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Main Challenges of Students with Visual Impairment at Higher Education Institutions

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Abstract
Everyone has the right to get access to education, including people with visual impairments. This article explores how students with visual impairment experience their life at a higher education institution in Malaysia. This study used a qualitative approach, i.e. case study design. The data collection method used in-depth interviews that involved five students with visual impairment: four males and one female. The findings showed that students with visual impairment experience five main challenges in higher education regarding financial, public stigma, accessibility, peer-to-peer acceptance and difficulties in learning at the university. In conclusion, higher education providers may use this study's outcomes to improve their support and facilities for students with visual impairments effectively.

Keywords: Challenges, Students, Visual Impairment, Higher Education, Institution

Introduction
Persons with disabilities (PWD) refers to individuals who have physical or mental disabilities, long or short term and do not have equal rights in the field of health, education and employment opportunities (World Health Organization, 2011. The Persons with Disabilities Act 2008 defines people with disabilities as individuals with long-term physical, mental, intellectual or sensory deficiencies that when interacting with various barriers, can restrict their full and effective participation in society (Persons with Disabilities Act, 2008). The definition given by the WHO and the Disability Act 2008 explains that the rights of the disabled to participate in society as a whole cannot be met if there are barriers that restrict their participation in various aspects of life.

Although the disabled are considered a minority in society, their rights are equal in value to other groups in society. The rights of the disabled cannot be ignored especially in the aspects of education including higher education. The number of students with disabilities entering higher education institutions (HEI) is found to be increasing every year. According to Manisah and Zaleha
(2012) there were a total of 1,115 disabled students who continued their studies to higher education institutions in 2010. This number shows that students with disabilities are able to compete with non-disabled students in seeking knowledge up to the HEI level.

Students with disabilities also have the right to gain access to a conducive and comfortable environment for them to pursue knowledge. Therefore, institutions whether public or private need to ensure a suitable environment for members of society who want to seek knowledge (Manisah & Zaleha, 2012). However, there are various issues and challenges that arise when people with disabilities want to further their education to a higher level. According to Muray et al (2009) disabled students who successfully enter HEI often face various obstacles in pursuing their studies. One of the most difficult challenges faced by students with disabilities is the preparedness of the institution itself to accept students with disabilities. Johnson (2006) stated that the faculties’ lack of understanding about disabled students also contributes to the difficulty of accommodating students with special needs because they are not familiar with the services on campus. The challenges faced not only come from the institution itself but the challenges come from various aspects including from peers, lecturers and also students who study at the HEI (Hasnah et al., 2010). Not only that, the special needs of disabled students also need to be emphasized. This is because, they need more attention and special needs compared to other students.

Students with disabilities not only need specific facilities for them but they also need support services to continue their learning at HEI. For example, visually impaired students need special support equipment such as computers and visually impaired software especially in libraries (Hasnah, 2009). For visually impaired students who are completely unable to see, they need Braille reading aids. Therefore, various facilities need to be provided by the relevant parties. The facilities they need are different from the needs of non-disabled students (Abu Bakar et al., 2014). Amenities such as buildings complete with facilities, parking, elevators and so on need to be upgraded. Not only that, students with disabilities also need support services from the social surroundings to improve their quality of life (Roslinda et al., 2013). Therefore, this study focuses on the exploration of the major challenges faced by visually impaired students in higher education institutions.

Methodology
This study is a completely qualitative study using a case study design. According to Rozmi (2015), qualitative research is a research approach that emphasizes descriptive, inductive, grounded theory and research on how humans give meaning to their lives. A case study is a research study conducted on a system union, whether in the form of a program or an event bound by a particular place, time or bond (Kamarul, 2012). In order to obtain the required data, the researcher conducted in-depth (semi-structured) interview method on the informants who voluntarily agreed to participate in this study. This method is used to facilitate researchers to explore experiences and facilitate informants in sharing matters related to issues and challenges of visually impaired students in higher education institutions.
The researcher used the purposive sampling method (Rozmi, 2015) to obtain informants for this study. The informants selected by the researcher are students studying at a public higher education institution in Klang Valley, Malaysia. A total of five visually impaired students were selected as study informants. The researcher took four weeks to collect data through in-depth interviews with informants.

Data were analysed using the thematic methods. According to Merriam (2000), there are three stages of data analysis, namely descriptive statement, category construction and theory construction. In this study, the data collected through interviews were copied in full text transcripts. After all the transcripts were read repeatedly several times, the researcher categorized each theme that appeared in an adjacent box. Each theme is coded to make it easier for the researcher to categorize the theme into a larger theme (Kamarul, 2012). Through the themes obtained, researchers can form issues, patterns and even meanings based on research questions (Othaman, 2005). The results of the thematic analysis lead to five main themes for the question of challenges often faced by visually impaired students, namely finance, society stigma, accessibility, peer acceptance and difficulty in studying at university which will be covered in the next section.

Study Findings and Discussion
In this study, the researcher interviewed five informants who are visually impaired students in a public higher education institution. Details of the informants are explained in Table 1. Table 1 shows there are five informants that have been interviewed. They consist of four males and one female. All the informants are visually impaired students who continue their studies at a public higher education institution (PHEI) located in the Klang Valley. The estimated age of the informants in this study is from 20 years to 30 years. Almost all informants are still single and only one informant is married.

| Informant | Gender | Age | Level of education |
|-----------|--------|-----|--------------------|
| Amir      | Male   | 27  | Masters            |
| Musa      | Male   | 21  | Masters            |
| Syukri    | Male   | 28  | Bachelor’s degree  |
| Azmir     | Male   | 30  | PhD                |
| Mimi      | Female | 27  | Masters            |

For this study, the researcher did not set the level of education and area of study for the informants. There is an informant furthering his studies at the Bachelor's Degree level, 3 informants at the Masters level and one informant at the doctorate level in a different field.

1 Not the real names of the informants.
Main Challenges of Visually Impaired Students

The findings of the study show that there are five main challenges faced by the majority of informants, namely financial challenges, social stigma, accessibility, peer acceptance and also difficulty in studying at university.

The first challenge is a financial issue that is often faced by many students, especially students of higher education institutions (HEI). This financial issue is also faced by disabled students at HEI. However, there are some benefits that can be obtained by disabled students to reduce the burden and address these financial issues. One of the things that disabled students can enjoy is financial aid financing. This financial assistance is from the Ministry of Higher Education (MoHE) which provides pocket money assistance of RM300 per month (Central Bank of Malaysia, 2015).

Despite receiving financial assistance from MoHE, the majority of informants interviewed stated that financial issues were often their problem. Some informants stated that they did not have enough pocket money to cover the rising cost of living. There were also those who undertook part-time work to supplement their daily expenses:

“it’s normal, as people say the cost of expenses is high. Especially when living in this urban area” (Musa)

According to Christina and Ikhwan (2010), a total of 51.8% of HEI students face financial problems. One of the factors that cause students to have financial problems is because students are not skilled in managing finances and also the rising cost of living. This causes students to take the initiative by doing part-time work such as setting up an online business or looking for part-time work during the semester break.

Some informants stated that they took steps to find a side income and not just rely on the pocket money given by MoHE:

“I try to be independent. That way I try to look for any means such as a small business [...] I sell perfume. But only on a part-time basis” (Amir)

However, there are also a handful of students who solely depend on pocket money given by the university and also money from the National Higher Education Fund Corporation (NHEFC). This causes students to feel that the money they receive is not enough to cover the cost of living until the end of the semester. Most students do not have adequate exposure to manage their expenses. Students with visual impairments are no exception.

According to Rubayah et al. (2015), students' knowledge of financial management is at a moderate level. This causes some students to feel that the money they receive is inadequate. One of the informants also stated that he experienced the same issue. The informant only depended solely on financial aid:
“it may be caused by the economic downturn. After all I only depend on the NHEFC financial aid, so sometimes it is enough, sometimes it is not”
(Syukri)

The second challenge faced by the majority of informants is the stigma of society. According to Muhamad Nadhir and Rosila Bee (2016), stigma is a reaction formed as a result of deviations shown by an individual or a group of individuals from the norms of society. Such deviations result in the individual or group of individuals getting their own labels.

Disabled students also do not escape the stigma and negative perceptions of society. This happens when the community does not have in-depth knowledge of matters related to the disabled. Some in the community believe that people with disabilities are labeled as individuals with only visible and obvious external disabilities. According to Hazlin et al. (2015), the lack of authentic information about the disabled causes the rise of various perceptions and as well as negative perceptions in society towards the disabled. As a result of the interviews conducted, the informant stated that their peers did not believe that he was a disabled student. This is because, externally he is a person who looks normal and only wears glasses. However, he is a visually impaired person with low vision. The informant's peers only believed the informant after he showed them his PWD card. This clearly shows that society does not have in-depth knowledge of the categories available for the disabled:

“they were indeed shocked. I said I am a PWD. Perhaps there is lack of exposure regarding PWD amongst my friends. Because they think that PWD will have obvious imperfections. [...] I immediately showed them my PWD card. Then did they believe me” (Musa)

The study conducted by Hasnah et al. (2011) stated that the acceptance of HEI students is good but their level of knowledge about disabled students is still at a low level. This is evidenced when an informant stated that some students only looked at his shortcomings but did not look at the strengths he has:

“sometimes there are some that underestimate my ability to do something” (Mimi)

This study also found the same thing. In addition, campus residents especially support staff also still have a low level of knowledge about the needs of the disabled. They still do not know the basics about the needs and limitations of disabled students, especially students with visual impairments. This is evidenced when some visually impaired students commented that it is very difficult to deal with staff at the counter when it involves learning-related matters. Usually, the informant needs to explain his condition of having a vision problem first to the staff on duty. There are also staff working at the counter disputing the informant's disability:
“I have to convince people that I suffer from low vision. This makes it difficult for me when having to deal at the counter [...] there are staff that still question my explanation” (Azmir)

Therefore, the community should use the various available mediums, especially the mass media to find out matters related to PWD, especially for those who are in charge of handling students at HEI. Persons with disabilities are part of a society whose rights cannot be denied and need to be understood. Hazlin et al. (2015) stated that the more information about PWD is disseminated through the mass media, the less the stigma and negative public perception of PWD.

The third challenge faced by visually impaired students is the accessibility of information. The majority of informants stated that they had difficulty accessing information or reference materials, online systems and even university infrastructure. This challenge results in their limited access to good and quality facilities. The challenge of obtaining information is in the problems faced when the information they want is in book form and in digital form. The majority of informants have problems accessing information through both methods.

If the informant needs to get reference material in the form of a book, they need to go to the library. They face a problem when the library does not provide a special computer for students with disabilities to find information on the location of the bookshelf where the necessary books are located. A special computer for the use of students with disabilities is a computer that has an audio system and is user friendly for the visually impaired in particular. Not only that, the high shelf layout and serial numbers on the books are written in small print causing the informants to find it very difficult to find reference books in the library. Sometimes, informants need to ask for help from the staff at the library or from their friends:

“Whenever I go to the library I have to ask for assistance from the staff there. Besides, this library still does not have audio mode...” (Amir)

According to the study of Hasnah et al. (2009), disabled students have difficulty obtaining reference materials especially in the form of books because they are not able to pick up the necessary books themselves on the shelves. In this study, the informant also stated that he also experienced the same problem in obtaining reference materials in the form of books:

“Sometimes, when there are five book shelves for example, the ones at the top are not visible, on top of that when trying to look for the serial number on the book. Oh my, it is so difficult” (Musa)

The informants not only faced problems getting references or information at the library, they also face problems when they need to get information online or in digital form. They have a very slow level of access and take a long time to find information.
This is due to the visual impairments they suffer from and also the slow internet network. Some informants have stated that if they want to access information online, they need to go somewhere to get a fast internet network:

"the challenge in accessing information is the unstable internet network at the college" (Syukri)

The challenges faced by visually impaired students is not only the problem to access information but they also face problems related to the online system in HEI. Most local universities use online systems to make it easier for students to access the latest information that they need to know from time to time. Not only that, the university also provides online accounts for each student to facilitate management and learning sessions. At the university where this study was conducted, an online system specifically for learning was developed to facilitate two-way interaction between students, management as well as lecturers. The university also provides official university portals to make it easier for students to do any business.

However, the system developed by the university does not take into account its user friendliness for PWD users. This is due to their small number. Eventhough the informants stated that they were not effected by the non PWD user friendliness of the online system, they are of the opinion that improvements should be made, such as the online system should incorporate audio mode in order to make it easier for PWD to access the online system, in particular the visually impaired. For them, the use of audio mode makes it easier for them to access and know the info displayed on the university's official portal:

"we know that normally university online systems have audio mode systems. But I am unsure whether this audio mode system is available here or not" (Amir)

The next challenge for accessibility problems is the accessibility of visually impaired students to the place. Accessibility to a place means the ability of visually impaired students to go from one place to another. This study looks at the extent to which visually impaired students access places they rarely go to and the difficulties they face to get to a particular place or place within a campus. This is due to the lack of physical infrastructure provided by the university (Hasnah, 2009).

However, the lack of physical infrastructure is not the only reason that causes difficulty to disabled students to access a place. According to the informant, accessing a place especially a place they rarely go to is very difficult. These difficulties are caused by several factors. Among the factors that restrict their access to a place or location within the university include the terrain conditions of the place they want to go to, lighting, confusing signage and more.

Some informants stated that it was difficult for them to get to a place they rarely went to. For example, when they have to go to another faculty. Unfamiliar route and mostly confusing road signs make it difficult for them to access places that they rarely go to:
“it is quite difficult for me to go to another faculty because I haven’t memorized the route and the existing sign boards are unclear and difficult to read” (Syukri)

Not only that, the unfamiliar terrain factors that are not commonly used by informants make it difficult for them to get somewhere. The university provides pedestrian facilities but there are some weaknesses. For example, the pedestrian walkways provided are not regularly maintained and there are also pedestrian lanes located close to slopes. Informants also stated that the sidewalks provided had no barriers. This will endanger pedestrian users, especially disabled students, because vehicles using the road on campus do not comply with the set speed limit.

“there are many things that I need to consider before going to a place. Firstly, my ability to go there and secondly the terrain conditions of the place I want to go to. It becomes a challenge for me to move when the pedestrian walkways are not maintained and there are pedestrian paths next to slopes” (Azmir)

Their accessibility to a place also depends on the lighting of the place they are going to. Their level of accessibility is high when the place they go to has enough light and during the day. Meanwhile, their accessibility is low when the place they go to does not have good lighting and makes it more difficult for them to get somewhere at night.

It is more difficult for them when the place they want to access needs to go through a route that has many stairs:

“I face problems when there are too many stairs and the rails provided are unstable. On top of that, the stairs here do not have signboards and sometimes the signboards are confusing” (Mimi)

The second challenge is in terms of peer acceptance. The acceptance of peers towards disabled students is very important because they need help from friends when in trouble or in situations of need. Peers are not only individuals who can help them physically. But peers also play a role in providing support and help if there are problems in mental and emotional aspects.

According to Nur Azuki and Yohan (2013), the acceptance of peers is good but only a small part are able to accept these disabled students as close friends. Not all individuals can be good friends to these disabled students. Some of their peers cannot accept the shortcomings they have. However, there are also those who are very understanding and can help disabled students if there is a need:

“overall my friends can accept me well so far” (Azmir)

Some informants stated that not all of their friends knew they had vision problems. Only close acquaintances know about matters related to their vision. This is because they can still see but
their visibility is limited. Therefore, they associate with other students without feeling awkward with their disability status:

“maybe I behave like normal people. Externally I don’t like a PWD. So far acceptance has thank god, been okay” (Amir)

Although some peers are able to accept the shortcomings of disabled students, there are also those who initially can not accept their shortcomings because they feel they are not able. However, disabled students strive to adapt to their peers and try to prove that they can do what others do:

“in the beginning it was hard to convince them that I was also capable of doing what the other students could do. But when they saw that I could also do what they did, they could accept me”(Mimi)

Peer acceptance of visually impaired students varies. According to Hasnah (2011), the majority of peers are able to accept them as good friends and some peers also feel that these disabled students are just like them. Only a handful of students are uncomfortable with the presence of disabled students.

The last challenge is in terms of difficulty in learning at HEI. The challenges they face in lessons include challenges when attending lectures, completing assignments given by lecturers as well as final exams or quizzes. A student’s routine is filled with lecture activities as well as tutorial classes. Lecture sessions will usually be held in the lecture hall which can accommodate as many as one hundred to two hundred students. Lecturers will usually use powerpoint as a teaching aid. Some lecturers upload lecture notes before the lecture session is conducted but some only upload lecture notes after the lecture session ends. According to Hasnah et al. (2009), the use of slides and even whiteboards during lecture sessions is a problem for visually impaired students. Adding to the difficulty, when the lecturer did not upload the notes before the lecture session:

“my main challenge is of course when I want to see the slides in front. I have to sit right at the front” (Amir)

“It’s difficult when attending lectures. Having to write down the notes and all that” (Musa)

Visually impaired students not only face the challenge of getting into lectures. According to Mohd. Effendi (2013) one of the challenges of students is to complete the assigned tasks on time. However, most of them will start completing the assignments given by the lecturer early and not do it at the last minute. This is to avoid sending their assignments late to the lecturers. As for the implementation of group assignments, the majority of informants stated that they will usually choose group members who know and understand their situation. Therefore, the workload as well as the stress in doing group assignments can be reduced:
“up till now I would choose peers that are already aware of my condition to be in the same group” (Musa)

Some informants stated that their lecturers are aware of the difficulties they face and the lecturers will be tolerant in the implementation of assignments:

“the lecturer won’t give a very short deadline for completing an assignment. Work would be given in stages and not all at once” (Amir)

The last problem in terms of learning for students with visual impairments is said to be when taking the final exams and quizzes online. According to Hasnah et al. (2009), visually impaired students in particular have insufficient time allotted time to answer exam questions. However, the majority of informants stated that they did not have the same problem of time allotted as other students. In addition, they can still answer exam questions in the allotted time because they can still see with limited vision:

“I have no problems with the final exams because I am still able to see. Perhaps these exam problems might be more applicable to those that are fully blind” (Mimi)

Based on the analysis, the visually impaired students interviewed did not have difficulty answering the final exam questions of the semester. They also do not need extra time or any special equipment during the exam. This is because they only have limited vision problems. However, if the visually impaired students are unable to see completely, they need special aids and also extra time to make it easier for them to answer the exam questions.

In conclusion, the challenges faced by visually impaired students can be minimized through research and development conducted by the relevant parties. The university should be sensitive to the current needs of visually impaired students so that they do not face any difficulties in their daily life on campus. Not only that, the acceptance of peers is also one of the needs for them because help from peers can facilitate their daily lives, especially when it comes to learning-related matters.

Conclusion

Overall, there are some suggestions that can be considered to overcome the issues and challenges faced by visually impaired students in HEI. To overcome the issues that occur in students with visual impairment, especially the issue of self-confidence and also the stigma of society is to improve society’s understanding of the disabled. The mass media should play a key role in disseminating understanding of the issues and challenges of the disabled, especially in terms of educational needs. University management also needs to be more proactive in identifying issues and challenges faced by disabled students in their institutions and work with administrative and academic staff to formulate action plans that support the needs of disabled
students. Awareness and understanding of the needs and rights of disabled students with also need to be mobilized. Exposure to all campus residents including non-disabled students should be done so that a supportive and conducive environment can be provided for PWD students in HEI for example through online campaigns on university websites or through integration programs between PWD and non-PWD students.

The university also needs to set up a special unit and committee that supports the services and empowerment of disabled students in HEI. A services and support units for disabled students and disabled staff need to be established in every public HEI, especially so that the needs of the disabled can be met in a more organized and effective manner. This PWD service and support unit will serve as a one-stop service center for PWD to raise any issues and problems as well as be a consultant and advocator to provide infrastructure and disabled friendly learning environment. Special committees and units established shall ensure that every building including faculties, colleges and student activity centers provides basic facilities as well as specific facilities for visually impaired students in accordance with universal design guidelines.

For example, walkways, elevators, toilets, car parks, slopes, tactile blocks, clear and obvious signage should be provided according to universal design specifications for all categories of the disabled, especially for the visually impaired.

Transportation facilities for disabled students should also be provided so that they can access the place and also do their daily activities without any obstacles. Management needs to provide buses that are friendly to the disabled or provide special vans to pick up students at every bus stop at the college. University management also needs to upgrade the university's online system and official portal to be more disabled friendly. The online system must have an audio mode system. Libraries also need to provide a buddy system, which is a system that provides services to help visually impaired students find reference books and make book lending arrangements.

Also, psychological and counseling services should be proactively offered to all disabled students in HEI so that their psychological well-being can be maintained and improved. In short, all parties, especially the university management must play a proactive and effective role to support disabled students in HEI so that their rights and needs can be fully met.

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