

**THE VOICE OF STUDENTS WITH VISUAL IMPAIRMENT: A  
CASE STUDY ON CHALLENGES OF STUDYING IN  
MALAYSIAN PUBLIC UNIVERSITY**

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CHALLENGES OF STUDYING IN MALAYSIAN PUBLIC UNIVERSITY**

By

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This final year project is submitted in partial fulfilment of the requirements for the  
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**UNIVERSITI MALAYSIA SARAWAK**

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## ABSTRACT

The number of people with visually impaired in Malaysia has increase over the year. the limitation of program causes the people with disability especially with visually impairment to pursue their study to the higher level. Current study aimed to Annalise the challenges faced by the Student With Visual Impairment studying Linguistic and how to address them. Furthermore, this study also identifies the facilities that are needed by the SWVI to overcome challenges they faced. An autobiographical study and Interview was done with 2 SWVI who had enrolled in the same program. Results indicated that mobility, accessing printed or ordinary material, learning unit content diagram, , dealing with symbol and doing exam, assignment or assessment. Although, some challenges can be overcome by asking their peers or lecturer for help, and using assistive technology but not all challenges can be solve. This is because not all assistive technology is provided by the faculty. Therefor a few facilities had been propose in this study to minimize challenges faced by them such as Embosser, braille track, and railing.

**Key word: Student with visually impairment, challenges, asistive technology, facilities**

## ABSTRAK

Sejak kebelakangan ini, bilangan golongan kelainan upaya semakin meningkat. Kursus-kursus yang terhad telah menyebabkan kurangnya golongan kelainan upaya terutamanya dalam kategori penglihatan menyambung pelajaran mereka ke peringkat yang lebih tinggi. Kajian ini bertujuan menganalisis cabaran yang dihadapi oleh pelajar masalah penglihatan yang melanjutkan pelajaran dalam bidang linguistik dan bagaimana mereka menyelesaikannya. Selain itu kajian ini juga bertujuan untuk mengenalpasti kemudahan yang diperlukan oleh by pelajar cacat penglihatan untuk mengatasi cabaran yang mereka hadapi. Kajian autobiografi dan temubual telah dijalankan dengan 2 orang pelajar cacat penglihatan yang sedang menjalankan pengajian dalam bidang yang sama. Hasil daripada kajian mendapati mobiliti, mengakses bahan bercetak atau bahan pengajaran, pembelajaran yang mengandungi rajah, dan symbol, menghadapi pepereksaan, , membuat tugas dan ujian lisan. Walau pun terdapat sesetengah cabaran dapat diatasi dengan meminta bantuan rakan sebaya atau pensyarah, dan penggunaan alat bantuan, , tetapi bukan semua cabaran yang dihadapi dapat diselesaikan. Hal ini demikian kerana fakulti belum menyediakan peralatan yang diperlukan oleh mereka. Oleh yang demikian melalui kajian ini, beberapa kemudahan dan peralatan telah dicadangkan seperti Embosser, braille track, and railing untuk mengurangkan cabaran yang dihadapi oleh mereka.

**Kata kunci: pelajar masalah penglihatan, cabaran, alat bantuan, dan kemudahan**

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## **TABLE OF CONTENT**

<b>CHAPTER 1</b>	<b>INTRODUCTION</b>	
1.0	INTRODUCTION	1
1.1	BACKGROUND OF STUDY	1
1.2	STATEMENT OF PROBLEM	3
1.3	RESEARCH QUESTION	5
1.4	OBJECTIVES OF THE STUDY	5
1.5	CONCEPTUAL AND OPERATIONAL DEFINITION	6
1.6	SIGNIFICANCE OF THE STUDY	7
1.7	SCOPE OF THE STUDY	7
1.8	SUMMARY	8
<b>CHAPTER 2</b>	<b>LITERATURE REVIEW</b>	
2.0	INTRODUCTION	9
2.1	THEORETICAL FRAMEWORK	9
2.1.1	SOCIAL MODEL	9
2.1.2	NORMALIZATION THEORY	10
2.1.3	THEORETICAL RESEARCH PARADIGM	11
2.2	PERSONS WITH DISABILITY (PWD)	12
2.2.1	DEFINITION OF PWD	12
2.2.2	PWD ACT IN MALAYSIA	15
2.3	SPECIAL EDUCATION	16
2.3.1	SPECIAL EDUCATION FOR PWD IN MALAYSIA	16
2.3.2	BACKGROUND OF EDUCATION FOR VISUALLY IMPAIRED	18
2.4	CHALLENGES FACED BY VISUALLY IMPAIRED IN HIGHER EDUCATION	20
2.5	PAST RESEARCH FINDINGS	25

	LECTURERS' ACCEPTANCE AND	
2.5.1	READINESS TOWARDS STUDENTS WITH SPECIAL NEEDS	25
2.5.2	THE READINESS OF A COMMUNITY COLLEGE IN PROVIDING EDUCATION TO THE PWD	26
2.5.3	CHALLENGES FACED BY LECTURERS, TEACHERS AND SWVI IN HIGHER EDUCATION LEARNING	27
2.5.4	CHALLENGES IN TEACHING THE VISUALLY IMPAIRMENT	28
2.5.5	CHALLENGES IN LEARNING AND TEACHING ENGLISH AS A FOREIGN LANGUAGE TO SWVI	30
2.5.6	NEGATIVE ATTITUDE TOWARDS SWVI	32
2.6	CONCLUSION	33
2.7	SUMMARY	34
<b>CHAPTER 3</b>	<b>METHODOLOGY</b>	
3.0	INTRODUCTION	35
3.1	RESEARCH DESIGN	35
3.2	SELECTION OF SAMPLE	36
3.3	INSTRUMENTS	37
3.3.1	INTERVIEW	37
3.4	DATA COLLECTION PROCEDURE	37
3.5	DATA ANALYSIS PROCEDURE	38
3.6	LIMITATION OF STUDY	39
3.7	SUMMARY	39
<b>CHAPTER 4</b>	<b>RESULTS AND DISCUSSION</b>	

CUS  
SIO  
NS

4.1	Introduction	40
4.2	Autobiographical Case Study	40
4.2.1	Researcher Background	40
4.2.2	Apply For University	42
4.2.3	4.2.3 Physical Challenges In University	43
4.2.4	Challenges When Using Library	43
4.2.5	Challenges As a Linguistic Student	43
4.2.5 .1	Challenges In Tree Diagram.	
4.2.5 .2	Learning Using Printed Book	44
4.2.5 .3	Challenges Dealing With Symbol	44
4.5.2 .4	Challenges In Doing Exam	45
4.2.5 .5	Challenges Faced In Doing Assignment Or Assessment	45
4.2.5 .6	accessing Ordinary Study Note Or Material	46
4.2.5 .6	Challenges In Meeting Lecturer	47
4.2.6	Asking For Facilities	47
4.2.7	Hope From The Visually Impaired Student	48
4.3	Linda Stories Interview	49
4.3.1	Linda's Background	49
4.3.2	Applying For University	49
4.3.3	Physical Challenges In University	50

4.3.4	Challenges When Using Library	51
4.3.5	challenges as a linguistic student	51
4.3.5 .1	Challenges In Tree Diagram.	51
4.3.5 .2	Learning Using Book	52
4.3.5 .3	Challenges Faced In Doing Assignment	53
4.3.5 .4	Challenges Dealing With Symbol	54
4.3.5 .5	Ordinary Study Note Or Material	55
4.3.5 .6	Challenges When Doing Exam	56
4.3.6	Asking For Facilities	56
4.4	Michel's Stories	59
4.4.1	The Background Of Michel.	59
4.4.2	Applying For University	60
4.4.3	Physical Challenge's In University	60
4.4.4	Challenges When Using Library	61
4.4.5	Challenges As A Linguistic Student	62
4.4.5 .1	Challenges When Learning Using Book	62
4.4.5 .2	Challenges Faced In Doing Assignment Or Assessment	63
4.4.5 .3	Challenges In Meeting With Lecturer.	64
4.4.5 .4	Challenges Dealing With Symbol and Diagram	65
4.4.5 .5	Ordinary Study Note Or Material	66

4.4.5	Challenges When Doing Exam	6
.6		6
4.4.6	Asking For Facilities	67
4.4.7	Hope From the Visually Impaired Student	69
4.5	Discussion Of Result	70
4.5.1	Challenges Faced By the SWVI	70
.1		
4.5.1	Challenges In Mobility	70
.1.1		
4.5.1	Challenges In Reading	71
.1.2		
4.5.1	Challenges In Learning Unit Involve Visual	73
.1.3		
4.5.1	Challenges In Writing	74
.1.4		
4.5.1	Challenges Participating In Group Assignment	7
.1.5		5
4.5.1	Summery	7
.1.6		6
4.5.2	Facilities' That Been Propose By the SWVI	7
		6
4.5.2	Special Geometry Set	7
.1		6
4.5.2	Braille Track Or Railing	7
.2		6
4.5.2	Room Complete With Assistive Technology.	7
.3		7
4.5.2	Summery	7
.4		7
4.6	Summary	7
		8

CHAPTER 5 CON  
CLU

SIO N		
5.1	Summary Of Findings	7 9
5.2	Implications Of Findings	8 0
5.3	Recommendations For Further Research.	8 0
REF ERE NCE		8 2
Appe ndix 1		8 4
Appe ndix 2		8 6
Appe ndix 3		1 0 0





# CHAPTER 1

## INTRODUCTION

### **1.0 Introduction**

This study aims to identify challenges faced by students with visual impairment (SWVI) in learning linguistics. Chapter one includes the background of study, problem statement, research question, objective of study, definition of terms, significance and scope of study.

### **1.1 Background Of Study**

Persons with Disabilities (PWD) are individuals that who have long term physical, mental, intellectual or sensory impairments, which may hinder their full and effective participation in society on an equal basis with others (United Nations Convention on the Rights of Persons with Disabilities as sighted in Nurhidayah, Hanira and Izati 2017).

In Malaysia, the PWDs have been divided into 7 categories namely hearing impairment, visual impairment, physical impairment, learning disability, speech impairment, mental disorder and multiple disabilities (the Ministry of Women, Family & Community, Development in Department of Statistics, Malaysia 2016). As of October 2017, 443,541 of PWD had registered them self with the Social Welfare Department and 39, 999 of the total number of PWD are persons with visually impairment (Azizah as cited in the Sun Daily, 2017). Our government should give equal access to the PWD in higher education, employment, and access to buildings.

In Malaysia, individuals with disability are given access to education as stated in the Persons with Disabilities (PWD) Act, starting from primary to higher education. According to Quick Facts 2012 published by the Ministry of Education, Malaysia (2012) (as cited in Final Mapping 2013), there are 50,738 students with disabilities registered in pre-, primary, and secondary schools in Malaysia. Although there are differences in special

schools and integrated schools, they use the same syllabus in their studies as their peers without disabilities. The differences in special education especially for SWVI are the teachers provide notes or books in braille form so that the students can access the materials. SWVI must sit for the same public examinations as other students such as “Ujian Penilaian Sekolah Rendah” [UPSR], “Pentaksiran Tingkatan 3” [PT3] and “Sijil Pelajaran Malaysia” [SPM].

For higher education in Malaysia, several universities have opened their doors to students with disabilities. Universities such as Universiti Kebangsaan Malaysia (UKM), Universiti Malaysia Sabah (UMS), Universiti Putra Malaysia (UPM), and Universiti Malaysia Sarawak (UNIMAS) cater for SWVI. Some of these universities even offered facilities such as embossers and computers with screen readers for SWVI so that they can access the information needed.

Starting from 2012, UNIMAS has started to providing opportunities to PWD to further their studies in selected fields. Limited faculties such as the Faculty of Language and Communication, Faculty of Economy and Business, and Faculty of Social Sciences have opened their doors to PWDs. To date, Unimas has received four SWVI. Although UNIMAS has started to accept SWVI, there is a lack of facilities for PWDs especially SWVI because there are very few SWVI there. This causes them to face various challenges in their university life. In other words, a SWVI will usually face fewer challenges in their primary and secondary school compared to post-secondary and higher education. This is because in primary and secondary schools the learning materials are prepared by the teacher and less additional information are needed. Some teachers in primary schools and secondary schools as well as resource teachers in integrated schools provide additional classes to SWVI. Some higher educations too have tutorial programs to help their students academically but not in Unimas.

## 1.2 Statement Of Problem

Generally, SWVI in Malaysia have limited opportunities to enter universities compared to individuals with disabilities from other categories (Loh, Haslee, Farrah, Ahmad, Chong, and Chu 2012). Even if the university accepts the SWVI to pursue their studies, the choices of academic programs and courses are limited (Loh et al., 2012). In University Malaya (UM) for example, there are only four faculties, namely the Faculty of Law, Faculty of Economics and Administration, Faculty of Arts and Social Science, and Faculty of Education that are open for enrolment for SWVI (Loh et al., 2012). Similarly, in Unimas, only a couple of faculties such as the Faculty of Language and Communication (FLC) and Faculty of Economy and Business (FEB) opened its doors to SWVI in Unimas.

Prior to joining FLC, my application to pursue studies in marketing in FEB Unimas was accepted on 15 September 2015. However, on my first day in Unimas, when I went to FEB to submit required documents, one of the lecturers suggested I moved to FLC as a previous SWVI that they had accepted, could not perform in the program that she had chosen.

Apparently, there were a few challenges faced by the previous SWVI who studied in FEB, which included less reading materials, challenges in moving around campus, difficulties in course registrations, and inability to read graphs and symbols. So, she mostly depended on her friend to move around such as from class to hostel as well as to do other things. There were also a few courses that had calculation symbols and graphs that could not be read by screen-readers such as Non-Visual Desktop Access (NVDA). She had to very much depend on her friend to draw the symbols. This led the lecturer to change the student's original program from Industrial to Corporate Management because of too many graphics in the Industrial Management program. The lecturer had also asked a teacher to help her with graphs and symbols, but that teacher was only able to help her for

one semester. In addition, some of the courses offered by the faculty had registration limitations that proved challenging to this SWVI to enrol in the course before it was full. The situation was made worse as the lecturers in FEB could not find ways to resolve the challenges faced by the SWVI in FEB.

Additionally, the lecturer also stated that I did not possess the minimum requirement of the program of study, which was at least a pass in Mathematics and must have taken Additional Mathematics. She stated that there is no need for me to calculate anything in the Linguistics program as I just have to listen to the lectures. So, the lecturer pushed me to change my program of study from WE10 Marketing in FEB to WB03 Linguistics in FLC as there was already another student studying in that faculty. A few questions come to my mind then which included: 1) why I was offered this program of study in FEB although I did not fulfil the minimum requirement of this course; 2) what made them think I would not be able to handle my study in Marketing just because another prior SWVI was unable to handle the program; and 3) why the lecturer did not want to give me a chance to deal with that program of study.

Initially, I refused to change my program of study, but my family members were greatly affected by what the lecturer had said and advised me to do so. My family and I went to the Undergraduate Admissions Division (BPP) to change my program of study. There, I asked if there were any other programs that I could take such as counselling or human resource management. Sadly, the officers informed that both courses were full. They too made the same suggestion as the FEB lecturer. So, finally I accepted to study in the Faculty of Language and Communication although I did not like the program of study.

Fortunately, the Faculty was willing to accept me and made all the arrangements within one day although they did not have information on the facilities needed by SWVI. I understand that the facilities that other public universities in Malaysia have today, would

not have come on its own if someone had not voiced up for the need of those facilities. With the PWDs being the smallest group in the university, how would the community cope and progress if no facilities and equal opportunities were given to them to pursue their higher education. This became my motivation to investigate this problem.

By undertaking this study, the voice of the voiceless would be heard and I hope the authorities in the Ministry of Higher Education, Unimas' Students' Affair Division, Undergraduate Admissions Division, as well as all the Deans of the 9 faculties in Unimas and lecturers will provide equal opportunities to PWDs, especially SWVI, to pursue their preferred choice of study and provide the facilities needed to minimize the challenges faced by SWVI.

### **1.3 Research Questions**

This study intends to address the following questions:

1. What are the challenges faced by Students with Visual Impairment (SWVI) learning in the Faculty of Language and Communication (FLC) and Universiti Malaysia Sarawak (Unimas)?
2. How do SWVI overcome the challenges that they face in FLC and Unimas?
3. What are the assistive technology tools used by the SWVI to overcome the challenges they faced in learning linguistic in FLC and Unimas?
4. What are the assistive technology provided for by FLC and Unimas?
5. What facilities and support do SWVI expect from FLC and Unimas to facilitate and support their studies in UNIMAS?

### **1.4 Objectives Of the Study**

The objectives of this study are to:

1. Analyse the challenges faced by SWVI in learning linguistic and how they overcome these challenges.

2. Identify and propose facilities that are needed by the SWVI.

### **1.5 Conceptual and Operational Definition**

#### **Vision impairment**

Operational definition: “Vision impairment is a significant limitation of visual capacity ranging from cases of total blindness to partial vision loss that cannot be fully restored by surgery, or corrective lenses” (Australian Institute for Health and Welfare; Teens Health as cited in Alhammedi, 2014).

Conceptual definition: Vision impairment is the loss of eye sight that occurs in life due to some factors such as glaucoma, diabetics, accidents, or from birth.

#### **Higher education**

Operational definition: Higher education refers to educational courses offered at universities and colleges (Alhammedi, 2014).

Conceptual definition: Higher education refers to educational programs offered at post-secondary education level.

#### **Braille**

Operational definition: Braille ‘is a series code that written in a dot form and can be read with the fingers by people who are blind or whose eyesight is impaired, and use languages such as English or Spanish (American Foundation for the Blind as cited in Alhammedi, 2014).

Conceptual definition: Braille is a series of dot that can be read by individuals with visual impairment and can be represented in many languages around the world.

#### **Assistive or adaptive technology**

Operational definition: Assistive or adaptive technology is “any item, piece of equipment, or product system, whether acquired commercially off the shelf, modified, or customized,

that is used to increase, maintain, or improve functional capabilities of PWDs” (Foka et al.; Kelly & Smith as cited in Alhammadi, 2014).

Conceptual definition: Assistive technology is a technology either in the form of software or hardware to enhance the life of the visually impaired.

### **Screen readers**

Operational definition: Screen reader is a software program that enables blind or visually impaired users to read the text that is displayed on the computer screen with a speech synthesizer by pressing different combinations of keys on the keyboard. (American Foundation for the blind as cited in Alhammadi, 2014).

Conceptual definition: Screen reader is a software that reads the text that appeared on the screen of a computer or phone.

### **1.6 Significance Of the Study**

The purpose of this study is to identify the challenges faced by SWVI. This study will also propose workable solutions to the challenges faced by SWVI besides increasing the number of literature on SWVI and inclusive education. In addition, the researcher also hopes that the voice of the SWVI would be heard and more faculties in Unimas would open their doors to accept SWVI.

### **1.7 Scope Of the Study**

The scope of this study is limited to SWVI in UNIMAS generally and the B.A. Linguistic (Hons.), Unimas specifically. The challenges faced by lecturer in teaching them will not be studied.

### **1.8 Summary**

This chapter introduced and provided some background information, purpose and objectives of the study. The following chapter discusses literature reviews that include related researches and past methods used to support the present study.



## **CHAPTER 2**

### **LITERATURE REVIEW**

#### **2.0 Introduction**

This chapter introduces the theoretical framework as well as some literature review on Persons with Disability (PWD), the PWD Act, and the education system in Malaysia for persons with disabilities especially for those with visual impairment.

#### **2.1 Theoretical Framework**

##### **2.1.1 Social Model**

There are a few theoretical frameworks used by the previous researcher in their study of individuals with visual impairment (IVI). One of the theory used to study the IVI is social model (Nasiforo, 2015). Nasiforo had used social model in the study of visual impairment. This model encouraged the society to see the issue of person with disability from a human rights and equality rather than focus on participation of PWD in any situation (Oliver & Barnes as cited in Nasiforo 2015). This theory emphasized that PWDs were often made to feel that it is their own fault that they are different due to the impairments (Nasiforo, 2015). The PWDs movement believes that cure to the problem of disability is restructuring the society, and not focusing on the individual's impairments (Nasiforo, 2015). In an inclusive setting, it is the institution of higher education's responsibility to re-adjust to meet the needs of learners with visual impairments. Social model, also emphasized that students with disabilities could experience difficulties in the education system due to extensive, demanding, rigid and inflexible curriculum, inaccessible school environment, lack of adequate resources and materials, negative attitude among others (Nasiforo, 2015). The inclusive education approach, however, suggested those difficulties should not be explained simply in terms of children's impairments that causes view of the learner faces such problems due to his or her

impairments. Under those circumstances, the option is not to establish a separate special school, instead the school should not be creating barriers to learning for the learners with special needs by failing to create an enabling and supportive environment for them (Nasiforo, 2015). A more appropriate response is to understand the barriers to learning and work out systematically to overcome them (Nasiforo, 2015). The teacher or lecturer should see the strength of the students, rather than the disability. It advocates for the inclusion of all Student however “severe” the disability is in the mainstream education system (Diana as cited in Nasiforo, 2015). According to Rieser (as cited in Nasiforo, 2015), many learners with special needs especially those with visual impairments are locked out of education opportunities due to barriers related to school, teacher and expensive educational resources which are not locally available. Therefore, the social model of disability supports the ideas of inclusive education and encourages the removal of barriers that prevent the learners with visual impairments from accessing quality higher education.

### **2.1.2 Normalisation Theory By WolfWolfensberger (1980)**

The theory of normalization postulated by WolfWolfensberger (as cited in Mercy 2011) encouraged the acceptance of people with disabilities, offering them the same conditions as offered to other citizens. It involves an awareness of the normal rhythm of life such as housing, schooling, employment, exercise, recreation and freedom of choice. This includes the dignity of risks, rather than emphasis on protection. Community members are taught by our culture that people are different are fundamentally different and flawed, and it is in everyone’s best interest if they are removed from society (Wilmshurst and Brue as cited in Mercy, 2011). Part of the normalization process include supporting them to attain normal life, but another part includes broadening the category of normal to include all human beings (Wolf Wolfensberger as cited in Mercy, 2011). People with disabilities should not be considered sick, ill, abnormal, subhuman, or unformed, but as

people who require significant support in certain areas of their life (Ndurumo as cited in Mercy, 2011). Society has to understand that all people require support at certain times or in certain areas of their life, but that most people need these supports informally or through socially acceptable avenues. The key issue of support typically comes down to productivity and self-sufficiency, two values that are central to our society's definition of self –worth (Mercy 2011).

### **2.1.3 Theoretical Research Paradigm**

This theory is used by Alhammadi in his study and the aim of this theory is to understand human experiences and interactions and provide deeper understandings of the social context of the phenomenon being studied (Cresswell as cited in Alhammadi, 2014). The assumption underlying the interpretive research paradigm that any social phenomenon is an outcome of human action is based on clarifying and understanding the research problem (Rowlands and Walsham as cited in Alhammadi, 2014). This theory also studies a specific phenomenon by gathering subjectively grounded information provided by participants who have first-hand everyday experience of the phenomena of research interest (Rowlands Walsham as cited in Alhammadi, 2014). An interpretive paradigm provides an appropriate inquiry context to respond to the main research. The main three research questions that need to be investigated in this study are related to challenges faced by SWVI in Linguistic studies, and the possible solutions to address the challenges. These question areas deal largely with the individual experiences of SWVI.

In this study the researcher will use theoretical research paradigm to gather data on the challenges faced by SWVI who have first-hand everyday experience in learning Linguistics in Unimas.

## **2.2 Persons With Disability (PWD)**

### **2.2.1 Definition Of PWD**

According to United Nations Convention on the Rights of Persons with Disabilities (as cited in Nurhidayah, Hanira and Izati, 2017), Article 1 defines disability as persons including those who have long term physical, mental, intellectual or sensory impairments, which may hinder their full and effective participation in society on an equal basis with others. According to Hasnah, Tajul, Hanafi, Mokhtar and Hazwani (2010) disability is a concept that change continuously. Disability is not only refer to physical or intellectual disability but also as a social construct or opinion where disability is a result from the challenges that are caused by attitudes and environments that form barriers to their full and equal participation in the society (Hasnah et al., 2010). The attitude is a combination between the trust and feeling that influence action of individuals (Brostrand as cited in Hasnah et al., 2010). On the other hand, Triandis, Adampoulus, and Brinberg (as cited in Hasnah et al., 2010) described attitude as idea or trust that supported by feeling that create certain actions in certain social situations.

According to International Classification of Functioning (ICF) (as cited in Disable World, 2017), there are a few categories of disabilities namely Mobility and Physical Impairments, Spinal Cord Disability, Head Injuries - Brain Disability, Vision Disability, Hearing Disability, Cognitive or Learning Disabilities, Psychological Disorders, and Invisible Disabilities (disable world 2017). Despite these, the Social Welfare Department of Malaysia had classified PWD into 7 categories namely Sight Impairment, Hearing Impairment, Speech Impairment, Physical Disabilities, Slow Learner, Mental Disorder, and Multiple disabilities.

According to Disable World (2017), Mobility and Physical Impairments include people with varying types of physical disabilities such as Upper limb(s) disability, Lower

limb(s) disability, Manual dexterity and Disability in co-ordination with different organs of the body. Malaysian welfare department describe physical disabilities as individuals who are physically disabled due to loss of his/her body functions or any of his/her limb in any part of his/her body which may hinder his/her ability to live a normal life (Department of Statistics, Malaysia 2016).

Spinal Cord Disability is a disability due to severe accident. The injury can be either complete or incomplete. In an incomplete injury, the messages conveyed by the spinal cord is not completely lost; whereas, a complete injury results in a total dis-functioning of the sensory organs (Disable World, 2017). In some cases, spinal cord disability can be a birth defect (Disable World, 2017).

Brain Disability refers to injuries to the brain due to the magnitude of the head injury (Disable World, 2017). The brain injury can range from mild, moderate and severe (Disable World, 2017).

Hearing disabilities include people that are completely or partially deaf and those who are partially deaf can often use hearing aids to assist their hearing (Disable World, 2017). The Malaysian Welfare Department describes those with hearing disabilities as individuals who are unable to hear clearly in both ears without using hearing aids or unable to hear completely even when using hearing aids (as cited in the Department of Statistics, Malaysia, 2016).

Cognitive Disabilities refers to impairments present in people who are suffering from dyslexia and various other learning difficulties and includes speech disorders (disable world 2017). Speech Impairment according to Malaysian welfare department is an individual who is unable to speak but could hear (Department of Statistics, Malaysia 2016).

Psychological Disorders refer to the disorders of mood or state of feelings either for short or long term (Disable World, 2017). This disability may include mental health impairment. Mental Health Impairment is the term used to describe people who have experienced psychiatric problems or illnesses such as personality disorder or schizophrenia (Disable World, 2017). The Malaysian Welfare Department describes individuals with mental disorders as individuals who suffer from severe mental disability and has undergone treatment or diagnosed as such for at least two years by a psychiatrist (Department of Statistics, Malaysia 2016).

Personality Disorders is defined as deeply inadequate patterns of behavior and thought of sufficient severity to cause significant impairment to day-to-day activities whereas schizophrenia is a mental disorder characterized by disturbances of thinking, mood, and behavior (Disable World, 2017).

Invisible disabilities are disabilities that are not immediately apparent to others. It is estimated that 10% of people in the U.S. have a medical condition considered a type of invisible disability (Disable World, 2017).

Visual disability or impairments are disabilities in term of vision. The vision disability is divided into 2 categories, low vision and totally blind. According to Disable World (2017), some injuries can also result into some serious problems or diseases such as blindness and ocular trauma. Some of the common vision impairment include scratched cornea, scratches on the sclera, diabetes related eye conditions, dry eyes and corneal graft (Disable World, 2017). The Malaysian Welfare Department defines it as an individual who is unable to see completely or experiences limited eyesight either on one eye or both, even by using vision aids such as spectacles or contact lenses (Department of Statistics, Malaysia, 2016).

Slow learners are individuals whose learning ability is not of the same level of his/her biological age, whereas Multiple Disabilities refer to individuals who suffer from more than one disability and are not suitable to be classified under any of the six categories (Department of Statistics, Malaysia, 2016).

Those are classification of disabilities from the International Classification of Functioning (ICF) and Malaysian Welfare Department. Nevertheless, the focus of the research is on students with visual impairment.

### **2.2.2 PWD Act In Malaysia**

There are few countries such as India, America and Malaysia that have special acts to protect the PWD in the country. In 1990, America had its own Act to protect PWDs in their country. According to Gostin (2015), this Act is a piece of legislation that enshrines in law a social promise of equality and inclusion into all facets of life. According to declaration on the Rights of Disabled Persons, 1975 (as cited in Alhammadi 2014), “persons with disabilities have the right to gain equal access to: medical, welfare, rehabilitation, education, vocational training and any other services. In addition, the special needs of individuals with disabilities should be taken into consideration when offering these services”.

In Malaysia, there is a Persons with Disabilities Act 2008. This act was adopted from the United Nations’ Convention on the Rights of Persons with Disabilities to promote the betterment of Persons with Disabilities (Nurhidayah, Hanira and Izati, 2017). The Malaysian Government had also made a step forward by enacting the Persons with Disabilities Act 2008. The Statute seeks to provide for social protection services in areas such as health, rehabilitation, and education for children with disabilities guided by the National Policy for Persons with Disabilities and the National Plan of Action for Persons with Disabilities (Nurhidayah, Hanira and Izati, 2017). According to Nurhidayah, Hanira

and Izati (2017), although there is a PWD act and the Article 8 (1) and (2) of the Federal Constitution 1957 has provided equality of all before the law and protection for all citizens against discrimination on grounds of race, descendants, or place of birth in any law, this act lacks effectiveness (Nurhidayah, Hanira & Izati, 2017). Despite this constitutional guarantee, persons with disabilities still faced problems in developing themselves as they are deprived of many basic rights such as education, employment, accessibility and other economic and social opportunities (Nurhidayah et al., 2017).

## **2.3 Special Education**

### **2.3.1 Special Education For PWD in Malaysia**

In terms of special education teacher training, special education has grown progressively since its introduction in this country (Nadhir &Alfa, 2016). There are several public universities that offered degree programs in special education such as Sultan Idris University of Education (UPSI), University of Science Malaysia (USM), National University of Malaysia (UKM) MARA University of Technology (UiTM), International Islamic University Malaysia (IIUM) and University of Malaya (UM) (Nadhir &Alfa, 2016).

The progress of special education in Malaysia can be divided to 4 stages namely before and during colonial period (1900), pre-independence period (1900-1957), post-independence (1957-1990) and modern Malaysia (after 1990) (Nadhir &Alfa, 2016). During the first period, there was no opportunity for PWDs except in traditional Malay schools. The first special schools for disabilities built by the British were Princess Elizabeth's Special Education School for students with visual impairment in Johor and the Federal School for students with hearing impairment in Penang (Nadhir &Alfa, 2016). During this period, the education for persons with disabilities was provided by non-governmental organizations (NGOs) and relied on contributions from missionary

groups (Nadhir &Alfa, 2016). After independence, the task to provide education for students with disabilities fell under the responsibility of the Education Ministry (Nadhir &Alfa, 2016). The schools had adopted the curricula for Braille and sign language learning from western countries (Nadhir &Alfa, 2016). During the early years of Independence, the planning process for special education was not active and there was a separation of responsibilities between the Ministry of Education (which was tasked to cater for children with visual, hearing and mild mental impairment) and Ministry of Women, Family and Community Development (which was tasked to cater for children with physical and moderate to severe degree of mental impairment) (Lay & Hui as cited in Nadhir & Alfa, 2016).

Among the initiatives by Ministry of Education in this period was the integration program which was made compulsory for all states in Malaysia in 1987 and teacher training through in-service professional courses and overseas research degrees from 1980s to 1990s (Lay & Hui as cited in Nadhir and Alfa, 2016). However, the global paradigm shift from medical and welfare model of disability to social model of disability brought a major change in Malaysian special education philosophy in the following period (Lay & Hui as cited in, Nadhir and Alfa, 2016). Malaysia introduced Special Education by the Ministry of Education in 1997 (Lay & Hui as cited in, Nadhir and Alfa, 2016). There are three special education programs, namely the special school, integrated program and inclusive program (Lay & Hui as cited in Nadhir and Alfa, 2016). All students registered for the special education programs are eligible to receive monthly allowance since 2006 (Lay & Hui as cited in Nadhir and Alfa, 2016). In 2013, the new education regulations 1997 and special education was included in the Preliminary Report of the National Education Blueprint 2013-2025 (Lay & Hui as cited in, Nadhir and Alfa, 2016). Based on that, today higher education institutions such as UNIMAS should provide reasonable

accommodation to students with disabilities. This includes access to buildings, and information, exam and classroom accommodation, and support from teaching staff (Hadjikakou, Hartas, & Holloway as cited in Alhammadi, 2014).

### **2.3.2 Back Ground Of Education For Visually Impaired**

According to, Alhammadi 2014, the history of education for those with vision impairments was started in East Asia, or specifically in China, Japan and Korea, where blind people were trained to be musicians, acupuncturists, massage therapists, and fortune-tellers. In the fifteenth century, human societies moved away from oral education to written education that caused the people with vision impairments to become dependent on sighted people to read and write for them (Alhammadi, 2014).

In 1784, education for SWVI officially started in Europe and had changed the lifestyle of individuals with visual impairment in France. This is because the school that was known as the Royal Institute for the Blind Youth had offered accommodation, education, and jobs for blind students. In 1809, the school had invented a new reading technique for the blind call Louis Braille system. It is invented by a blind student at the Royal Institute for Blind Youth in Paris. This school focused on providing blind children with rehabilitation training to enhance their levels of independence following graduation (Sydenham & Thomas as cited in Alhammadi, 2014). In 1821, a soldier named Charles Barbier introduced a new literacy system call night writing for the blind to the Royal Institute for Blind Youth (Alhammadi 2014). This system was developed to enable French soldiers to read instructions at night without the need for light (Alhammadi 2014). This, based on touching twelve dots reading system, was too complicated and so the French army did not use it. Louis Braille adopted the main idea behind this system and improved it further. Within a few months he had developed a simpler version that utilized six dots and he refined this system to include alphabetical, mathematical and musical characters. The

system now known as a Braille reading system (Alhammadi 2014). In the 20th century, a significant achievement occurred in the field of education for SWVI.

The first important development was in teaching those with low vision. Before the twentieth century, the differences between the educational needs of blind students and those with low vision remained unclear and all SWVI were treated as blind even if they had some useful sight (Alhammadi 2014). Students with low vision attended blind schools and received their education by learning Braille. It was their belief that if people with low vision used their eyes in reading, they would lose their remaining sight (Alhammadi 2014). Challenging this idea, two English ophthalmologists, James Keer and Bishop Herman stated that students with low vision could use their sight to read if they were provided with reasonable accommodation for their study materials (as cited in Alhammadi 2014).

The second important achievement in the 20th century was the invention of audio technology. The invention of the tape recorder enabled SWVI to record educational materials and lectures in audio form (Alhammadi 2014). This assistive technology enhanced SWVI access to higher education (Stuckey as cited in Alhammadi, 2014). The invention of computers in the 1960s had enabled the people with vision impairments to access information (Alhammadi 2014).

Over the following years, many sophisticated assistive technology and software emerged in the form of screen readers, braille embosser, CCTV device, and optical character recognition (OCR) software (Alhammadi 2014). Screen reader is a software program that enables users with visual impairment to read the text is displayed on the computer screen with a speech synthesizer. Braille embosser is a Braille and tactile printer. CCTV device is an electronic magnifier that enlarges written or printed text for those with low vision, whereas scanners with OCR software devices that scan printed text and convert this into electronic text format (Kelly and Smith as cited in Alhammadi, 2014). These

assistive technology devices have created better access to higher education for SWVI by enabling them to get information that is available to others and assists them to study more independently (Alhammadi, 2014).

#### **2.4 Challenges Face By Visually Impaired In Higher Education**

From the past research done by Alhammadi, in a school and higher education indicated that SWVI need to have access to the same study materials that are available to all university students. There were compelling evidences in the literature that these resources may not always be offered in accessible formats for SWVI (Orsini; Permvattana et al.; Strobel, Fossa, Arthanat, & Brace as cited in Alhammadi, 2014). Materials that are accessible for SWVI are audio, Braille for blind, large print for low vision and electronic text format (Permvattana, Richardson & Roy; Sivanesan, Whitehouse, Dearnley & Murray; as cited in Alhammadi, 2014). Nonetheless, research indicated that SWVI cannot always obtain their study materials in the text format they need for several reasons. One of the reasons is not all universities provide Braille text options to SWVI due to the expensive Braille embossers (Alhammadi, 2014). The high purchase cost of Braille embossers causes not all countries have online Braille printing services (Alhammadi, 2014). Although, these services do exist, SWVI often wait for long periods before receiving their materials in Braille (Ludi & Reichlmayr, as cited in Alhammadi 2014). Additionally, SWVI needed to make special adjustments in order to access scientific materials, or any materials that contained images. This is because images need to be described in clearly expressed text to enable blind, or partially sighted students to understand them. The preparation and adaptation of materials for SWVI require a long time and causes the Disability Support officers at many universities to not able to prepare the accessible materials in advance of the arrival of students. Moreover, the SWVI usually do not know the kind of materials they were going to study before the academic year. As a result, the support officers usually

received the students' requests at the beginning of the academic year. This causes SWVI experience constant delays in receiving their materials (Whitehouse et al. as cited in Alhammadi, 2014).

Internet had become the second source that SWVI able to access. People with vision impairments faced different challenges accessing Internet websites, especially gaining access to graphics and images. Most Internet websites do not provide text descriptions for these images that make them unreadable by screen readers. Additionally, "inconsistent layouts, fixed font sizes, and pages with poor contrast" cause the SWVI faced challenges in accessing information (Strobel et al as cited in Alhammadi, 2014). Some web side had text on Internet that are not always written in digital format and cause the assistive technology to not be able to process the text (Strobel et al as cited in Alhammadi, 2014).

Textbooks constitute the third information resource SWVI need to access. Accessing textbooks represents another serious challenge for SWVI in higher education because adapting textbooks for SWVI requires converting these books from normal print to electronic text format. However, converting printed texts to electronic format require longer time. Therefore, universities have started to take a great interest in obtaining textbooks in electronic text format directly from the publishers. Nonetheless, evidences from the literature shows that requesting books from publishers is more time consuming than the adaptation of materials by university staff (Whitehouse et al as cited in Alhammadi, 2014). Moreover, many countries still do not have any legislation that gives people with print disabilities the right to obtain an electronic copy of textbooks directly from the publishers (Orsini, Whitehouse et al as cited in Alhammadi, 2014). In order to access these sources of information, SWVI need to use different types of assistive technology together such as screen readers, magnifiers, and Braille devices. Recently, assistive technology devices have been improved to offer better access (Kelly & Smith as

cited in Alhammadi, 2014). The use of innovative technologies help SWVI to increase their study capacity, productivity, independence, and self-confidence (Foka, Polgarb, Shawb&Jutaic, as cited in Alhammadi, 2014). However, not all SWVI in higher education can obtain the assistive technology they need, because of high purchasing costs. Moreover, SWVI did not attend any training on ways to use assistive technology before entering universities, and many universities do not offer this kind of training, causing these SWVI not to be able to access additional resources of knowledge and this indirectly affect their learning opportunities and academic outcomes in higher education (Fichten et al, Richardson & Roy, as cited in Alhammadi, 2014).

The SWVI also faced challenges in accessing the environments. When designing the layout of a university, the movements of SWVI in physical environment have to be considered (Alhammadi 2014). For example, research suggests that university buildings need to include: accessible elevators, accessible stairs, short distances between buildings and safe passageways to travel from building to building (West, Kregel, Getzel, & Zhu as cited in Alhammadi, 2014). Moreover, there is a need to have an orientation and mobility training for SWVI at their university before starting their studies. Through this training, SWVI will be able to learn how to travel safely from their accommodation to their university and familiarize themselves with potential hazards within the physical environment at their university (Alhammadi 2014). McBroom, (as cited in Alhammadi 2014) stated that most universities do not offer this kind of training. As a result, some SWVI struggle to move independently around their campus.

The third challenge faced by SWVI are challenges in learning. Lecturers at universities need to have a clear understanding of the additional needs of SWVI, and how to modify their everyday practices to address these (Orsini; Tinklina, Riddella& Wilson as cited in Alhammadi, 2014). There are strong evidences in the literature that teaching staff

in higher education face specific difficulties in educating SWVI. One of the challenges is lack of experience in teaching these students, and difficulties in providing these students with reasonable accommodation in their classes (Hadjikakou & Hartas as cited in Alhammadi, 2014). In addition, Orsini (as cited in Almmahadi, 2014) reported that some lecturers may feel uncomfortable educating blind students because they were not familiar with Braille literacy. Some lecturers also have misunderstanding that equality means treating all students equally the same and ignoring the disabilities of SWVI (Tinklina et al. as cited in Alhammadi, 2014). The difficulty in recognising students' impairments also had caused lecturers to forget that they have SWVI in their classes Orsini (2009). Matthews (as cited in Alhammadi, 2014) had argued that although universities tried to provide reasonably good access to information and the physical environment, they do not take into consideration the requirement to modify teaching practices to accommodate the special needs of these students. As a result, SWVI face specific challenges studying some major readings (Alhammadi 2014).

The SWVI also faced challenges in accessing some courses. This can be seen when SWVI do not have the same opportunities to choose their major field of study in higher education compared to students without visual impairments (Alhammadi 2014). Bernareggi et al. and Richardson and Roy (as cited in Alhammadi, 2014) stated that some SWVI in Western countries avoid choosing some majors to study, especially majors that contain subjects representing a barrier for them to understand without visual assistance. Computer, Science, Mathematics, and Languages were found to be the most challenging majors for SWVI to study. This is because courses such as Information Technology (IT) may use images that are difficult for SWVI to understand without additional explanatory text-based information. Photographs, graphs, charts, diagrams, animation,

buttons, icons and instructions are some other example of challenges that SWVI will face to understand if no explanations were given.

Foreign languages are another challenging area for SWVI in higher education. Other than obtaining books and study materials in accessible formats for these subjects, finding a suitable dictionary is another challenging area. Although some dictionaries are available in electronic format for SWVI, they are not permitted in exams whereas Braille dictionaries are printed in many volumes causing it difficult for SWVI to carry around. Finally, low vision and blind students are usually unable to read second language materials at the same speed as the first language and might cause them to feel embarrassed if there is a need to read in front of their classmates (Alhammadi, 2014).

They may also need additional time to complete language exams (Orsini, 2009 as cited in Alhammadi, 2014). SWVI have special needs for exams that can be met through modification and accommodation measures. Exam modification means changing the testing process in ways that may result in some changes to the exams' context (Alhammadi 2014). For example, there is a need to provide descriptive explanatory text for any images included in the exam. Test rules need to be changed to suit the special needs of these students, but the content of the examination shall remain the same. These includes providing extra time to complete exams and test writer services. Stone, Cook, Laitusis, and Cline as well as Hadjidakou and Hartas specified some exam modification and accommodation for SWVI (as cited in Alhammadi 2014). These include the provision of accessible exam materials in Braille, large print, or electronic formats, extra time to answer questions, a test writer, a separate testing room to endure a quiet testing environment, and the provision of assistive technology such as a screen reader, talking calculators, dictionaries, and magnifiers.

## **2.5 Past Research Findings**

### **2.5.1 Lecturers' Acceptance and Readiness Towards Students With Special Needs**

Manisah and Zaleha (2012) conducted a research on the acceptance and readiness of lecturers towards students with special needs in higher education. The ability of lecturers to accept students with special needs were examined by looking at the awareness of lecturers toward services that are needed by the student. Three research questions were developed through this study mainly:

- 1) What were the acceptance and type of preparations by the lecturer towards students with special need in higher education?
- 2) How did the lecturers prepare teaching plans for the student with special needs in higher education?
- 3) What are some of the suggestions for services needed for students with disabilities and the lecturers teaching them?

Forty lecturers took part in this study. The data were collected by using questionnaires and structured questions and were analysed using descriptive analyses that involved frequency, percentage mean and standard deviation.

The result of the study was divided into three parts, namely readiness of lecturers and the ability to accept the student, the readiness of the lecturers to plan the learning unit to suit the needs of the students with special needs, and how the lecturers should treat the student with special needs. Findings showed that lecturers were positive and willing to teach the student with special needs. The data shows that the lecturers was aware on the existence of PWD, and the universities needed to ensure the needs and services of students with disability are provided in the Universities. About 87% of the respondents had taught students with disabilities and were aware that their campus environment was not friendly to the PWD.

The findings also indicated that lecturers would give attention to the needs of the students and the types of disabilities they have when they registered for their courses, to ensure the strategy used is suitable for student with special need. Although the lecturers generally accepted students with special needs but there were different opinions on the treatment they should give to the students with special needs. Some respondents stated that students with disabilities should be treated differently because of their disabilities and they need special assistance compared to other students. Some lecturers responded that the SWVI do not need to be treat specially but the lecturers should provide support whenever needed. Some lecturers also stated that the manner they treated the student with disabilities depended on the situation such as if the student needed certain tools to assist them in their learning so that they can develop confidence and compete equally.

### **2.5.2 The Readiness Of a Community College In Providing Education To the PWD.**

This study was conducted by Intan and Munirah (2014) to analyse the readiness of a community college in providing education to the PWD. This study uses observation descriptive method and questionnaires as their instrument. The sample of this study were 50 lecturers from Malacca Community College.

The results of the study showed that the score for readiness of the lecturers were on the middle level whereas the readiness of the institution was on the lower level. This was shown in the low-level score given by the respondents such as in braille written, visual signal, audio signal in life and augmentation-listening systems. Results of the study also indicated that there was no significant relationship between the experience of lecturers and the readiness of lecturers to teach the PWD (Intan and Munirah 2014).

### **2.5.3 Challenges Faced By Lecturers, Teachers and SWVI In Higher Education**

Muna Alhammadi (2014) had conducted a study on Students with Vision Impairments in UAE Higher Education System. The aim of the study was to explore the educational challenges facing SWVI in the United Arab Emirates (UAE) higher education sector.

The researcher used 4 case studies. The first case is an autobiographical account of the researcher. The remaining three used multiple case studies conducted at three different universities, namely, the United Arab Emirates University (UAEU), the University of Sharjah (UOS) and Zayed University (ZU). The data were collected through interviews with SWVI and observing their daily activities.

The results from the studies showed that the SWVI faced different types of challenges in their studies at the selected UAE universities. These challenges included deficiencies in the students' preparation for higher education during their primary and secondary schooling, difficulties adjusting to university life in the first year at university, challenges in moving independently and safely at the university campuses, challenges in accessing information at university, barriers to gaining entry into some course majors, difficulties in studying specific subjects, insufficient classroom accommodation and limited modification for exams.

There were some similarities in the challenges faced by SWVI in UAE higher Education and Malaysia such as challenges in moving independently and safely at the university campuses, challenges in accessing information at university and difficulties in studying certain courses.

### **2.5.4 Challenges In Teaching the Visually Impairment**

Mwakyjeja (2013) did a study on teaching SWVI in inclusive classrooms of one secondary school in Tanzania. The aim of this study was to investigate the way 'general'

teachers taught SWVI in inclusive classrooms and the challenges they faced. The researcher used qualitative case study design, on four ‘general’ teachers teaching in classes with SWVI. The data were collected using semi-structured interviews and participant-observation methods. The study had 4 main objectives, which were to:

- 1) Explore ‘general’ teachers’ knowledge on inclusive education.
- 2) Identify methods used by ‘general’ teachers to assess learning needs of SWVI in inclusive classrooms.
- 3) Find out how ‘general’ teachers adapt teaching methods for students with visual impairments.
- 4) Find out the extend of collaboration existing between ‘general’ teachers and special needs educators, and parents of SWVI for quality teaching in inclusive classrooms.

The study showed that the teachers were aware of inclusive education. However, they lacked information on inclusive education. From the interview, the teachers did not seem to consider adaptations of teaching and learning environment because they did not reflect much on what was written in the Salamanca statement. The Salamanca statement is about calls upon educationists to prepare flexible environments that were good enough for learning of marginalized groups in inclusive classrooms.

The teachers used 3 main methods to assess learning needs of SWVI namely contacting students to know his or her background, using previous records and observing student’s performance in the class. The study indicated that some teachers would ask students about their life background and learning problems regularly and share the learning difficulties faced with their colleagues to find solutions together. Other teachers stated that they would use previous records such as performance in different exams and assignments.

If the performance was not up to the teacher's expectations, the teacher would call and talk to the SWVI immediately.

There were a few adaptive teaching methods used in class such as question and answer, group discussion, lecture method, peer support, provision of teaching resources, calling of students' names, enlarging handwriting for SWVI who were partially blind, as well as providing additional time to submit assignments and examinations. However, observations indicated that teachers did not seem to adapt methods the way they said. This was due challenges they faced that hindered their adaptations, such as lack of knowledge in adapting the methods for teaching, preparation of teaching materials that suits the learning of SWVI, and limited time to finish the courses.

Although Co-teaching is said to be important to deal with diverse needs of students, collaboration between general teachers and special needs teachers through co-teaching was lacking, because of the scarcity of special needs teachers and the lack of commitment among 'general' teachers. These teachers also do not have sufficient knowledge of teaching SWVI in inclusive settings. For instance, teachers do not have the knowledge of reading and translating braille writings, adapting and modifying teaching methods and teaching resources. Furthermore, it was found that collaboration between 'general' teachers and parents of students with visual impairments was lacking because these parents lived outside the region, and they were not able to come every time they were needed (Manisah and Zaleha, 2012).

From this study, the researcher found that there were some similarities in teaching methods used by the teachers in Tanzania and the lecturers in Unimas such as question and answer, group discussion, lecture method, and teaching resources.

## **2.5.5 Challenges In Learning and Teaching English As a Foreign Language To SWVI**

Monica (2013) did a study on learning and teaching English as a foreign language with blind or low-vision learners (BLVL). The aim of that study was to describe and analyse the factors influencing the process of teaching and learning English as a foreign language among BLVL, and to highlight the supportive measures used in practice. The focus was on the accessibility issues.

The main research question was how BLVL could best be supported in their learning of English as a foreign language (EFL). The sub-questions were focused on:

- 1) how to enable access to information and study environment and materials for blind or low-vision EFL learners.
- 2) what activities and ways of organizing the teaching and learning process were most suitable for BLVL.

Two surveys were conducted with blind and low-vision/visually impaired students and their teachers. The first survey was conducted among 32 BLVL and the second survey was conducted among 12 foreign language teachers. The study of aspects teaching and learning English and foreign languages in BLVL were analysed from 2 points of view of foreign language teachers and BLVL for foreign language. The topic of accommodation of foreign language examinations were also discussed by collecting data from interview with two specialists in the field and suggestions were provided.

The results showed that half of the BLVL used e-format course books and other formats of study materials. However, from the teachers' point of view, almost all teachers mentioned that BLVL used Braille textbooks and audio materials in their foreign language classes. On the preferred type of accommodation, almost two thirds of BLVL preferred extra time; 18 BLVL respondents mentioned computers with special software; 10 BLVL

respondents needed audio format; about half of the blind respondents marked Braille as the preferred medium; and seven out of 16 low-vision learners indicated large print. Not all BLVL need a very short reading or writing distance (5-10 cm), but some SWVI do not consider it as a kind of accommodation. From the teachers' point of view, a majority of the teachers for the BLVL adapted their study materials for their students. Though the teachers have special knowledge for adapting their materials, it may be seen as extra work for them. The data also showed that majority of BLVL felt that adapted materials were very important for them. A number of the BLVL respondents indicated that ordinary study materials for learning English were not accessible to them.

Almost all the teachers had knowledge or information on SWVI by searching for information on their own or attending training courses. The teachers also had a positive respond toward how they could take their BLVL learners' needs into account. Most of the BLVL respondents also showed that their needs were mainly taken into account such as the need for adapted study materials, additional time and understanding about the individual special needs, teacher's clear pronunciation, avoidance of overloading auditory channel, considering difficulties with acquiring correct spelling, need for systematic ways of teaching (English Braille Grade 1 and Grade 2), and making visual information accessible by describing it.

The teacher also used the same method in Organizing Teaching and Learning tasks such as using communicative tasks, conversations, dialogues, actual topics, group work, pair-work, doing drills and exercises. Majority of the teachers stated the importance of individual and student-centered approach and considering special educational needs of the learners. The BLVL also stated that dialogues, conversations, role-plays, simulations, and being motivated and encouraged by teachers were effective for their learning.

However, there were some special techniques stated by BLVL that were needed in teaching to enhance their language skills such as good Braille skills and computer skills. The BLVL also stated that reading and writing were easier, while listening tasks were more difficult because there was no time to concentrate and much time is needed to read the text word by word using a screen-reader, some words letter-by-letter. The teachers noted that the teaching and learning pace is slower in teaching BLVL compared to sighted learners. Reading sub-skills were implemented differently due to reading letter-by-letter in linear sequential way. The teacher also stated that lesson planning and preparing took longer time, as the teacher needed to limit the use of visual information and replace it with descriptions. Ways for teaching new words were different, and different adaptations and special devices were needed to teach the BLVL.

In setting the exam question, there were some accommodations which were necessary for examinations. From the teachers' point of view the accommodation needed were additional time, enlarged print, adjustments to appropriate layout according to the adapted format, use of special technical devices, and provision of an assistant for the BLVL exam-taker.

The specialists working in the office responsible for the administration of the Estonian National School-leaving Examinations stated that the same accommodations which were used during study period should be provided at examinations. For SWVI, accommodations such as extended examination time, breaks, readers, examination papers in Braille or in large print or in the electronic format can be provided. The content of the electronic format and large print examination were similar to the original mainstream examination papers and no parts of the examination paper were omitted for the SWVI (Monica 2014).

### **2.5.6 Negative Attitude Towards SWVI**

This research was conducted by Hasnah, Tajul, Hanafi, Mokhtar and Hazwani (2010) to investigate the level of knowledge of students in a local institution of higher education about PWD and to study students' perceptions and attitudes towards their peers with disabilities. This study used a quantitative research method. A questionnaire was developed and distributed to 120 respondents from 12 faculties in University Kebangsaan Malaysia. The researcher used random sampling method in this study.

Findings from the study indicated that the respondents showed a positive attitude toward their peers who are PWD. They also showed their support to the PWD ACT providing equal access to education to PWD and receiving equal treatment from all lecturers. Most of the respondent supported that the higher institutions should provide accommodation in the process of teaching and learning. The respondent also agreed that facilities in the public universities were not PWD friendly.

Hasnah et al. (2010) also noted that many of the respondents noted they were unclear about the definition of PWD and not aware of PWD ACT because of non-exposure to PWD peers. So, they might feel uncomfortable when staying with their PWD peers (Hasnah 2010). They suggested that the negative attitude can be minimized by providing more info on PWDs to the public and have more interaction between the university community and PWDs.

### **2.6 Conclusion**

Findings from past research focused on the challenges faced by the SWVI and lecturers in a few higher institution and schools in Malaysia as well as foreign countries. Although higher education showed a positive respond in lecturers' readiness and acceptance in teaching students with disabilities, the SWVI and lecturers still face challenges in teaching and learning. These studies showed that the challenges faced by

SWVI include difficulties in adjusting to university life in the first year at university, challenges in moving independently and safely at the university campuses, challenges in accessing information at university, barriers to gaining entry into some programmes of study and courses, difficulties in studying specific subjects, insufficient classroom accommodation, and limited modification for exams.

The challenges faced by the lecturers include lack of knowledge in adapting the methods for teaching, lack of commitment among teachers, difficulties in preparing teaching materials that suit the learning of students with visual impairments, limited time to finish the courses, and the teacher or lecturers have insufficient knowledge of teaching students with visual impairments in inclusive settings. The negative attitude of students and lecturers towards SWVI too cause SWVI face challenges in their studies.

## **2.7 Summary**

This chapter illustrated the definition of PWD, background of PWD ACT in Malaysia, education for special needs in Malaysia, challenges studying in higher education and why the theory framework been selected.

## **CHAPTER 3**

### **METHODOLOGY**

#### **3.0 Introduction**

This chapter explains the research methodology used for this study. This includes Research design, sample selection, instrument, data collection, analysis procedures of the study, and limitation of study.

#### **3.1 Research Design**

This study was a quantitative method case study of challenges faced by students with visual impairment and lecturers in teaching and learning. It will also proposed possible solutions to addressed these challenges. Quantitative was chosen in this study to better understand the problems faced by the student with visually impairment.

Yin (as cited in Alhammadi 2014) identified a case study as ‘an empirical inquiry that investigate a contemporary phenomenon in its real-life context, especially when the boundaries between phenomenon and context were unclearly defined’ (p. 13). “Case studies were used widely in educational research to describe and understand specific educational actions” (Kyburz-Graber as cited in Alhammadi 2014). Stake (as cited in Alhammadi, 2014) stated that case studies were frequently used in an interpretive research paradigm. He divided case study into 3 categories namely intrinsic case study, instrumental case study, and multiple case study. Intrinsic case study referred to the researcher that was interested in studying one particular case and not influenced by the other cases. The instrumental case study was based on improving theory and developing towards an issue (Pol, Bea & Roland; Stake; Stevenson, as cited in Alhammadi 2014). The multiple case studies were used to study specific phenomena, a population or condition. According to Stake (as cited in Alhammadi 2014), the case studies may be similar or dissimilar.

In this study, multiple case studies been used to study the challenges faced by the SWVI in learning Linguistic courses and the challenges that they faced maybe similar or differ. This is because the three SWVI were enrolled in different foreign language, Borneo language, and were in the different years of study. Additionally, different student may face different challenges due to the different core courses they Tooke. Three case studies will be conducted to understand the challenges faced by SWVI and how they addressed the challenges they faced. Information for this case study will be gathered by interviewed two of SWVI who studied in the same faculty and university. The third set of data on the experience from the researcher itself was obtained through autobiographical method. According to Kyburz-Graber (as cited in Alhammadi 2014), an autobiographical is an approach used to investigate and analyse a single phenomenon on personal, social and historical backgrounds. The data between these three are then triangulated to confirm its validity and reliability.

Denzin and Lincoln (as cited in Alhammadi 2014) stated that Qualitative research is a research that involves the collection of a variety of empirical materials such as personal experience, introspection, life story, interview, observation, historical, interactional, and visual texts that describe routine and problematic moments and meanings in individuals' lives. The data of the research can be collected through interviews, observations and documentary. In this study, data from the SWVI were collected by interviewing them.

### **3.2 Selection of Sample**

The informants for this study were two SWVI. The sampling been used in this study are purposive sampling.

Purposive sampling is used to select the respondents based on the certain characteristics or criteria (Johnson & Christensen, as cited in Mwakyeja, 2013). This type

of sampling provides individuals or respondents with rich and relevant information for the study (Gall, Gall & Borg; Gay, Mills & Airasian, as cited in Mwakyeja, 2013). The selected informants are currently studying in year 2 and year 3 of the BA Linguistics programme.

### **3.3 Instruments**

#### **3.3.1 Interview**

Interview been used in this study because it was a flexible and free method that allows the researcher to get more information from the participants. The interview questions are semi structured. The questionnaires are developed based on the researcher's experience as the SWVI who studied in the same faculty. Some of the questions are adopted from the literature review. Although the interview questions are developed before interviewing the SWVI, the researcher might further question the SWVI based on the interviewees' responses. Semi-structured interviews also allow the interviewers to ask about specific topics and enable the interviewer to provide further examples to enable the interviewees have better understanding of the questions asked. Open-ended questions are commonly used to investigate the participants' feelings and opinions about the challenges they faced (Alhammedi 2014). This technique also gives the research participants enough space to express themselves.

#### **3.4 Data Collection Procedure**

Before the data been collected, a few research objective and research question had been Identified by the researcher. The objective that had been identified were to:

1. Analyse the challenges faced by SWVI in learning linguistic and how they overcome these challenges.
2. Identify and propose facilities that are needed by the SWVI.

Whereas the research question that had been developed was:

1. What are the challenges faced by Students with Visual Impairment (SWVI) learning in the Faculty of Language and Communication (FLC) and Universiti Malaysia Sarawak (Unimas)?
2. How do SWVI overcome the challenges that they face in FLC and Unimas?
3. What are the assistive technology tools used by the SWVI to overcome the challenges they faced in learning linguistic in FLC and Unimas?
4. What are the assistive technology provided for by FLC and Unimas?
5. What facilities and support do SWVI expect from FLC and Unimas to facilitate and support their studies in UNIMAS?

The researcher than choose the most suitable research design for this research. The researcher had chosen to do a qualitative research and interview been used in this study to collect data. The question of the interview were adopted and adapted from previous research done by Almahdi and Monika. A pilot test were done before the actual interview were conducted.

### **3.5 Data Analysis Procedure**

The data collected from the interview were recorded and been transcribed into text form. After the data has been transcribed, thematic analysis will be used to organize the transcribed data. “Thematic analysis was the process that identifies, analyses and reports the occurrence of themes in the data collected from the field” (Braun &Clarke as cited in Mwakyeja 2013). According to Braun & Clarke (as cited in Mwakyeja 2013), Thematic analysis followed six basic steps.

First, familiarisation with the data. The researcher has to get familiarised with the data in order to understand the data that is collected. Then, the researcher has to generate the initial codes. This can be done by including labels or descriptions on a list of ideas developed from the transcription that have already been read by the researcher before the

data is categorised into different themes. The themes then will be reviewed by the researcher for its relevance and legitimacy. The researcher will then define the content of the themes and name the themes developed before the report is generated. In this study the report generated will be in the narrative form.

### **3.6 Limitation Of Study**

There are a few studies that focused on the challenges faced by the SWVI and lecturers in a few universities in Malaysia and foreign universities, whereas this study will focus on the challenges that faced by the SWVI in FLC Unimas. Past studies just looked at the challenges faced by SWVI in higher education in general whereas the focus of this study are on challenges faced by SWVI in learning Linguistic.

### **3.7 Summary**

This research was a qualitative research that been carried out on two SWVI who studied Linguistic in FLC Unimas. Purposive sampling method will be used to determine the informant. Instruments used to collect data are interviewed using semi-structured interview and questionnaires. Data collected will be transcribed and written in narrative form.

## CHAPTER 4

### RESULTS AND DISCUSSIONS

#### 4.1 Introduction

This study explored the challenges faced by SWVI in learning linguistic and propose a possible solution to solve the challenges faced by them. The results present are experiences of 3 SWVI who study in Faculty of Language and Communication. The researcher will used other name to replace the name of the informant in this study to protect the privacy and confidentiality of the interviewees.

#### 4.2 Autobiographical Case Study

##### 4.2.1 Researcher Background

I was born as a premature baby on 14 September 1994 in Miri. It is also known as the second large city in the state of Sarawak, Malaysia. During that time, I was put in an incubator. The nurses who taking care of me did not cover my eyes properly causes the bright light from incubator damaged my eye sight. My family members also had brought me too little hospital such as Norma Kuching and one of the hospital in Singapore but the hard work of my family found no cure. In the year 2013, my mum brought me to one of the eye specialist in Singapore. The doctor told my mum that I had Glaucoma that cannot been cure. I can only depend on the eye drop to prevent my eyesight become worse. This is similar to what had Almahdi experience. According to Almahdi [2014], she was born with Congenital Glaucoma in both eyes and was second child with the same illness. Her brother and sister was born with the same condition, but they lost all his sight

Other than being born blind, I also were born in a business family. My mum and dead is a businessman and business woman. They selling variety of electrical appliances such's refrigerators, televisions and washing machine. As I go back to my hometown, I

will spend most of my school holiday in my family shop observing them selling and buying electrical product. This had indirectly build up my interest in business

In the year of 1999, I was send to one and only special school for the blind in Kuching Sarawak. In that school I studied with few visually impaired peers and there is a few visually impaired teacher thought me how to write in braille. In 2005, one of my teacher thought me how to used computer with screen reader. As a start I have to memorize each location of the key in a keyboard. In the same year I only abled to study typing in Microsoft word and I have stop practicing because I did not have a computer at home. I continuing studying in the same school until 2007 and take up my first national exam (UPSR).

I continued taking my secondary education in one of the government school in 2008. That school also known as intergraded school because the school continuing accept the visually impaired student from the primary school to study together with the student without disability in the same school.

In that secondary school I study in the same class with my peers without disabilities. There are a few different in teaching student without disabilities and student with visually impaired. The SWVI will have 2 teacher to refer, the first teacher is the teacher who thought SWVI with their peers in the same class and the second teacher is known as (resource teacher] a teacher who help the SWVI to solve the problem faced by SWVI cause by their disabilities.

Few challenges faced by the SWVI. In studying in integrated school. One of the challenges faced are accessing note either on the black board/white board or material in hard copy. So I will depend on the teacher or student to read note for me. The resource teacher also will translating the photo state note or book in to brail version by typing and embossing and translating the homework of the SWVI into printed version.

#### **4.2.2 Apply For University**

After I finish my form 6 I start applying to further study in a few Public University. In the same time, I attended a computer course named International Computer Lesson [ICDL in ST. Nicholas Home Pulau Pinang. In the Application, a few courses had been chosen by me such as Marketing, business management, psychology, and counselling. My first application through (UPU) were unsuccessful. I do my second application for the second intake in the same year. In my second application I was given 2 option compared to 10 option in my first application. I make marketing as my first option where as human resource as my second option in the same university [Unimas]. I did not choose to study Linguistic because I think that Linguistic is some that similar to Malay language that I had taken in my form 6 and I knew I was not interested to it because it is too abstract. as stated in chapter 1, because of one of the lecturer suggested me to take Linguistic and the suggestion given was supported by my family member causes I take up Linguistic course. As most of the visually impaired will choose to pursue their higher education in peninsular Malaysia because the Public University provide facilities for the blind as stated in chapter 1. However, two of my classmates and I were accept by Unimas. Similar to Almahdi case. After graduated from her high school, she applied to study at the Higher Colleges of Technology (HCT) but the Admission Department not ready to receive any SWVI. This is because they did not have accessible computers for them. The only choice she had was to apply to study at UAEU. Her application was accepted by UAEU. She chose to study in the Education Faculty, and selected Special Education as her course major. Some administrators at the university panicked in learning of our disability and most educators at UAEU at that time believed that SWVI are only capable of studying majors within the Faculty of Humanities and Social Sciences. Thus, SWVI did not have an opportunity to

choose study area like other students. So she was frustrated that she could not choose her university, or have a greater choice of course majors.

#### **4.2.3 Physical Challenges In University**

A few challenges been faced by me studying in Unimas. One of the challenges are mobility. Throughout 3 years of study I depend on my friend to move from and to class and around campus. This is because the compound of the university is too big. I had previously tried to walk with my white cane and followed my friend from a distance of a few step but he had a little worried about me and advised me to walk with him.

#### **4.2.4 Challenges When Using Library**

I also face challenges in accessing printed material from the library. This is because I can't read printed material and book. So I only depend on online material and my friend to complete the assignment if I can't find any related sources from the internet.

The next challenges are the lecturers in the Faculty did not understand and don't know how to read braille. As a solution I will answer my exam and assignments in the form of soft copy.

#### **4.2.5 Challenges As a Linguistic Student**

##### **4.2.5.1 Challenges In Tree Diagram.**

One of the challenges in learning Linguistic are drawing tree diagram. One of the courses that will be studied in Linguistic are syntax that required the student to draw tree diagram and label the phrase or word from the sentences. From a sentence it will break down into subject and predicate before it been further breakdown into smaller phrases and finally in to the smallest branches that are word and been classified into word category. Because of lack of information on teaching the SWVI the lecturer had ask me and my another visually impaired friend to draw the tree diagram on the white board. It is hard for me to draw the diagram because I can't see the line that I had drawn on the white board. To

prove that I understand what the lecturer had taught, I type the sentence in the table form and send to my lecturer. The lecturer had advise me to use the aero but the screen reader were unable to read the aero after it been inserted in to the document. This unable me to locate the aero. So the lecturer suggested me to stick a match stick on the manila card and send to her. So I try doing 2 version of tree diagram the one with match stick and braille tree diagram. Finally both diagram were accepted by the lecturer but in order for the lecturer to understand the braille tree diagram the lecturer must translate the label in braille into print versions.

#### **4.2.5.2 Learning Using Printed Book**

Another challenges that faced by me in learning linguistic are using material in the printed book format. This is because not all information are available on the internet. There are some courses that book are needed by the lecturer in their teaching. For some lecturer, they will scan the book and upload it on the learning portal or Eleap. For other subject I will borrowed book from my friend and convert it into soft copy. After the book been scan, I will than used ABBYY reader to convert the book from image to text.

#### **4.2.5.3 Challenges Dealing With Symbol**

Another challenges in studying Linguistic are reading and writing phonetic symbols. There are a few courses such as phonetic, phonology, and Historical Linguistic that required the student to write how the word been pronounce in the form of symbols. However the screen reader such as NVDA unable to read the symbols. This had cause difficulty in inserting the symbols in to the Microsoft word. At first, my lecturer will describe the shape of each symbol to me so that I can imagine how the symbol look like. Although the lecturer had describe the shape of the symbol for me, it is still hard for me to remember the shape of the symbol. So, I ask my friend to insert the symbol in Microsoft word and write the description for me. In the screen reader software there are a segment

named speech dictionary that are used to correct how the word should be pronounce. I used the speech dictionary to label the symbol that are needed in my phonetic writing. I also will copy the symbol from the speech dictionary whenever I need it either in my exam or when doing my assignment. Now the screen reader are able to read the symbol but it will not read other symbol that are not been label.

#### **4.2.5.4 Challenges In Doing Exam**

I also will have to answer the same question as my friend in my exam. The only different are the lecturer will prepared the question paper in the form of soft copy for me. The faculty also allow me to sit for my exam in a suppurated room or known as computer laboratory and extra time were given to answer the question paper. Normally, the extra time given is in between 30 minutes to 1 hour. Before my exam start, lecturer or staff will insert the question paper to my laptop and I will used the screen reader to read and answer the question.

I also faced challenges in reading symbol in my exam. If my friend gave me a wrong symbol for the descriptions, and the lecturer used the symbol that not been label in my exam paper the screen reader will not able to read out the symbol. One of the lecturer will accompany me and my another SWVI classmate and explaining the symbol to us if the screen reader unable to read the symbol.

#### **4.2.5.5 Challenges Faced In Doing Assignment Or Assessment**

The Faculty also offered 4 Borneo Language to linguistic student such as Malay Sarawak Dialect, Iban language, Bidayuh and Melanau language and another 4 foreign language such as French, Mandarin, Arabic and Japanese to all student. All Borneo Language and Foreign language are offered in 3 level. For Linguistic student, they have to take up all 3 level of Borneo and Foreign language in order to complete the courses. A few aliment in the course outline of Borneo Language and ordinary material for foreign

language that involved images. Either for Borneo or foreign language, the student had to elaborate what is on the picture in Borneo language or foreign language within the time given. It was a challenge for me because the screen reader was unable to describe what is inside the picture. To solve the problem the lecturer had to describe the picture for me so that I can answer the question. For the case of foreign language, the lecturer had to describe the picture in English and I will translate the sentences in foreign language. I also will be given extra time to answer or construct the sentence used.

In the first semester, I also faced challenges in inserting the symbol and formatting the assignment. So I have to ask my friend to help me doing the assignment and format the assignment according to the requirement of the university.

#### **4.2.5.6 accessing Ordinary Study Note Or Material**

In the University, there are one portal that been used by the lecturers to share information or note with the student. In this university, the named of portal are Morpheus or Eleap. By using this portal, the lecturer can upload notes and enable the student to upload their assignment. However, some lecturer prepared their note or upload the assignment in images form causes the screen reader unable to read the image file although it was in the PDF form. In order for me to read the note, I have to download Optical Character Recognition [OCR] software that can extract the text from the images name ABBYY Fine Reader. Although the content of the note look a little different in term of spelling from the original note I still been able to understand English or Malay but not for the foreign language because I did not know the correct spelling for the word. To overcome the challenges, I tried to do online search for similar note that the lecturer had uploaded. I also depend on my audio recording and listen to the explanation before I do a google translate. In my third level of foreign language I try to ask for not in word document but the lecturer don't have the note in word form and because the note is too

much, the lecturer do not have enough time to type the note for me. So I have to bring my note home and scanned, convert the note into text form.

For certain Borneo language or foreign language, there are time where the lecturer required the student to read the dialogue together in the class. Whereas I only hardly read the note together with my peers because I depend on the screen reader to read the note. The screen reader that unable to pronounce the word in Borneo Language appropriately causes difficulties in learning the spelling of the word in foreign language. I have to read the word later by later whereas the nature of the screen reader read word by word had causes difficulties for me to learn to spell word because in certain language, there are some alphabet that not been pronounce by the speaker.

#### **4.2.5.6 Challenges In Meeting Lecturer**

As stated earlier, one of the challenges are moving around the campus. So in order for me to meet the lecturer, I had to make sure both the lecturer and my friend are free at that particular time. I also had to adjust the free time according to their time.

#### **4.2.6asking for facilities**

There are a few solution that can be taken by the lecturer or faculty to minimize the challenges faced by the SWVI. One of the action that the faculty should take is purchasing a rubber map and braille geometry set. A rubber map is used to put a thin piece of paper while drawing where as a braille geometry set is a tool that used for drawing diagram. With this tools, the SWVI will be able to draw the tree diagram by using geometry set on the rubber map.

The faculty also should purchase a braille display or embosser from the Malaysia Association for the Blind (MAB). A braille display is a small piece of tool that display a braille dot on it when connected to the Personal Computer (PC) or mobile phone via USB. This will enable the SWVI to read what is been display on the screen of computer or phone

by their finger. this will indirectly reduce the SWVI rely on screen reader as they can read for their own and enable them to participate in reading any dialogue together with their friend in either foreign language or Borneo language.

An embosser is a machine that enable the text from the computer been print out in the braille form. In order for this machine to function a software call Duxbury are needed to convert the text into braille form before it can be print out in the braille form. The Embosser also need the brail paper to print out the braille text.

Both of the excessive technology are high in price but if this technology can be provide by the faculty or university I personally prefer the braille display because it is light and easier for me to carry around. More I can used it if there is any presentation and paper is not needed.

#### **4.2.7 Hope From The Visually Impaired Student**

I Hope lecturer will provide the SWVI all phonetic symbol with the description in the Microsoft word form so that the student can label the symbol in the screen reader and used them whenever they are needed. I also hope that the lecturer will have a copy of ABBYY Fine Reader software to extract the text from the image before upload their note in the Eleap. By having this software the it will save the lecturer's time retype the section of the note that contain text on the image before upload it.

The faculty also can hire someone to help the lecturer in converting and editing the note or retype the note that had been converted into text format before been uploaded.

The faculty also have to provide a braille track that can be used as a guide for the visually impaired to prevent them loss their way. The braille track also will enable them to move safely in the campus area.

The university also provide special quota enrolment for the SWVI in each faculty. This is because the SWVI had limited choices of academic programs and opportunities

entering universities (Cheong, Abdullah, Farrah, and Ahmad, 2012). By having special quota will increase the chances for SWVI to entering University and they will have more option of program to choose.

### **4.3 Linda Stories Interview**

#### **4.3.1 Linda's Background**

Linda is actually not her real name. Linda was born in 1993, and she is the only visually impaired in a family. One of the doctors told she that her blindness are cause by the point of her eyes is too small.

In 2009, she attend a course on how to used screen reading software on a computer name Jaws Access With Speech [JAWS]. This course had been organized by Sarawak Society for the Blind [SSB]. After completing her SPM, she continued applying for a few courses in Malaysia Association for the Blind (MAB) in Kuala Lumpur such as Preuniversity for 3 month, and “pentadbiran system maklumat” information system management. In that course she learn orientation and mobility (ONM), basic computer skill and speaking skill. She also continued her study to STPM for one and the half years.

#### **4.3.2 Applying For University**

She also had apply for a few courses such as education, and counselling in a few Malaysian Public Universities such as UKM, UPSI, UM, and Unimas. For Unimas, she had applied for counseling courses and Linguistic courses. In the month of September 2015, she received an offer latter from Unimas and she continued pursue her study in Linguistic. According to her: “I had feel in a few university. Sins Unimas offered opportunity to me. So I entered. My original choice is education. I want to study in education.”

Although Linguistic is not her first choice, she choose put linguistic in her list of courses of studies because she don't know what is linguistic is. She also expect the University will provide transportation for her.

According to her, “I call unimas to ask what facilities provided. There accepted the Student with disability and told me there is transport. At that time I stay at college that far from faculty. After I entered the university it is the same, I still had to walk to class. If I take a bus I had to fight over other student.”

Before she registered herself in the university, she even call the university to explain her condition and confirm on acomodation or facilities that provided by the university. They told her that there will be a transportation bringing her to class. When she arrive at the university, she found out that there is no facilities or accommodation as told by the university in the telephone call. Although there is no special training provided by university for the visually impaired she still consider lucky because she had undergoing a few training on how to used excessive technology organize by a few organization and she can used the knowledge in her university life.

Although she had faced challenges in her studies, her family had play and important role in giving financial and moral support to her. For example, her family did not force her to continued her study but try to understand what challenges that she faced. Her family also advise her to study according to her ability.

#### **4.3.3 Physical Challenges In University**

Although she had undergo training mobility, she still feels that the surface area of university does not help her in moving around the faculty. According to her:

“The surface is not suitable we walk according to landmark but the Landmark is not clear. So if I moving alone, I will miss my way. “She feel that she will miss her way if she is going to walk alone around the faculty or university. More over there is no facilities such as brail track that can be used as a guide when she move around university or faculty. Even in the faculty itself, there is nothing that can be making as the landmark so that she knows where she is located. This causes her difficulty for her to know witch computer laboratory

she is or where is the lecturer's room located. Furthermore, some of the classes were conducted in other Faculty. So, she depend on her friend to assist her from and to the faculty. There is a time, when her friend is not available or been move out from college, she will feel desperate when asking for help from other classmate. This is because not all of her friend stay at the college. She afraid asking for help from friend or classmate from other college or outside the campus to send her to faculty will cause trouble to them. There are some college that is not visually impaired friendly such as a lot of staircase that causes difficult for her to move around.

#### **4.3.4 Challenges When Using Library**

Another challenges that faced by her is accessing the library. According to her, this is because “there is no book in brail “format that can access by her in the library. “Normally I go with friend who assist me but they also have their assignment”. So she need someone to read the material for her but her friend need to do their assignment. This cause her friend have not enough time to read the material for her. More over there is no facilities provide by the library for the visually impaired such as scanner. She also need someone who can assist her from and to the library.

#### **4.3.5 challenges as a linguistic student**

##### **4.3.5.1 Challenges In Tree Diagram.**

She stated that, “actually I know the shape of the tree diagram but there is no lecturer know how to read braille. If want to do it in braille translate 1 by 1 is needed. I can't do it on computer.”

In her first year, syntax have been one of the compulsory unit in one of the courses. This topic require her to draw the tree diagram. Although she had learned to draw tree diagram in braille during her form 6, however there is no lecturer that can understand braille in the university. In order for the lecturer to understand her level of understanding,

the lecturer had ask her to draw tree diagram on the whiteboard. It is hard for her because she never learn how to write in print what more to says hen come in to drawing. So she described the tree diagram to the lecturer according to her understanding. She showed the lecturer braille version of the tree diagram and the diagram were accepted by the lecturer.

In the fifth semester of her study, she had to took the course of syntax, and it was thought by a different lecturer. The lecturer will ask other student to draw the tree diagram and the lecturer will explained to her how the tree diagram been drawn in the whiteboard.

#### **4.3.5.2 Learning Using Book**

According to her, “not much challenges learning in class. Because mostly lecturer understand. Lecturer will read what ever in the slide. If the lecturer do not read from the slide, the lecturer will explain the content of the slide but if I faced challenges when using book. So I had to scanned the book“.

There is no challenges faced by her in learning together with her peers in the same class. This is because the lecturer will read out the text from the slide. However she faced challenges in using book.

For some courses, the lecturer will required the student to buy book because the book will be used in teaching. Some lecturer, will scan the book for her and upload in Eleap where as other will depend on her friend to do the scanning. For her, she feel thankful to the lecturer that help her to do scanning for her and it is the lecturer responsibility to fulfil the need of every student. Although the soft copy is not really sufficient for her, but she can used ABBYY Reader to convert the scan book into readable format such as word document. To highlight the important point in the book is another challenges for her because she have to find the important point in the book. So she will record the lectured and retype the important point from the book. Linda also feel that all the method that had been used by the lecturer in teaching such as group discussions and

question and answer been sufficient for her. This is because the program of Linguistic depend more on reading.

#### **4.3.5.3 Challenges Faced In Doing Assignment Or Assessment**

In term of dealing with classmate or group member had not been a problem for her. “Classmate are oak They also understand our condition. So if we want to deal with them there is no problem. The challenges faced may be in doing assignment together. They had to meet us. It is hard also for us to search for them. So we fill cause trouble to them.” This is because the classmate understand what is her ability and her condition but her classmate have to look for her when doing assignment. This is because not all classmate stay at the college. Gather together have been one of the difficulties she faced when dealing with group member that stay outside the college. Similar to Linda, Dana reported that she found her classmates understanding, especially as many of them had studied with her at high school and were familiar with her special needs. Different from Linda, Dana will faced challenges in dealing with a new student because the student had to took some time to learn about her additional needs. However, Dana found that most of the sighted students outside her classes do not knew how to deal with her special needs.

“Assignment, as usual book. So not all the thing that we searched are available on the internet some time the thing is just a little on the internet. For example, individual assignment. Lecturer say that I want the reference in book mixt with journal”.

She also faced challenges in searching for online material for her assignment. So she will ask her friend to help her in searching books. This is because, there are limited online sources for certain topic and not all information are available on the internet.

“fill like cause trouble to them. This is because we are unable to do it but we had to ask help from them. So I also pity them some time fill cause trouble to them. We are unable to

do, how?. Such as individual assignment asking for help in adjusting the format. They also had their assignment .”

Linda also ask for help from her friend to adjust the format and correct the error in the assignment especially individuals assignments according to the university requirement but in the same time she afraid it will cause trouble to her friend. This is because every student have their own assignment but she had to ask for help because she unable to do the formatting. She also will only do the introduction or conclusion of the assignment if the assignment content symbol.

“asesment.no problem. Because if in a class such in third language lecturer can understand. Like third language there is little changes from other peers.”

For the foreign language and Borneo language assessment, she will face difficulty when one of the task is describing the images. This is because she can't see the image. So the lecturer will describe the image for her in English or Malay before she can describe the image in foreign language or Borneo language.

#### **4.3.5.4 Challenges Dealing With Symbol**

Although she had learn the symbol in form 6, but there is some challenges that faced by her. According to her, “different from other student, they know the symbol. If the lecturer pointed to the symbol but I had to memorize the shape of the new symbol that did not learn by me in form 6”

as a visually impaired study for the courses that consist of symbol such as phonetic and phonology other than the lecturer wrote the symbol on the whiteboard, the lecturer will explain the shape of the symbol for her. She also had to memorize the shape of the symbol and used it to describe it in the exam. after a few month dealing courses with symbol, a friend of her told her that she can label the symbol in the NVDA screen reader.

in order for her to label the symbol, she need her sighted friend to tell her what the sound of the symbol.

#### **4.3.5.5 Ordinary study note or material**

the next challenges that she faced are study the note that provided by the lecturer. some note in the form of image that content text that can't be read by the screen reader. "actually lecturer will insert image in the slide and the image contain text. That had become a problem for me but lecturer also encourage me to told them if there is a problem."

she only have time to do her revision in the revisions week causes she had not enough time to meet the lecturer to ask for explanations on the note. "I also had to look for my friend to company me. If they are free than I can meet the lecturer." she also have to look for the time that lecturer are free before meeting the lecturer or staff. more over the lecturer might forgotten there is a visually impaired in her class and created the colorful slide that interrupt the process of screen reader reading the slide. so she will do revision by refer to the recording that she had record when the lecture doing the explanation in the class. other than depending on the audio recording, she also ask her friend to read the image that content text for her. she also will ask note from another student in another university to improve her understanding on certain topic.

#### **4.3.5.6 Challenges When Doing Exam**

She will do her exam in the computer laboratory. the lecturer will prepared the exam papers in the form of electronic format or soft copy and extra time will give for her to complete her exam. Before the exam start, the staff will insert the USB that content question in to her laptop. She will than used her laptop to answer the question by typing her answer in the space provided.

She shared that "Computer lah always had problem. Sometime not responding lah."

However the laptop that she used some time not functioning or not responding causes she have used her extra time to complete the exam. She also faced challenges when dealing with symbol that can't be read by the screen reader. There are a few courses that required her to type the answer in the form of symbol such as phonetic and phonology but the screen reader unable to read the symbol. She will answer the question with symbol by type the shape of the symbol. There also will have a lecturer sit with her and describe the symbol for her. She also will answer question with tree diagram by drawing the diagram using braille. The answer than will be label by the lecturer in printed text. only in the fifth semester she were allow by another lecturer to answer the question with tree diagram by describing.

#### **4.3.6 Asking For Facilities**

When Linda been asking on her experience in asking for facilities, this is her answer: "I ever voice up to the faculty but at that time the dean do the analysis. At that time, she go MAB. She go to UM but I did not know what the end of the story is. They also do conference using skype on how to handle but I feel like nothing."

As been stated earlier, there is no facilities been provided by the university or faculty. She feel that it is the responsibility of the faculty to provide the facilities not only for the current student but also for the next student with disability. So, in her first year, she voice up her need on certain facilities such as embosser and braille track to the faculty. Embosser are needed to read the phonetic symbol. whereas the braille track is need as a guide for her to move around the campus. A few lecturer and the Dean had when to the (MAB) to discuss the need of the visually impaired in the university. They also do a skype conference with the same organization on how to overcome the problem of the SWVI but no changes been made by the faculty to fulfill the need of the visually impaired. She also hope that in the future the faculty are able to provide the question paper in the braille

format. This is because she had face some problem with her laptop. She also hope the faculty are able to provide braille question for foreign language because it take longer time to answer the question in electronic format.

In her opinion, something should be done by the universities to help the student with disability. “the university should ask what does the need of the SWVI. The university should have the effort because it is a University and they accept student from category. So U depend on faculty .and some other places”. she also feel that the university have to alert on the need of the student with disability. they should meet the student with disability and discuss what challenges that they faced when studying in university and help them in every aspect such as applying for financial support and provide facility that are needed by the visually impaired. “There is no reason for university not providing the facilities. this is because the universities should provide the same facilities for the disable as the same facilities provide by other public university in Malaysia”. According to Cheong, Abdullah, Farrah, and Ahmad (2012), there are 2 computer labs in University Malaya. One of the computer lab are located in the main library whereas the other lab are located at the Seri Jati college. The computer lab for SWVI are equipped with JAWS and similar facility able to offered Braille embosser (Cheong, Abdullah, Farrah, and Ahmad, 2012).

#### **4.3.7 Hope From The Visually Impaired Student**

University

She hope that “there is one unit that take care on disability. Whichever disabilities. I hope there is facilities similar to UM . I do not care this university just accept the student with disability or not. They should be alert. Any facilities will be. please don’t give the reasons that to ready the facilities is expensive we pay for the fees not free. The fees are the same as the other student. So what is the money used for if not providing facilities.”

She also hope there is a department disability affairs that taking care of the student with disability. This situation is similar to the situation when Dana started join Zayed University (ZU). During that time there was no special officer or department to accommodate students with disabilities [Almahdi 2014]. ZU also did not have a special department or even an officer responsible for adjusting ordinary materials for students with print disabilities. In her second week, Dana was interviewed by the Dean on her educational needs. After the meeting, the Dean decide to establish a new department to provide reasonable accommodation for Dana. The Dean also encourage more students with disabilities to join ZU. Today there is a student affair department in Unimas, but this department is not aware on the need of the student with visually impaired or student with disability. In the case of financial support, the allowance for every semester. The allowance are provided by the ministry of higher education for the student with disability that able to pursue their studies in higher education. In order for the student to get the allowance, the ministry required the student to summit their related document such as student fees, and application form regularly and been certified by the university before sending to the ministry of higher education. For other public university in Malaysia, there is a department of disability that help the student to apply for financial support from the ministry where as in Unimas she had to summit and post the application every semester own her own. So according to her, “if other university can do it why can’t unimas”. This mean that she want the university to provide similar facility and offered similar services as been offered by other public university to their SWVI. If university have the department of disabilities it will be easier for her to ask for facilities and applying for financial support for the student with disability will be manage by this department.

## College

She also hope that the college will put the student who had assists her in the list of student that can continued to remain in the campus until the final year. According to her, They says that assist will not been kick out away from college. However my assist been kick out from college for twice.” This is because she need friend to accompany her to class or navigate around campus.

### **4.4 Michel’s Stories**

#### **4.4.1 The Background Of Michel.**

Michel is not her real name. She was born in 1994 and she is the only one visually impaired in her family. In her earlier age, she had a cancer or retinoblastoma on her eye that causes one of her eye been taken away. This is also to prevent the cell of the cancer from spread to other part of the body. Although she is totally blind but this does not prevent her from pursue her study to a higher level.

After she completed her STPM in 2015, she attend training on basic computer or known as International Computer Driving Lesson (ICDL) in ST. Nicholas Home Pulau Pinang for 6 month. In that course she learn how to used word processing, excel, power point and web browser such as Internet Explorer (IE). She also learn how to used computer with screen reader or NVDA.

#### **4.4.2 Applying For University**

While wetting for the result of STPM, she had apply to pursue her study through UPU. She had applied for a few universities such as UM, USM, UKM, and Unimas but unfortunately she did not manage to get into university for both intake. She than try to apply manually by sending a letter to the faculty but the faculty had rejected her. Although she did not succeed, this did not stop her from continuing applying for Universiti especially Unimas. In the year 2016, she try to applied to the universities through UPU for

the second time and she face the same situation. She wrote another letter to the faculty. For the first time, the faculty accept her to study in Linguistic.

According to her, “I choose linguistic because I interested in linguistic.” She had decided to pursue her study in the Faculty of Language and Communication Unimas because she is interested in anything related to language such as culture. By studying linguistic, she will know more about culture of the certain ethic group. Moreover Linguistic is related to her ambition that is to become a translator. Although university did not offered specially training for the SWVI, she also feel lucky because she had undergoing training before she start her study in Unimas.

According to her “I did not expect anything. Because before I entered hear, I already know the situation of Unimas.” Before she entered the university, she also did not expect for any support from them. This is because her visually impaired friend who study in the same university had shared their experience to her.

#### **4.4.3 Physical Challenge’s In University**

“The physical of the University is not accessible because the surface of the road. There is hole in the middle of the road. I also don’t know what the function is and there is a road that design with stone. Although it look nice . But it actually causes distraction.”

She feel that the physical environment is not friendly to visually impaired. This is because there is some area that had hole in the middle of the road. Although some area were design by using stone to make the campus area look beautiful, but it causes difficulty for her to move around the campus. She also shared that “it is not a problem without braille track. At list railing is provided as a guide for us to go to certain places.” Although there is no braille track around the campus, she feel that the faculty and university should have at list railing around the faculty that can be used as a guide for her to moving around the faculty. She also need a friend to accompany her to class and return to the college. This is

because the compound of Unimas is too wide and there is nothing that can be used as a guide for her to find the location of her class. The college also needs to have a railing and something that can be used as a landmark to guide her moving around the college area.

“Portal unimas it had a problem with accessibility. Especially during filling the college. Things that needed to be ticked were unable to be ticked because they had to be used with a click. If pressed using a keyboard it doesn't work”. She also feels that the website of the university or EpeLajar is not accessible. She had to fill in the form on this website to apply to college for every semester. Before submitting the online form, she had to tick on one checkbox but this can only be done by using a mouse.

#### **4.4.4 Challenges When Using Library**

Another challenge that she faced is challenges when accessing the library.

According to her, “I feel I did not use the CAIS. If I go to CAIS the purpose is not searching for material but to accompany my friend searching for material.”

She seldom goes to the library because there is no material for visually impaired such as books in Braille. “If we want to ask our friend for help in searching for a book is difficult because if we go together with them, they also want to search for material there.” So she only will go to the library to accompany her friend searching for a book for group assignment.

Although there are challenges studying in a university, whenever she is feeling down, her family always gives moral support for her. Her family members also support her to pursue her studies by providing financial support. Her family also does not encourage her to borrow money from the government such as PTPTN because as a visually impaired person she will find difficulty in finding a job and it will cause her to be unable to pay back the amount that she had borrowed.

#### **4.4.5 Challenges As A Linguistic Student**

##### **4.4.5.1 Challenges When Learning Using Book**

One of the challenges face by her was using book in a foreign language class. According to her, “every semester need to buy book and in the period of no book we will had exercise in book and the answer are from the audio.”

Another challenges that faced by her is using book especially the book for foreign language. During that period, she did not had the book in electronic format and the lecturer told her that she will scan the book for her. While, wetting for the lecturer to do scanning she did not have book for foreign language. The lecturer is giving the exercise from the book and it was in the form of multiple choice question (MCQ). The lecturer will play an audio and they had to listen to the audio in order for her to find the answer. After they had done, the lecturer will discuss the answer for the exercise. Although she can understand the audio been played by the lecturer and know the question, she don't know the option provided. So, she only heard her peers respond alphabetically, but she did not know what is the option or the exact answer for the particular question.

She also feel that not much reading material that related to linguistic. So she will ask note from other university. So she feels that there is no problem with method used by lecturer in teaching but she faced challenges in reading ordinary material that the lecturer used.

##### **4.4.5.2 Challenges Faced In Doing Assignment Or Assessment**

She also faced difficulty when doing group assignment. This is because some classmate did not understand her well. “Normally there is no problem other than group assignment.”

So if the lecturer let her classmate to choose their own member, she will not have a group. There is once, the lecturer ask them to choose their own group member and one of

her classmate take her into their group. Although she have a group, but the other group did not want to be the same group with her. So quarrel had happen among the group member and until today the group member did not greet each other because of the group assignment. So if the lecturer let her to choose her group member she will let the lecturer to fix the member of the group.

She also faced challenges in adjusting the format according to the requirement of university. “Just sometime there is a part that we do mistake in formatting we already adjust. After send to other people laptop just like format is not tally. So we had to ask friend. So become Our friend doing the editing.

” for the assignment she will send document to her friend to check the formatting.

Although she had adjusted the format of the assignment in her laptop, the format of the assignment did not appear the same as her laptop. So her friend need to help her in readjust the format of the assignment. So she will feel it is her false when asking for help from her friend or classmate. Because she did not know is her friend really want to help her or her friend is forcing themselves to help her.

She also faced a challenges in foreign language assessment. One of the challenges are picture description. According to her “like last sem, I been given picture description on calendar. That lecturer will explain what the person is doing on certain day. After that, the lecturer will ask this person go jogging. What time he or she jogging? So we just mention back”. For other sighted student, the lecturer will pass a paper content image and the lecturer can test their vocabulary on the foreign language. Because of she unable to see the image that been shown by the lecturer. So the lecturer have to describe the image for her in English before the lecturer can test her vocabulary base on the image.

For the reading assessment, she have to bring her laptop to the office of the lecturer. “lecturer gave soft copy but been question as it is not fair because screen reader able read and we only had to read back what been read by screen reader “the lecturer will prepared the reading text in soft copy and insert it in to her laptop. She will than used the screen reader or NVDA to read the text that had been provided by the lecturer. Although she are able to complete the reading assessment but she feel that is not fair because the screen reader are able to read the foreign language that taken by her. She also can’t have her brailed reading text because the lecturer did not know how to write in braille. So she suggest the lecturer read a few text for her and she will write in braille. When the assessment been conducted, the lecturer only had to pass the brailed copy to her. In the second level of foreign language, the word used become more complicated and the she don’t know how to write the word in the foreign language form. So the lecturer still provide soft copy for her reading assessment.

#### **4.4.5.3 Challenges In Meeting With Lecturer.**

Other than she need friend to company her to meet the lecturer, she also need to find a time that both of them are free. “We need meet lecturer we need to suit the lecturer and our time.”. In her experience, she had to get a note from a lecturer in her office. The lecturer will ask her when she will be free, but she can’t find time that both of them are free. So the lecturer had decided to send the note to her class. This had make she feel that she had cause trouble to the lecturer.

#### **4.4.5.3 Challenges Dealing With Symbol and Diagram**

“Tree diagram also challenging. Had to self-explore. When lecturer explain we will not understand. We had to do our self because tree diagram we can’t show the lecturer. We will hear noun phrase, noun subject predicate. We will not know what is on predicate.” Although she had learning the tree diagram since form 6 and the lecturer had explain the

tree diagram for her, she still feel difficult to understand the tree diagram. She need to draw the tree diagram to enable her to understand the where the phrase or word should be located. Because of she learn the tree diagram in her form six, so she can imagine how the tree diagram look like.

Although she can read the symbol, she also have to label the symbol that been used in phonetic and phonology so that she can write the symbol. In order for her to label the symbol, she will do the YouTube search for the symbol and listen to how is the sound of the symbol but she can't found some of the symbol in YouTube. So she also download the International Phonetic Association (IPA) keyboard chart that content phonetic symbol and read it by using the screen reader on her phone name voiceover. She will used the list of the symbol that she had label to insert her answer in exam.

Sometime her friend also will used pencil or pen to draw the tree diagram or phonetic symbol on her hand so that she can understand how the tree diagram or the shape of the symbol look like. Her friend also will feel it is their false because not explaining to her but she feel that actually it is not their false. This is because Michel might be the first visually impaired friend that her classmate maid.

Other than tree diagram, she also feel difficult to understand schema image in one of the courses. It is difficult for the lecturer to explain to her in her lectured. "the lecturer will do tutorial that we face to face with lecturer. So the lecturer will finish the lectured earlier. The left over time will gave exercise to other friend." In the same time, the lecturer will spend time explain and draw on her hand so that she can imagine the shape of the schema image.

#### **4.4.5.4 Ordinary Study Note Or Material**

Most of the lecturer in university will upload the note in the website of the university or Eleap but there is some note document in the image form. So she had to download the note from the website. Then the note will be converted to the word by using OCR Software name ABBYY Reader before it can be reader by the screen reader. According to her, “some time there is a problem with the ABBYY software causing the material become not accessible”.

She also stated that, there is different in a few aspect learning linguistic by SWVI compared to sighted student such as “The note that provide by the lecturer should note be design in a fancy and animation way. This is because it will distract the proses of reading by the screen reader. The lecturer also should put in less images and more text in their note.”

#### **4.4.5.5 Challenges When Doing Exam**

She will doing her exam in the computer laboratory. The lecturer will prepared the exam papers in the form of electronic format or soft copy and faculty will gave extra time for her to complete her exam . She also had to bring her own laptop to answer the exam. similar to Linda and other SWVI, before the exam start, the staff will insert the USB content question in to her laptop. She will than used her laptop that content screen reader to answer the question by typing her answer in the space provided. According to her “the challenges with the question paper. For example such as phonetic and phonology. The problem is I don’t know why, sometime the symbol been used in the note can be read but it can’t be read in exam. Like different. Don’t know why”. However there are still some phonetic and phonology symbol that can be read in the note provided by the lecturer but can’t be read in the exam paper. In this case, the lecturer will sit in the computer laboratory

and explain the symbol to her. Similar to other SWVI, the lecturer will modified the question required drawing to describing.

Overall Michel feels that all her need in exam had been taken into account. She also faced some issue on answering question paper using her own laptop. This is cause by faculty member especially student will think that she can score with flying color in her exam because she copying the answer from the note.

She also encounter challenges in doing tree diagram in the brail form. This was because she had to draw the tree diagram for a few sentences. According to her, “the second sentence and the third sentence is not tally to the first sentence. So she ask the staff to help her in drawing the diagram but the staff did not have a linguistic background and don know how to draw the diagram for her. So she have to explain her answer to the lecturer

#### **4.4.6 Asking For Facilities**

##### **Faculty**

In this university, there are some facilities that provided for the visually impaired such as lift braille or lift with voice. However a lift is not enough. She feel that is the responsibility of the faculty to provide the facilities to the student with disabilities. According to her, “if from the faculty, I hope they will provide embosser. Although it is expensive but we can used it. Obviously when doing revision I fill like is better doing revision by reading note in braille. Moreover, exam easier used braille.” She also hope that the faculty are able to provide a embosser that can be used for print or ambos note or book in the form of braille. This will enable the SWVI to read their note without depend on the screen reader. She also feel that it is easier for her to answer exam by using braille question paper. With the embosser, the lecturer can provide the SWVI with braille note and exam

paper. The SWVI also able to emboss the note by their own. She also suggest that, faculty should had a room that complete with excessive technology that are needed by the visually impaired such as embosser, computer with screen reader, scanner, printer and ABBYY reader. This will enable the SWVI used the computer to answer the question paper or exam and the lecturer not worried about the confidential of the exam paper.

She also never voice up her need to the faculty. This is because one of the senior shared experience in voice up of their need to her but the respond from the faculty is “don’t you feel you are blind, you can ask for anything”. So the statement had hurt her so “what is my point to voice up my need”.

### **College**

“College is less accessible. Actually difficult for us to move from room to cafeteria kah. One to move, for example want to meet friend at different house kah. We had to depend on peers. Actually the distance is not a problem but there is a way such as a railing kah, had a guide for us to recognize our friend bloc. She also hope that the hostel in college and faculty will provide railing so that she able to move to cafeteria and navigate around the college and faculty independently.

### **4.4.7 Hope From the Visually Impaired Student**

#### **University**

“Student that enter the university are not all with disability. So they had to aware that there is a possibility for student with disability to enter the university. So they had to aware. They need to have effort on how to overcome the problem.” She also hope that the university have awareness about the student with disability. This is because, university had to provide equal access to education to all and student with disability also had chances to pursue their study to a higher level of education.

“University can form a unit on disability that only supports people with disability.”. she also hope that there is a unit that support disability from all categories with all the tool or technology that is needed by them.

### **Library**

“I hope in CAIS there is book in braille, or at list if there is no book in braille, there is a pc that we can axes.”. The Library also need to offered eBook services. Today, the student especially student with visually impaired need book that can be easily access. She also hope that the library are able to provide braille book and accessible computer that can be access by the SWVI. Accessible computer is needed by the SWVI to enable them to access book from other university.

### **Faculty**

She also hope that the faculty will had a disability department that take care of the facilities that are need by the student with disability especially for the student with visually impaired. This is because previously the faculty went to some organization to understand the function of the facilities that is needed by SWVI. Until today there still no facilities provided the faculty for the visually impaired.

## **4.5 Discussion Of Result**

The aim of this study is to identify the challenges faced by 3 SWVI studying Linguistic. Based on the autobiographical study and interview of 2 SWVI who study in the same university. study, The result show that there are similarities in challenges faced by them such as challenges in moving around, accessing printed material, ordinary material or book, learning unit content diagram, , dealing with symbol and challenges in doing exam, assignment or assessment. However there are some differences in ways taken by the SWVI to overcome the challenges they faced. In this section, the researcher will discuss on the

first objective that consist of challenges faced by SWVI in learning linguistics followed by the solution taken by the SWVI to overcome each challenges that they faced. The findings obtained from data collected through researcher autobiographical story and interview of 2 SWVI will than triangulate with the literature review.

#### **4.5.1.1 Challenges Faced By the SWVI**

##### **4.5.1.1.1 Challenges In Mobility**

One of the challenges they faced were mobility or moving around the campus. They fill that the environment of the university does not help them to move around. This is because the campus compound is too big, there is some road design with stone, and the landmark is not clear. Moreover, there is no facility provided by the University such as braille track and railing become the factor that causes them faced challenges in moving around. In other word, there is nothing for them to use as a guide when moving around the campus. So their friend play an important role in helping them navigate around the campus. Challenges in moving around also had cause difficulties in meeting the lecturer. This is because they had to adjust their free time according to the free time of lecturer and their friend. So they hope the faculty an college is able to provide railing or braille track that can be used as a guide for them to move around faculty an college. Support from their peers also needed for them to move independently. This is similar to what faced by Almahdi and Dana. According to the research done by Almahdi (2014), although Almahdi had her remaining sight she also faced the same challenges. She found the campus is very big and she could not found her class easily. So she need 2 month to familiar with the University environment. Dana also faced the same challenges because she did not received any mobility training in her high school compared to Linda and Michel. One of her classmate who support her with her mobility. She also encourage Dana

to take mobility training. Through this training, Dana learned how to move around campus safely and independently.

#### **4.5.1.1.2 Challenges In Reading**

Accessing ordinary material or printed material especially for foreign language is another challenges faced by them. Similar to Dana, Michel faced challenges participating in class activities. This is because not all material are available in electronic text format. It is hard for Michel to participate in the exercise given by the lecturer because during that time, she don't have the book in soft copy whereas another SWVI unable to read the printed material or pdf material that been provided by the lecturer. Linda also faced the same problem as 2 other SWVI in reading ordinary material because the screen reader were unable to read some of the slide. Other than depend on the audio that she had record, she also ask her friend to help in describing the image content text. In Zu adjusting the course materials for Dana became the responsibility of the lecturers. Her lecturers sent the adjusted materials to Dana in Word document format but not all the materials all material are available in word format. So it can been see that the SWVI are facing the same challenges in ordinary reading material. In order to make sure the ordinary material is readable by the screen reader, the lecturer need to have a OCR software to convert the images into text format. Before upload the material in the Eleap. The solution taken by the 2 SWVI In current research are ask their friend for note from another university where as other SWVI will search for similar note from online sources

Linda also faced difficulty in highlighting the important note in the book. So she will record the lectured and retype the note. Different from Linda, Dana faced challenges in taking lecture notes. This is because she could not type quickly on laptop. Staff at the Office of Accessibility attempted to address this issue by providing Dana with assistive

technology that included Braille Sense (a Braille note taker) and booksense (a recorder and lightweight portable DAISY player) to facilitate her lecture note taking.

They also faced challenges in accessing printed material from the library. One of the ways they to overcome is asking their friend to help them to do the search for the printed material where as they will focus on the online material. Although Almahdi study in another University, she also faced the same challenges as 3 of the SWVI. She were not able to find book in the library because she unable to read the labels on the book. So she need her friend to assist her in the library.

The SWVI also faced difficulty in reading the symbol. This is because the screen reader were unable to read the symbol. So in the first year of the study, the lecturer will describe the shape of the symbol to them. They will than memorize the shape of the symbol according to what had been describe to them but it does not solve the challenges they faced. So they take their own effort asking their friend to insert the symbol into word and they will label the symbol by using screen reader. In assignment, Two of the SWVI will ask their friend for help in doing the assignment content symbol. This is because in the first few week of the semester, the SWVI had not discover that the symbol can be label by the screen reader. Other than asking friend for the symbol, Michel also do online search for the sound of the symbol and she had downloaded an IPA chart on her phone. By doing so, she will be able to do assignment and answer the exam question with the symbol been label. However the sound or description for some symbol are not available online causes the symbol can't be label. So screen reader were unable to read all the symbol. In order to help SWVI to overcome the challenges, the lecturer had to provide the symbol together with the symbol to them so that they can label the symbol that are needed in to the screen reader. Similar to Michel experience, Dana stated that the exam materials were not always completely readable for her screen reader. So the lecturer making adjustments for Dana

related to more general subject and exam requirements. In Dana's case Studying Mathematics in English was very challenging for her, because she was not familiar with English Mathematical symbols. So Dana relied on her hearing and memory to master Mathematics but it is even more challenges for her because some of the equations contain numbers of six or eight digits, brackets, signs and codes that must be read carefully to ensure accurate calculations. So a talking calculator is needed by her to get accurate answer.

Different from other SWVI, Michel also had to faced challenges in reading foreign language. This is because the foreign language taken by other SWVI does not asses them in reading. So she had to braille a few reading text and read in front of the lecturer.

#### **4.5.1.1.3 Challenges In Learning Unit Involve Visual**

They also faced challenges in drawing tree diagram either in class or in exam. This is because they had to imagine or visualize the shape of the tree diagram. Two of the SWVI had been ask to draw the tree diagram on the whiteboard whereas Michel fill that is hard for her to understand the tree diagram without drawing it although they had learn the tree diagram before. So the lecturer propose to them to form the shape using match stick on a manila card. 2 of the SWVI will draw the tree diagram in braille form, one of them send in the tree diagram on the manila card and the lecturer had accepted both of their diagram, whereas for the exam, they will draw the diagram in braille form. The tree diagram will than been label with pen by the lecturer.

Schema image is another challenges for Michel but not for 2 other SWVI. This is because the lecturer did not put much focus on schema image in the particular year. So, the lecturer had spent time one to one explaining the shape of schema image to her. In addition, the SWVI also faced challenges in doing assessment. This is because one of the assessment

required the student to describe the picture on either foreign language or Borneo language. So the lecturer will describe the picture before the lecturer able to asses them.

In order for 3 SWVI to answer the exam question, the lecturer had do some modification to the exact question. The exam question paper also consist of text only. This is because the screen reader are unable to describe picture or diagram. The lecturer will avoid question consist drawing and involve diagram.

#### **4.5.1.1.4 Challenges In Writing**

In this case, the SWVI had to answer the question paper with their laptop. This is because they can't write in a printed text. Linda faced challenges in answering exam question paper because her laptop is stop functioning. So she had to restart her laptop. Whereas Michel faced another ishu on answering exam using her own laptop. This cause her classmate fill that she can get high mark because she copy the answer from the note. Different from 3 SWVI , Almahdi had to answer the exam question in braille. After she had completed her exam, she will read out her answer to the lecturer. some lecturer accepted but some lecturer prefer her to write her answer in normal text. Similar to Almahdi, Michel had to answer the question on tree diagram by drawing in braille version. However she faced a problem when the first sentence and the second is not tally. So she had to explain the tree diagram to the lecturer.

The SWVI also face challenges in formatting the assignment. in in order to adjust the format according to the requirement the help from their friend are needed. as had been shared by Michel, although they had adjust the format according to meet the requirement, it does not appear the same on her friend's laptop. So her friend had to readjust the format of the assignment. whereas Almahdi faced challenges in doing her assignment because she unable to write in normal text. So she will write the assignment in braille. She will than

dictate them to a friend who would write them in normal text before the assignment been send to the lecturer. the lecturer also had to prepared the note in a textual form. This is because the screen reader are unable to read the images are although it contain text. The slide also had to be in a simple way because a fancy slide will distract the proses of reading by the screen reader.

#### **4.5.1.1.5 Challenges Participating In Group Assignment**

Other than formatting, Michel also faces challenges when dealing with her group member. She also fined that is for her to get a group of friend that can do assignment with her. So to make sure she will had her group, the lecturer had to fix her group member for her.

#### **4.5.1.1.6 Summery**

In this section the first objective that consist of challenges faced by SWVI and how they address them had been discuss. The results of current research showed that the SWVI faced challenges in reading, writing, learning unit consist of diagram, mobility and group assignment. So the help from their peers in moving around, formatting assignment and reading ordinary material are needed to overcome their challenges. the assistive technology such as screen reader and OCR software also needed by them to read ordinary material. However some ordinary material is not readable by the screen reader. Therefore the lecturer had to play an important role in helping them overcome the challenges. ix the group assignment for them, convert the ordinary material into text and provide the symbol together with description in text format are some of the extra work that needed be done by the lecturer to minimize the challenges faced by them.

## **4.5.2 Facilities' That Been Propose By the SWVI**

In this section, the second objective of this research will be discuss. There are some facilities that been propose by researcher through autobiographical study and been voice up by 2 SWVI through interview such as geometry set, braille track or railing, and room complete with assistive technology.

### **4.5.2.1 Special Geometry Set**

A rubber map is used to put a thin piece of paper while drawing where as a braille geometry set is a tool that used for drawing diagram. Through this research, The researcher also suggest the faculty to provide geometry set so that the SWVI can draw the tree diagram as other student. By providing the geometry set, it will enable the lecturer to draw schema image or anything in the form of diagram on a thin piece of paper and can be fill by the SWVI. This will help the SWVI to visualize the shape of the diagram or symbol.

### **4.5.2.2 Braille Track Or Railing**

The railing and braille track or track tile are needed by the SWVI to guide them moving around university. The SWVI hope that the faculty can provide them with this facility because the landmark in the university is not clear enough. With this facility, at list they can moving around faculty independently.

### **4.5.2.3 Room Complete With Assistive Technology.**

A few assistive technology are needed to minimize the challenges faced by the SWVI such as embosser, OCR software and screen reader.

Embosser is a piece of tool that are needed by the SWVI to convert text in electronic into braille form. 3 SWVI hope that the faculty are able to purchase this tool because they need the presentation slide in braille form. The SWVI also hope that the faculty are able to provide question paper in braille. By purchasing this device, the lecturer

in the faculty will be able to provide the SWVI with braille note and question paper. OCR software are needed by SWVI to convert scanned image to text whereas screen reader are needed by SWVI to read electronic text and interact with the computer. The SWVI hope one of the computer in Cais been install with screen reader. This is because, the computer in Cais are link to the eBook or journal been publish By other public university. By installing the screen reader in one of the computer in Cais will enable them to access to eBook that been publish by other public University in Malaysia. The faculty also need to install screen reader in one of the computer in the computer laboratory. This is because the SWVI might need it for answer their exam whenever their computer is not functioning. by doing exam using faculty's computer, it will solve the issue of suspecting cheating to score with flying color are cause by copying answer from their own laptop.

A computer that been install with scanner, embosser, OCR software and screen reader will make the PC accessible to the visually impaired user. However a room is needed to setup this facility so that it can be access by the SWVi in one Place.

#### **4.5.2.4 Summery**

In this section, the second objective had been discuss. The facility that been identify and needed by SWVI to overcome their challenges are special geometry set, embosser and braille track or railing. A special geometry set are used to draw tree diagram or schema image, an embosser are needed to provide the SWVI with note or question paper in braille where as a braille track is needed as a guide for them to move independently and safely. A accessible computer is needed by them to answer exam question paper, scanning printed material and convert it in to braille form.

#### **4.6 Summary**

The results of current research showed that mobility, accessing printed or ordinary material, learning unit content diagram, , dealing with symbol and doing exam, assignment or assessment are challenges faced by the SWVI in studying Linguistic. This is cause by the unreadable material, Support from their peers, learning unit consist of diagram and the acceptance of their peers. Therefore, other than asking help from group for the SWVI their peer, facility such as braille track, railing, and assistive technology are needed by them to overcome the challenges they faced. The lecturer also had to fix the group assignment for them, convert the ordinary material into text and provide the symbol together with description in text format. The faculty and colleges had to provide facilities such as railing, braille track, and some other assistive technology to help to minimize the challenges faced by SWVI.

## CHAPTER 5

### CONCLUSION

#### 5.0 Introduction

This chapter concludes this study report by presenting an overall summary of current study. Besides, the results of the study is discussed and concluded as well. Significance of the current study is to voice up the voice of the SWVI and hope more faculties in Unimas would open their doors to accept them. The scope of this conclusion is restricted to the result obtain from current research. Recommendation for further research is elaborated as well.

#### 5.1 Summary Of Findings

The aim of this study was To identify challenges faced by students with visual impairment (SWVI) in learning linguistics. The first objective of current study was to Analyse the challenges faced by SWVI in learning linguistic and how they overcome these challenges. The second objective was to Identify and propose facilities that are needed by the SWVI. The theoretical framework of present study was based on Theoretical research paradigm. The aim of this theory is to understand experiences, interactions and provide deeper understandings of the social context of SWVI in learning Linguistic. This theory also studies a specific phenomenon by gathering subjectively grounded information provided by SWVI who have experience of the challenges in learning Linguistic (Rowlands Walsham as cited in Alhammadi, 2014). The participants of current study were 2 SWVI who study in Faculty of Language and Communication (FLC) Universiti Malaysia Sarawak (Unimas). Semi-structured interview were used to obtain data and triangulation method was used to analyse data in detail.

The results showed that the challenges been faced by them are mobility, accessing printed or ordinary material, learning unit content diagram, , dealing with symbol and doing exam, assignment or assessment. Some of the challenges they faced such as accessing printed or ordinary material, and dealing with symbol can be overcome by using assistive technology. However there are some challenges that can't be overcome by using technology, such as challenges in mobility, dealing with diagram and doing exam. Therefore the faculty and colleges had to provide facilities such as embosser, special geometry set and braille track so that the challenges can be minimize.

## 5.2 Implications Of Findings

Current study described the challenges faced by the SWVI studying in one of the public university in Sarawak. The results of this study can be used as a guide to help the next generation of SWVI who study in the same university to overcome their challenges. Besides that, current study can be used by the Faculty to ask for budget from the university to provide the facilities needed by the SWVI. The outcome of the study show that there are some similarity between challenges faced by the SWVI in Unimas and UAE. Results from the current study can help the university to form unit of disability. The purpose of this unit is to help the SWVI to overcome the challenges that they faced and form a policy to increase the enrolment of people with disability in the university.

## 5.3 Recommendations For Further Research.

Current study focused on the challenges faced by SWVI studying Linguistic in Unimas and the result obtain cannot represent the challenges faced by SWVI or other student with disability who study in different courses in the same University. Hence, a research involving challenges faced by all student with disability in Unimas should be done so that the results will be more significant and can be used to represent challenges faced by student with disability in Sarawak Public University. The result will then be used

to compare between challenges faced by student with disability in Sarawak and with challenges faced by student with disability studying in west Malaysia. The methodology for participant selection was purposive sampling method. Random sampling method should be employed in order to present the result in a more general way so that the data can be used to represent student with disability in Unimas.

Furthermore, there is good opportunity for further research that focuses specifically on the challenges or specific disability. In this way, the data obtained would be very specific and the description of data can be targeted to specific areas. Moreover, further research can be done by using the data obtained in current research as well. Challenges that SWVI faced can be addressed and different facilities can be identify as the need of SWVI might differ from one another.

Moreover this study should be repeated in the future due to the commonly used assistive technology or facility, there might be new ways or assistive technology to overcome the challenges Faced by the SWVI in the future. This is due to the rapid change of technology will able to help the student to better overcome their challenges.

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## Appendix 1

### CONSENT TO PARTICIPATE IN FINAL YEAR PROJECT INTERVIEW

Dear Participant

You are kindly invited to participate in this study entitled “The Voice of Students with Visual Impairment: A Case Study on Challenges of Studying in a Malaysian Public University”. This study is a partial requirement of my undergraduate studies. This study aims to investigate the challenges faced by students with visual impairment (SWVI) in learning in the Faculty of Language and Communication (FLC), University Malaysia Sarawak (Unimas). All data and information collected will be treated with utmost confidentiality and your names will be anonymous. The data and findings of this study will be reported in the final year project report.

You are invited to voice up the challenges that you face as a student with visual impairment studying in the Linguistics Program in University Malaysia Sarawak.

Please read the information below. Please seek clarification about anything you do not understand or not sure of, before deciding to participate.

1. This interview is voluntary in nature. Participants have the right to not answer any questions, and to stop the interview at any time or for any reason. The interview will take about 45 minutes or more.
2. No monetary compensation or in kind will be given to the participant to participate in this study.
3. All personal information, particularly name, contact details, is confidential and will not be revealed in any publications, unless prior permission has been obtained from the participant.
4. This interview needs to be audio recorded for data reference and analysis purposes. No audio recording will be done during the interview if permission is not granted. You have the right to stop the audio recording or revoke recording permission and or end the interview at any time.

This project will be completed by June 2018. All interview recordings will be stored in a secure work space until a year after that date. The recording will then be destroyed.

Thank you.

.....  
Jee Kouk An  
B.A. Linguistics (Hons.)  
Faculty of Language Studies and Communication Studies  
Universiti Malaysia Sarawak

**PARTICIPANT'S CONSENT TO PARTICIPATE IN FINAL YEAR PROJECT  
INTERVIEW**

Name: \_\_\_\_\_ ID No: \_\_\_\_\_

Tel: \_\_\_\_\_ Email: \_\_\_\_\_

*(Please check all that apply)*

- I understand the terms, conditions and procedures described above.
- My questions have been answered to my satisfaction.
- I agree to participate in this study. I have been given a copy of this form.
- I  **give**  **do not give** permission for this interview to be recorded.

I **give** permission for the following information to be included in publications resulting from this study: *(Please check all that apply)*

My name                       the challenges that I face     the solution taken

background information that been given in the interview

Others. Please

state: \_\_\_\_\_

Participant's Name: \_\_\_\_\_

Participant's  
Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Researcher's  
Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Please contact me, Jee Kouk An, at 0146953535 for any questions or concerns.

If you feel you have been treated unfairly, or you have questions regarding your rights as a research participant, please contact my project supervisor, Mr. Jayapragas Gnaniah at 019-4990331 or email him at [gjayapragas@unimas.my](mailto:gjayapragas@unimas.my)

## Appendix 2

### Interview guide for SWVI

#### **A. Interviewee profile**

1. May I know your age, please?

25

2. May I know when you began your studies at this university?

september 2015

3. Why did you choose to study in this university?

Saya pilih universiti lain mula-mula. Saya isisajalah dalam UPU. Saya isi . tapi dah ada rezeki masuk u. masuk sajarah. Original pilihan saya mau pendidikan. Memang ada dalam pilihan upu unimas ni. Yang atas sekali bukan unimaslah. Pendidikan Upsi, um, ukm sesuatu.

4. Why did you choose to study Linguistics?

Saya pilih dalam upu. untuk Unimas, saya pilih counceling dan Linguistik tapi dapat linguistic. saya pun tak tau apa itu linguistik sebenarnya. Saya isi saja. Ikut syarat upu.

5. Can you describe your visual impairment?

Memang totaly blind. Memang tak nampak langsung. So tak tau nak describe macam mana. sejak lahir. sebab menurut doktorlah dia cakap saya punya point mata kecil.

6. Have you received any previous training on using assistive technology for individuals with visual impairment before starting your studies in the university?

Ada. Maca sekolah dulu pernah join jaws di center 2009. selepas saya SPM saya pergi kl tiga bulan short course latihan basic computer. Nama corsetu praulah. Pra universiti tapi dia ajar basic computer. Dah saya habis saya mengambil STPM. saya mengambil kursus pentadbiran sistem maklumat dekat kl tapi course yang lain lah. Selepastu saya balik sini sebab saya dapat unimas.

7. Does your university offer any kind of special training for SWVI? If yes what are they?  
setakatni tak ada

## **B. Physical challenges at the Faculty**

1. Does the physical environment at your university help you to move independently around the Faculty and university? Please explain.

tidak. sebab kedudukan macam mana.

Satu: belum ada kemudahan braille track.

Dua: permukaan dia tak berapa nak sesuai. landmark dia pun macam yang saya pernah cakapkan, kita berjalan berdasarkan landmark kan? Landmark dia pun tak berapa nak clear.

Jadi kalau bergerak seorang boleh sesat.

2. What are the mobility difficulties you face when you move around your faculty?

Bergerak seorang-seorang, tersesatlah makmal mana satu. Contohnya selain itu, dia kadang-kadang susunan kan? Lep 3 ke lep 4 dekat atas tu. Kadang-kadang boleh sesatlah juga dekat situ. Kalau nak jumpa lecturer dekat tingkat dua tu pun boleh tersesat. Kalau salah masuk bilik lecturer lain macam mana?

3. How do you manage your mobility to and from your Faculty?

Kena asistlah

4. What are the main challenges you face in using the library?

Pertama tak ada buku brail

Kedua tak ada asisten yang voluntier sebab masing-masing pergi ke cais nak cari benda.

Contoh kita pergi dengan asist kita kan mereka ada tujuan. Sama-sama nak sitle kan assignment. So masa memang kuranglah. Mereka tak dapat bacalah. Lepastu yang ketiga tidak ada kemudahan langsunglah

5. Would you like to comment on any other specific areas at your university?

Kolej. Kalau tengok dekat cempaka, dia ada sediakan facilities apa semua, memang sesuaih tapi colej-kolej lain tak semestinya mereka masuk cempaka. dia orang sendiri pun tidak alert ada yang OKU. Masa kita orang masuk tu dia orang sendiri pun tak alert ada pelajar Yangoku. So saya pun baru tau yang dekat cempaka tu memang ada facilities tapi dekat kolej-kolej koleh-kolej lain lainsetakatni tak ada. So harap dia orang ada sediakanlah. Dekat cempaka pun tak banyak. Kalau boleh cempaka sediakan banyak lagi lah. And kolej-kolej lain pun boleh sediakan. Jangan banyak sangat macaam tanga apa smemua untuk memudahkan pergerakanlah.

6. What kind of support do you receive from your family members?

-kewangan

-dorongan seperti sokongan moral. mereka tidak memaksa saya untuk meneruskan pelajaran

-pernah cakaplah masa satu nak berhenti apa semua tapi dia orang macam. Dia orang tak memaksa tapi dia orang juga tak melarang. Maksudnya kalau awak nak prosid prosid. Kalau awak nak berhenti terpulang pada awak. Terpulang kepada kemampuan awak. So dia orang cakap macam tu. Jadi macam dia orang o.k lah support darisegi semangat dorongan semua.

### **C. Daily challenges**

1. What are the main difficulties you face in your lectures halls or classes?

tak banyak cabaran. sebab mostly lecturer faham. apa yang ada dalam slide dia baca. Dia bagi tau kalau dia tak baca sekalipun dia terangkan tapi kalau cabaran bila guna buku. So bila guna buku. Kita terpaksa scanne kan. Lepastu kita nak follow mereka orang macam nak tick benda yang penting dalam tu macam susah. Tapi tak apalah kita kan rekord. Jadi tak ada masalah lah.

2. What are the challenges you encounter when dealing with students and classmates?

Rasanya tak da cabaran. sebab classmate pun o.k jadi macam tak ada cabaranlah sebab mereka orang macam faham situasi kita orang macam mana. Jadi kalau nak berdeal dengan mereka orang mungkin cabaran dia kalau nak buat assignmen together mungkin dia orang kena jumpa kita. Kita pun susah nak cari mereka orang dekat manakan? So rasa juga menyusahkan mereka orang sebab kadang-kadang ada student yang duduk luar so terpaksa pergi unimas sebab nak deal dengan kita kan? Nak buat assignmen rasa kesian dengan dia oranglah tapi kalau dia orang nak jumpa nak jjumpa apa semua tak ada masalah.

3. What are the challenges you encounter when dealing with lecturers and staff?

Kebiasanya masa. Bila kita nak deal dengan lecturer kita kena makesure masa dia sesuai tak dengan kita and masa kita sesuai tak dengan dia

Yang kedua kita memang perlukan temanlah untuk jumpa. Macam perlukan orangteman kita untuk jumpa lecturer tu. So kita pun perlu sesuaikan masa kita dengan orang tu juga. Kalau orang tu free baru kita boleh jumpa. Kalau dia tak free so susahlah.

4. How do you feel about asking for help from:

a. your friends?

rasa menyusahkan mereka pun ada juga. Padahal kita sendiri tak mampu nak buat tetapi kita terpaksa juga minta tolong mereka walau pun sebab benda tu memang kita tak boleh buat. So macam kesian jugalah dengan dia kadang-kadang sebab rasa menyusahkan dia tapi terpaksa. Kita tak mampu nak buat macam mana. seperti asigmen individu minta tolong mengatur format. Dia pun ada asigmen dia. . rasa terpaksa. kadang-kadang rakan akan tolong membetulkan arer yang ada

b. your lecturers?

Actually lecturer saya tak ada rasa apa-apa sebab itu memang tugas dia untuk tolong student. Jadi kalau nak minta tolong pun minta sajalah.

c. your classmates?

terdesak, sebab kita minta tolong orang bila kita terdesak kan . kalau kita rasa kita mampu kita akan buat. Contohnya dulu rakan saya tak ada. So bila nak pergi ke kelas mungkin ada

kawan dekat cempaka, mungkin dia tak sihat tapi saya minta dia hantar ke kelas. So rasa menyusahkan tu memang adalah. Tapi nak buat macam mana. Terpaksa. kalau tak pergi kelas

d. your faculty?.

Saya tak ada rasa apa-apa. Sebab fakulti perlu sedikaan kemudahan yang khas yang khusus. so dia kena bukan setakat sediakan kita saja kemudahan masuk ke fakulti tu. Mungkin OKU lain pun akan masuk ke fakulti tu . jadi dia memang perlu menyediakan kemudahan tu. jadi rasanya tak ada rasa apa-apalah. Rasa memang nak sangat kalau fakultitu buat something yang memang sesuai untuk oku. Tak kesahlah, oku apa-apa pun.

5. What are the challenges you face when doing your assignments/assessment?

Asignmen,macam biasalah buku. So tak semua benda yang kita caritu ada di internet. Kadang-kadang benda tu sikit saja di internet. contoh asignmen individu. Lecturer cakap saya nak rujukan campur buku journal dan .... so part buku tu memang ada problem lah. Macam yang saya cakap tadi kalau kita pergi cais pun bukan senang kita nak dapat asisten. asesment. tak ada masalah. sebab kalau dalam kelas pun macam bahasa ketiga lecturer boleh faham. Macam bahasa ketiga ada yang diubah sedikit daripada kawan-kawan lain. Jadi tak ada masalah

6. What are the challenges you face when sitting for examinations?

Computerlah selalu problem. Kalau soal itu bersimbol tapi biasanya memang ada lecturer yang ada dekat sebelahnya, walaupun ada lecturer yang baca pasal simbol itu tapi macam kadang-kadang kita susah nak faham. Selain itu, laptop yang selalu buat hal. Kalau tengah exam not respondinglah, apalah.

7. What are the challenges you face when studying Linguistics?

Kalau dalam linguistik. Bidang sangat-sangat problem fonetik dan fonologi. fonetik dan fonologi memang tak tau nak cakap mana walau pun nvda kita boleh set, kita perlu mata orang lain juga untuk set benda tu. Maksudnya ni simbol apa. So kita kena bagitau nvda macamana tapi macamanapun kita . tapi untuk sub bidang linguistik yang lain so far o.k. tak ada masalah.

8. Do you have special difficulties in studying specific compulsory units such as:

Cabaran yang sebenarnya lecturer suka letak gambar dalam slide dan gambar tu bertulis. Tu memang jadi masalahlah. Tapi selalu saja lecturer cakap kalau ada masalah bagi tau. So kita biasalah memang kalau nak study baru buka slide. Itupun study week kalau tak jarang buka slide. Memang tak mungkinlah nak buka slide. So kalau study week mana sempat nak tanya lecturer ni gambar apa. So macam hadap jak lah apa yang ku tahu. Kalau ada gambar skeep.

a. tree diagram

saya sebenarnya mengetahui bentuk tree diagram tersebut tetapi tak mempunyai lecturer yang mengetahui cara membaca brail. kalau nak buat dalam brail pun perlu ditranscribe satu persatu. dalam komputer memang tak dapat

b. IPA symbols

saya akan ambil bahagian rumusan atau bahagian pengenalan. sebab memang screen reader tak dapat baca

c. other

9. Do you find any difficulties in accessing e-Pelajar, eLEAP and Portal Unimas? If yes, what are they?

Line slow

Apa teknologi yang awak perlukan?

Cipta satu app, dia screen reader juga tapi dia memang dah accessible dengan benda-benda macam ni. Tak kesahlah apa-apa symbol lah gambar yang dalam tulisan pun dia boleh baca. Kita pun tak payah set dia satu-satu kita pun ada kerja lain lagi. So nak ada software yang memang dia dapat baca phonetic secara automatic. Tak payah kita nak set macam nvda nak bagi tau dia ni apa. Ni apa. So tak perlu.

10. What kind of accommodations and assistive technologies are you using when studying linguistics?

Nvda jaws

11. What kind of accommodations and special assistive technology have you used prior to studying in UNIMAS?

tak ada

12. How accessible are ordinary/mainstream Linguistics study materials for you?

Tidak juga accesible. Dia macam 60%lah. Sebab sometime ada guna gambar. Macam saya cakap tadi dia ada guna gambar juga. Symbol tu juga. Kadang-kadang maybe dia terlupakah apakah. Pasal slide dia berwarna-warna. Macamtu lah. Macam kadang-kadang dia mengganggu proses pembacaan screen reader.

13. To what extent is the facilities offered at your university meets your special needs?

Cerita betul dia memang tak ada kemudahanlah. Tapi ada lecturer yang memahami sekarangni. Macam lecturer kita dia pandai scan buku. Dia uplod di ealep. So o.k lah yang tu. Eventhough kita tak dapat baca kita dapat convert kan. Tak palah memang mereka tak tau pun benda tu tapi kita boleh convert sendiri tu semua. Atlist kalau dia yang tolong kita scanne kita memang dah should be o.klah. than kemudahan lain. Dekat lap dah ada nvda kan? O.k lah tu.

14. What is different for you in learning Linguistics compared to sighted learners? Give reasons for your answer.

Perbezaan dia, mereka dapat tau symbol lah. kalau lecturer tunjuk kita kebanyakannya linguistic banyak main dengan symbol juga kan. So kalau lecturer tunjuk ni symbol apa, dia orang tau. Ni sengauan apa semua. E pepet e taling. Macam tu lah lebih kurang. Tapi kalau saya, saya kena ingat sengauan kita memang dah belajar masa form 6. Tapi yang terbaru macam u terbalik. E apa. E tiga terbalik. saya kena hafal bentuk dia macamtu.

15. What are the accommodations you used or rendered to you by the university during examination?

tak ada

#### **D. Recommendation or possible solution**

1. What types of adjustments does your faculty offer in term of study materials?

Kalau dalam buku kalau lecturer rajin tu dia scanne. Nota semua masuk dalam eleap.

Ada sesetengah kita guna buku ada sesetengah tak kan. Jadi bila lecturer guna sepenuhnya dalam eleap memudahkan kitalah. Unit by unit bab by bab. Macam tu lah

2. Have you contacted any organizations to seek for further assistance for your study, or to request financial support? If yes, which organization/s have you contacted and what kind of support have you asked for?

Setakat ni tak pernah. Cuma saya pernah minta nota dari kawan-kawan lain kalau ada subjek yang berkaitan dengan kita, saya Cuma minta nota dia. Kiranya share notalah sebab may be dia orang ada scanne juga. So boleh share kalau sama.

3. What were your expectations about the support services at your university, and what have you found in reality?

k apa yang saya aspek.first ni apa yang saya aspek sebelum saya masuk unimas kan.

Kan kita tau biasanya blind, UM. So bila dapat unimas, call unimas tanya apa semua.

Dia orang terima dia orang bagitau ada transport apa semua. Masatu duduk kolej jauhlah. Jadi memang jauhlah nak pergi kelas kan. Dia orang cakap ada semua untuk pengangkutan apa semua. Lepastu. Bila masuk sini sama saja jalan kaki. Itu pun naik bas berebut juga dengan orang. Tak ada pun special. Yang tu yang pertama.

Yang kedua, pasal janji-janji kolejlah. Dia cakap asist tak akan kena buang. Macam mana pun asist tak akan kena buang. Tetap juga asist kena buang. Dua kali dah saya kena tu.

Yang ketiga rasanya dua tu sajalah kod.

4. How do you overcome the challenges that you faced in learning specific compulsory units?

Macam yang saya cakap tadilah. Kalau bab symbol ni saya memang tak mau pegang dan tak mau tau. Yang pasti saya tau bentuk symbol itu macam mana. U terbalik apa semua. Yang penting saya hafal bentuk dia tapi saya tak boleh buat benda tu. Dan bila masuk assignmen saya bagi sajalah dekat orang. Saya akan ambil bahagian rumus-rumuskah pengenalan atau kesimpulan. Tu kerja sayalah kalau melibatkan symbol. Lepas tu untuk tree diagram kalau terdesak sekalipun saya akan buat dalam brail dan tunjuk dengan lecturer. Macam saya buat semester satu tu. Lepastu macam tu lah saya overcome benda-benda tu.

a. tree diagram

b. IPA symbols

c. other

gambar, kalau rajin kacaulah kawan. Ni gambar apa. Dalam gambar ada tulisan.

Dalam gambartu kena rajinlah tanya kawan apa benda tu. Kadang-kadang kawantu faham gambartu ada tulisan so dia baca. Kadang-kadang whatsapp group benda-benda penting pun dia orang buat gambar. So dia jadi masalah lah macam tu. Tapi overcom sajalah. Tanya kawan macam mana. Ni apa apa yang penting sangat ni? Apa yang mereka hantar ni? Tanyalah?

5. Have you ever voiced out your concern or problems to the university?

Pernah. Pada fakulti. Tapi masa tu tak silap saya dekantu dia buat analisis. Masatu saya masuk kan. Dia buat analisis. Dia pergi MAB. dia pergi UM. Tapi saya tak tau apa the end of the story.

Dia macam tu jak. Sampai dia orang buat conference guna skype macam mana nak handle tapi saya rasa macam tak ada apa-apa. Dia orang just macam mula-mula jak o.k nak tau apa semua.... macam mana um? System um macam mana? MAB macam mana? Sampai mereka orang pergi lah dekat tempat tu tapi bila mereka balik macam tak ada apa-apa.

6. In your opinion, how can your university solve the challenges that you face in your university studies?

Pada pendapat saya dia kena tanyalah apa yang. Dia sendiri yang perlu ada afferet sebab dia U kan. Dan dia terima student macam-macam. So U kan bergantung pada fakulti juga. Dia kena bergantung pada tempat-tempat lain juga macam bukan fakultilah. Kena bagi tau apa masalah awak. Even though sekarangni sepatutnya kita dapat bantuan KPT pun tapi unimas sendiri yang tak tolong macam mana nak dapat KPT tu. Sebab macam U-U lain, mereka memang dah alert, ada OKU masuk and then mereka orang akan cari contact OKUtu dan dia orang akan bagitau. Yang ni ada KPT so macam mana nak uruskan so dia orang lah yang uruskanlah. So macam dekat unimas kawan-kawan saya yang buat. Dia OKU jugalah. Dia terpaksa pergi ke tempat tu lepastu minta tandatangan daripada BHEP kah kalau tak silap. Selepastu dia pos sendiri. Bila post serta dengan bhep memang lambat. Tapi kenapa U lain boleh buat U sini tak boleh buat. Dia mesti macam tu lah.

7. What kinds of methods or techniques or activities or ways of teaching have been effective for you in learning Linguistics?

setakat ini sesuaiilah. sebab rasanya tak payahlah nak teknik sangatlah. Kita budak u bukan budak sekolah. So apa yang lecturer ajar dekat depan fokus apa semua. Macam tak ada apa teknik lah sebab subjek ini pun banyak baca juga. jadi Tak ada masalah lah.

8. What kind of accommodations do you prefer?

Setakat ni apa yang saya dapat o.k lah. Dekat dengan fakulti semua. So kalau. Sebab saya dah dapat bendatu. Apa yang saya prefer macam bila ada oku better letak kolej dekat dengan fakulti supaya mereka senang nak pergi ke fakulti apa-apa hal.

9. What kind of accommodations would you need for exams?

perlu soalan brail. sebab komputer sendiri akan menghadapi banyak masalah. saya dah banyak kali kena not responding apa semua.so dia mengambil masa walau pun ada masa tambahan.lebih-lebih lagi bahasa ketiga sebab dia memang lambatlah cerita dia. Kalau ada soalan brail lagi bagus.

10. Who has adapted necessary study materials for you? How was it adapted? Was it sufficient to meet your needs? What else could be done?

ya sebab saya dapat akses dia punya bahan. Kalau dia bagi buku awak baca.

Pandai-pandailah awak scanne sendiri. Tu macam kita dah lah ada kerja-kerja lain, nak scanne buku lagi. Masalah betul. Tapi dia bagi dah scanne siap-siap. Dah upload dalam eleap siap.

11. To what extent have your special needs been taken into account during exams?

Dia orang tambah masa dan mereka cuba ubah soalan lah. Contohnya kalau soalan betul dia melukis dia orang suruh kita orang huraikan. Macam tu jak lah. Jadi mereka orang pun boleh faham bah.

12. What would you like to add?

Apa yang saya nak tambah, saya nak ada satu unit yang betul-betul mengambil brat pasal OKU. Tak kesah lah OKU apa. Saya nak ada kemudahan macam UM . saya tak kesah lah universiti ni baru terima atau tak. Tapi dia sepatutnya alert. So dia perlu ada kemudahan tu. Tak kisahlah apa-apa kemudahan. Yang penting saya tengok kerusi roda punya sudah ada kemudahan. Yang blind, janganlah bagi alasan nak buat benda tu mahalkan. Universiti kod. Kita bayar kod bukannya masuk free. Bayaran pun sama macam studen biasa mana ada less. So apalah guna duit tu kan. Buat kemudahan.

Thank you

## Appendix 3

Interview guide for SWVI

### A. Interviewee profile

8. May I know your age, please?

24

9. May I know when you began your studies at this university?

september 2016

10. Why did you choose to study in this university?

sebab minat. Sebab ada subject yang saya minat,

11. Why did you choose to study Linguistics?

Saya ambil linguistic sebab saya minat linguistic. Cita-cita. linguistik ini berkaitan dengan cita-cita saya. Sebab memang saya memang minat apa-apa berkaitan dengan bahasa. dan saya minat nak tahu tentang sesuatu budaya and melalui bahasa secara tidak langsung kita dapat mengetahui budaya sesebuah etnik dalam sesebuah masyarakat.

12. Can you describe your visual impairment?

Sebab cancer/retinoblastoma. Makcik saya yang perasan masa tu. Sebab mata saya lain, tak nampak pupil. So bila dapat rawatan cancer tu dah merebak. Sebelum dia merebak ke seluruh badan.

13. Have you received any previous training on using assistive technology for individuals with visual impairment before starting your studies in the university?

Sebelum saya masuk, saya pernah attend international computer driving lesent ICDL dekat st. nicholas pulau pinang.

14. Does your university offer any kind of special training for SWVI? If yes what are they?  
setakat ini tak ada.

## **B. Physical challenges at the Faculty**

7. Does the physical environment at your university help you to move independently around the Faculty and university? Please explain.

tidak. Dia tak accessible sebab

satu: bentuk muka bumi yang ada jalan kalau. Kalau perasan, ada jalan yang, jalan—jalan tau-tau tiba-tiba ada lubang dekat tengah-tengah. Saya pun tak tau apa function macam longkang kecil bah. Tak tau apa function dia. And kadang-kadang ada jalan yang berbatu-batu. Walaupun memang ada dreka untuk nampak cantik. Untuk perhiasan. Tapi sebenarnya dia mengganggu perjalanan. Dekat fss, dekat dengan hepa. Dia mengganggu perjalanan. Sedikit sebanyak dia mengganggu perjalanan kita.

Tak ada railling. Tak ada braille track ni bukan masalah sebenarnya. Atlist dia adalah railling sebagai panduan untuk kita pergi ke satu-satu tempat. Yang ni, kita nak jalan pun kita tak tau mana hala tuju kita. Sebab unimas ni terlalu besar.

8. What are the mobility difficulties you face when you move around your faculty?

tak ada braille track bukan masalah. tak ada railing yang membantu kita bergerak ke sesuatu tempat sebab unimas ini terlalu besar.

Dekat fakulti. Sebab dekat fakulti kecil. saya rasa macam dia tak ada masalah sangat.

Cuma ada masalah kita tak tau mana ada longkangnya. Tapi o.k lah longkang kalau ada longkang pun bergrill sana.

Masalahnya kalau ada kelas di fakulti, kita tak tau. Contohnya ada kelas di tr ni, tr ni. Kita tak tau tr tu dekat mana. Kadang-kadang dia boleh menyebabkan kita salah kelas. Dia tak ada panduan.

9. How do you manage your mobility to and from your Faculty?

With friend.

10. What are the main challenges you face in using the library?

Challenges, a lot of challenges. Darisegi menggunakan, saya rasa saya memang tak guna pun cais. kalau pergi cais tujuan saya bukan untuk mencari bahan, untuk menemani rakan-rakan yang cari bahan. sebab dekat sana bahan bacaan untuk yang visually impaired memang tak ada. Macam tak ada buku braille. Kalau kita nak suruh kawan-kawan kita cari pun, kita serba salah sebab selalunya kita pergi sekali dengan mereka, mereka pun ada tujuan. Mereka pun nak cari bahan juga dekat sana. Jadi kadang-kadang memang tak adalah. Melainkan tu group work.

11. Would you like to comment on any other specific areas at your university?

Saya rasa kolej, kolej yang kurang accessible. Sebenarnya Kita susah nak bergerak dari bilik ke cafe kah. Nak bergerak, contohnya nak jumpa kawan dekat rumah lain kah. Kita terpaksa bergantung pada kawan-kawan. Sebenarnya jarak dia tak ada masalah tapi ada cara untuk, macam ada raiiling kah, ada panduan untuk kita kenal mana blok kawan.

12. What kind of support do you receive from your family members?

-moral support. Macam time kita down,, merekah bagi motivasi apa semua. Selain daripada tu, darisegi kewanganlah. Mereka orang memang tak menggalakkan pinjam ptptn. sebab peluang pekerjaan untuk OKU sangat kurang and mereka takut nanti takut kita tak mampu nak membayar. So merekah yang tanggung cost pembelajaran apa semua.

### **C. Daily challenges**

16. What are the main difficulties you face in your lectures halls or classes?

Difficulties apabila guna bukulah. Pakai buku especially bahasa yang ke tiga. Belajar foreign language kan pakai buku. Setiap sem kena beli buku and masa tak ada buku tu lah kita akan ada latihan dalam buku and jawapan dia berpandukan kepada audio recording. Dia macam listening punya practice. Kita tak tau apa yang berlaku dekat kelas. Just lecturer tu play audio. Kita tau apa yang dia cakap audio-audio-audio. Ok. Tiba-tiba jawapan b c d. kita pun tak tau apa benda yang b apa benda yang c.

17. What are the challenges you encounter when dealing with students and classmates?

masalah student tak memahami, especially dalam groupwork. Honestly saya tak suka kalau lecturer kata pilih group sendiri . sebab mastulah saya akan tak ada group. saya lagi suka lecturer kata group ni saya yang tentukan. Ok.

saya pernah ada pengalaman group pilih sendiri tapi masatu kawan saya saya tak ada group. so dia ambil saya masuk group dia tapi masalahnya, group members yang lain tak suka saya masuk group dia. So, jadi problem dekat situ. gara-gara saya dia bergaduh dengan kawan dia. sampai sekarang mereka tak bertegur.

Kerana group tu?

Entahlah mereka menang tak ngam kot saya rasa. So saya rasa saya tak sukalah kalau ada group work yang kena pilih sendiri. Saya akan tunggu orang ambil saya. Sebab saya tak akan cari group saya.

18. What are the challenges you encounter when dealing with lecturers and staff?

O.k lah lecturer and staf sangat memahami. Staf pun ok mereka pun cuba untuk memahami.

19. How do you feel about asking for help from:

a. your friends?

serba salah. sebab kita tak tau mereka tolong ni mereka betul-betul nak tolong atau pun mereka tolong tapi disebaliknya mereka macam eyy menyusahkan betulah budak ni. Iklas kah tidak kah and kadang-kadang kita kesian dengan mereka. ada certain gambarajah contohlah kalau dalam certain subject macam introduction to linguistic kan, dia masuk syntaksis sikit. Kadang-kadang. Kalau tak pun fonetik fonologi. mereka kan tak pernah handle budak-budak yang special need. As especially yang visually impaired. mereka tak tau macam mana nak explain symbol ni. Kadang-kadang mereka dah tak tau macam mana nak explain mereka kata mereka tak tau and mereka akan rasa bersalah sebab mereka tak

tolong. tapi sebenarnya bukan salah mereka pun sebab mereka dah tak tahu. Tapi ada jugalah yang ada effort mereka dah tak tau macam mana nak explain mengambil pen, mereka ambil pensel mereka conteng dekat tangan. supaya kita tahu macam mana bentuknya,

b. your lecturers?

takut menyusahkan lecturer. Sebab kita nak jumpa lecturer kita kena menyesuaikan masa lecturer dengan masa kita. kadangkadang macam lecturer pula tanya tanya kita, masa kamu free bila kadang-kadang saya pernah lecturer nak bagi nota. Dia suruh jumpa dia di office. tapi disebabkan masa yang dia free tu asyik clash dengan class sampai dia hantar nota tu ke kelas. So kita macam alamak rasa menyusahkandia pula.

c. your classmates?

d. your faculty?

Saya rasa tak ada apa-apa. Kalau ada pun saya rasa tu memang tanggungjawab fakulti untuk memenuhi keperluan pelajar-pelajar.

20. What are the challenges you face when doing your assignments/assessment?

Selalunya oklah. Kalau group assignmen selain daripada masalah groupe tak da lah. tapi bila jumpa group tu semua benda boleh hendle. Macam kita boleh buat kerja kan. Just kadang-kadang ada part yang kita tersalahkah darisegi formating kita dah adjust tau-tau dah sampai dekat leptop orang kah macam mereka format dia lari. So kita terpaksa suruh kawan. Kawan kita pula yang mengedit.

21. What are the challenges you face when sitting for examinations?

Setakat ni ok kod. Cabarannya dengan kertas soalan. Contohnya macam fonetik dan fonologi. Soalannya.saya tak tau kenapalah? Saya tak tau apa sebabnya, kadang-kadang simbol yang digunakan dalam nota boleh baca tapi dalam exam dia tak boleh nak read. Macam lain pula. Tak tau kenapa.

22. What are the challenges you face when studying Linguistics?

Setakat ni saya rasa ok kod. Kalau ada buat assignmen bahan rujukan kurang.

Kalau lukis tree diagram, saya pernah kena time exam. Saya pernah buat tree diagram kan kena tab tab tab tiba-tiba saya tak tau sampai. Atas dia ok.tiba-tiba sampai ke bawah dia lari. Syntak untuk ayat pertama kedua ketiga ok. Tapi tak tau lah. Tiba-tiba ayat ke empat dia boleh lari. Jadi hujung-hujung terpaksa minta tolong staf. Kita kena explain. Dah lah kita explain pun dia tak faham.

Masalah buku. Kadang-kadang tak sempat nak scanne tapi ada juga lecturer yang macam foreign language lecturer memang bagi buku. Dia scanne kan buku tu. Sebab buku tu dah lah mahal and beli scan lepas tu tak pakai. So macam tak berbaloi nak beli. So dia scanne kan lah.

23. Do you have special difficulties in studying specific compulsory units such as:

Dari segi semantik kot. Yang kita belajar semantic connective dia kan ada schema image. Kita Susah nak imagine dia macam mana. Lepastu time lecturer mengajar pun dia nak cakap pun susah nak cakap. dia terpaksa tunjuk.

japanes reading. bagi kertas . lecturer bagi soft copy tapi dipersoalkan macam tak adil sebab screen reader dapat baca dan kita hanya baca balik apa yang dibaca oleh screen

reader mengikut sebutan screen reader. kalau nak suruh lecturer brail lecturer tak tahu macam mana nak brail.

dan lecturer akan mendescribe gambar. lepas tu lecturer akan bagi tau dalam kalender harini pukul berapa buat apa. dan soalan di tanya balik pergi jogging pukul berapa.

a. tree diagram

tree diagram mencabar juga. Kena explore sendiri. bila lecturer explain kita memang tak faham. kita kena buat sendiri. Sebab kan tree diagram kita tak dapat nak tunjuk lecturer lukis dekat depan. Yang kita dengar fn kn yang ni apa subjek predikat kita tak tau pun apa yang predikat di mana posisi dia. tetapi di sebabkan kita dah ambil benda tu time form 6 kita boleh ada gambaran macam mana.

Foreign language ini pun salah satu challenges. Masa assessment. Kan time reading. bagi kertas and kita baca. Masalah dia baca symbol lecturer bagi soft copy tapi orang persoalkan benda tu macam tak adil sebab kita baca pakai soft copy dan screen reader dah automatic baca foreign language. Dia baca, kita baca juga. So memanglah benda yang kita baca tu betul. So macam tak adil lah. Tapi kalau nak suruh lecturer brail, lecturer tak tahu macam mana nak brail. So benda tu macam tak adil lah.

Picture discription: so far lecturer lah yang akan describepicture and kita yang bagi tau. Macam sem lepas saya dapat picture describtion punya soalan dalam gambar dia bagi kalender. Lepastu lecturer tu explain orang ni buat apa hari apa pukul berapa. Lepastu soalantu diubahlah. dia tanya orang ni pergi jogging. pukul berapa dia jogging? So kita just sebut baliklah. Benda tu dia dah bagitau. Mula-mula dia bagi satu kertas. Dalam ni ada hari isnin pukul 8 activity dia sampai pukul ni. Selepastu hari selasa activity dia pukul 5 pukul 6. Lepas tu dia

tanya lah, hari selasa orang ni jogging pukul berapa. So kita sebut sajalah pukul 5, pukul 6

- b. IPA symbols
- c. ipa dapat baca dalam nota
- d. other

24. Do you find any difficulties in accessing e-Pelajar, eLEAP and Portal Unimas? If yes, what are they?

Portal unimas dia ada masalah accesibility. Terutamanya masa isi kolej benda yang dia suruh tick tu kita tak dapat nak tick sebab dia terpaksa main click. Kalau tekan guna keyboard dia tak mauk.

25. What kind of accommodations and assistive technologies are you using when studying linguistics?

Basically nvda abbyyreader. voice over masa saya pakai apple iphone sebab voice over baca fonetik. So kita boleh transcribe guna keyboard. Kita just perlu download keyboard ipa chart.

26. What kind of accommodations and special assistive technology have you used prior to studying in UNIMAS?

No

27. How accessible are ordinary/mainstream Linguistics study materials for you?

Accesible lah. buku yang selalu discanne oleh lecturer selalu “the document may be empty” atau pun corrupted. So kita perlu convert. Kadang-kadang kalau tak ada ABBYY tu problem. Kita pun tak dapat nak buat kerja. buku tu dah jadi tak accesible langsung.

28. To what extent is the facilities offered at your university meets your special needs?

So far yang accesible lif brail. Cais adalife brail cais ada lif voice

29. What is different for you in learning Linguistics compared to sighted learners? Give reasons for your answer.

Dari segi materials kadang-kadang sebab ada visual impaired punya student slide jadi tak boleh fancy dan animation. Kadang-kadang legging. Orang kan boring asyik tengok teks jak tapi isebabkan ada visually impaired punya student slide tu diubah suai supaya kurang gambar dia lebih teks

30. What are the accommodations you used or rendered to you by the university during examination?

Tak ada. Sebabpc pun kita bawa sendiri.

#### **D. Recommendation or possible solution**

13. What types of adjustments does your faculty offer in term of study materials?

Sceada lecturer yang pandai explain schema image kan. Dia akan buat tutorial yang kita Cuma face to face dengan lecturer tu jak. So dia akan habiskan lectured awal. masa selebihnya bagi latihan pada student. And masa yang selebih tu lah dia attend saya lah. Dia tunjuk dekat tangan macam mana rupa skema image.

1.1 Image image emty fail tu dia tak type balik lah?

Tak. Sebab kita boleh handel kan.dia teks tapi sebenarnya dia bergambar. Kita just pergi ke slide tu kita right click and kita convert image to text. Benda tu boleh handel. So tak da lah request kata text tak boleh baca. Suruh lecturer type balik.

14. Have you contacted any organizations to seek for further assistance for your study, or to request financial support? If yes, which organization/s have you contacted and what kind of support have you asked for?

no. kadang-kadang nota sharing ddengan student dari universiti lain. Kalau ada nota.

15. What were your expectations about the support services at your university, and what have you found in reality?

Saya tak lah expect apa-apa. Sebab sebelum saya masuk sini pun saya dah tau keadaan unimas kan. Memang kita dah tau so kita tak akan espec apa-apa

16. How do you overcome the challenges that you faced in learning specific compulsory units?

Dari segi assesment tumemang dah tak dapat buat apalah. Tapi saya tengah cuba nak jumpa dengan lecturer tanya boleh tak kalau soalan tu dibagi and saya braille soalan tu. And bila time reading assesment lecturer tu bawa braille cobby untuk saya. Tapi masuk lavle 2 lavle 3 ni susah nak buat benda tu. Susah nak di capai sebab level 2 level 3 kita baca kanji. Saya tak tau kanji braille. So redahjaklah.

And dari segi fonetic dan fonology saya akan cuba cari daripada nota kan ada setiap lecturer yang bagi nota fonetic dan fonology. Dia akan masuk kan symbol. Jadi saya baca nota tu. Saya jumpa symbol tu. Nvda kan baca. Saya letak dalam list. Bukan untuk dia lable. Saya listkan dia untuk saya cobby pest masa exam. And kalau macam contohnya symbol u saya copy saya masuk dalam dictionary tu. So fungsi dalam nvda tu bukan untuk saya label tapi untuk saya cobby pest. Untuk saya transcribe masa exam dan masa assignmen.

kalau saya jumpa symbol yang dia tak dapat baca contoh symbol u terbalik yang dia tak dapat baca. saya akan copy symbol tu dan saya pergi type symbol u di google dan dia akan keluar di youtube. Orang akan ajar tutorial fonetic. Symbol itu macam mana dia sebut. dari situ saya lable contoh dia kata symbol u terbalik ini uh saya pandai-pandai lah label macam mana sampai saya boleh tahu. Sama ada saya tulis uuu panjang-panjang kah.

Tree diagram sebab saya dah tau macam mana. Dia tak lah mencabar sangat. Yang paling mencabar fonetic dan fonology lah. kadang kadang symbol tersebut tak dijumpai kita pun tak dapat buat apa.

17. Have you ever voiced out your concern or problems to the university?

sebab saya pernah dengarsinior cereta jangan awak ingat awak buta awak boleh minta apa-apa. jadi saya ada nak voice up tapi sebab saya pernah dengar sinior cerita cerita. Dia voice up benda

tu. sampai ada lecturer yang bende dia kata

“jangan ingat awak buta awak boleh minta apa-apa”.. so apa point untuk saya voice up lagi.

18. In your opinion, how can your university solve the challenges that you face in your university studies?

Mereka perlu ada effort lah. mereka perlu ada awareness. Universiti tak semua student normal yang masuk. Dah nama dia universiti. So mereka kena aware yang possibilities untuk pelajar oku masuk tpun u ada. So mereka kena aware. Mereka kena ada effort macam mana nak overcome benda ni. effort tu janganlah hangat-hangat tahi ayam.

Berya-ya nak cari benda ni ni ni. Lepastu hujung-hujung apa-apa pun tak ada.

universiti boleh beri perkhidmatan e book. And wujudkan disability unit yang memang menyokong disability people saja. saya harap betul di kais ada buku brail kah, atlist kalau tak ada buku brail dia ada pc yang kita boleh akses. Selalunya cais kan ada link dari universiti lain untuk dapatkan e book. asalkan ada pc yang accessible.

Kalau darisegi fakulti saya harap dia ada embosserlah. Walaupun dia agak mahal tapi kita boleh guna. oviesly masa nak buat rujukan saya macam nak buat revision better baca nota dalam braille. Satu lagi, exam lagi mudah guna braille.

19. What kinds of methods or techniques or activities or ways of teaching have been effective

saya rasa teknik yang digunakan o.k hanya ada masalah dari material menyebabkan kita menghadapi masalah. Teknik macam buat quiz apa semua tu. Ok bah. Berkesan.

20. What kind of accommodations do you prefer?

21. What kind of accommodations would you need for exams?

Sya harap ada pc khas so that time exam tak payah bawa barang berat [pc sendiri]. supaya kita tak payah nak bawa pc sendiri. Satu:

mereka pun tak perlu risau soalan tu dibawa keluar. And ada sebenarnya ada berlaku banyak orang pertikaikan sebab saya jawab exam pakai laptop personal especially classmate yang pertikaikan. Ni mesti meniru. dapat score mesti meniru.

22. Who has adapted necessary study materials for you? How was it adapted? Was it sufficient to meet your needs? What else could be done?

o.k exam o.k Overall o.k dari segi lif tadi dah o.k lah. material dari lecturer semua ok lah.

23. To what extent have your special needs been taken into account during exams?

Keperluan dari segi format soalan. Kan ada soalan melukis ubah soalannyasuruh menghurai apa semua. And kita diberi masa panjang sikit. Kita ada asisten untuk soalan fonetic dan fonology lecturer alert yang kita memang perlu bantuan mereka.

24. What would you like to add?

saya harap kalau fakulti kita at list bukan dekat university. At list dari peringkat fakulti kita ada satu unit accessibility. accessibility punya unit specially untuk blind sebab setakat ni fakulti kita terima yang blind kan. At list ada bilik yang computer yang boleh access.

Lepastu ada printer, ada scanner ada emboser. Dia lengkap dengan apa special need perlukan. So that kalau ada exam kalau ada apa-apa. lecturer pun boleh emboskan nota kalau tak pun kita boleh emboss nota sendiri. kertas boleh dibekalkan sendiri. Mereka just bekalkan embosser saja.

Thank you