage learning.

The daunting task of teaching in an inclusive classroom should not be only left to professors alone. In addition to receiving training from the university, professors should be made aware of the possibility of teaching students with disabilities during their careers and given appropriate training. It means that universities should revise the curriculum for professors by including training on their topic when teaching students with disabilities. With the right tools in their hands, professors will be capable of providing all their

TERTIARY EDUCATION FOR STUDENTS WITH DISABILITIES

students with the best teaching possible. It is important to remember that adaptations made for one student with disabilities can be helpful for other students without disabilities. For example, the audio version of a textbook for someone with visual impairment could be quite useful for students who are more inclined to learn by listening.

Ideological Level.

Overall, the barriers to access tertiary education relative to rights, policies, and equal opportunities for students with disabilities include: (a) poor inclusive policies from both the Ministries of Education and Religious Affairs to guide universities and colleges, (b) no follow-up on the implementation of laws such as the Indonesian regulation guaranteeing accessibility to public spaces which has still yet to be executed, (c) no sensitivity training for staff to learn how to teach people with special needs in inclusive settings, and (d) limited budget in supporting access and entitlement to education.

Reflections. The study reveals that the conceptualization of disability in Indonesia embraces a medical framework as opposed to a social one. Oliver (1990) calls that perspective “an individual model of disability of which medicalisation is the significant component”. In fact, among university personnel, disability is still viewed as a medical condition, one that can maybe be cured or treated as an illness. For this reason, the respondents to the questionnaire did not feel they could do much for students with disabilities. It is not their role. Policies, when adapted, are a reaction to specific situations. There is no pro-activity or a standard procedure with a systematic approach to back up the provision of services for students who will need them. (Hadjikakou & Hartas, 2007).

Currently, only high school inclusion is organized due to the government’s Integrated Education program and the current Inclusive Education program which have been implemented in major cities since the middle of the eighties (Semiawan, 1994; Basuki, 2005; Heung and Grossman, 2007). The Direction on the Management of Special Education at the Elementary and Secondary Levels (2010; *Direktorat Pembinaan Sekolah Luar Biasa Ditjen Manajemen Pendidikan Dasar dan Menenga*) mentioned that in the academic year of 2006/07, there were 62 inclusive high schools in Indonesia providing support for students with disabilities. This has yet to be done in the tertiary education.

TERTIARY EDUCATION FOR STUDENTS WITH DISABILITIES

That level of study is an overlooked area as opposed to education at earlier levels of the curriculum which receives attention from numerous associations and NGOs.

Finally, most people with disabilities in Indonesia do not speak up or fight for their rights. It could be one of the reasons why campuses are still far from being inclusive despite a handful of advocating students with disabilities. People with disabilities are not empowered to express their needs; they follow cultural norms which emphasize showing respect to their elders and not expressing disagreement. They have a tendency to be passive because they do not want to disturb others. In classrooms, several students with disabilities sometimes hope professors will naturally make slight accommodations without having to ask. This attitude, common in Indonesia, could be linked to three and half centuries of Dutch colonialism which ended in 1942; as well as 32 years of dictatorship under Suharto, which ended in 1998. Life is not about rights, it is about fate: No one has control except God, who has a great influence over the life of Indonesians.

Recommendations. The medical theoretical approach to disabilities in Indonesia has to evolve into a social model focusing on civil rights and equal opportunities in all aspects of life, including higher education (Goode, 2007). People with disabilities should no longer be seen as individuals in need of treatment but rather as full citizens with equal rights. For instance, students with disabilities who would like to become professors in a state university should be allowed to apply. Currently, they cannot because they do not meet the requirement of being “in a good health”. The Convention on the Rights of Persons with Disabilities (United Nations, 2007) which was signed by Indonesia, has to be ratified to ensure that concrete steps are taken to provide equal opportunities.

Accessibility for students with disabilities in tertiary education is a demanding task, not one that a university or a Ministry can accomplish alone. National disability organizations must be consulted in an effort of mutual collaboration and sharing of resources. These organizations are often lead by people with disabilities who know best what is needed. Their knowledge on the topic is invaluable and up-to-date. A partnership with local organizations is not only relevant for disability issues but it also shows the capacity of the university to interact and contribute to its community and to take into consideration social realities.

TERTIARY EDUCATION FOR STUDENTS WITH DISABILITIES

Tertiary education plays a major role in the training of future leaders and in the building of strong human capital to contribute to the creation of an efficient national system (World Bank, 2002). It not only supports the development of a skilled labor force, including qualified professionals, but it also impacts the overall society. Bloom and Sevilla (2003) explained that enhancing levels of education for all results in “(...) local capacity to create and absorb technology; a greater portion of the population attuned to the workings and advantages of democracy; improved health resulting from greater understanding of nutrition, disease, medicine and public health practices; an enhanced capacity to engage in international negotiations of all types; and strengthened links with other countries”. Supporting the inclusion of students with disabilities in higher education institutions is setting the example of best practices which will in turn contribute to the development of a society that is respectful of the rights of its citizens. University graduates entering the labour force will have been made aware of the reality of students with disabilities at the university. As a consequence, they will not ignore people with different abilities at work or in their community.

Limitations of the Study

Due to organizational constraints, the present study has been conducted on the island of Java, with participants from the province of Central Java and the special province of Yogyakarta. Other studies should investigate on other islands of Indonesia such as Bali, Sumatra, Sulawesi as well as in remote regions and archipelagos in order to have a larger perspective on tertiary education for students with disabilities.

Due to time constraints, the sample of participants was small and the study is therefore exploratory. However, it constitutes a good basis for further investigation and reorganization of the Indonesian higher education system to further support the access of students with disabilities.

No students with intellectual disabilities, mental health issues, learning disorders or health problems were included in the study. These types of disability remain either unidentified or taboo and students cannot receive any support based on that ground yet. Additionally, the sample of the study was comprised of a majority of students with visual impairment (19 over 30 participants). They seem to be more inclined to attend tertiary

TERTIARY EDUCATION FOR STUDENTS WITH DISABILITIES

education despite limited provision of services. Further studies should investigate why they have a tendency to pursue higher education while another study could possibly include a broader range of students with disabilities.

Finally, staff from students affairs such as campus activities (athletics, co-curricular programming), counselling (judicial programs, career development), and resources (women center, health clinic) have not been included to the study due to time constraints. Based on our observations, it is believed that students with disabilities have little access to such affairs. These services are also not always operational in Indonesian higher education institutions.

Conclusion

Based on the law, education for students with disabilities in the tertiary Indonesian education system is grounded on the accessibility for all to learning. In reality, universities and colleges have an integrative perspective rather than an inclusive one. It means that students with disabilities are tolerated if they manage passing the national exam without special assistance. They are accepted if they are capable of not disturbing the functioning of their university. It is up to them to excel because they will not receive support to facilitate their academic journey. Similarly to Hadjikakou & Hartas (2007), the individual and institutional levels show that the support to students with disabilities and the provision of services are not systematic, but simply in reaction to a problem. Overall, the present findings suggest that equity and access to tertiary education for students with disabilities in Indonesia have been overlooked. Universities and colleges have yet to play a clear role in the achievement of the Millennium Development Goals (United Nations, 2000) and need a real reorganization to succeed.

Future research should look at the employment of people with disabilities after they graduate from universities and colleges, if their job is in link with their academic training, and how their journey in a higher education institution made a difference in their life. Finally, researchers should investigate on the impact of higher education training on the quality of life and the empowerment of graduates with disabilities.

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