

CHAPTER 1

INTRODUCTION

1.0 INTRODUCTION

Hearing impaired (HI) students same as the hearing students, they must understand passages, stories and sentences from various school subjects. All students should be able to make a distinction of the important facts and ideas from words they are reading and recognize words that are unimportant. At times this remains difficult for hearing impaired students for the reason that, they are reading words or sentences they cannot comprehend. Reading is a dual progress whereby one part is the aptitude

to decode print and know what one is reading and another part is reading comprehension and without it, one is not truly reading. Among students, these skills are highly related but there are some populations of children who struggle with the skills necessary to either decode or comprehend (Oakhill, Cain & Bryant, 2013). In other words, when most children learn to read, they either develop the skills to both decode and comprehend or they do not. Yet there are students who are capable decoders but still perform poorly on measures of reading comprehension because they are not making the necessary connections between words as they form sentences, paragraphs and entire texts. The inability to understand the meanings of words cause problems for comprehension. Effectively teaching students to read and write well in English is an important responsibility in today's primary schools.

It can be said that a child who is accomplishing well on measures of reading comprehension is by default a satisfactory decoder, since without knowing the words it is difficult to comprehend the message on paper. Reading comprehension is a serious skill that is needed for attainment in school and beyond, yet many students are reading below grade level. Research has shown that poor reading ability has been associated with poor school performance in general, behavioral problems and poor mental health (Marley and Szabo, 2010). This makes a strong case for the reading comprehension strategies for hearing impaired students.

The term hearing impaired (HI) is one that is used frequently and it is regarded as a condition whereby a person is unable to hear. The language of a hearing impaired person is normally considered below that of a hearing person of the similar age as well as experiences. Most of the hearing impaired students have reading difficulty.

In order to improve reading comprehension for hearing impaired students, making words memorable by using visual aid which includes text with pictures, is vital because it reduces the amount of practice required to get the words into students' reading vocabulary. Words must have connected meanings, making the connections explicit help students remember the words which will increase their vocabulary and reading skill. As we all know that the eyes of the hearing impaired people are their ears. For them to learn or improve their reading, visual aid should be used because words cannot be presented or used in isolation, they need to be used in a meaningful context (Durkin, 2014). To allocate meaning to texts, readers depend on previously kept knowledge, the domain and specific knowledge about different text structure and types (Kamhi & Catts, 2012). Thus, this paper looked at using text with pictures to determine if it can enhance reading comprehension, and using this strategy explicitly benefit students who are hearing impaired.

1.1 BACKGROUND OF THE STUDY

Basic literacy which includes reading has been always important to lives of hearing impaired people. Reading is a skill that help hearing impaired people to use auto teller machines, read fast food menus, surf the internet as well as read newspapers, use their hand phone to chat and able to read the captioned on TV when watching, furthermore, their living is reliant on literacy, mostly reading and writing, however, technology is quickening this dependency (Baker & Baker, 2009). Currently, the ability to read is more vital than ever. It is necessary for succeeding in

school, becoming an educated citizen with a bright future or career, and be able to experience an individual fulfilment.

According to Nikolarazi & Vekiri (2012) hearing impaired students face challenges in many areas that are serious for a prosperous reading comprehension. Moreover, sometimes teachers emphasize lowly reading skills instead of boosting the development of strategic thinking and problem solving in connection with reading. As a result, students battle with reading because of a weak foundation of first language (sign language). As we all know that education begins from home, thus parents play a role in the education of their children.

Past research indicates that on average, hearing impaired students at the age of eighteen they are leaving high school but their reading level is said to have reached only a third grade to fourth grade reading level, and over 30 percent of them leave school functionally by the old standard (Lederberg et al. 2013; Marscharck, 2008). This compares to a functional illiteracy rate of less than 1 percent among their hearing peers. Children with hearing impairments have educational and perceptible insufficient or progressive delays due to language problems. Some children suffer from discrimination and lack of social because of the communication difficulties (Luterman, 2008).

Reading is getting the meaning or gist of a text. The reader moves from recognizing letters to comprehending a word, sentence or passage and holds this information in memory as he or she moves on to comprehending more print. Reading comprehension is considered the heart of reading (Durkin, 2009) the actual core as well as depth of reading (Reutzel & Cooter, 2008). Indeed, it is the fundamental purpose of reading. Reading comprehension is known as the lively process of making

meaning from the text, it includes retrieving prior knowledge, understanding vocabulary plus concepts, making inferences, and connecting key ideas (Vaughn & Linan-Thompson, 2014). For a person to comprehend or understand what they read, they need to set objectives for reading, relate their knowledge and experiences to the text, read words and phrases fluently, use approaches and assistance to construct meaning during and after reading, familiarize approaches that match the text and their objectives, uphold task perseverance, know the author's purpose, differentiate between truths and untruths, and come up with analytical conclusion (Vaughn & Linan-Thompson, 2014).

Reading and writing is not something new in the field of Deaf Education. This has been happening since the time of Laurent Clerc and Thomas Gallaudet opened the first school for deaf children in the United States back in 1817, and instruction methods concerning to reading and writing have always been a main goal in teacher training programs. Yet, an average of deaf children is leaving school with a reading level that hovers around the fourth-grade level (Gallaudet, 2016).

Hearing impaired students uses the same curriculum as the other hearing students; however their instructions are given in different ways such as by using sign language and visual aids. They learn what other students learn in school that's why they can be found in integrated or in an inclusive school. Hearing impaired students show different types of reading difficulties, such as word recognition, decoding, sentence-level processing, and text comprehension. Written text and visual aid are some strategies that can be used for students to read.

1.2 PROBLEM STATEMENT

Hearing impaired students struggle to acquire skills needed to become confident readers and comprehend what they read. Moreover, they find it difficult to read and write mostly because of their lack of ability to phonetically break down a written word and comprehend it. This limits and delays their ability to develop vocabulary skills and effectively reduces literacy opportunities normally available to their hearing counterparts (Baker & Baker, 2009). As we all know that a picture is worth a thousand words, however, when it comes to reading comprehension, we would say a visual display helps readers understand, organize, and remember some of the written thousand words (Pearson & Duke, 2012). Staden (2013) stated that in order for children to prosper in both, reading skills and overall knowledge, their learning environment must be set up properly. A benefit could be by use of pictures and the written word throughout the classroom.

Equally important, spoken language's knowledge and skills contribute to reading comprehension for students, unfortunately the development of reading in deaf children is usually delayed because of the difficulties they face in developing a spoken language skills and knowledge (Musselman, 2010). For instance, Wauters stated that the average marks of hearing impaired children for reading comprehension were outrageously low (Wauters, 2009). Children with hearing impairments at the age of 17–20 years were at the same reading level as first grade of primary education. That shows how hearing impaired children are struggling with reading comprehension and there is a need for improvement.

Lack of learning strategies for reading comprehension is one of the factor that causes hearing impaired students to find it difficult to understand what they are

reading. Agreeing to Andrews and Mason (2011) and Strassman (2008) hearing impaired students have difficulties with lower-level skills which hinders the development of independent reading strategies. This reading problem needs to be reduced by using an effective strategy of reading comprehension. Therefore, this research intends to improve the reading comprehension skills of hearing impaired students using text with pictures. Hudson, Lane, & Pullen (2015) stated that, a student who is incompetent to decode words correctly will be incompetent to comprehend a text. Without automaticity, reader's slow and choppy pace inhibits their comprehension of text. The way a reader with poor prosody groups and expresses words causes' confusion. Importantly, the main objective for reading is to construct meaning from the print. However, in primary school text have to be accompanied by pictures, in order for the students to be able to make connection of the words and the pictures and understand whatever they are reading.

Reading comprehension is necessary in languages, for people to be able to make sense of what they are reading (Snow, Sweet, Alvermann, Kamil & Strickland, 2012). National Association of Educational Progress (National assessment of, 2014) stated that a student must be able to read and understand as well as to be able to synthesize, explain, and analyze what he/she read in order to become a proficient reader. The ability to visualize, aids both understanding of what is being read and enables the reader to identify when she is struggling to understand what she reads.

Poor comprehension-monitoring has also been suggested as an area of deficit in hearing impaired students. In a study of reading habits among deaf and hearing college students, Marschark et al., (2012) found that deaf college students were more likely to report greater hours spent reading but recognized fewer book and magazine

titles compared to hearing college students. While not the focus of their study, they speculated that deaf students may read at a slower pace, spend more time understanding what they've read, and have less awareness of mistakes in comprehension compared to their hearing peers. Reading comprehension is said to be a continuing concern for students with hearing impairment (Benedict, Rivera, & Antia, 2015) making the topic of reading comprehension extremely important.

Sullivan & Oakhill (2015) mentioned that there is only little progress in improving description comprehension for hearing impaired readers regardless of past research, proving a need for further research into this topic. Deaf and hearing impaired students globally often struggle with reading (Staden, 2013), that also includes the hearing impaired students in Malaysia and Namibia. Thus, there is a need for implementing effective reading strategies to improve reading for hearing impaired students.

1.3 RESEARCH OBJECTIVES

- 1.3.1 To determine whether using of text with pictures is effective to improve reading comprehension of hearing impaired students.
- 1.3.2 To find out the strategies that can be used to successfully support the development or improvement of reading comprehension for students with hearing impairment.

1.3.3 To determine the factors affecting reading comprehension for students with hearing impairment.

1.4 RESEARCH QUESTIONS

These questions of the study assisted the researcher to have a deeper understanding of the challenges faced by hearing impaired students in reading comprehension.

The following questions guided the study:

1.4.1 How do text with pictures improve reading comprehension for hearing impaired students?

1.4.2 What are strategies that can be used to successfully support the development or improvement of reading comprehension for students with hearing impairments?

1.4.3 What are the factors affecting reading comprehension for students with hearing impairment?

1.5 RATIONALE OF THE STUDY

Students who are hearing impaired often struggle to develop or improve crucial literacy skills. One of the most difficult skills for them to master is reading comprehension. Staden (2013) stated that reading skills of hearing impaired children holdup numerous years behind compare to hearing children, therefore, identifying

reading difficulties will help with implementing effective reading strategies. For hearing impaired students to stay on grade level and finish school with the skills necessary to either be a successful student or find a decent job after high school, teachers of the hearing impaired students need to be made aware of any methods or strategies they can use to successfully support the improvement of reading comprehension skills in their students.

Unfortunately, teachers for hearing impaired students face a challenge such as improving reading comprehension performance for their students (Nikolarazi, Vekiri, & Easterbrooks, 2013). Part of this challenge is that students who are hearing impaired regularly fail to understand that the idea of reading is to comprehend what they are reading, not only to read the words (Benedict, Rivera, & Antia, 2015). This is why the aim of this study is to determine whether using text with pictures is effective to improve reading comprehension and to identify other effective reading comprehension strategies that will improve the reading comprehension skill for hearing impaired students.

1.6 RESEARCH LIMITATIONS

Limitations are difficulties and incidences that rise during the study and the researcher may not be able to control them (Gay, Mills & Airasian, 2009). This study focuses only one strategy of reading comprehension of using text with pictures and the major one was the limited time to conduct the research and a minimal number of the participants, the researcher could have got various participants' perspective from

different schools with different experiences, but due to time constraints, and financial resources to travel to different schools, it was totally a challenging option. Another limitation was the language barrier because Malaysia uses a local language (Bahasa Malay) as an official language and the researcher did not know the local language that is used and also could not find an interpreter who could volunteer since the resources was also a limitation. Therefore, it was a challenge to get participants for semi-structure interview. Hence, all those limitations has bound the extensity of this study, and disturbed the deductions of the study.

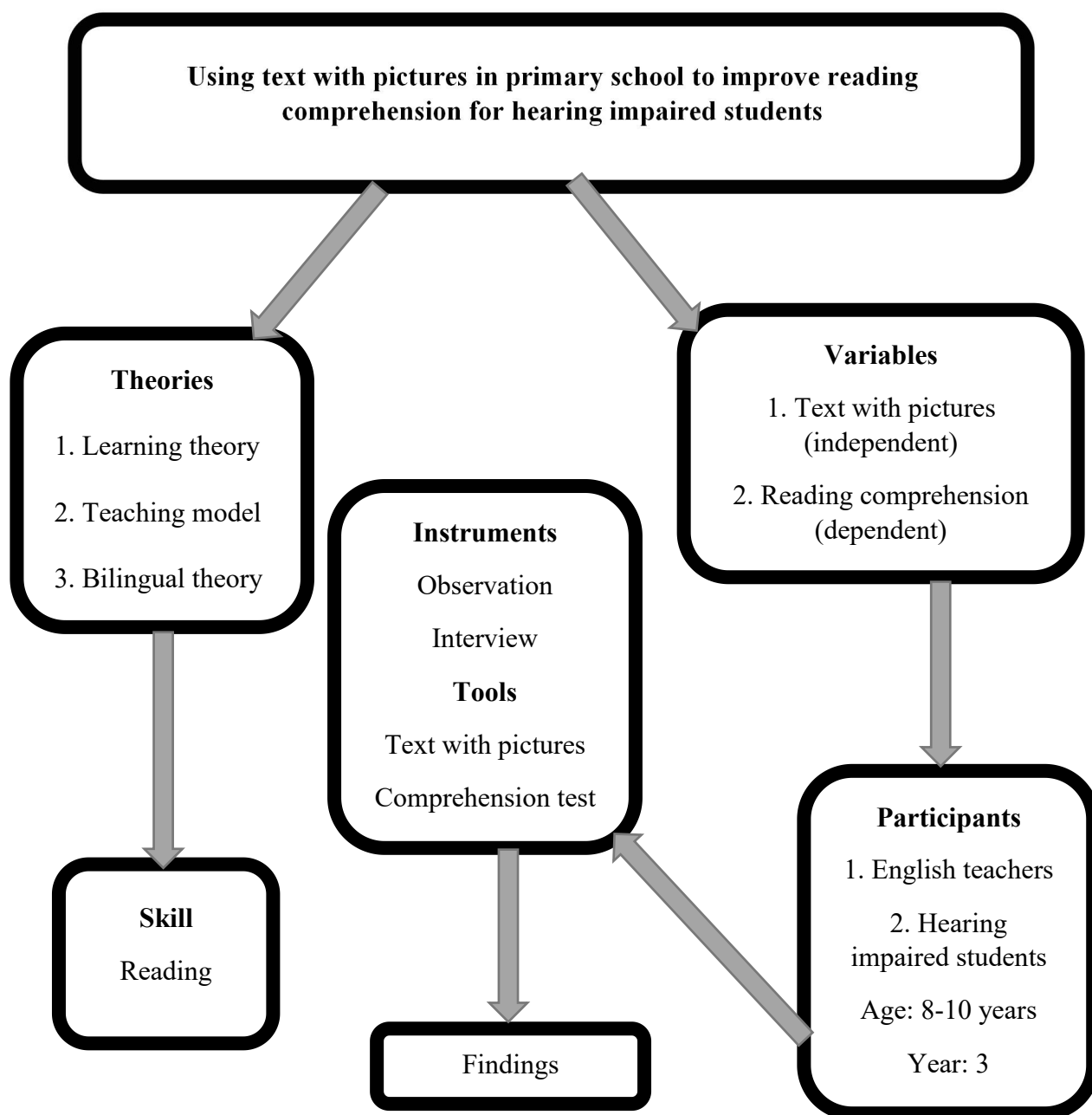
1.7 SIGNIFICANCE OF THE STUDIES

The outcomes of this study will redound to the advantage of civilization seeing that reading plays a significant role in literacy today. The greater demand for hearing impaired students who can read vindicates the necessity for more operational, life-changing instruction approaches. As a result, schools that will be applying the recommended approach that will be resultant from the results of this study will improve the grades of students in reading comprehension. Thus, the benefit of this study is to ensure that hearing impaired students improve their reading comprehension and teachers for hearing impaired students be able to assist their students to improve their ability to comprehend what they read by using the effective teaching strategy for reading comprehension. This study intended to help the researcher discover critical areas in the scholastic course that other researchers did not discover. An effective strategy for reading comprehension for hearing impaired student will be arrived at.

1.8 RESEARCH FRAMEWORK

A conceptual framework is well-defined as a setup of related models. Conceptual framework study suggests process of theorization to build frameworks that are based on grounded theory method (Creswell, 2013). The conceptual framework illustrate that the text with pictures (visual aid) signifies the independent variable while the reading comprehension signifies as dependent variable. The framework indicates what this study comprise; teachers, students, text with pictures, reading comprehension test, observation, interview, theories and findings

FIGURE 1.1 FRAMEWORK DIAGRAM



For this study, the independent variables are text with pictures because this variable can be manipulated in order to determine if it has an effect on dependent variable, moreover, reading comprehension in this case is a dependent variable because it depends on other factors such as depending on the text and so forth.

1.8.1 LEARNING THEORY

Learning theories provides directions in teaching and learning, it is usually used as a guide in education whereby positive and negative reinforcement are used appropriately to enhance learning among students (Reutzel & Cooter, 2008).

Learning theories consists of many theories, however this study focused on clay's theory of learning, social learning theory and schema theory.

Clay's theory of learning to read is grounded on the knowledge that children create intellectual systems to comprehend the creation and linguistic. Preparing the reader to meet the text is the focus of instruction in the whole language instructional model based on Goodman's work. Social learning theory best fits this research because the Vygostkian position is that much of cognitive competence is learned in interaction with others, in particular with skilled adults who pass on cognitive skills and concepts (Vygostky, 1978).

1.8.2 TEACHING MODEL

Teaching model is essential to improve and enhance learning, teachers teaching children with hearing impaired should read and make research on teaching model that can improve the reading comprehension for their children in primary schools. Additionally, hearing impaired children struggle with various types of text and this cause difficulties for them to understand text. For instance, hearing impaired people were observed and they unable to make use of background knowledge to make meaning from the text when reading. They fail to understand that lack of background knowledge contributed to their incompetence to make meaning (Schirmer, Bailey, & Lockman, 2014).

The cultural impact on literacy acquisition also applies to students who are hearing impaired. In addition to this, if students who are hearing impaired are not exposed to language through sign language or other means during their early years, those student will struggle to catch up to their peers later on in their education. Ferdman (2010) discussed students becoming more engaged and having the ability to acquire meaning when an assignment is connected to that student's cultural identity. An example of connecting a student's culture to an assignment for students who are hearing impaired would be to allow them to use technology to record themselves signing an essay or a story as an assessment. If we can only acknowledge the role cultural identity plays in a student's life (Ferdman, 2010). Earlier studies with a related topic of reading comprehension for hearing impaired students had a different focus compared to this study because their focus was more on different strategies used to improve reading comprehension, but this study focused on the use of text with pictures to enhance reading comprehension, identifying strategies to improve reading comprehension and identifying factors that hinders reading comprehension for hearing impaired students.

1.8.3 BILINGUAL THEORY

On the other hand, bilingual theory have to be considered also in order to improve reading comprehension for students with hearing impaired. Hearing impaired students have to be viewed from their cultural perspectives when using a bilingual model. Viewing from a cultural perspective includes noticing that the spoken and signed languages are different and have to be valued equally, increasing

pride and uniqueness in being hearing impaired, connecting students to deaf people or elders who can be good role models, and speaking of difficulties and struggles with cultural consciousness (Evans, Zimmer, & Murray, 2014).

To guide this study, I looked at language as a barrier that leads to poor reading comprehension. Most hearing impaired students have parents who struggle to communicate with them from early age and this lead to lack of language acquisition at early age. Children's cognitive and social skills affect their language acquisition. In turn, as children develop more language, their cognitive and social skills are changed or modified (Vygotsky, 1978). A delay in acquiring language leads to literacy difficulties. The acquisition of a language is a normal procedure that occurs naturally for children who can hear (Pinker, 2013). Language is essential in all school learning because it is used as a medium of instructions. It is also used for communication, and enables people to acquire perceptions and to improve their thinking skills. However, children with hearing impairment rarely acquire language at birth especially those with hearing parents, they only acquire language at school since their parents can't sign or don't know sign language.

In short, language is a significant means of communication used by people to express their identity and draw conclusions about other people. It is also considered more attached to culture and tradition. People who speak the same language understand one another very well than with people who speak different language. On the whole, it is more difficult for students who are hearing impaired to obtain jobs after high school because of the language barrier and possible lack of literacy skills which include the reading comprehension.

1.9 OPERATIONAL DEFINITIONS

The following terms are defined by different authors and also by the researcher according to how the terms are used in this study.

1.9. HEARING IMPAIRED STUDENTS

Students with hearing impairment are those in which the sense of hearing is defective that makes the awareness of sound impossible to hear. Their inability to hear sound well enough hinders their reading ability (Adaka & Ugwaanyi, 2015). According to Moores, (2011, p. 10) the word hearing impaired covered the whole collection of auditory impairment, such as total deaf to persons with a mild loss and may perhaps recognize speech without trouble. HI students can either be considered as deaf or hard of hearing. The two are differentiated depending on their orientations which is either a physiological or an educational orientation. Physiologically grounded meanings depend on the assessable degree of hearing loss, such as 90 decibels or greater is regarded as deaf. According to the Individuals with Disabilities Education Act (IDEA) hearing impairment is defined as “an impairment in hearing, whether permanent or fluctuating, that adversely affects a child’s educational performance but is not included under the definition of ‘deafness.’” Therefore, deafness is considered as hearing loss above 90 decibels, and hearing impairment is considered as hearing loss below 90 decibels.

Nonetheless, in this study, hearing impaired students are regarded as students who cannot hear or have a hearing loss, regardless of their degree of hearing loss.

1.9.2 IMPROVE

According to the Business dictionary (2012), improve is defined as performance of increasing or creating better quality, value or effectiveness. We improve by constructing ideas, substances or procedures and make them extra wanted than before by adjusting them. This term is also applicable to people, by means of evaluating and assessing a person's performance with an aim of bringing change to the performance. The Cambridge dictionary (2002), also defined it as to cause something to get better. However for this study, improve is referred as to develop or increase of knowledge for hearing impaired students to become competent and grasp what is written.

1.9.3 READING COMPREHENSION

According to RAND Reading Study Group (2002), reading comprehension is the process of instantaneously mining and constructing significant data by interacting with the written language. In addition, Grabe (2009) defined reading as a relationship between the reader and text as they interact. He states that reading involves proficient knowledge of the world and also an effectual understanding of the language. Thus, the ability to understand the text and background knowledge is important for reading comprehension.

On the other hand, Swan, (2012) stated that a student is only good at comprehension, when he is able to read correctly and proficiently. This can also mean that he can show his understanding by reciting the context of the text; for example, answering questions from the text read, or summarizing it (Swan, 2012). However,

for this paper reading comprehension is regarded as reading a text with understanding and be able to remember what you read by displaying what you have comprehend with actions.

1.9.4 TEXT

Luckner (2011), defined text as a manuscript or printed/written work, viewed in terms of its content than physical layout. Loos continued stating that; a text is a sequence of paragraphs that represents an extended unit of speech. To continue, according to Breiseth (2013) text is defined as a sequence of inscribed words having a certain coherence. However, text can also be considered as meticulously fixed system of sentences which has a strong cohesion and the fixed character which is connected to a significant structure.

For this study, text is defined as a written piece or printed work that give a message to people by informing them what it is or what should be done, it can either be in a form of a paragraph, a story, a word or sentence

1.9.5 VISUAL AID

Visual aids can be regarded as teaching and learning materials which are pictorial and they are used to enhance learning. Agreeing with Barton visual aids are sensual items or pictures which arouse and upkeep instruction. Sawyer define visual aids as procedures that can be used to create real learning experiences, precise and lively. Visual aids such as pictures, models, charts, maps, videos, slides and real

objects help to create an easy and clear lesson that can be understood by the students (Barton & Swayer, 2013).

According to the Oxford dictionary (2004), visual aid is a piece that clarify issues, for instance, items that are designed to complement printed or articulated information for them to be well understood. In addition, Hornby & Wehmeier (2015) defined visual aids as diagrams, photographs or portraits which support by making an argument or improve a performance.

Moreover, Breiseth (2013), defined visual aids as learning materials that makes gaining knowledge circumstances to become real and clear. However, as for this study visual aid is referred as teaching and learning materials such as pictures or videos that can be used to enhance reading comprehension for hearing impaired students.

1.10 SUMMARY

In this chapter, the problem of statement was stated that hearing impaired students struggle to acquire skills needed to become confident readers and comprehend what they read. The purpose of the qualitative case study was to explores the teachers' opinions on the use of text with pictures and identify the effect of using the text with picture in a primary school for hearing impaired students. Furthermore, the significance of study, research objectives, research questions, research framework and operational definitions were covered.

CHAPTER 2

LITERATURE REVIEW

2.0 INTRODUCTION

The intent of this literature review is to give insight on using text with pictures to improve reading comprehension for hearing impaired students. Reading comprehension is vital for a student's aptitude of an effective involvement with the text. Literacy is the hardest academic area for students with hearing impairments. Hearing impaired students often fall behind in other content areas because of their inability to read accurately (Howell & Luckner, 2013). Sadly according to Mayer (2008) numerous students with hearing impairments scarcely progress to make age-appropriate in reading and writing skills. Students with hearing impairments are often

unable to read above a fourth grade level (Chaleff & Ritter, 2011). It is such a pity that many of them are unable to read at that level. This causes frustration leading to a large number of hearing impaired students to fail or drop out of school.

In order to understand and research how students who are hearing impaired gain reading comprehension skills, it is important to review the recent literature published regarding this topic. In this review of related literature, four themes were explored within this literature review. The first theme focused on the theories, the second theme emphasized on the achievement in reading comprehension using text with pictures (visual aid), the third focused on reading comprehension strategies and lastly the fourth focused on reading comprehension strategies for hearing impaired students.

2.1 THEORY

This part presented the different theories that support this research.

2.1.1 LEARNING THEORY

Learning theory consists of different theorist that talks about learning in different ways. However the focus will be on using text with pictures (visual aid) to improve reading comprehension and the clay's theory of learning, social learning theory and schema theory of learning are reviewed.

It has been argued that literacy development is interrelated with language acquisition. Vygotsky (1962) in Slavin & Davis, (2006) theorized that children use language as a tool for thinking. He further argued that children use egocentric speech

and the speech of others for problem solving (Slavin & Davis, 2006). He continued arguing that, the ability to think in a language and later read and write it, has much to do with how well one can communicate in the first place, (Slavin & Davis, 2006, p. 424). Unfortunately, most children have difficulty using language and developing the ability to read because they have not acquired a face-to-face form of their spoken language. Williams & Burden (2014, p. 354) contends that, if face-to-face dialect is not an essential to early proficiency learning than hearing impaired children would exhibit rising education practices in proficient situations, regardless of dialect postponements.

According to Yurkowski & Ewoldt in Morees (2011), reading depends on bringing sufficient background knowledge to the text and, given this background knowledge, the deaf reader may be able to handle the complexities of English grammar without having to go through a simplified text or controlled introduction to grammar. When a student reads a text with no background knowledge, they won't be able to comprehend it, however when a visual is presented, the students will be able to make connections and comprehend. In addition, the delay in language development and language acquisition in hearing impaired students is one of the cause of reading problem which have led to difficulty in understanding what they are reading, therefore such reading problem need to be resolved.

Strong & Prinz (1997, p. 532) compared two different groups: deaf parents with deaf children and hearing parents with deaf children. The deaf parents and deaf child used American Sign Language (ASL) while the hearing parents with a deaf child used spoken English. At the end of the study, Strong & Prinz concluded that deaf children who used ASL, performed better than those following an oral approach. As a

result, learners who used ASL were able to develop strong comprehension skills used in decoding spoken English. Strong & Prinz (1997, p. 534) then concluded that fluency in ASL leads to fluency in reading. In agreement with these two researchers, if a student is not good in his/her first language or mother tongue it becomes hard for this student to become a good reader and able to comprehend what he/she had read in the second language, in this case in order for the hearing impaired to improve their reading comprehension they first have to know sign language which is their first language then only can they read, starting with the vocabulary before reading the main text, new knowledge have to be connected to related ideas one already know. Such vocabulary have to be accompanied by visual aid in order for them to remember them.

Bandura's Social Learning theory sets that individuals gain from each other, by means of perception, impersonation, and displaying. The theory has regularly been known as an extension among behaviourist and intellectual learning speculations since it includes consideration, memory, and inspiration. Children watch the general population around them carrying on in different ways. This is represented amid the celebrated Bobo doll test (Bandura, 1961). Meaning the students need to watch other individuals perusing and making an importance of what they read by retelling what they read. People that are watched are called models. In the public eye, children are encompassed by numerous powerful models, for example, guardians inside the family, characters on children's television, companions inside their associated gathering and educators at the school. These models give cases of conduct to watch and copy, e.g. taking a book to read. This social learning theory support the fact that, hearing impaired students need to look at something or they need concrete objects such as

making use of visual aid in order for them to understand and make sense of what they are doing, looking at or reading. Individuals acquire knowledge through perceiving others' conduct, attitudes, as well as results of those conducts. Meaning students have to see other people reading text, then, they will be also motivated to read. Furthermore, behavior is cultured through observation and modelling. In the process of observing others, one formulate an awareness in what way new behaviors are implemented, then advanced the coded information will be used as a guide for action. The social learning theory helps to explain how the human behavior in relations of nonstop common collaboration among reasoning, interactive, and environmental impacts (Paul & Jackson, 2013).

2.1.2 SCHEMA THEORY OF LEARNING

According to this theory, schemata symbolize psychological feature about conception: the relation between different content, situations, events, sequences of events, actions, and sequences of actions. Each new experience incorporates more information into one's schema.

Reading comprehension and schema theory

Individuals have different schemata for everything. Students develop schemata (units of knowledge) about everything they experience before they go to school. When they start school the schemata becomes theories of realness (An, 2013). Such theories do not only affect the way information is understood, but also it continue to increase because new information is coming in. As stated by Rumelhart (1980), schemata can stand for knowledge at all levels, from orientation and cultural fact to knowledge about the meaning of a specific word, to cognition about what

patterns of excitation are associated with what letters of the alphabet. People have schemata that represent all levels of their experience, at all levels of abstraction. Finally, schemata is knowledge. All generic knowledge is enclosed in schemata (p. 41).

Schema theory is very important for reading comprehension however, it depends on how the reader uses schemata. In addition, investigators concur that some process activates the schemata that is relevant to the reader's project (An, 2013). There are respective models based on cognitive processing (see Ruddell, Ruddell, & Singer, 1994, p. 813). For example, the LaBerge-Samuels Model of Automatic Information Processing (Samuels, 1994) emphasizes internal view of attention as essential to comprehension.

Samuels(1994, pp. 818-819) defines three attributes of internal attention. Firstly, watchfulness, is the reader's active attempt to access relevant schemata involving letter sound relationships, syntactic knowledge, and word meanings. Secondly, selectively, the reader's ability to attend to specific chosen information that requires processing. Thirdly, limited capacity, this relates to human brain that have a limited amount of cognitive energy that can be used for processing information (An, 2013). In addition, reader's cognitive energy is focused on decryption and focus cannot be orientated at integrating, relating, and combining the meanings of the words decoded, then comprehension will suffer (Samuels, 1994, p. 823). Comprehension difficulties occur when the reader cannot quickly and automatically memory access the idea and cognition kept in the schemata.

2.1.2 TEACHING MODELS

Reading comprehension skills are fundamental for important and viable reading. Early perusing is grounded in solid psychological abilities, i.e. learning styles, for example, sound-related investigation, sound mixing and portioning, memory and representation. Along these lines, the way to enhancing reading comprehension skills is to assault feeble dialect learning aptitudes at the early grades.

There are distinctive teaching models when coming to reading, for example, bottom-up, the top-down and interactive approach which is the consolidation of bottom-up and top-down (Maina, Kochung, & Oketch, 2014). These models help with understanding the content when reading. As per Dole, Duffy, Roehler & Pearson (2011) the conventional view the known as the bottom-up model, readers are latent beneficiaries of information in the content and significance dwells in the content and the reader needs to imitate meaning. As per Nunan (2011) reading in this view is essentially a matter of interpreting a progression of composed images into their aural reciprocals in the mission for comprehending the content.

Metacognitive methodologies are intended to screen intellectual advance. Metacognitive methodologies are requested procedures used to control one's own intellectual exercises and to guarantee that a subjective and the objective (for instance, taking care of a math issue, composing a viable sentence, and comprehension perusing material) have been met (Channa , Nordin, Siming, Chandio & Koondher, 2014). A man with great metacognitive abilities and mindfulness utilizes these procedures to regulate his own particular learning procedure, plan and screen continuous psychological exercises, and to contrast intellectual results and interior or outer

guidelines. Flavell (1979) demonstrated that a solitary technique can be summoned for either psychological or metacognitive reason and to move toward objectives in the subjective or metacognitive areas. He gave the case of soliciting oneself inquiries toward the end of a learning unit with the point of enhancing information of the substance or to screen cognizance and appraisal of the new learning (Channa et al, 2014).

Metacognition includes considering what one is doing while reading. Klein, Klein, Linton & De Mets (2011) expressed that vital readers endeavor the accompanying while reading: distinguishing the motivation behind the reading before reading, recognizing the shape or sort of the content before reading, contemplating the general character and elements of the frame or kind of the content. For example, they attempt to find a point sentence and take after supporting subtle elements toward a conclusion, anticipating the writer's motivation for composing the content (while understanding it), picking, examining, or reading in detail. Making persistent forecasts about what will happen next, in light of information got before, earlier learning, and conclusions acquired inside the past stages (Channa et al, 2014).

2.3 BILINGUAL THEORY

Bilingual theory is a way to deal with the instruction of hearing impaired children which use both the communication via gestures of the hearing impaired group and the composed/talked dialect of the hearing group (Gallion, 2016). This approach empowers hearing impaired children wind up distinctly phonetically capable, gives

access to wide educational programs, encourages great proficiency abilities and furthermore give hearing impaired students a positive feeling of their character (Romaine, 2015). Applying a bilingual model to the instruction of hearing impeded students includes seeing hearing weakened individuals from a social viewpoint. This incorporates perceiving the marked and talked dialects as various and unmistakable and esteeming them two similarly, creating pride and character in being hearing weakened, presenting students with hearing impairment to good examples and peers, and tending to issues and clashes with social affect-ability and mindfulness (Evans, Zimmer, & Murray, 2014). It likewise infers that hearing impaired students are learning gesture-based communication as their first dialect, and taking in a talked dialect as a moment dialect, as a rule in composed shape.

In general, there is understanding that early introduction to a characteristic gesture-based communication, for example, American Communication through signing (ASL), permits hearing debilitated children set up a successful approach to convey and cooperate with their general surroundings (Quigley & Paul, 2007). Hearing individuals have a tendency to depend on the correspondence between the semantic structures of the composed pieces and the retrievable discourse designs when figuring out how to peruse and compose; be that as it may, extra subjective strides are required for the hearing debilitated learner.

Vygotsky's sociocultural learning theory, which underscored the noteworthiness of dialect as the essential go-between in finding out about the world (Vygotsky, 1978). Vygotsky proposed that through bilingualism the child could see marvels under more broad classifications, could see every dialect as a specific framework among numerous, and eventually pick up a consciousness of semantic

operations. Other research studies have had a tendency to accentuate the advantages of bilingualism and bilingual instruction programs (Romaine, 2015). Investigate on bilingualism extended from depicting the subjective advantages to portraying the psycho-linguistic impacts, for example, the relationship between the two dialects and their mental representations. All in all, the psycho-linguistic research recommended that bilingual individuals show both free and reliant working between dialects. The examination additionally recommended that their hidden psychological frameworks are fundamentally independent but then interconnected (Paivio, 2011).

In addition, some researchers and practitioners argued that learners with hearing impaired fall behind academically because of their lack of phonological awareness. However, Donne & Zigmond (2008, p. 69), argued that learners fall behind in reading because they are not given adequate reading time to comprehend the material. Learners with hearing impaired are not given a susceptible amount of time to read because the teachers lack strategies on how to teach this skill. The researcher stated that the availability of the reading materials can also contribute to the challenges faced in reading by the learners with hearing impaired, especially if there are no relevant reading materials or maybe they are there, but they are not used efficiently for reading.

Late research recommends that children with hearing impairments figure out how to read best when they are presented to both signing and oral dialect (Kushalnagar, Hannay & Hernandez, 2010). Kushalnagar et al. (2010) concentrated early mediation including children who are hard of hearing and gave great phonetic models in both a sign and a talked dialect. Their discoveries bolstered that if both sign and talked dialect are given that the child will have no less than one dialect in which

to feel calm when imparting. Facilitate, this model will better guarantee dialect and higher-arrange perception and mental adaptability (Kushalnagar et al., 2010). Sign-bilingual training programs in the United States depend on the start that an attention on enhancing communication via gestures aptitudes, in this manner advancing general dialect information, prompts to better reading abilities of the talked dialect. These projects recognize that the last will be obtained as a moment dialect by means of print.

Defenders of bilingualism support the bilingual utilize and equivalent estimation of ASL and English. One critical perspective in guaranteeing a fruitful bilingual program is guaranteeing the nature of ASL in bilingual projects (Evans, 2008). Inquire about backings that local underwriters of ASL have fundamentally higher bilingual capacities in ASL and composed English, inferring that having control of ASL as a local dialect can fill in as a scaffold to more grounded perusing capacities. Therefore, children who are hard of hearing who are brought up in an ASL domain and create ASL as a local dialect have been found to have more grounded perusing abilities than children who are hard of hearing who are raised by guardians who are hearing and do not create ASL as a local dialect (Freel, Clark, Anderson, Gilbert, Musyoka & Hauser, 2011).

2.4 ACHIEVEMENT IN READING COMPREHENSION USING TEXT WITH PICTURES

Text with pictures motivates students with hearing impairment to read. Pictures makes the text to become more attractive, help represent characters, events

and objects described in the text. Also, it shows an organized relations of the main idea in the text and can help to give a clear interpretation by clarifying difficult parts of the text. Pictures and video have been ended up being a powerful liability in showing English as a second dialect, and it has gotten a lot of consideration from specialists (Fante, 2007). Pictures can improve reading appreciation in a few courses: by clearing up troublesome content substance, guiding readers' regard for imperative content data, making content substance more sound, changing new substance to something simpler for readers to comprehend, advancing a more profound and more intricate handling of the content, and helping readers manufacture mental models (Staden, 2013). Analysts have shown that interactive media learning materials are more helpful than customary paper-based guidelines (Ho & Markey, 2008).

Pictures and recordings which give visual, logical and non-verbal information furnish outside dialect learners with re-enactment visual and aural jolts which can compensate for any absence of perception coming about because of perusing specifically from writings (Hoffman & Wang, 2010). Visual guides do not just help put the new dialect out there, they likewise help students to remember the dialect they have learned as the class goes on. According to Nikolarazi & Vekiri (2012), pictures provide hearing impaired students with a scaffold that can be exploited to enhance their access to reading comprehension also increase their motivation for reading.

2.5 READING COMPREHENSION STRATEGIES

Perception is the objective of reading, however it can be the most troublesome expertise to comprehend, particularly for English language learners (ELLs). ELLs frequently have issues apprehend science, math, or social reviews ideas, for instance, since they cannot understand the reading material for these subjects (Sullivan & Oakhill, 2015). ELLs at all levels of English capability and proficiency advancement will profit by enhanced perception aptitudes, which permit them to, read all the content more precisely and follow the content or story well, distinguish imperative occasions and ideas in a content, apprehend new ideas in their substance territory classes or finish assignments and appraisals or feel inspired to read in school and for delight (Reutzel & Cooter, 2008). Reading comprehension strategies that are discovered by other researchers are discussed.

2.5.1 CONSTRUCT FOUNDATION LEARNING

Draw on students' current information. Students may have content learning that they cannot yet exhibit in English (Sadoski & Paivio, 2014). The educator can take students on a voyage through the content. Every time you pass out another reading material, take students on a virtual visit (Pearson & Duke, 2012). Show them distinctive components of the content, for example, the chapter by chapter guide and the glossary, and talk about how these areas can be useful (Nikolraizi & Easterbrooks, 2013). Clarify how the content is composed, bringing up intense print, section headings, and part rundowns. When students figure out how to perceive these

components, they will have the capacity to see the content freely. Keep in mind that students need to know how to utilize an apparatus with the goal for it to be useful (Pressley, 2012).

Furthermore, for hearing impaired students, the pathway to general learning has been essentially blocked. Hearing students learn such a great amount of data through osmosis; they ingest general information through perusing daily papers, tuning into the T.V or radio, talking in the Students Union, listening in on the transport and having examinations with different students in the refectory or bar (Marschark et. al, 2012). This coincidental data regularly frames the sentiments and build up the abilities vital for advanced education. However, hearing impaired students are frequently denied access to this entire abundance of general learning and beneficial experience (Freel et. al, 2011).

2.5.2 VISUALIZATION

Another key component of reading comprehension is the active construction of a mental image of the text. These mental images are fluid and change as the reader continually assimilates new text (Woolley, 2010). Visualization is a utilization of the double coding hypothesis of reading (Sadoski & Paivio, 2014), the idea that readers procedure both visual representations of verbal data and of items to make meaning. Additionally alluded to as mental symbolism, look into recommends that this expertise adds to appreciation and upgrades memory of the content (Pressley, 2012; National Reading Board, 2000).

2.5.3 REALISTIC AND SEMANTIC COORDINATORS

Realistic coordinators show ideas and connections between ideas in a content or utilizing graphs. Realistic coordinators are known by various names, for example, maps, networks, diagrams, graphs, casings, or bunches (Messaris, 1994). Despite the mark, realistic coordinators can help readers concentrate on ideas and how they are identified with different ideas. Realistic coordinators help students read and comprehend course readings and picture books (Breiseth, 2013). Another strategies can also be meta-cognition, answering questions, use of comic, recognizing story structure and summarizing (Channa et al, 2014).

2.6 READING COMPREHENSION STRATEGIES FOR HEARING IMPAIRED

2.6.1 USE OF SIGN LANGUAGE

The term sign language used in many different aspects; sign language is a language of its own (Brentari, 2011). Sign language has its own grammar, vocabulary, and literature used just as spoken language. Sign language is the first exposure that can be introduced to a child who is not capable of making sounds or putting speech into a pattern to form words. Professionals believe that learning spoken language and sign language parallel to one another forms a concern for parents. The parents feel that the dual learning of the ways of communication will cause interruptions in their understanding of one language or the other. However, early teachings of sign

language for a deaf child, is very important to help them begin to conquer language and it helps with the development of literacy of second language such as English. Children that are hearing impaired face challenges that go beyond their control. Depending on the specific situation, they may face; who will teach the child his or her beginning sign or how do they respond with the child, it just goes beyond the children's control.

A person's culture will determine most of his or her background knowledge and this is essential to reading comprehension. In the construction and comprehension of language, cultural identity and language should be closely linked (Ferdman, 2010). One of the first ways that culture impacts literacy acquisition has to do with a student's family (Lane, Pullen & Hudson, 2009). If students are raised in families that read to them, they will be more familiar with the process of story time and concepts of print when they enter school. However, if a student is not raised in a household with regular reading, that student may find it difficult to follow reading procedures or even to simply sit still during reading time (Miller, 2015).

2.6.2 USE OF VISUAL AIDS

When a deaf child exposed to a visually enriched environment, they can typically maintain a vocabulary that is close to that of their peers and once the students have rich vocabulary this will help with reading comprehension (Lederberg, Schick & Spencer, 2013). In order for children to prosper in both reading skills and overall knowledge, their learning environment must be set properly. This could be done by use of pictures and the written word throughout the classroom, having a vocabulary word area to review with the student daily, and by playing games that will

help the student recall and retell previous vocabulary words as well as newly introduced vocabulary.

Pictures are beneficial when connected to a text because they help students to make sense of the text (Prezbindowski & Lederberg, 2013). Another way to integrate pictures is to introduce them during story time. Trussell and Easterbrooks (2013) add that use of picture cards during read aloud will enhance the vocabulary and boost comprehension. The colored picture cards should be of real objects and include the printed word. The benefit of using visual aids is that; it assists students to comprehend and recall ideas more effectively. When you display an idea utilizing a visual guide, you are giving your students something they can connect with that idea. Words generally can't do a picture justice. Visual guides permit you to clarify the significance behind different vocabulary and structures without clarification.

2.7 SUMMARY

In conclusion, text with pictures and visual presentations, all in all, are less demanding to grasp than content simply because they can change "a thousand words" into an all the more computationally effective frame, as their understanding depends on programmed perceptual procedures and does not require complex mental changes that may over-burden working memory. Aside from content with pictures, there are different systems additionally that can enhance reading comprehension for hearing impaired students.

CHAPTER 3

METHODOLOGY

3.0 INTRODUCTION

This study endeavor to see whether text with pictures can prompt to expand reading comprehension for the hearing impaired students. In the event that students are to comprehend what they read, great reading methodologies are a necessity. For teachers, it ought to be of extraordinary hugeness to know whether the text with pictures may help the students to fathom what they read and along these lines prompt to enhanced reading comprehension. It will also give an outline on how to get answers to the following questions: Do text with pictures improve reading comprehension for hearing impaired students? What are the strategies that can be

used to successfully support the development or improvement of reading comprehension for students with hearing impairment? What are the factors affecting reading comprehension for students with hearing impairment? In order for the researcher to be able to get answers to those questions, observational schedules and interview questionnaires (see appendix C & E) are developed. Altogether, this segment presents the strategy for the review and gives subtle elements of its general outline, including the participants, instruments, procedures for data collection, and data analysis.

3.1 RESEARCH DESIGN

For this study, a case study was used to acquire information and help to improve reading comprehension for hearing impaired students. The case study was the most flexible design for this study of all the research designs because it allowed the researcher to retain the holistic characteristics of real-life events in its natural setting. It assisted in understanding the phenomena that involved many specific methodological analysis such as interviews and direct observation which are used in this research study as research instruments. Therefore, a qualitative method rather than a quantitative was favored for this research study because of the exploratory kind of research questions that were focused on. The researcher wanted to study a group or population, identify variables that cannot be easily measured, or hear in silenced voices, the case study allowed the researcher to retain the holistic characteristics of real-life events in its natural setting (Creswell, 2013, p. 48). Thus, a case study which

is a design for qualitative research was used and the natural setting was the school for hearing impaired students.

3.1.1 SETTING AND PARTICIPANTS

This study has focused on five teachers teaching hearing impaired students and six year three students at an integrated school where hearing impaired students attend. The participants were located in a state of Perak, Malaysia. The advantage of this study was focused on the hearing impaired student. The disadvantage of this study was that the population with this criterion was so minimal. The total of five teachers served as the main participants with the six students.

3.1.2 VARIABLE

The study had stipulations such as the students' ability and the students' degree of hearing loss, as well as the teachers' personal teaching style and the effectiveness of the text with pictures. The year three hearing impaired students were part of the study. The independent variable were the text with pictures that were used by the students and the dependent variable was reading comprehension.

3.1.3 VALIDITY AND RELIABILITY

Having picked appropriate techniques to direct this exploration, the researcher needs to think about the legitimacy and the unwavering quality of the strategies. Validity and reliability are two imperative characteristics of any estimation technique.

Validity is the best accessible estimation to the reality of a given suggestion, induction, or conclusion (Worthen, Borg and White 1993). Validity is the measuring instruments utilized when leading a request. What was basic is that the instruments really measured what they are proposed to. The legitimacy of the study being referred to be ensured by the techniques the researcher have picked; an interview questionnaire (see appendix E) and an observation schedules (see appendix C).

The research instruments (interview questionnaire and observational schedules) are developed by the researcher and validated by the experts in educational research for a consent of how reliable they are. They are intended to give sufficient information as far as achieving a conclusion. Worthen et al. (1993) characterize unwavering quality as the measure of how steady, tried and true, reliable, and predictable a test is in measuring a similar thing every time. Hence, reliability is the believability of the two strategies being referred to, i.e. the believability of what is uncovered in the review through the strategies picked. To guarantee the unwavering quality of the review, the measuring instrument should be tried and true, solid and reliable. Thus, after the instruments were validated by the experts in the educational research, they further went for a pilot study to confirm the validity and reliability.

3.1.4 PILOT STUDY

A pilot test was done with one teacher and two students to test the procedures, check the reliability and validity of the research study instruments, give information about response unpredictability, and test the flow of information prior to carry out the full study. The researcher noticed that she had to increase the research questions because the result from the pilot study shows that the interview questions for teachers

(see appendix G) were only five questions and not adequate for interview questions therefore, it was increased and validated by a research expert (see appendix E). The responses aided in evaluating each response's alignment with the research questions.

3.2 POPULATION

A population is the larger group with one or more characteristic in common from which a sample is obtained (Gay, Mills & Airasian, 2009, p. 137). The targeted population for this study was two classes for year 3 students with 3 boys plus 3 girls, the 3 female and 2 male class teachers, the entire population was N=11 people, at the School for Hearing Impaired. The participants of five teachers and six students were purposively selected based on the this characteristics: teachers should be able to sign and have at least two years of teaching experiences, well-educated or qualified teacher, primary school teaching and teaches English. Also, students were selected based on few characteristics such as age range of seven to ten years, in year three class and should be hearing impaired.

3.3 SAMPLE AND SAMPLING PROCEDURES

Purposive sampling allowed the use of cases that have the necessary information with respect to the theme of the research study (Creswell, 2005), as a result, five teachers and six students were purposively selected. A sample is a littler gathering of units from a populace which is utilized to decide truths about that

populace (Ranjitt, 2011, p. 63). In this case the researcher do not need to sample because the population is not big, therefore the entire population (N=11) boys=3 and girls=3 and 3 female teachers with 2 male teachers (5 teachers and 6 students) was used.

3.4 RESEARCH INSTRUMENTS

The following research instruments was used.

3.4.1 OBSERVATION (Non-participant and participant Observation)

Observation is the progression of collecting open-ended, direct information by witnessing individuals and spots. The researcher observed the year 3 students while reading a text with pictures one by one. The observational schedule (see appendix C) for students was developed by the researcher and validated by the experts in educational research. The observation was non participant, uncontrolled and structured, however, the observational schedule consists of five items of three options box. The researcher ticked in the appropriate box. The emphasis is on understanding the natural environment as lived by participants without changing or manipulating it, Gay et al (2009, p. 138). The researcher, also observed two teachers of year 3 while teaching their students how to read using the lesson plans (see appendix F) designed by the researcher, this observation was non structured and had no observational schedule, however the lesson was video recorded. The observational schedule for the students (see appendix C) was drawn to get information on improving reading comprehension for hearing impaired students. The researcher chose to do a non

participant observation because it is appropriate and effective tool to get information regarding people in their natural environment, how they act and how things happen or look like (Creswell, 2005). The observation of the classroom were video recorded, the researcher wrote observation notes during the observations. Thereafter, the recorded video were watched several times and the observation notes were extended and modified (see appendix I). The data from the observation in this study was used to identify the genuine of what participants say they do and what they do in reality.

3.4.2 SEMI-STRUCTURED INTERVIEW

Semi-structured interview was regarded suitable for this study because it produces unexpected and insightful information. Hence, the interview questionnaire is basically an organized strategy for gathering essential information. It is; for the most part, a progression of composed inquiries for which the respondents needs to give the appropriate responses (Johnson & Christensen, 2008, p. 254). Interview questionnaires (see appendix D & E) is set up for the 5 teachers, this helped the researcher to get their point of view on how to improve reading comprehension for hearing impaired students. The interview questions were developed by the researcher and validated by the research educational experts. The interview is semi-structured and comprised of two major sections. Section one, formed of five items, which requested respondents to provide general demographic information (see appendix D) such as gender, marital status, age group, academic qualification and working experience. Section two, comprised of five dimensions (see appendix E) they are: 1) the use of text with pictures, 2) reading comprehension strategies, 3) factors effecting reading comprehension, 4) teaching and learning material and 5) language

development. Excluding the demographic information of the respondents, the interview questions consisted of twenty items.

3.4.3 DOCUMENTATION ANALYSIS

Like other analytic method in qualitative research, text file analysis requires that selective information be analyzed and comprehended in order to arouse meaning, increase understanding, and develop empirical knowledge (Corbin & Strauss, 2008). Documents that may be used for a study take a potpourri forms. They could include advertisements, agenda, attending registry and minutes of meeting, manuals, background report, books and brochures, diaries and diary, event curriculum map, newspapers, program books, proposals, statements, radio communication and telecasting, structure or organization reputation, study collection, academic papers, and various public theme.

Bowen (2009) identified five particular functions of specific functions of documentary material. Firstly, written document provide data on the context of the research participants or on the context related to the research questions. Secondly, the content of documents can propose some questions that need to be asked and situations that need to be observed as part of the research. Thirdly, documents stipulate auxiliary research information. Fourthly, documents supply a way of following change and improvement. Where different study of a specific document are reachable, the researcher can do a comparison, equivalence to identify the changes. Fifthly, documents can also be analyzed as a means of verifying the findings or confirm evidence from other sources (Bowen, 2009).

Therefore, for this study, a document on Sign Exact English (see appendix H) was reviewed and it is considered suitable to improve reading comprehension for hearing impaired students. Furthermore, other documents from the participants and library provided valuable information on context of using text with pictures to improve reading comprehension for students with hearing impairment.

3.5 DATA COLLECTION

Permission was requested from the Ministry of Education and the principal for this research to be conducted at SK Pendidikan Khas Bermasalah Pendengaran, the school for hearing impaired students. five teachers were the participants for this research with 6 students of year 3, age 7-10 years old. The first period teacher 1 and teacher 2, firstly had to read the text with the students and secondly, the students were given the text with pictures (see appendix A) for them to read individually. Finally the teacher gave a comprehension test (see appendix B) to students for them to answer and determine whether they understood the text they read.

The researcher observed how the students are reading and how they responded to the comprehensive questions. The researcher had an observational schedule (see appendix C) to collect data. The second period the teachers were requested also to present their own lesson on reading comprehension for the researcher to observe the type of strategy they use when teaching reading comprehension to hearing impaired students. The researcher observed the teacher as she was teaching. Five teachers were interviewed (see appendices D & E for interview questions) on how to improve

reading comprehension for hearing impaired, the purpose was to collect different views of participants. Document analysis reinforced the participants verbal accounts, bibliography and triangulated data.

3.6 DATA ANALYSIS

Analyzing data includes looking at it in ways that uncover the connections, designs, drifts, that can be found inside it. The data collected were analyzed using the manually verbatim method because this research study is a qualitative and it requires the researcher to analysis the data in a descriptive way that were collected in a natural setting.

In analyzing the data obtained from the participants through the interview that were recorded, the data collected were firstly listened to by the researcher. Secondly, transcribed and written as raw data then as researcher's data. Furthermore, for this study the strategy of manual coding interview, documents and observations data helped to insure consistency with theoretical construct of the study, same ideas from the participants were categorized and themes were embedded in research questions. Data collected obtained from participants through observation and document analysis were analyzed using a manual analysis because it is the appropriate method to use for this qualitative study. Information gathered as verbal description, narrative, conclusions, quotes, translations, and are by and large either not ready to be lessened to numbers, or are viewed as more profitable or instructive if left as stories (Weir, 1990, p. 14). The results from the data collection are interpreted and written in a

report form in order to determine whether the using of text with pictures is effective to improve reading comprehension for hearing impaired students, to find out the strategies that can be used to successfully support the development or improvement of reading comprehension for students with hearing impairment and to determined the factors affecting reading comprehension for students with hearing impairment. The findings from the three instruments; questionnaires, observational schedules and document analysis were read and identified shared experiences among various individuals experiencing the same phenomena of reading.

3.7 RESEARCH ETHICS

Look into morals is particularly intrigued by the examination of moral issues that are raised when individuals are included as participants in the research. The researcher has considered the exploration ethos goals therefore, letters (see appendix M) were send out to participants for their consent. To secure participants, to guarantee that the research is directed in a way that serves interests of people, gatherings or potentially society all in all and to inspect particular research exercises and ventures for their moral soundness, taking a gander at issues, for example, the administration of hazard, assurance of secrecy, confidentiality, participants' consent and the procedure of educated assent (Ranjitt, 2011, p. 164).

The researcher ensured that research participants are not harmed physically, psychologically or emotionally during the conduct of research, the participants were not forced to take part and the findings were not manipulated to suit the researcher's

expectation but were interpreted as they are collected. Whatever was collected or observed were kept confidential, no participants name was devoured to anybody except to the researcher, research supervisor and the research reader.

3.8 SUMMARY

This chapter outlined how the research study was carried out, where it was carried out, the participants and the instruments that were used to collect data and how the collected data were analyzed. The chapter concluded with practical guidelines for research ethical decision making.

CHAPTER 4

RESEARCH FINDINGS

4.0 INTRODUCTION

The purpose of this study was to determine if text with pictures can enhance reading comprehension, how explicitly using this strategy could benefit students who are hearing impaired and identify any other strategies that can improve reading comprehension for students with hearing impairment. It further determined the factors that affect reading comprehension for students with hearing impairment. The analysis of the qualitative data collected of the study is presented in this chapter.

Text is considered as a loaded source of information in qualitative studies and may be solicited by mail or in person (Burns & Grove 2003). Data were collected by interviewing five English teachers teaching students with hearing impairment. The researcher conducted the semi-structured interview at the teachers' school, it was essential to ensure that questions related to the objectives of this study were covered during the interview. Roulston (2010) emphasize that interviews intend to provide opportunity for a researcher to collect rich and meaning-making data in a qualitative research. To get the wanted information it was essential to guide participants by asking specific questions. The questions were definite in comprehensive terms and participants have given their answers in various degrees of depth (See appendix J) and observation (See appendix I) took place.

Participants were also requested to supply general demographic information on sex, age group, marital status, highest academic qualification and teaching experiences.

4.1 BIOGRAPHIC PROFILE OF PARTICIPANTS

Participants were requested to provide biographic data (see appendix D). Table 4.1 depicts the biographical profile of the English teachers who participated in this research. Two participants were male and three female, four were married and one single. The academic and professional qualifications of participants indicated that participants were highly qualified professionals. One of the participants held Master degrees, and four had Honors degree and pursuing studies at Master's level.

The five participants have a teaching experiences ranging between two to fifteen years and their age also range from twenty-five to forty-nine years.

TABLE 4. 1 BIOGRAPHICAL PROFILE OF PARTICIPANTS

Participants	Sex	Age range	Marital Status	Academic	Experiences
1	M	30-39 years	Married	Hon. Degree	6-10 years
2	F	30-39 years	Married	Mast. Degree	6-10 years
3	F	40-49 years	Married	Hon. Degree	11-15 years
4	M	30-39 years	Single	Hon. Degree	11-15 years
5	F	25-29 years	Married	Hon. Degree	1-2 years

4.2 METHOD OF DATA ANALYSIS

The steps for developing an organizing system and the method of qualitative data analysis as explained by Tesch (1990) were used to analyze the data on the use of text with pictures to improve reading comprehension. An elaborated description of the methodology used in this phase of the research was bestowed in Chapter 3 (Section 3.6). Data analysis was done based on inductive reasoning, implying that the analysis was done from the data as presented by participants and not from any overlying theoretical framework. For this study, the collected data were analyzed by coding (see appendix L), categorizing and creating themes according to research questions (see appendix K). An inductive approach was used to enable the researcher to obtain the answers from the interview transcriptions and the observation notes. The interview transcriptions (see appendix J) and observation notes (see appendix I) were read a few times for the researcher to get acquainted with the data. Thenceforth, the

important units were chosen from the answers that relate to the research questions and then codes were given to the themes which are the outcome of the patterns that were observed in the collected data from the participants. The data were analyzed based on the themes that were grouped through coding and categorization of the data. The given codes were grouped together based on similarities and differences to generate general categories. From the categories the following themes were formulated; 1) the use of text with pictures, 2) strategies to improve reading comprehension, and 3) factors affecting reading comprehension. The consequent themes are the outcome of the patterns that were observed in the collected data from the participants and observation. The data analysis is done based on the themes that were grouped through coding and categorization of the data. Where appropriate, some direct quotations will be supplied as spoken by the participants, without their comments being edited in any way whatsoever.

Meaning of codes used for this study:

T1/T2/T3/T4=Transcribe session,

P1/P2/P3/P4/P5=Participants,

M1/H1/L1/A1=Place of interview,

S=Sentences number,

D14'02/D03'04/D07'04/D15'04/D15'04=Date of the interview

This study was guided by the research questions, therefore, participants were asked to answer the interview questions, the findings are organized according to themes which were embedded from the research questions. Hence, the findings are presented according to research questions and their themes.

4.2.1 HOW DOES USING TEXT WITH PICTURES IMPROVE READING COMPREHENSION FOR STUDENTS WITH HEARING IMPAIRMENT?

The use of text with pictures

Text with pictures are important in primary school for hearing impaired students. The data collected from the observation shows that text with pictures can help to improve reading comprehension, this is supported by the results of reading comprehension test, the test was taken after the students read the text with pictures, they answered the comprehension test with understanding. During the observation students were excited to read the text with pictures and they were referring to pictures to get the sign and meaning for words that they did not know. Furthermore, the data collected from interviews also correspond with the use of text with pictures.

Participant 1 indicates what pictures can do to students when reading “*they can guess from the pictures what the story is about, even if they don’t understand all the words in the text. Pictures helps them to comprehend well [TIPIMIS17D14’02].*” Equally important, participant 2 reasoned that “*because from the pictures they can identify about the form of comprehension. Maybe the picture is*

about in the classroom they can visualize the activities in the classroom for another text without the pictures they cannot understand or connect what the story is about [T1P2MIS18D14'02].” However, “Is better when text have pictures, is for students to understand. Pictures are very important for HI students, it help them to know what they are reading. first and foremost, you have to extract the word, know what is the picture about, understand the picture and this will help to improve the reading comprehension of pupil [T2P3HIS2D03'04].”

Lastly, participant 4 said *“mmh.... I think it will help to improve the reading and apart from improvement I think it will even improve the....their vocabulary the same time, because when they are reading they will have to look at the pictures and they can make....get the meaning of the pic...of the text in relation to the picture that is there [T3P4LIS8D07'04].”*

The analysis of the above information is that text with pictures are essential to hearing impaired students, and they can be used to improve reading comprehension because it helps them to visualize what they are reading. Pictures makes the text to become more attractive, help symbolize characters, events and objects described in the text. Also, it display a structured relations of the important idea in the text and it gives a clear explanation of difficult parts of the text. Moreover, it helps them to be able to guess the meaning of the text from looking at the pictures. Pictures act as an aid to understand new information and also catch the attention and interest of students. Therefore, the use of text with pictures for students with hearing impairment in primary school can help the students to extract more information and make meaning of the text.

4.2.2 WHAT ARE THE STRATEGIES THAT CAN BE USED TO IMPROVE READING COMPREHENSION FOR STUDENTS WITH HEARING IMPAIRMENT?

Strategies to improve reading comprehension

There are many strategies that can be used to improve the reading comprehension for hearing impaired students. Nonetheless, various scholars have argued that only appropriate learning strategies can improve students' reading comprehension. The findings from the observation indicates some strategies used during this study such as, a method of scaffolding, the use of dictionaries during reading, the extractions of new words first before reading the text, finger spelling, memorization, re-reading and signing while reading. All the same, the collected data from the interviews indicates that different teachers uses different strategies.

Participants 2 indicates that one of the strategy to improve reading is *"flashcards with the sign language [T1P2MIS8D14'02]."* However, participant 1 confirmed that *"yes, visual aid. Use many visual aids. Now we have hand phone and we use them and show the pictures if we cannot find the real item [T1P1MIS11D14'02]."* Participant 3 added that *"Role-play or acting, sign exact English, use ICT and visualization [T2P3HIS11D03'04]."* Participant 3 continued to explain that *"Sign Exact English can improve reading comprehension because the words are accompanied by signs, each word with it sign for primary school [T2P3HIS11D03'04]."* Furthermore, participant 3 indicated that *"By making use of ICTs, we now have hand phones with data from the government, so we use them in class to get pictures [T2P3HIS13D03'04]."* Also participant 4 expressed that *"mmh,*

since they are visual students, visualizations is the key aspect in their learning. so every lesson every thing in the classroom should be visual and even our teaching aid must be visual they will mmh you know be able to develop visualization...to develop that in themselves, looking at things analyze and make meaning out of it [T3P4L1S19D07'04].”

Moreover, participant 5 explicit that *“ummh, I think one of the things that can be used are daily news, when they tell daily news, you bring in pictures, so from the pictures they can create a story and through that story, they basically, they can start imagining and when they can imagine, they can better relate to the words because you already incorporating pictures in all these things, of role-play, I think role-play or stories as well because now you are giving them a script where there is a picture, here is a word and then they have to kind of memorize it, in order for them to be able to role-play, so role-play is also very important and deaf people are very good with story telling. [T4P5A1S12D15'04].”*

The above information presents the different strategies that participants stated as strategies that can be used to improve reading comprehension for students with hearing impairment such as the use of visual aids like flashcards and pictures, the use of role play, Sign Exact English, ICT and visualization.

The analysis of the above information is that, there are several strategies that participants of this study mentioned, however teaching and learning strategies or even instructional tools for teaching reading can differ from one teacher to another, therefore the participants emphasized on the use of visual aids as one of the most successful strategy for reading comprehension when teaching students with hearing impairments in primary school.

4.2.3 WHAT ARE THE FACTORS AFFECTING READING COMPREHENSION FOR STUDENTS WITH HEARING IMPAIRMENT?

Factors affecting reading comprehension

During the time of collecting data the researcher observed several factors that influenced reading comprehension, such factors are; the complexity of text, lack of decoding, lack of vocabulary and word cognition, anxiety during reading comprehension, lack of motivation and interest, lastly medical problems. However, the findings from interview correlates with the observation findings, the participants have commented further on this theme of factors affecting comprehension as follow;

Participant 1 stated that *“the difficulties of how to understand the word because their vocabulary of Sign language is little. He/she saw the word can spell but does not know the meaning, so we show them one by one with a picture or drawing what is that spelling mean [TIP1MIS1’14’02].”* However, participant 2 added that *“the difficulties of English [TIP2MIS2D14’02].”* Participant 1 continued to say that *“the lack of sign language, yes! First, we have to teach them what the sign language for the word is o that only we can read the comprehension, if they don’t know the sign then they cannot do the reading of the comprehension [TIP1MIS3D14’02].”* In addition, participant 3 stated that *“Lack of vocab and laziness [T2P3HIS16D03’04].”* While participant 4 expressed that *“mmmh there are so many factors I think, given the fact that they might have limited materials like I said in the society to read and their community is just the school and lack of textbooks can be one of the factors and may other lack of reading materials like local*

newspapers and journals and other....let say like magazines maybe and if they don't have that access to go to the library it can affect the reading comprehension [T3P4L1S26D07'04]."

Participant 3 continued to emphasis on *"Lack of focus, lack of support from the parents [T2P3H1S17D03'04]."* However, participant 4 proceed to explain that *"mmh the knowledge of a teacher, I mean, it influences the reading comprehension because you have to know the language and you have to know what you are doing if a layman, if you put layman in the class definitely cannot teach the language, if you put me in grade 1, if I don't know sign language I can't even teach the kids the basics of sign language or reading for that matter, so teachers should posses, she must be competent, qualified and have the knowledge to teach language, in this case [T3P4L1S32D07'04]."*

Finally, participant 5 said *"first of all, I think they lack vocabulary, they do not have the vocabulary in a sense that they don't know words. I don't know how to put it, but they lack vocabulary, I think i should stick to that. there is no vocabulary, I think also, the....through my own reading and research as well I come to the realization that they actually, the first language need to be developed, even my own experience, my mother tongue is important for me to be able to learn the second language, and second language is is ...ah... English is second language for the hearing impaired, but if the foundation of sign language is not fluently laid or if they lack vocabulary in sign language, they won't be able to produce in English right? which is the language they use for reading [T4P5A1S18D15'04]."*

The above information reveals that the factors that affects reading comprehension for student with hearing impairment are lack of vocabulary, if the students do not have vocabulary they won't be able to read or even understand what they are reading, late acquiring of a sign language is one factor that participants have reported about, lack of support from parents, the knowledge of parents, lack of relevant reading materials for hearing impaired students such as text with pictures and sign exact English text that can enhance reading comprehension in primary school, lack of role models, and lack of exposure to reading at an early age and the environment.

The analysis of the information from the participant is that students with hearing impairment do face challenges from an early age, the main challenge be the late acquiring of sign language, lack of vocabulary and the lack of relevant reading materials for these reasons they do not perform well in reading and they find it difficult to comprehend what they are reading.

4.3 SUMMARY

The analysis of the qualitative data collected in through the interview and observation received from the English teachers were presented in this chapter. Findings were supported by meaning units, organized in categories according to research questions. It was found that text with pictures can help to improve reading comprehension for students with hearing impairment. Furthermore, the use of visual aids is essential for the enhancement of reading comprehension for students with

hearing impairment. However, lack of sign language and lack of vocabulary are main factors that are influencing the reading comprehension of students.

CHAPTER 5

DISCUSSION AND CONCLUSION

5.0 INTRODUCTION

The purpose of this study was to determine whether the using of text with pictures is effective to improve reading comprehension, to find out the strategies that can be used to successfully support the development or improvement of reading comprehension for students with hearing impairment and also to determine the factors affecting reading comprehension for students with hearing impairment. The researcher suggest future researchers to find ways to minimize the factors. Therefore, this chapter will cover the summary of findings, discussions, implications and recommendations.

5.1 SUMMARY OF STUDY (THEORETICAL/CONCEPTUAL FRAMEWORK, LITERATURE REVIEW, METHODOLOGY)

This qualitative research, a case study approach has been used. The case study was found as the most appropriate way of carrying out this research because in order to find out if text with pictures are effective to enhance reading comprehension, to identify other strategies that can enhance the reading comprehension skill and identify the factors that influence it, the researcher had to use a case study that will permit her to get an in-depth understanding. The attainment of the objectives of the study was possible due to the use of semi-structured interviews and non-participant observations as research instruments. The choice of these instruments proved successful because it allowed the researcher to collect adequate information, to get answers of the research questions of the study by interviewing the participants and also observing their interaction in the natural context. A qualitative approach enabled the researcher to understand the experiences of the respondents through personal interaction with them.

The documents and classroom observations also served as triangulation of information to an extent because the researcher was able to compare and confirm some of the views of the respondents through observations. The data analysis process enabled the researcher to find answers to research questions. The different measures taken to ensure the ethical considerations proved successful to seek willingly participation of the participants and creating a safe, relax and trusted atmosphere during the interviews and observation. The measures included: sending consent forms to the participants and the school management to seek their participation and

cooperation in the research, sending interviews questions to the participants before the interview schedule. Other measures were pilot testing of interview questions.

The use of the participant observation method gives a researcher the opportunity to collect data by becoming part of the situation or activity (Cohen et al, 2007). By using participant observation, the researcher would have an opportunity to observe the interaction as well as understanding through participation in class activities and discussions. Despite that, shortcoming of the study is that although researcher did not get information about the hearing loss of the student and information about their hearing loss or how many uses hearing aids. This information could have given the researcher an opportunity to understand better the effectiveness of using text with pictures and the influence of hearing loss on comprehending when reading.

This study was guided by the learning theories such as Clay's theory of learning, the social learning theory, the schema theory, the bilingual theory and the teaching model. The main advocate of the impression that language hang on environment was the behaviorist B. F. Skinner, he understood that language is learned through the ideologies of conditioning, including association, imitation, and reinforcement. Therefore, using text with pictures stimulate students' interest to read. Furthermore, generally children acquire words by relating sounds with objects, actions, and events. Also, they learn words and grammar through imitating others. Matured people assist children to learn words and grammar by strengthening the correct language. But, the hearing impaired students they imitate their teachers and deaf adults, because most of them are from hearing parents and they can hardly sign or lay a foundation of sign language for their deaf children, they begin school with no

language because at home people use speech, however at school instead of using speech they use signs they imitate their teachers. They associate the object with a sign. When reading they run their fingers along the text and sign what they read (Power & Leigh, 2004). During this study, the students were observed reading by running their fingers along the text, signing word by word and finger spelling the pronouns confirming what Power & Leigh said. The acquiring of sign language at an early age can help students to have a rich vocabulary which leads to good reading skills, however the findings shows some factors that can hinder the reading comprehension such as, hearing impaired students lack vocabulary, lack of support from parents, lack of relevant materials, lack of exposure to reading at an early age, lack of reading role models and mainly the acquiring of sign language late.

Through sign language, students make sense of their world, including making sense of English print, this affirm the bilingual theory as stated by previous researchers that children with hearing impairments figure out how to read best when they are presented to both signing and oral dialect (Kushalnagar, Hannay & Hernandez, 2010). The sign plus finger-spelling is an easy way to acquire English vocabulary, especially for the English words that do not have any sign corresponding, such as brand names for cars, grammatical features of English, and so on (Padden & Ramsey, 2010). Finger spelling is used to segment words and develop a kind of visual and motor memory for words and this help with the comprehension of text, hearing impaired students mostly rely on visual or verbatim matching on the text.

5.2 DISCUSSIONS

The findings of this study are discussed according to different themes which are made up of three research questions.

5.2.1 RESEARCH QUESTION ONE (RQ1) HOW DO TEXT WITH PICTURES IMPROVE READING COMPREHENSION FOR STUDENTS WITH HEARING IMPAIRMENT?

According to the information shared by the participants of this study, text with pictures prompt students with hearing impairment to read. Pictures makes the text to become more attractive, help symbolize characters, events and objects described in the text. Also, it display a structured relations of the important idea in the text and it gives a clear explanation of difficult parts of the text. These findings are related with previous researchers for instance, Nikolarazi & Vekiri (2012) found out that pictures provide hearing impaired students with a scaffold that can be used to enhance their access to reading comprehension also increase their motivation for reading. Also, a study conducted by Mich, Pianta, and Mana (2013) compared stories with pictures to stories without pictures and discovered that adding pictures to a story supports the reading comprehension of students who are deaf or hard of hearing. In their findings they state that “the simplified and illustrated stories, having a higher readability index, make the comprehension exercise easier and both children groups (deaf and hearing) got the best results” (Mich et al., 2013, p. 42).

Based on the findings, it can be concluded that adding pictures while teaching students who are hearing impaired can enhance reading comprehension. The findings of this study and of Mich et al. (2013) support each other, in which adding pictures reinforce the reading comprehension of students.

Therefore, from the analysis text with pictures is important in the primary school for hearing impaired students. However, the pictures should be colorful, appropriate and relevant for the text. Text with pictures is said to be good at motivating or inspiring to students, it makes the reading interesting and fun for primary school students. Students become more excited and involved in reading texts with pictures. Pictures are beneficial when connected to a text because they help students to make sense of the text (Prezbindowski & Lederberg, 2013). To conclude, another way to integrate pictures is to introduce them during story time. Trussell and Easterbrooks (2013) add that use of picture cards during read aloud will enhance the vocabulary and boost comprehension.

5.2.2 RESEARCH QUESTION TWO (RQ2) WHAT ARE THE STRATEGIES THAT CAN BE USED TO SUCCESSFULLY SUPPORT THE DEVELOPMENT OR IMPROVEMENT OF READING COMPREHENSION FOR STUDENTS WITH HEARING IMPAIRMENT?

This study revealed that there are strategies that can be used to successfully support the development or improvement of reading comprehension. Based on the findings of this study, the following strategies are being used in schools to motivate, enhance and develop reading comprehension for hearing impaired students; the use of

dictionaries during reading and also using the Signing Exact English (SEE) textbooks help students to understand what they are reading and motivates them to read on their own because the SEE texts consist of a text and its exact sign, such text increases self-efficacy and encourages students with hearing impairment to read and comprehend what they are reading, as for the SEE textbooks and dictionary used in Malaysian schools for the hearing-impaired students, this could be a good idea to be replicated in the Namibian schools for the hearing-impaired students because this strategy motivates students to read on their own from a younger age. Another strategy is to extract words first before reading the text, the teacher does the extraction of all the vocabulary and the students look them up in the dictionary for meaning and they focus on their signs because students can't read what they can't sign.

On the other hand, according to Cain & Oakhill (2009) reading strategies stipulate specific instructions to prosper comprehension skills, some other reading strategies are visualization, scaffolding, predicting, deducing, making use of flashcards, ICT, sum-up and analyzing. In addition, Vygotsky suggested that cognitive development depends on interactions between children and expert adults or parents who mediate the children's learning experiences by helping them understand their world using the tools of their culture. An important tool, in this case, is language (Vygotsky, 1978). A reading lesson is a conversation or dialogue. Teachers or parents as expert readers provide scaffolding or modelling for the child in how to figure out the meaning of text. The child then tries to read, at first with the expert reader's support. But then slowly the child takes over the reading task and reads independently (Andrew et al., 2014).

The schema theory is important during reading because readers bring their background knowledge which is used for understanding and expectations to a text (An, 2013). Supporting the findings of this study, text with pictures increases the general knowledge of students. Furthermore, students can become better thinkers when they are encourage to understand what they are reading which leads to critical thinking and reasoning as a higher order thinking skills, when the instruction is intended to enhance acquisition of knowledge. The findings shows some strategies that can be used to successfully support the development or improvement of reading comprehension for students with hearing impairment such as the use of visual aid (like flash cards, pictures), role play, use of SEE textbooks and story books, use of ICT and visualizations. Teaching approaches that increase the acquisition of knowledge comprise spread out preparation (observing material over time against studying), using a range of cases for students to identify where a concept is appropriate, and exercise at recovery (repetitively memorizing material over time) with educational response (Reutzler & Cooter, 2008).

Furthermore, research showed that hearing impaired people raise up previous experience from the text for explanation and this is done through a visual-matching technique and not as a metacognitive strategy (LaSasso, 1985). Metacognitive relates to the concept of this study for improving reading comprehension, thus it can be used as a strategy or teaching model to improve reading comprehension for hearing impaired students. According to Brigham, Berkeley, Simpkins, & Brigham (2007) teaching in metacognitive strategies is helpful for students such as hearing impaired who lack background understanding as well as reading interpreting skills. The drive

of teaching metacognitive awareness is to invest students with understanding and regulate over thinking that expert readers use when reading (Benedict, Rivera & Antia, 2015). The purpose of reading and the level of reading material plays a role in a student's life. According to previous research, all learners are able to acquire the skill of how to use metacognitive strategies in order to make meaning from text (Benedict et al., 2015).

5.2.3 RESEARCH QUESTION THREE (RQ3) WHAT ARE THE FACTORS AFFECTING READING COMPREHENSION FOR STUDENTS WITH HEARING IMPAIRMENT?

This research identified seven factors that are affecting reading comprehension. According to Dennis (2008), reading comprehension is defined as a complex process of distinguishing printed symbols and explaining the meaning of the symbols. Thus, some of the factors affecting reading comprehension are text complexity, lack of vocabulary or decoding and lack of word recognition, environmental influences, lack of parents involvement, anxiety during reading comprehension, lack of motivation and interest, medical problems and lack of early sign language development. Therefore, in this section, these factors are discussed.

One of the observed factors that affect reading comprehension for HI was the text complexity. To support this, Dennis (2008), stated that if the text is too difficult for students they won't be able to understand its content and one must have a lot of vocabulary to be able to comprehend the unknown words through applying the opinions of context. The second factor from the findings was the environmental

conditions, an unorganized environment affect the reading comprehension of students than those who read in a quiet and disciplined place. The third factor was the anxiety during reading comprehension. Tests, exam, class work, or homework add pressure on students' comprehension than reading for pleasure. When a student is having reading anxiety it leads to not understanding instructions which leads to confusion and poor comprehension of the text (Dennis, 2008).

The fourth factor was lack of motivation and interest. According to Dennis (2008), students' motivation and interest are crucial in developing reading comprehension skill. When the reading materials are interesting for students they understand it easily and remember it clearly. English teachers must motivate students by giving them interesting reading materials. The fifth factor was lack of vocabulary, decoding or word recognition. Students with no vocabulary won't be able to comprehend what they are reading and those who have problems in decoding and recognizing words will be reading slowly and find it challenging to understand the meaning of a text. Vocabulary can influence the reading comprehension skill because students utilize decoding skills to realize the meaning of new words. The sixth factor was the medical problems.

According to An (2013) poor reading comprehension skill can be a medical difficulty that was not diagnosed and addressed at an early age. Such as; lack of diagnoses of ADD (attention deficit disorder), dyslexia, speech problems, and hearing impairments can hinder the reading comprehension of students. The last factor was lack of parent involvement and lack of early sign language development. According Staden (2013) learning a second language is said to be easier after mastering a first language. The lack of parent involvements in the education of their children affect the

reading comprehension of students because they are not motivated from home, no one read for them because of a language barrier that may be between the deaf or hearing impaired students and the parents. Therefore, lack of SL at early age leads to students to become poor in vocabulary and be unable to read or comprehend passages. The findings showed that in learning a second language, in this case English, students clearly benefit from their earlier acquisition of SL, but this is difficult for HI students since they only come to acquire language when they come to school, meaning they start school with no language and begins to learn SL as a first language simultaneously with English as a second language.

5.3 IMPLICATIONS OF THE STUDY

The main aim of this study was to determine whether using text with pictures is effective to improve reading comprehension for hearing impaired students. The researcher believe that the findings of this study will be helpful to improve the reading comprehension of hearing impaired students. Moreover, the first way of applying the knowledge gained from this research will be the implementation of the researcher's learning, experiences and the research findings to the professional practice upon the return of the researcher in her home country. Secondly, students will feel excited and motivated to read text with pictures and have Sign Exact English (SEE) books. Thirdly, teachers will be able to assist their students to improve their reading comprehension by using text with pictures or other effective teaching strategies for reading comprehension. Fourthly, the findings points to reading resources that will be needed to be redesigned accordingly by adding pictures to text and modify into SEE.

The findings of this study will be used as a reference for future studies and the outcomes of this study will positively effect literacy today.

5.4 RECOMMENDATIONS

5.4.1 RECOMMENDATIONS FOR FUTURE RESEARCH

Based on the findings the learning strategies used for reading comprehension by hearing impaired included the text with pictures, use of visual aids, use of dictionary, signing while reading, the use of SEE books, finger spelling, re-reading and extracting new words from the text. These findings results from lower level of processing and deficiency in metacognitive skills which have a negative implication on achievement in reading comprehension. This study therefore suggest the use of higher order thinking skills and the use of interactive models for reading comprehension lessons since this generation is the 21st century era and critical thinking is highly advisable.

This study used a small sample of 5 teachers and 6 students a total of 11 participants, but if the sample could be increased the findings may be better than the current, the time frame of carrying out the study was constraint it was within 12 months, the researcher recommends for study to take at least more than 12 months for quality findings, and it had focus on the use of text with pictures only; which can be changed to the use of technology, therefore future researchers can go miles ahead of this study and it can be extended or be used as a stepping stone to greater studies in the deaf education to enhance reading comprehension skills.

5.4.2 RECOMMENDATIONS FOR FUTURE PRACTICE

The researcher would recommend this to teachers, it is not only advantageous for students with hearing impairment but the using of text with pictures would also be an advantage to students with learning disabilities. However, based on the findings of this research study, teachers are recommended to make use of text with pictures, there are other recommendations for English teachers teaching HI students. To develop their background knowledge by making use of visualization, making reading fun and interesting for students, teach text structures, and stimulate their reading ability.

Teachers need to extract new vocabulary first from the text and discuss their meanings and signs then they can ask the students to read and later carry-out a reading comprehension test, they must use relevant text and suitable for the level of their students and also motivate students to read by making reading interesting and also they should teach their students how to use reading comprehension strategies appropriately and effectively. English teachers need to encourage their students to determine the factors that influence them to understanding what they are reading. Students have to be participating in the reading process by making use of different strategies to monitor their meaning. Finally, would recommend the Namibian government to consider translating the English textbooks and story books used in primary schools to be translated into SEE and each student should have a Sign Language dictionary, as it is in Malaysia because it enhance and motivates reading comprehension for hearing impaired students, it encourages students to read on their own. Thus sign language experts will be needed to develop/design such reading materials.

5.5 SUMMARY

The important contribution of this paper was the use of text with pictures, strategies of improving reading comprehension and factors that influence reading comprehension. At the end of the study, the researcher would say, she have achieved her objectives. The study have found out that the use of text with picture in primary can help to improve reading comprehension for students with hearing impairment and also found out the strategies of improving reading comprehension and factors that affecting reading comprehension. This qualitative study was also an eye opener to new insight about the current practices of reading comprehension in Malaysia. The research methods used for this study gave the researcher a privilege to observe the hearing impaired classes and gain essential information from the interview participants of the study. The collected data for the study has driven the researcher to interpret the findings critically.

The findings of this research study indicated that the use of text with pictures in primary school can help to improve reading comprehension for students with hearing impairment because they learn through visual. Text with pictures is one of the strategies that assist students with hearing impairment in understanding the text easily. The findings from the interview and observation, related to Trussell and Easterbrooks (2013) that the use of picture in the text enhance the vocabulary and boost comprehension. The benefit of using pictures which are part of visual aids is that; it assists students to comprehend and recall ideas more effectively. Reading factors and strategies work in collaboration that form a meaningful process easily and effectively. Finally, the findings of this study showed that English teachers need to motivate their

student to read, realize their students' comprehension difficulties, and have supportive view on their reading activities to make it easy to understand different texts. The findings of the study will be assistive to the researcher during her professional practices and other educators in the special education field.

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APPENDICES


Appendix A: Text with pictures


IN SEARCH OF FLOWERS



A little girl  went in search of flowers  for her mother .


It was early in the day, and the grass was wet. Sweet little birds 



were singing all around her .

And what do you think she found besides flowers  ? A nest




with young birds in it.

While she was looking at them, she heard the mother bird  chirp as if to say, "Do not touch my children, little girl, for I love them dearly."

The little girl  now thought how dearly her own mother  loved her.

So she left the birds. Then picking some flowers, she went home, and she told her

mother  what she had seen and heard.

Appendix B: Reading Comprehension Test

Student name:

Standard:

Date:

Subject: English Second Language (Reading Comprehension)

Choose the correct answer (circle)

1. Which time of the day was the girl looking for flowers? (1 mark)
 - a) Evening
 - b) Early in the morning

2. What did she find? (1 mark)
 - a) A nest with young birds
 - b) A cat

3. What did the mother bird say to the girl? (1 mark)
 - a) Take my children
 - b) Do not touch my children

4. Why did the girl leave the nest alone? (1 mark)
 - a) She thought how dearly her mother loved her
 - b) She was afraid of the bird

5. What did she tell the mother when she went home? (1 mark)
 - a) She told her mother about her teacher
 - b) She told her mother what she had seen and heard

Appendix C: Observational schedule for students

As the student is busy reading, tick the appropriate box.

1. How is the student reading?

Fluently	Moderate	Can't read
----------	----------	------------

2. How does the student read?

Silently	Sign word by word	Sign & finger-spell
----------	----------------------	------------------------

3. S/He enjoys reading?

Yes	Somehow	No
-----	---------	----

4. What difficulty does the student have when reading?

Comprehension	Lack of vocabularies	Language barriers
---------------	-------------------------	----------------------

5. Can the student make connections between the pictures and texts?

Yes	Somehow	No
-----	---------	----

Appendix D: Questionnaires for teachers

Background information

These questions are about you, your education and the time you have spent in teaching. In responding to the questions, *please mark the appropriate box.*

1. What is your gender?

Female

Male

2. Marital status?

Married

Single

Widow

Divorced

3. How old are you?

Under 25

25-29

30-39

40-49

50-59

60+

4. What is the highest level of formal education that you have completed?

Please mark one choice.

Grade 12 certificate

Diploma

Honors Degree

Master Degree

PHD

5. How long have you been working as a teacher?

Where possible exclude extended periods of absence (e.g. career breaks).

This is my

First year

1-2 yrs

3-5 yrs

6-10 yrs

11-15 yrs

16-20yrs

+20 yrs

Appendix E: Interview questions for teachers

Teaching development

Research Topic: Using text with picture to improve reading comprehension for Hearing Impaired students in primary school

Element 1: How do you think text with pictures improve reading comprehension for students with hearing impairment?

- How do the vocabulary of students influence the reading comprehension for hearing impaired students?
- How far do you think the vocabulary of students is important for reading skill?
- How to improve the vocabulary for hearing impaired students?
- How far do you think the use of text with pictures is important in a primary school to improve reading comprehension?

Element 2: What do you think are the strategies that can be used to successfully support the development or improvement of reading comprehension for students with hearing impairment?

- What can be done to help hearing impaired students to develop visualization?
- How is visualization important for hearing impaired students when reading?
- What do you think teachers and parents should do to motivate students to read?
- What are the learning and teaching aids that can enhance reading comprehension?

Element 3:What do you think are the factors affecting reading comprehension for students with hearing impairment?

- What do you think can be done to the factors that affect reading comprehension?
- How far do you think teachers and parents contribute to the students' reading comprehension?
- How do the knowledge of a teacher influence the students' reading comprehension?
- How do the knowledge of parents influence the students' reading comprehension?

Element 4: How do you think the acquisition of Sign Language influence the reading comprehension for hearing impaired students?

- Do you think Sign Language plays a role in reading comprehension for hearing impaired, how does it play a role?
- What do you think are the factors affecting the acquisition of Sign Language?
- How is Sign language and English related?
- How do students with hearing impairment read out loud?

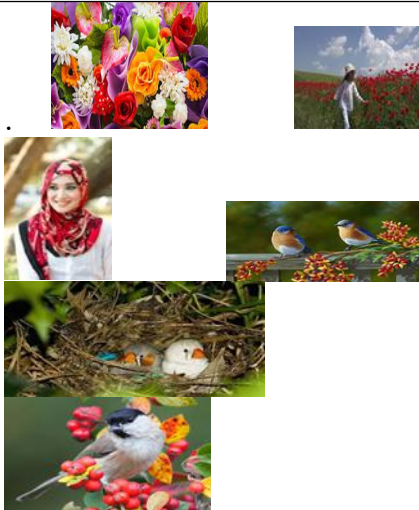
Element 5: How are the teaching and learning materials, are they relevant and sufficient to improve reading comprehension?

- What are the teaching and learning materials used for reading in schools?
- How far do you think the materials are at the level of the students?
- How far do you think the current reading material are effective to improve reading comprehension?
- How are the reading materials distributed among the students, each one have her own or how?

Appendix F: Lesson Plan 1

Class	: Year 3
Date	: 15 February 2017
Time	: 09h15
Number of children	: 6
Module	: English (Reading Comprehension)
Theme	: Plants
Tunjang Utama	: In search of flowers
Learning Standards	: Increase the pace of their reading, and equally, enable them to comprehend a text more effectively and efficiently.
Learning Outcomes	: <i>By the end of the lesson, children will be able to:</i> _ read and comprehend the text with picture.
Lesson Objectives	: <i>By the end of the lesson, children should be able to:</i> _ tell what the girl was looking for _ tell the time of the day the girl went to look for flowers and tell what the girl found
Kesepanduan Tunjang	:
Prerequisite Knowledge:	Children already know how to put letters together to read.
Thinking Skills	: Recognize words
Good Values	: Collaboration
Teaching Aids	: Text with pictures



Steps	Contents	Teaching and Learning Activities	Remarks/ B BM/MI
Set Induction (5 min)	Discussions of the pictures from the text	<ol style="list-style-type: none"> 1. Teacher display pictures from the text. 2. Children to discuss the pictures. 3. Teacher and children 	Pictures of flowers, the girl, her


		discuss the correct signs of the pictures.	mother, young birds, nest of birds and mother bird
Step 1 (5 min)	Read the text with pictures (signing)	<ol style="list-style-type: none"> 1. Teacher to read (sign it) the text with pictures to the children. 2. Children to observe the teacher attentively as she/he sign the text with pictures to them. 	Text
Step 2 (15 min)	Reading and Comprehension	<ol style="list-style-type: none"> 1. Teacher to give each child the text with picture to read. 2. Children to read the text with picture. 3. Teacher to discuss with children: what the girl was looking for, to tell the time of the day the girl went to look for flowers and to tell what the girl found. 	Text
Closure (10 min)	Comprehension test	<p>Teacher to explain the test to the children.</p> <p>Children to answer the comprehension test.</p>	Test

Reflection: _____

Lesson Plan 2

Class	: Year 3
Date	: 16 February 2017
Time	: 09h15
Number of children	: 6
Module	: English (Reading Comprehension)
Theme	: Plants
Tunjang Utama	: In search of flowers
Learning Standards	: Increase the pace of their reading, and equally, enable them to comprehend a text more effectively and efficiently.
Learning Outcomes	: <i>By the end of the lesson, children will be able to:</i> _ read and comprehend the text with picture.
Lesson Objectives	: <i>By the end of the lesson, children should be able to:</i> _ name the animal from the text _ tell what the mother bird said to the girl _ tell why did the girl leave the nest alone
Kesepanduan Tunjang	:
Prerequisite Knowledge:	Children already know how to put letters together to read.
Thinking Skills	: Recognize words
Good Values	: Collaboration
Teaching Aids	: Text with pictures



Steps	Contents	Teaching and Learning Activities	Remarks/ B BM/MI
Set Induction (5 min)	Discussions of the pictures from the text <div style="display: flex; justify-content: space-around; align-items: center;">   </div>	<ol style="list-style-type: none"> 1. Teacher display pictures from the text. 2. Children to discuss the pictures. 3. Teacher and children discuss the correct signs of the pictures. 	Pictures of flowers, the girl, her mother, young birds, nest


			of birds and mother bird
Step 1 (5 min)	Read the text with pictures (signing)	<ol style="list-style-type: none"> 1. Teacher to read (sign it) the text with pictures to the children. 2. Children to observe the teacher attentively as she/he sign the text with pictures to them. 	Text
Step 2 (15 min)	Reading and Comprehension	<ol style="list-style-type: none"> 1. Teacher to give each child the text with picture to read. 2. Children to read the text with picture. 3. Teacher to discuss with children: the name of an animal in the text, what the mother bird said to the girl and why did the girl leave the nest alone. 	Text
Closure (10 min)	Comprehension test	<p>Teacher to explain the test to the children.</p> <p>Children to answer the comprehension test.</p>	Test

Reflection: _____

Lesson Plan 3

Class	: Year 3
Date	: 20 February 2017
Time	: 10h00
Number of children	: 6
Module	: English (Reading Comprehension)
Theme	: Plants
Tunjang Utama	: In search of flowers
Learning Standards	: Increase the pace of their reading, and equally, enable them to comprehend a text more effectively and efficiently.
Learning Outcomes	: <i>By the end of the lesson, children will be able to:</i> _ read and comprehend the text with picture.
Lesson Objectives	: <i>By the end of this lesson, children should be able to:</i> _ tell what the girl told her mother _ tell who got flowers from the girl _ tell how many people are mentioned in the text
Kesepanduan Tunjang	:
Prerequisite Knowledge:	Children already know how to put letters together to read.
Thinking Skills	: Recognize words
Good Values	: Collaboration
Teaching Aids	: Text with pictures

Steps	Contents	Teaching and Learning Activities	Remarks/ B BM/MI
Set Induction (5 min)	Discussions of the pictures from the text  	<ol style="list-style-type: none"> 1. Teacher display pictures from the text. 2. Children to discuss the pictures. 3. Teacher and children discuss the correct 	Pictures of flowers, the girl, her mother,

		signs of the pictures.	young birds, nest of birds and mother bird
Step 1 (5 min)	Read the text with pictures (signing)	<ol style="list-style-type: none"> 1. Teacher to read (sign it) the text with pictures to the children. 2. Children to observe the teacher attentively as she/he sign the text with pictures to them. 	Text
Step 2 (15 min)	Reading and Comprehension	<ol style="list-style-type: none"> 1. Teacher to give each child the text with picture to read. 2. Children to read the text with picture. 3. Teacher to discuss with children: what the girl told her mother when she went home, tell who got flowers from the girl and determine how many people are in the text. 	Text
Closure (10 min)	Comprehension test	<p>Teacher to explain the test to the children.</p> <p>Children to take a short test.</p>	Test

Reflection: _____

Appendix G: Pilot Study Interview Questions for teacher

1. What are the factors affecting reading comprehension for students with hearing impairment?
.....
.....
2. What do you think can be done to improve reading comprehension for hearing impaired students?
.....
.....
.....
3. How do you teach reading to your hearing impaired students?
.....
.....
.....
4. What strategies can be used to successfully support the development or improvement of reading comprehension for students with hearing impairments?
.....
.....
.....
5. Which one do you think will be more effective in early grades between using text with pictures and text only to improve reading comprehension for hearing impaired students?
.....
.....
.....

Appendix H: Document Analysis-Sign Exact English (SEE)

Let's read, sign, and answer.

Spending Wisely

"Hi, Kim Seng!" said Jagjit.

"Hello, Jagjit!" replied Kim Seng. "Where are you going?"

"My brother's birthday is tomorrow. I'm going to the mall to buy him a present," said Jagjit excitedly.

"Wow! What are you going to buy for him?" asked Kim Seng.

"At first, I want to buy a backpack. I checked the prices of the backpacks and they are over my budget."

"Budget?" Kim Seng looked a bit confused.

"Oh, I have a budget of RM50.00 for my brother's present," replied Jagjit.

Appendix I: Field notes

Two classes (A & B) of year three hearing impaired students was observed as the students were reading the text with pictures. Each class had three students and in total six students were observed.

Observation 1

Three students were present in class, total communication (speech and sign) was used by the teacher as a mode of communication to teach the reading lesson. The three students of class A, could read moderately, they signed word by word as they were reading, they were enjoying the reading even though they lack some vocabularies the pictures helped them to figure out the meaning of the word.

Observation 2

Three students were present in class, total communication (speech and sign) was used by the teacher as a mode of communication to teach the reading lesson. The three students of class B, could read moderately, they signed and finger spell as they were reading, they were enjoying the reading even though they faced a language barrier the pictures helped them to comprehend the text.

Findings from observation according to theme which embedded from research questions:

The use of text with pictures

The data collected from the observation shows that text with pictures can help to improve reading comprehension, this is supported by the results of reading comprehension test, the test was taken after the students read the text with pictures, they could answer the questions from the text with understanding.

Strategies to improve reading comprehension

The findings from the observation indicates some strategies used during this study such as, a method of scaffolding, the use of dictionaries during reading, the extractions of new words first before reading the text, finger spelling, memorization, re-reading and signing while reading.

Factors affecting reading comprehension

The researcher observed several factors that influenced reading comprehension, such factors are; the complexity of text, lack of decoding, lack of vocabulary and word cognition, anxiety during reading comprehension, lack of motivation and interest, lastly medical problems.

Appendix J: Transcribe Raw Data

Interview transcribe 1

School name: Methodist Girls School

Location: Teluk Intan

State: Perak

Researcher's name: Ms Renate Olga Thomas

Participants' names: Mr Khairol & Madam Laili

Date & Time: 14 February 2017 (10:10)

Group focused interview

Raw data

Information	Content	Sentences coding
Researcher	What are the factors affecting reading comprehension for students with hearing impairment?	Q1
Participant 1	<i>“the difficulties of how to understand the word because their vocabulary of Sign language is little. He/she saw the word can spell but does not know the meaning, so we show them one by one with a picture or drawing what is that spelling mean.”</i>	S1
Participant 2	<i>“the difficulties of English.”</i> (clarifying) meaning the sign language development is one of the factor?	S2

R		Q2
P1	<i>“the lack of sign language, yes! First, we have to teach them what the sign language for the word is o that only we can read the comprehension, if they don’t know the sign then they cannot do the reading of the comprehension.”</i>	S3
P2	<i>“they need to know all, nouns, pronouns and everything, so when they get the meaning they can read the comprehension and understand.”</i>	S4
R	What do you think can be done to improve this?	Q3
P1	<i>“we show them different sign language and different words every day so they can learn about that words; today we learn book, car, tomorrow we learn school, in the market, we tell them different types of words.”</i>	S5
P2	<i>“practice”</i>	S6
R	What do you use a your teaching tool when teaching reading?	Q4
	<i>“flashcards, videos”</i>	S7

P1		
P2	<i>"flashcards with the sign language"</i>	S8
R	(clarifying) let say you have a picture of the car, a sign of car and the word name car?	Q5
P1	<i>"yes, also we use sign language to give the meaning of the words."</i>	S9
P2	<i>"yes! One by one. For them, the picture is very important because they cannot hear, or we have to show them all the pictures because they learn by the eyes. We have to use many visual things to show them what we want to teach them."</i>	S10
R	(clarifying) you telling me that one of the successful strategies for reading comprehension for our children with hearing impairment is actually visual aid?	Q6
P1	<i>"yes, visual aid. Use many visual aids. Now we have hand phone and we use them and show the pictures if we cannot find the real item."</i>	S11
P2	<i>"yes". visual aid"</i>	S12

R	(clarifying) so....you use picture, you sign the word. How do they read the word?	Q7
P1	“finger spell and they sign it car”	S13
P2	“spell”	S14
R	Let me say we have two texts, one with the picture another with no pictures. Which one do you think attract them?	Q8
P1	<i>“picture text”</i>	S15
P2	<i>“picture text”</i>	S16
R	But, why will they be attracted by the picture text?	Q9
P1	<i>“they can guess from the pictures what the story is about, even if they don’t understand all the words in the text. Pictures helps them to comprehend well.”</i>	S17
P2	<i>“because from the pictures they can identify about the form of comprehension. Maybe the picture is about in the classroom they can visualize the activities</i>	S18

	<i>in the classroom for another text without the pictures they cannot understand or connect what the story is about.”</i>	
R	(clarifying) meaning the picture stories are very important because it helps to stimulate their understanding also?	Q10
P1	“yes”	S19
P2	“yes”	S20
R	How do you teach or explain the meaning of “is” to hearing impaired students for them to understand the word is?	Q11
P1	<i>“when they see the word “is” they just sign it because we taught them that the word is for one”</i>	S21
P2	<i>“we tell them the functions of singular and plural. We try to explain to them but we don’t know whether they understand it or not.”</i>	S22
R	Thank you very much for your precious time and the quality information you have shared with me. Thank you!	Q12

Interview transcribe 2

Place: Pizza Huts

Location: Ipoh

State: Perak

Researcher's name: Ms Renate Olga Thomas

Participants' names: Madam Laila

Video taken by: Mrs Joyce Uai Rukoro-Tjirera

Date & Time: 03 April 2017 (17:10)

Individual face to face interview

Raw data

Information	Content	Sentences coding
Researcher	Good afternoon Madam Laila, I am Olga mmmh, I will be your interview....Interviewer for this afternoon. eeh and would you please tell our viewer about yourself?	Q1
Participant 3	<i>"My name is Cikgu Laila, I teach English, year 6."</i>	S1
R	thank you for availing yourself for this interview, my research topic is about using text with pictures to improve reading comprehension for students with hearing impairment. I would want like to know how does text with pictures improve reading comprehension for students with hearing impairment?	Q2

P3	<i>“Is better when text have pictures, is for students to understand. Pictures are very important for HI students, it help them to know what they are reading. first and foremost, you have to extract the word, know what is the picture about, understand the picture and this will help to improve the reading comprehension of pupil.”</i>	S2
R	How do the vocabulary of students influence the reading comprehension for hearing impaired students?	Q3
P3	<i>“The vocab of the students is very important, it plays a role.”</i>	S3
R	How far do you think the vocabulary of students is important?	Q4
P3	<i>“When they have vocab they can be able to read, but if they do not have the vocab, they will not be able to read. If they know the vocab together with the spelling and the sign, they will be able to visualize.”</i>	S4
R	You are talking about visualization, so,, what do you mean about visualize, what is visualization?	Q5
P3	<i>“for me first of all I extract the word, let say the word is goose, I pick the goose as the word, I ask them to take the Sign Exact English dictionary then they find the word goose, when they get the word goose now they have to take another dictionary which have three meaning of a goose 1. in Bahasa Malaysia, 2. in English and also in 3. Arabic, so they</i>	S5

	<i>know the word goose, for me in my class I'm giving my students many books lah."</i>	
R	What other ways can you improve the vocabulary of the learners/ pupil?	Q6
P3	<i>"I give them spelling."</i>	S7
R	Spelling? that's how you improve their vocabulary?	Q8
P3	<i>"Yes, spelling and I give them the writing."</i>	S8
R	Sooo.... How far o you think the use of text with pictures is important in a primary school to improve reading comprehension?	Q9
P3	<i>"it help them to ummmh.. the one with the picture is very helpful compare to the one with no pictures. text without pictures might give pupil tough time to understand and it is time consuming."</i>	S9
R	Please share with me other strategies that can improve reading comprehension?	Q10
P3	<i>"I give them shared reading, extractions of new words explain their meaning like the grammar (noun and pronoun) go through the text with the learners, read together with the sign then read one by one. another is drilling reading, concentrate on the words only, phrases</i>	S10

	<i>and memorizing.”</i>	
R	Any other strategies?	Q11
P3	<i>“Role-play or acting, sign exact English, use ICT and visualization.”</i>	S11
R	I'm very interested in sign exact English, tell me about it? do you think it can improve reading comprehension?	Q12
P3	<i>“Sign Exact English can improve reading comprehension because the words are accompanied by signs, each word with a it sign for primary school.”</i>	S12
R	Before this you have talked about visualization, so what can be done to develop visualization?	Q13
P3	<i>“By making use of ICTs, we now have handphones with data from the government, so we use them in class to get pictures.”</i>	S13
R	How should teachers and parents motivate the students to read?	Q14
P3	<i>“By giving them books to read.”</i>	S14
	What are the teaching aids and learning aids that can enhance reading	

R	comprehension?	
	<i>“ict, handnotes, worksheets, pictures, handphones.”</i>	Q15
P3	What do you think are the factors affecting reading comprehension?	S15
R	<i>“Lack of vocab and laziness.”</i>	
P3	Laziness? what do you mean about laziness?	Q16 S16
R	<i>“Students are lazy to read, they do not want to read and find the words from the dictionary.”</i>	
P3	What can be other factors?	Q17 S17
R	<i>“Lack of focus, lack of support from the parents.”</i>	
P3	You mean parents also plays a role?	Q18 S18
R	<i>“Yes...parents plays a role.”</i>	Q19
P3	How does the knowledge of teacher influence the students' reading comprehension?	S19
R	<i>“If the teacher is well knowledgeable will have many ways to motivate the learners to read but, if the teacher is not having</i>	Q20

P3	<i>enough knowledge she will not be able to motivate or help learners to read.”</i>	
	How does teachers and parents contribute to the reading of students?	S20
R	<i>“Teachers and parents should work together, like when teacher gives homework to pupil parents must help the students with homework. the parents can contribute by reading to children and also by buying for them books to read. teachers are contributing positively everyday in class by helping them to know how to read.”</i>	Q21
P3	How does the knowledge of parents influence the reading of students?	S21
R	<i>“If the parents can sign then they are knowledgeable enough to help their children to read.”</i>	Q22
P3	How do you think the acquisition of sign language influence the reading comprehension for hearing impaired students?	S22
R	<i>“If the students do not have the sign language how do you want them to read? meaning the acquisition of sign language at early age is important it plays a role in learning the second language or reading in English.”</i>	Q23
P3	Factors affecting the acquisition of sign language?	S23

R	<i>“Family and community, because they do not know sign language and the students only come to learn sign language at school which is a delay in a language development.”</i>	Q24
P3	How is sign language and English related?	S24
R	<i>“They are both languages and the students read the word in English and sign it. this will help them in future to be able to communicate to other people.”</i>	Q25
R	How do students with hearing impairment read out loud?	S25
P3	<i>“They read with action, sign word to word.”</i>	Q26
R	How are the teaching and learning material at your school are they relevant and sufficient to improve reading comprehension?	S26
P3	<i>“The teaching and learning materials are good and enough for all the students because we do not have many students, each student have her/his own books, they do not share books.”</i>	Q27
R	What are the teaching and learning materials used for reading in schools?	S27
P3	<i>“Flashcards, realia, pictures, handphone.”</i>	

R	How far do you think the current reading materials are effective to improve reading comprehension?	Q28
P3	<p><i>“The current reading materials are good and they are helping to improve the reading comprehension, however we need to use more of text with pictures, especially for the first grades we can have picture, sign and word text to motivate the students. pictures attracts the interest of the students.”</i></p>	S28 Q29
R	How are the reading materials distributed among the students, each one have her own or how?	S29
P3	<p><i>“Each student have her own book, sign exact English dictionary and other dictionaries.”</i></p>	Q30
R	Before we end our interview, do you have any suggestions or addition to this interview?	S30
P3	<p><i>“Teacher and parents relationship should be encouraged so they work together. parents should be taught sign language.”</i></p>	
R	Thank you soo much Cikgu Laila, we have now come to an end of our interview, would you please sign the consent form, I believe you read the consent form already. Thank you!	Q31
P3	<p><i>(signing the consent form) “you welcome!”</i></p> <p>We have to an end of our interview, Thank you!</p>	S31

Interview transcribe 3

School name: UPSI

Location: Library

State: Perak

Researcher's name: Ms Renate Olga Thomas

Participants' names: Mr Shimanya

Date & Time: 07/04/17 (16h00)

Raw Data

Information	Content	Sentences coding
Researcher	Ah... good afternoon Mr Shimanya?	Q1
Participant 4	<i>"Yes, good afternoon!"</i>	S1
R	Ah, I'm Renate Olga Thomas and I will be your interviewer for this afternoon. so! my research topic is about using text with pictures aah.... to improve aah.. reading comprehension for hearing impaired students.	Q2
P4	<i>"okay!"</i>	S2
R	I know that you have been mmh...teach....working with the hearing impaired student for quite a long time now.	Q3
P4	<i>"(nodding his head) mmmh!"</i>	S3
R	so....I would you to tell me: how do you think text with pictures ahh...improve reading comprehension	Q4

	for students with hearing impairment?	
P4	<i>“Mmmh I think.... vocabulary in hearing impaired students.....plays a very major role in comprehension and....the more they know the vocabulary the more they will be able to read. Reading in such a way that they will be able to make sense out of what they are reading.”</i>	S4
R		
P4	okay (nodding her head)	Q5
	<i>“yes!”</i>	S5
R	so... you mean to tell me that ah...the vocab...the more the vocabulary the students have it will help them to read?	Q6
P4	<i>“(nodding his head) yes, definitely yes.”</i>	S6
R		
P4	<i>“The more the vocabulary, the more the chances for them to be able to read.”</i>	S7
R	okay, i would want to know, so do you think a text.....text with pictures aah...will improve reading comprehension? if teachers have to use text with pictures for hearing impaired students or will it improve the reading instead of only using the text only, the text.... the passages which have only text? Do you think the passage with pictures will help to improve and how?	Q8

P4	<i>“mmh....yes, I think it will help to improve the reading and apart from improvement I think it will even improve the....their vocabulary the same time, because when they are reading they will have to look at the pictures and they can make....get the meaning of the pic...of the text in relation to the picture that is there.”</i>	S8
R	okay....so...how far do you think vocabulary of students is important for reading skills?	Q9
P4	<i>“mmmmh.....for hearing impaired I think vocabulary is very very important because sometimes....like I said at the beginning learners, like hearing impaired learners can have some reading skills but they just know how to sign the word but they do not know the meaning so its very very important for them to...to get the vocabulary or to get the meaning of the word before they can sign it, because it will be useless to know how to sign a certain word but you do not know the meaning of it.”</i>	S9
R	so.. how do we improve the vocabulary of hearing impaired students?	Q10
P4	<i>“Mmhh....just like for any other students, hearing impaired students can improve their reading through reading different materials.”</i>	S10
R	through reading.....	Q11
P4	<i>“it can be through....interaction with others in the class maybe during classroom activities or maybe normal interaction, they can improve their vocabulary through the use of IT to learn new words...I mean dictionaries online e.t.c”</i>	S11
R	okay....so how far do you think the use of text with	Q12

P4	<p>pictures is important in a primary school?</p> <p><i>“mmmmh....that is very very important in the primary school because is the stage where hearing impaired learners or kids develop their language, so it is very very advisable that all the teachers they should use this method of text with pictures, because like I said earlier it will be meaningless to teach signs only without the learners know the meaning, so it goes hand in hand, pictures with text or texts with pictures that is the best way to teach vocabulary into the primary school.... learners.”</i></p>	S12
R	<p>so....you advise the teachers in primary school to use text with pictures</p>	Q13
P4	<p><i>“yes... I'm advising that.”</i></p>	S13
R	<p>eeh... if I did not aah...if I'm not wrong I heard you say that teacher should use pictures and what? signs and what? what did you say, sorry.</p>	Q14
P4	<p><i>“Text”</i></p>	S14
R	<p>okay..text...mmh</p>	Q15
P4	<p><i>“and signs or pictures”</i></p>	S15
R	<p>okay...so.. how do you think...mmh what do you think are strategies that can be used to...to improve reading for hearing impaired students? any strategies?</p>	Q16

P4	<i>“mmmh.....strategies might be different from the person to the other and from grades to grade but generally since the hearing impaired learners in the....they are just in special school which is their community so...you just have to encourage them to make use of available materials whatever the teacher can come across maybe newspapers, journals and the other items that can bring to classrooms and also too...advise the learners to o reading on their own and watch maybe interpreted programs on televisions and the other materials that they can find locally within the school or outside the school.”</i>	S16
R	okay....but then ahh...doing reading on their own how will that be possible if they do not have vocabulary let say	Q17
P4	<i>“ mmmh...iyah.. sometime...”</i>	S17
R	Do you have any suggestions?	Q18
P4	<i>“yes, my suggestion is that is always good to tell the learners even if you say they have to go read, anything that they may come across that they do not know they should....they have to bring to the class and discuss it and get the meaning, like grade 1 to grade 4 they have something called "News" .. news something that they do in the morning every first lesson in the morning they come in the class each and every learner have to tell her own story of what happened yesterday or through out night what is...what did she do the idea behind is just to learn the vocabulary , to teach the vocabulary, learners learn the vocabulary and reading will come in a well so... they will explain they will tell their stories and the teacher will come in and correct their...you know....signs and give the meaning to the new signs and things that they came across.”</i>	S18
R	okay! what can be done to help hearing impaired students to develop visualization?	Q19
P4	<i>“mmh, since they are visual students, visualizations is</i>	S19

R	<p><i>the key aspect in their learning. so every lesson every thing in the classroom should be visual and even our teaching aid must be visual they will mmh you know be able to develop visualization...to develop that in themselves, looking at things analyze and make meaning out of it.</i></p>	
P4	<p>okay! so how is visualization important for hearing impaired students? when reading.</p>	Q20
R	<p><i>“mmmh...is..is very important when reading because like I said at the beginning they need to visualize something that they are reading, it help them because the moment they maybe look at the picture and look at the...and look at the text they can get the meaning of what they are reading.”</i></p>	S20
P4	<p>okay...so what do you think teachers and parents should do to motivates students to read?</p>	Q21
R	<p><i>“ mmmmh.....the teachers they need to do a lot, motivate the students to read and this can happen maybe during their lessons or after their lessons, they can do maybe reading competitions, they can organize some games in which they are doing reading, they can do some role plays that include reading and teachers....I mean sorry..parents I think it depends if a parent of a certain child can sign yeah... they can help their children in reading but in many cases they can't sign even though they can give something or tell their children to read but they won't be...you know sure in order to know what their kids are reading is making any sense out of that or they are just reading for as long a they are reading but they cannot get the meaning.”</i></p>	S21
P4	<p>and is true, so what are the teaching and leaning materials that can enhance reading comprehension?</p>	Q22
R	<p><i>“mmmh....reading materials...aah teaching and learning materials like I said should be visual materials.”</i></p>	S22

R	by visual materials, you mean what?	Q23
P4	<i>“mmmh...visual materials I mean things that they can see, or let me say may be concrete teaching aid because they are visual learners, they will learn a lot they will learn better through touching and seeing the things that they will even relate as an example.”</i>	S23
R	okay...can you give me may be some few examples of concretes ah.. that can be used for reading?	Q24
P4	<i>“mmmh they can... as a teacher may be they can organize like eeh...like maybe...like flashcards, maybe some cards are drawn items and maybe they can play games with the flash cards, and through that they can develop their reading comprehension, through ict, through doing, if you teaching them maybe games on the computers and laptops and reading games they can see what is going on the screen and the same time they are reading.”</i>	S24
R	okay... so Mr Shimanya, what do you think are the factors that are really affecting reading comprehension?	Q25
P4	<i>“mmmh...what you mean, like negative or positive?”</i>	S25
R	(giggling) like....let's look at the negatives, like factors which are affecting reading?	Q26
P4	<i>“mmmh there are so many factors I think, given the fact that they might have limited materials like I said in the society to read and their community is just the school and lack of textbooks can be one of the factors and may other lack of reading materials like local newspapers and journals and other....let say like magazines maybe and if they don't have that access to</i>	S26

	<i>go to the library it can affect the reading comprehension.”</i>	
R	so you mean to say lack of libraries at schools also?	Q27
P4	<i>“Yes, lack of libraries at schools, because if you are in special schools for hearing impaired.”</i>	S27
R	What do you think can be done to this factors, you talked about lack of textbooks, lack of other reading materials like magazines you know in magazines is where you can find text with pictures and all this things, lack of libraries in schools, so what do you think can be done?	Q28
P4	<i>“mmmh..... I think, they said charity starts from home, teachers, teachers have to be creative, to create their own teaching and learning materials for reading comprehension, flash cards for example, they can create their own flash cards to teach comprehension and also some other stakeholders in education, private companies can may be help with other ict items that can help to improve reading comprehension and also maybe libraries, community libraries if there are, to be access to learners with hearing impairments to go read and also local newspaper or publishers to donate books and other reading materials to the schools.”</i>	S28
R	Okay, soo..how far do you think teachers and parents contribute to the students reading comprehension?	Q29
P4	<i>“mmmh...parents plays a very little role in contributing to students' reading comprehension due to the fact that they don't know how to sign, they can't sign, they don't know sign language their role in this regard is very very limited.”</i>	S29
R	so what do you say about that now?	Q30
	<i>“it can only be improved if parent themselves learn</i>	

P4	<i>the basic of sign language then they can be able to help their kids or children how to read, and teachers I think they are doing what they can within their power to teach because normally the child develop the language, the mother language from home and most of this kids they come to school when they are 4 or 5 or sometimes you know bigger than, above 5 and so they learn the first language for the first time in those classes, so i think teachers they are doing what they can to develop the mother tongue, the language that now goes up to reading comprehension.”</i>	S30
R	so...do you think there is a relationship between first language and second language which is English, because is now in English that's where they come a read? so is there...?	Q31
P4	<i>“Yes, yes, because their mother tongue is sign language which is a non-verbal language, not a written language at all and it just for communication actually and reading and writing can be any other language whether is English or whatever language which is there for conversation.”</i>	S31
R	so how does the knowledge of the teachers influence students comprehension?	Q32
P4	<i>“mmh the knowledge of a teacher, i mean , it influences the reading comprehension because you have to know the language and you have to know what you are doing if a layman, if you put layman in the class definitely cannot teach the language, if you put me in grade 1, if I don't know sign language I can't even teach the kids the basics of sign language or reading for that matter, so teachers should posses, she must be competent, qualified and have the knowledge to teach language, in this case.”</i>	S32
R	ok...so how does the knowledge of parents influence students reading comprehension?	Q33
	<i>“if parents have knowledge then definitely they can help their learners, I mean their own children to read and parents they are also stakeholders in education so is not only about or up to teachers to teach</i>	

P4	<i>language or anything but it starts from home. If they are able to sign..they will be definitely be able to teach their own kids how to read and write.”</i>	S33
R	soo...how do you think the acquisition of sign language influence reading comprehension? because before this you said they only come to learn mmmh... at school their first language. what do you think this acquisition of sign language influence?	Q34
P4	<i>“mmh...first of all, if you can't sign, you can't read, that's now the ca of hearing impaired children, the first thing they have to learn how to sign the signs then, only then they can read because they read using their hands, if they can't sign, they don't read...they don't speak.”</i>	S34
R	okay..so you meant to say ah...the acquisition of sign language is the core is the foundation?	Q35
P4	<i>“Yes, sign language is the cornerstone of reading, yes if you can't sign then its impossible for you to read.”</i>	S35
R	okay...so do you think sign language plays a role in reading comprehension?	Q36
P4	<i>“yeah, it plays a very big role reading comprehension, you first have to acquire sign language and if you know sign language, only then you will be able to read very very well and make meaning of what of what you are reading, not just for the sake of reading like word by word but you don't know what you are reading.”</i>	S36
R	okay, so.. what do you think are the factors affecting the acquisition of sign language? since you said this children only come to learn sign language in class that means at school, so that...those...that gap there,so what do you think are the factors affecting this?	Q37
	<i>“mmmh...factors affecting sign language acquisition is just the fact that sign language in this case is the language that learners only learn at school unless otherwise the case where parents or one of the parent is hearing impaired also but when that particular</i>	

P4	<i>child is born by the hearing parents is unlucky that you see them acquiring language at a very very tender age because they normally say a language, is it 12 months or 6 learners they start picking up the language even before they start speaking or talking but hearing impaired they go up to 4 or 3 or 5 years old when they are to able to go to school where they pick up the language, so...they only pick up or acquire the language when they start school."</i>	S37
R	meaning they acquire language late? "very late, very very late"	Q38
P4	okay.. ah..again, so how is sign language and English related?	S38
R		Q39
P4	<i>"mmmh....each is a language on its own,sign language is a language for the deaf, for the hearing impaired people, this is a verbal language.....non verbal language, is a sign language is not a written language, and it has its own structures and rules. English in this case is a just a medium of writing if I can say, because hearing impaired learners they don't speak English, they sign and they have English as a subject in their classes and in many cases they find it even difficult...to...to.. because they even making connections they are trying to relate from sign language to English , which is in many cases is very very important and difficult for them."</i>	S39
R	okay... "so let me just say English is just for hearing people and sign language for hearing impaired people."	Q40
P4		S40
R	so now in school they have to read, so? "they have to read, that's why they have English as a subject , but their communication, they are communicating in sign language."	Q41
P4		S41
R	so how do students with hearing impaired read aloud? you as a teacher when you want to know that the	Q42

P4	<p>student is reading and how do you assess that?</p> <p><i>“mmmh...you can assess that, since they are visual learners, you have to use your eyes, as a teacher you have to look at them they should sign the words that they are reading if it's a noun, a common noun they can spell it, if it is a word that they don't know how to sign they can finger spell it. Is now up to you to read I mean to look at their hands and finger spelling it they way they are signing the terms and words, that's what we call read aloud.”</i></p>	S42
R	<p>okay...so how are the teaching and learning materials in schools are they relevant, and sufficient to improve reading comprehension?</p>	Q43
P4	<p><i>“mmh..I don't really think is sufficient, I think more need to be done, more teaching aid, more games, more...you know so many things need to be done to improve reading in schools.”</i></p>	S43
R	<p>so... what are the teaching and learning materials used currently in schools?</p>	Q44
P4	<p><i>“mmhh... currently they are mostly following textbooks and textbooks alone i don't think is enough. they need to add so many things to supplement textbooks and make reading enjoyable at the end of the day.”</i></p>	S44
R	<p>so what will you suggest that can be add, you said they need to add so many things, what will you suggest?</p>	Q45
P4	<p><i>“mmmh...what can be added I think...like I said they need to use varieties of reading materials not only textbooks, they need to watch different you know articles or conversations of signed conversation for that matter between maybe deaf, that are translated into words fro them to be able to make connections of what is going on and what's the word, only then they can pick up okay..this is what the meaning of this term or this is how we sign this word and so on.”</i></p> <p>Talking of they need to see signs and written...you are</p>	S45

R	referring to videos or?	Q46
P4	<i>“yes, videos with visual...transcriptions or subtitle.”</i>	S46
R	so how far do you think the current reading materials are effective to improve reading comprehension?	Q47
P4	<i>“mmmh.. like i said I don't really think the current materials are effective because they are not using variety of materials, so most of the time they just stick to the textbooks rather than go out and read different materials and look at sources of reading.”</i>	S47
R	okay...so do you think the current reading materials are at the level of students?	Q48
P4	<i>“yes,because we learn how to read at lower grades.”</i>	S48
R	how are the reading materials distributed among learners, among students? each one have her own or how?	Q49
P4	<i>“mmh in this case I think resources are limited and you might find in some situations where learners are sharing textbooks, and since they are hearing impaired they cannot even one read while the other listens, each need to have his/her own textbook for them to get...you know...reading comprehension.”</i>	S49
R	okay...so thank you soo much Mr Shimanya do you have any suggestions on how to improve reading comprehension for hearing impaired students?	Q50
P4	<i>“mmmmh..I think what need to be done is to produce more reading materials for hearing impaired, specially like on your topic, your research now text with pictures, it will really help the learners to make the meaning out of what they are reading, I'm really encouraging that to happen in different ways not only in textbooks, can be in games and all other things, or through games.”</i>	S50
R	Thank you so, much Mr Shimanya. We have come the end of our interview and it has taken place inside the UPSI library Karrel room level 3 room number 10. Thank you and bye!	Q51

Interview transcribe 4

School name: UPSI

Location: Taman Bahtera, Seri Harmoni, B-1-20

State: Perak

Researcher's name: Ms Renate Olga Thomas

Participants' names: Ms Rukoro

Date & Time: 15/04/17 (18h27)

Raw Data

Information	Content	Sentences coding
Researcher	Good evening Ms Rukoro, welcome to our interview. This interview will take....is taking place eeh...at UPSI apartment, Seri Harmoni B-1-20, the time now is 18h27 and the date is 15 April 2017. soo... Ms Rukoro before we start I just want you to read this consent form and then you can sign it for me...I already emailed it to you so...	Q1
Participant 5	<i>“Good evening, iyah, I want...I just wanted to ask if it is the same form you send me in email.”</i>	S1
R	yeah, is the same form. I hope you have read it.	Q2
P5	<i>“yes, yes, I have read it.”</i>	S2
R	then you can...we can sign it, and there is coffee for you here.	Q3
P5	<i>“woow...thank you me'em!”</i>	S3

R		Q4
P5	<p>while you are signing you can...I'm really really happy to have you...eeh...yes!</p>	S4
R	<p><i>"It's my pleasure to be here. it's my pleasure madam."</i></p>	Q5
P5	<p>Thank you soo much. mmm nxah uh...would you please just tick for me this, this is a questionnaire for you just..I understand you have been working....teaching hearing impaired students. so... just tick. okay, thank you soo much! we are going to start our interview right now. the first session is done. so... my research topic is....is about using text with pictures to improve reading comprehension for hearing impaired students in primary school. so. I would like to know from you Ms Rukoro, how do you think text with pictures can improve reading comprehension for students with hearing impairment?</p>	S5
R	<p><i>"Ah...from my experience working with hearing impaired and having ah...publication in hearing impaired education, I think it's a very very....it's a new thing and that's very very needed because hearing impaired learners, they learn through visual, right? so, when you put a text with a picture, it's going to be...it will work magic I think... it will...I hope that answers your questions. yeah..."</i></p>	Q6
P5	<p>ah.. thank you soo much, yes it answers. You mean to tell me that ah...text with pictures they work magic on the hearing impaired students.</p>	S6
	<p><i>"absolutely! absolutely! because if they can see and if they can connect it to the word, and they can be easily be able to understand what is going on in a sentence than not having the picture because they cannot visualize the words, but if you put the pictures</i></p>	

	<i>there they can connect it to the picture... the word to the picture and make it easier for them to understand."</i>	
R	ow! so... how do the vocabulary of students influence the reading comprehension of hearing impaired students?	Q7
P5	<i>"I think...vocabulary in hearing impaired students should be the basic, should be were the teachers should start, because when they have the vocabulary and because you are talking about text as well, the vocabulary...the word it self and the picture of the word as vocabulary before we can build sentences. so it is important that the teacher establish the foundation of vocabulary because the more vocabulary you have the better you are able to understand even, or to write a sentence not only for the hearing impaired I think, even hearing normal learners, without the vocabulary they cannot read, so... vocabulary is very very important and definitely they can help."</i>	S7
R	so... but now how should you...ah...what should the teachers do or what should be done for us to improve the vocabulary for hearing impaired students? because the reason that they cannot...they are unable to read is maybe because of vocabulary also.	Q8
P5	<i>"lack of vocabulary."</i>	S8
R	lack of vocabulary, so...how should we improve vocabulary?	Q9
P5	<i>"you said in a lower primary phase right? as this is the best place to start, already in the lower primary phase which is from preschool, already when they</i>	S9

	<p><i>come to preschool 5 years/ 4 years when they come you start with the vocabulary as they grow grade 1, the vocabulary is a build up, the build up of a vocabulary should not stop in the hearing impaired learners."</i></p>	
R	<p>okay...so.. how far do you think the use of text with pictures is important in primary school?</p>	Q10
P5	<p><i>"I think with the hearing impaired, pictures are very very important and if you combine them with words, pictures and text, is just.... for me I think, from my experience of teaching as well, it amazing because the moment they can start, sometimes even later when you take away the picture and just show the word they can understand what the word is. so because it's in lower primary when you start with the picture and the word together...it...how can I say? its...and repeatedly is done repeatedly and and... they can just....later they don't need pictures anymore....so definitely the foundation level which is the primary level pictures and text I think it will be wonderful, wonderful thing."</i></p>	S10
R	<p>so... you mean to tell me that eeh.. in a primary which is the foundation, the teachers are advice maybe to start with concrete like, before we go.... because reading is... reading comprehension becomes more abstract, so.. you advice it to remain abstract or should we add pictures to the text?</p>	Q11
P5	<p><i>"pictures should be there. definitely because our hearing impaired, because they don't hear the language then its difficult to connect one thing to another. so because, if you have pictures or the concrete materials that you are talking about, if you are talking about the cup with the visual...with the hearing impaired learners, bring the cup to class, label it "cup" and then from there you take out the concrete, you move to the picture of a cup and the word "cup" I hope maybe....I have answered you."</i></p>	S11

R	<p>so what do you think are the strategies that can be used to successfully support the development or improvement of reading comprehension for hearing impaired students?</p>	Q12
P5	<p><i>“ummh, I think one of the things that can be used are daily news, when they tell daily news, you bring in pictures, so from the pictures they can create a story and through that story, they basically, they can start imagining and when they can imagine, they can better relate to the words because you already incorporating pictures in all these things, of role-play, I think role-play or stories as well because now you are giving them a script where there is a picture, there is a word and then they have to kind of memorize it, in order for them to be able to role-play, so role-play is also very important and deaf people are very good with story telling. so if you can incorporate all this things through story telling, it's also going to be wonderful i think. so!”</i></p>	S12
R	<p>so...what can be done to help hearing impaired students to develop visualizations?</p>	Q13
P5	<p><i>“yeah, I think the things that I just mentioned now, they do daily news, where you bring a picture or you bring concrete materials as well, you bring a cup. tell a story about the cup? they...they.....you just form a cup, they have to create a story or from a picture of something...of a family they... tell us a story or a picture of.....or you let them watch videos, a video on something that has happened and the you ask, continue on what has happened in the video, how do you think the story would have ended, then you just create a.....because they are very very good in story telling, their imagination is very good, they are good in imagination I think, but they just need to visualize it and connect it to the word and everything. so...story telling, role-playing, ah...daily news, bringing in concrete materials, letting them relate to their experiences. so....how can I put it the everyday</i></p>	S13

R	<p><i>life situations, these things can help to develop their imaginations.”</i></p>	Q14
P5	<p>okay...so, how is visualizations important for hearing impaired students for them to read?</p> <p><i>“okay, so..in my experience I think I should say that ah...learning to me...because we are now also talking of pictures in your research right? so you give them the pictures first, example the picture of the story, the story without words, right? they go through the story without words and then you bring in the words as well. right? so...now.. the moment you take away the pictures and the words they can be able to visualize what is actually happening because already from your pictures and text story that you have been going...teaching them. they can be able to relate to what you have told them and just start visualizing what is happening in the story that they are making.”</i></p>	S14
R	<p>okay, iyah... so, what do you think teachers and parents should do to motivate students to read?</p>	Q15
P5	<p><i>“first of all they must be the role model, they must model reading, the reading culture, and one thing I can mention proudly is in Namibia every friday there is a reading period, everybody must read even the teachers, I think that's a good way to start, encouraging and motivating reading, and for the parents I think, they need to start reading stories to their children or with their children an also...uhm...what else? and there is this thing that we also do in my class when I was teaching, so we create a story-a big book like A3 page, so...everybody get....collect pictures and you just formulate a story from that, and then from there you write just small sentences below and then they can read and is something they created themselves, so they will be proud, they will be motivated to read it.”</i></p>	S15

R		Q16
P5	so, like that is like everyday life experience.	S16
R	<i>“absolutely, absolutely...”</i>	Q17
P5	so, what are the learning and teaching aids that can enhance reading comprehension, like you just talked about the big book... so, what are they?	S17
R	<i>“so, basically, i think I should, ah... the... when you have videos on YouTube, because maybe the videos they are not signing but they have captions the subtitles, because they will try to read those little words, one day they will get it. so that's I think one way that you can motivate them and another way ah...apart from the teacher being the role model, and then bring pictures books or books that are attractive to the learners, what are this learners interest in? what kind of stories can they, what are they interested in reading, what kind of materials should you bring? so, you must not bring this ah...novels of 18 years old to grade 1, you must bring big picture book with thick hard covers, you know sometimes those books with things popping up, I don't know how they are called but, such books.”</i>	Q18
P5	okay Ms Rukoro, so what do you think are the factors affecting reading comprehension for hearing impaired students?	S18
	<i>“first of all, I think they lack vocabulary, they do not have the vocabulary in a sense that they don't know words. I don't know how to put it, but they lack vocabulary, I think i should stick to that. there is no vocabulary, I think also, the.....through my own reading and research as well I come to the realization that they actually, the first language need to be developed, even my own experience, my mother</i>	

	<p><i>tongue is important for me to be able to learn the second language, and second language is is ...ah... English is second language for the hearing impaired, but if the foundation of sign language is not fluently laid or if they lack vocabulary in sign language , they won't be able to produce in English right? which is the language they use for reading.”</i></p>	
R	<p>you mean to tell me that one factor that you mentioned is lack of vocabulary and if I did not get you wrong, you mean, lack of first language the development of first language.</p>	Q19
P5	<p><i>“yes, I think it plays a major role, mmh...and the other thing also could probably be the environment, they do not have the.... the environment where they grow up or where they are exposure to, there is no reading culture in it. Even probably the availability of materials also, for them to access the book and so they can be able to read as well.”</i></p>	S19
R	<p>Availability of materials, so! what do you think can be done to the factors that affect reading comprehension?</p>	Q20
P5	<p><i>“first of all, we need to develop their vocabulary, from sign language, starting from sign language which is their first language. So the first language we have to make sure that its completely, foundation is well leveled, structured, with everything, the necessities which are the vocabulary, the everything in a language and then we convert it into the second language, and then we need to provide materials also, so, teachers need to go an extra mile for the hearing impaired child to make sure there are enough reading materials and they are interesting and that are fun and flexible for them.”</i></p>	S20
R	<p>so, how far do you think teachers and parents contribute to their reading comprehension of the</p>	Q21

P5	hearing impaired?	S21
R	<p><i>“They are suppose to play a big role but, I don't think they are doing it, from my experience parents bring the kids to school because its a boarding school, they bring their kids to school, they leave them there then they go, when its holiday, is holiday they take the kids to the farm, the parents stays in a town, the grandmother is the one at the village, probably does not know how to communicate with this child, and its holiday, you know holiday is just holiday. And the teachers, teachers don't model the culture of reading, they need to model the culture of reading, they need to understand how a deaf child learn, they need to understand how to deliver the English language, they need to do all these things, so the teacher need to go extra mile to do all these things.”</i></p>	Q22
P5	So, how does the knowledge of a teacher influence the students reading comprehension?	S22
R	<p><i>“eehh.. I think is one of the important thing s also in deaf education because when the teacher has the knowledge of what is a deaf child, what does it mean to be deaf, how do they learn, what do they need to learn? if the teacher have all these knowledge then there should be any hindrance on reading because they know their content, they know how to deliver their content, they know what is needed or what a child needs, and then they put all the learners needs at the center of teaching and learning process.”</i></p>	Q23
P5	Ok, thank you soo much Ms Rukoro, you can have a sip in your coffee,	S23
R	<i>“ahh, is that the end?”</i>	Q24
P5	no, we continue..I just want you to take a sip before your coffee gets cold.	S24
R	<i>“I'm having soo much fun.”</i>	Q25
	yeah...I just want you to have a bit of	

P5	break...and ...you know.	S25
R	<i>“you know is amazing how deaf learners learn, it's really amazing.”</i>	Q26
P5	you tell me about it. okay, Ms Rukoro, let's continue with our interview, before this I asked how the knowledge of teachers influence the reading comprehension of students, so now, how does the knowledge of parents influence the students reading?	S26
R	<i>“so, now.. because now most of the deaf learners are born to hearing parents, so and the parents, the deaf parents, sorry, pardon me, the hearing parents, they does not immediately accept the deafness of the child and because of that the process of them even to acquire the first language or second language it takes ages soo...and then also the fact that they did not accept this child first time, and then they are not even interested in how the child is doing in school, soo, basically the influence of parents suppose to play a major role to help them become literate in reading but its not happening because of how the parents take all these things.”</i>	Q27
P5	so, how do you think the acquisition of sign language influence the reading comprehension for hearing impaired students?	S27
R	<i>“umh..like I said earlier I think, because sign language, is the first language of the deaf learners and first language acquisition I believe it plays role in the second language acquisition, so, if the child sign language, is very very good, if they are very very good in sign language I don't think they will struggle with reading but, if the sign language is poor, there's no sign language at home, they didn't, they were like neglected early in life, there's no early intervention, and they don't have anybody around them that they can sign with, so it delays and is not developed, therefore the second language cannot come.”</i>	Q28
P5	so, do you think sign language plays a role in reading comprehension?	S28
R	<i>“absolutely, absolutely yes.”</i>	Q29
P5	how does it play a role?	S29

	<p><i>“because, although we read in English, most of the time we interpret things or understand them in mother tongue, from my experience. so even though you are reading something in English, in your mind you are actually telling it to your self in your own mother tongue, so what is their mother tongue, what is their first language? is not there, so, how can they be able to relate it or even sometimes, you know, you read the word in English, but you understand it, but you don't know how to explain it in English, but you will be able to explain it in your own mother tongue, but if you don't have the mother tongue then how?”</i></p>	Q30
R	<p>so, what do you think are the factors that are affecting language acquisition for hearing impaired learners?</p>	S30
P5	<p><i>“first of all I think I would say, eeh,, the late diagnosis because they are diagnosed later in life that they are deaf. there's no early intervention that took place for them to get help that the necessary help, and the necessary intervention, the programs that they need, that the whole process delays the acquisition of sign language, the parents also, the parents in the sense that they do not accept theirthe deafness of their child, immediately, so, they are taking a longer process where they mourn the loss of their child's hearing and then they go through another process of accepting the child, and then there is another process of deciding, so I we going to let him have sign language or spoken language and most of the case the deaf learner is forced to learn spoken language , so and then , the main language which is suppose to be sign language is not acquired at all, and then , the environment as well because in our society deafness is viewed as a disability, a curse, or a taboo, so.. the deaf kids are turned to be hidden and then they are not exposure to the right environment.”</i></p>	Q31
R	<p>so, how is sign language and English related?</p>	S31
	<p><i>“mmh... they are, I think both are languages, English</i></p>	

R	<i>has four skills, sign language has also four skills , they have four skills each, they all have the necessary requirements that qualifies each language as a language. I think, I hope I answered your questions.”</i>	Q32
P5	so, how do students with hearing impairment read out loud?	S32
R	<i>“so, this when... we visited (oh my Lord) okay.. it's a new approach that is being done in Namibia, the red star approach, where you have a red for English and a blue for sign language, so you put the... reading text they read it, so they touch the red poster, so that is English they are reading, so they read quietly right/, but the you want them to say it out loud, so when they touch the sign language they are just translating what they read but signing it out loud.”</i>	Q33
P5	oohh..so, that is how they read out loud? okay, so how are the teaching and learning materials, are they relevant, and sufficient to improve reading comprehension, in your situation, like in Namibia? <i>“okay, I would say no, there ain't sufficient materials, although there are books, yes, there are books but i don't think they are relevant to the hearing impaired child, because like I said your research is very good about using text with pictures, so what you are trying to do, please correct me, what you are trying to do is creating a text where there is a picture there is a word, it should be like that for hearing impaired children, but in Namibia, is like just this, plain text, which is not going to work in the long run, it hasn't work and it's not going to work, so yes, there are materials, but, they are not, I don't think they are relevant enough for the hearing impaired child.”</i>	S33
R	so what are the teaching and learning materials, that you are currently using for reading?	Q34
P5	<i>“we have reader 1, 2, 3. is it reader 1,2, 3 hapo? they are like textbooks, or story books, I think I should say rather story books. they are like story books but there are also activities in the story books that the learners can do.”</i>	S34
R	what else do you use for or as teaching and learning	Q35

P5	<p>materials for reading comprehension? apart from this readers story books.</p> <p><i>“so basically, we have vocabulary, we build vocabulary, i don't know if...ehh. we have what we call dolch words, we have dolch words, and then we have the... yeah... basically the whole vocabulary thing.”</i></p>	S35
R	<p>so, how far do you think the materials are...are they at the level of the students, the current materials that you are using now in school, are they at the level of students? do the students really, benefit, are the students really benefiting from this materials?</p>	Q36
P5	<p><i>“I don't think so, because I was teaching grade one first, and I don't think the materials were relevant, because first of all, the children are hearing impaired, secondly, the content of the material I think it was too high for the kids, this is the same for the book being used to the other hearing, because...we don't have the vocabulary, if we can establish the vocabulary first, then maybe these books are going to be relevant, if we can put pictures like your research is doing into these books maybe they can be relevant “</i></p>	S36
R	<p>so, how far do you think the current reading materials are effective to improve reading?</p>	Q37
P5	<p><i>“uhmm, I think they only scare the kids away from reading.”</i></p>	S37
R	<p>what do you mean by scaring the kids?</p>	Q38
P5	<p><i>“because, imagine me now, I'm doing education, special education, I have never done...I have done science but at a certain..., but now you give me a medical textbook to read, what am i going to do with it? I think it's the same thing we are doing to the hearing impaired children, especially at the lower level. we are taking grade 12 text and giving them to grade one, because even if you look today, you take that grade one text and give it to grade seven hearing</i></p>	S38

R	<p><i>impaired child, you will be very very lucky if you find them reading and understanding what they are reading.”</i></p> <p>so, how are the reading materials distributed among the students? each one have their own or how?</p>	<p>Q39</p> <p>S39</p>
P5	<p><i>“yes, yes! we are very fortunate,or unfortunate that yes each one has a reading book, although is not, I feel is not relevant to their level. yes! everybody has a reading textbook, and reading materials. everybody is provided with a reading book, reading materials are available in fact hey are new, very new,, very new new so I should feel very proud of my government right now.”</i></p>	<p>Q40</p>
P5	<p>so Ms Rukoro, before we end our interview, do you have any suggestions on how, what the teacher should do or any suggestions to either the Namibian government or to any other stakeholders that are working with hearing impaired on how to improve their reading comprehension, what are your suggestions?</p> <p><i>“first of all I think I will be very very unfair if I finish this interview without encouraging you to take this research further, and maybe develop the books that you are talking about in your research, I feel your research is very very relevant and it can do great work in our deaf education an further, I just want to say that, maybe our government can evaluate the teachers, this is me now talking from the Namibian perspective right?, the government should maybe evaluate the teachers that are teaching haring impaired learners, either their level of sign language or the level of English or they can only have a teacher who is only teaching English for the hearing impaired learners then this teacher only focus on English, develop materials and have enough to do all these work,to be able to deliver good quality work in English that the comprehension of learners can improve,another thing also I think I should suggest is that the government should the work load of the teachers, the administration work, lower primary have seven files, if I'm not wrong, seven files that you have to submit every thursday, imagine that, when are you going? mmmh...yes! so.. and I just want to...what else should I say, I think the teachers should just go an extra mile for their learners, and the</i></p>	<p>S40</p>

R	<p><i>parents should definitely get involve in the education of their children, the parents should not just drop the kids at school and go home, they must come and see what the children are doing.they should make an effort to learn sign language, because in Namibia the parents comes from home to school for the interpretation of what the child is saying. they should get involved and except the child that is not a curse, is not a taboo, is just a disability but not inability they must just encourage and support their children.”</i></p> <p>Thank you so much, Ms Rukoro for your time and I have learned so much from you today, your experience is quite at another level, so, thank you so much...and I hope you are enjoying your coffee, okay.. We have come to an end of our interview, thank you, Bye!</p>	Q41
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Appendix K: Researcher's Data (Themes/Categories)

Meaning of codes: [T1/T2/T3/T4=Transcribe P1/P2/P3/P4=Participants, M1/H1/L1/A1=Place of interview, S=Sentence number, D14'02/D03'04/D07'04/D15'04=Date of the interview]

The collected data is categorized according to the research questions and here follows the researcher's data as collected from participants

1.1 How does text with pictures improve reading comprehension for students with hearing impairment?

"they can guess from the pictures what the story is about, even if they don't understand all the words in the text. Pictures helps them to comprehend well [T1P1MIS17D14'02]."

"because from the pictures they can identify about the form of comprehension.

Maybe the picture is about in the classroom they can visualize the activities in the classroom for another text without the pictures they cannot understand or connect what the story is about [T1P2MIS18D14'02]."

"Is better when text have pictures, is for students to understand. Pictures are very important for HI students, it help them to know what they are reading. first and foremost, you have to extract the word, know what is the picture about, understand the picture and this will help to improve the reading comprehension of pupil [T2P3HIS2D03'04]."

"it help them to ummmh.. the one with the picture is very helpful compare to the one with no pictures. text without pictures might give pupil tough time to understand and it is time consuming [T2P3HIS9D03'04]."

"mmh.... I think it will help to improve the reading and apart from improvement I think it will even improve the....their vocabulary the same time, because when they are reading they will have to look at the pictures and they can make....get the meaning of the pic...of the text in relation to the picture that is there [T3P4LIS8D07'04]."

"mmmmh....that is very very important in the primary school because is the stage where hearing impaired learners or kids develop their language, so it is very very

advisable that all the teachers they should use this method of text with pictures, because like I said earlier it will be meaningless to teach signs only without the learners know the meaning, so it goes hand in hand, pictures with text or texts with pictures that is the best way to teach vocabulary into the primary school.... learners [T3P4L1S12D07'04].”

“Ah...from my experience working with hearing impaired and having ah...publication in hearing impaired education, I think it's a very very....it's a new thing and that's very very needed because hearing impaired learners, they learn through visual, right? so, when you put a text with a picture, it's going to be...it will work magic I think... it will...I hope that answers your questions. yeah...[T4P5A1S5D15'04].”

“absolutely! absolutely! because if they can see and if they can connect it to the word, and they can be easily be able to understand what is going on in a sentence than not having the picture because they cannot visualize the words, but if you put the pictures there they can connect it to the picture... the word to the picture and make it easier for them to understand [T4P5A1S6D15'04].”

“I think with the hearing impaired, pictures are very very important and if you combine them with words, pictures and text, is just.... for me I think, from my experience of teaching as well, it amazing because the moment they can start, sometimes even later when you take away the picture and just show the word they can understand what the word is. so because it's in lower primary when you start with the picture and the word together...it...how can I say? its...and repeatedly is done repeatedly and and... they can just....later they don't need pictures anymore....so definitely the foundation level which is the primary level pictures and text I think it will be wonderful, wonderful thing [T4P5A1S10D15'04].”

1.2 What are the strategies that can be used to successfully support the development or improvement of reading comprehension for students with hearing impairment?

“flashcards, videos [T1P1M1S7D14'02].”

“flashcards with the sign language [T1P2M1S8D14'02].”

“yes, also we use sign language to give the meaning of the words [P1M1S9'14'02].”

“yes! One by one. For them, the picture is very important because they cannot hear, or we have to show them all the pictures because they learn by the eyes. We have to use many visual things to show them what we want to teach them [T1P2M1S10D14'02].”

“yes, visual aid. Use many visual aids. Now we have hand phone and we use them and show the pictures if we cannot find the real item [T1P1MIS11D14’02].”

“yes”. visual aid [T1P2MIS12D14’02].”

“I give them shared reading, extractions of new words explain their meaning like the grammar (noun and pronoun) go through the text with the learners, read together with the sign then read one by one. another is drilling reading, concentrate on the words only, phrases and memorizing [T2P3HIS10D03’04].”

“Role-play or acting, sign exact English, use ICT and visualization [T2P3HIS11D03’04].”

“Sign Exact English can improve reading comprehension because the words are accompanied by signs, each word with a it sign for primary school [T2P3HIS11D03’04].”

“By making use of ICTs, we now have handphones with data from the government, so we use them in class to get pictures [T2P3HIS13D03’04].”

“mmmh.....strategies might be different from the person to the other and from grades to grade but generally since the hearing impaired learners in the....they are just in special school which is their community so...you just have to encourage them to make use of available materials whatever the teacher can come across maybe newspapers, journals and the other items that can bring to classrooms and also too...advise the learners to o reading on their own and watch maybe interpreted programs on televisions and the other materials that they can find locally within the school or outside the school [T3P4LIS16D07’04].”

“mmh, since they are visual students, visualizations is the key aspect in their learning. so every lesson every thing in the classroom should be visual and even our teaching aid must be visual they will mmh you know be able to develop visualization...to develop that in themselves, looking at things analyze and make meaning out of it [T3P4LIS19D07’04].”

“mmmh...is..is very important when reading because like I said at the beginning they need to visualize something that they are reading, it help them because the moment they maybe look at the picture and look at the...and look at the text they can get the meaning of what they are reading[T3P4LIS20D07’04].”

“mmmh...visual materials I mean things that they can see, or let me say may be concrete teaching aid because they are visual learners, they will learn a lot they will learn better through touching and seeing the things that they will even relate as an example [T3P4LIS23D07’04].”

“mmmh they can... as a teacher may be they can organize like eeh...like maybe...like flashcards, maybe some cards are drawn items and maybe they can play games with the flash cards, and through that they can develop their reading comprehension, through ict, through doing, if you teaching them maybe games on the computers and laptops and reading games they can see what is going on the screen and the same time they are reading [T3P4L1S24D07'04].”

“ummh, I think one of the things that can be used are daily news, when they tell daily news, you bring in pictures, so from the pictures they can create a story and through that story, they basically, they can start imagining and when they can imagine, they can better relate to the words because you already incorporating pictures in all these things, of role-play, I think role-play or stories as well because now you are giving them a script where there is a picture, there is a word and then they have to kind of memorize it, in order for them to be able to role-play, so role-play is also very important and deaf people are very good with story telling. so if you can incorporate all this things through story telling, it's also going to be wonderful i think. so! [T4P5A1S12D15'04].”

1.3 What are the factors affecting reading comprehension for students with hearing impairment?

“the difficulties of how to understand the word because their vocabulary of Sign language is little. He/she saw the word can spell but does not know the meaning, so we show them one by one with a picture or drawing what is that spelling mean [T1P1M1S1'14'02].”

“the difficulties of English [T1P2M1S2D14'02].”

“the lack of sign language, yes! First, we have to teach them what the sign language for the word is o that only we can read the comprehension, if they don't know the sign then they cannot do the reading of the comprehension [T1P1M1S3D14'02].”

“they need to know all, nouns, pronouns and everything, so when they get the meaning they can read the comprehension and understand [T1P2M1S4D14'02].”

“we show them different sign language and different words every day so they can learn about that words; today we learn book, car, tomorrow we learn school, in the market, we tell them different types of words [T1P1M1S5D14'02].”

“practice[T1P2M1S6D14'02].”

“Lack of vocab and laziness [T2P3H1S16D03'04].”

“Students are lazy to read, they do not want to read and find the words from the dictionary [T2P3H1S17D03'04].”

“Lack of focus, lack of support from the parents [T2P3H1S17D03'04].”

“mmmh there are so many factors I think, given the fact that they might have limited materials like I said in the society to read and their community is just the school and

lack of textbooks can be one of the factors and may other lack of reading materials like local newspapers and journals and other...let say like magazines maybe and if they don't have that access to go to the library it can affect the reading comprehension [T3P4L1S26D07'04]."

"mmmh...parents plays a very little role in contributing to students' reading comprehension due to the fact that they don't know how to sign, they can't sign, they don't know sign language their role in this regard is very very limited [T3P4L1S29D07'04]."

"mmh the knowledge of a teacher, i mean , it influences the reading comprehension because you have to know the language and you have to know what you are doing if a layman, if you put layman in the class definitely cannot teach the language, if you put me in grade 1, if I don't know sign language I can't even teach the kids the basics of sign language or reading for that matter, so teachers should posses, she must be competent, qualified and have the knowledge to teach language, in this case [T3P4L1S32D07'04]."

"Yes, sign language is the cornerstone of reading, yes if you can't sign then its impossible for you to read [T3P4L1S35D07'04]."

"yeah, it plays a very big role reading comprehension, you first have to acquire sign language and if you know sign language, only then you will be able to read very very well and make meaning of what of what you are reading, not just for the sake of reading like word by word but you don't know what you are reading [T3P4L1S36D07'04]."

"first of all, I think they lack vocabulary, they do not have the vocabulary in a sense that they don't know words. I don't know how to put it, but they lack vocabulary, I think i should stick to that. there is no vocabulary, I think also, the.....through my own reading and research as well I come to the realization that they actually, the first language need to be developed, even my own experience, my mother tongue is important for me to be able to learn the second language, and second language is is ...ah... English is second language for the hearing impaired, but if the foundation of sign language is not fluently laid or if they lack vocabulary in sign language , they won't be able to produce in English right? which is the language they use for reading[T4P5A1S18D15'04]."

"first of all I think I would say, eeh,, the late diagnosis because they are diagnosed later in life that they are deaf. there's no early intervention that took place for them to get help that the necessary help, and the necessary intervention, the programs that they need, that the whole process delays the acquisition of sign language, the parents also, the parents in the sense that they do not accept theirthe deafness of their child, immediately, so, they are taking a longer process where they mourn the loss of their child's hearing and then they go through another process of accepting the child, and then there is another process of deciding, so I we going to let him have sign language or spoken language and most of the case the deaf learner is forced to learn spoken language , so and then , the main language which is suppose to be sign language is not acquired at all, and then , the environment as well because in our society deafness

is viewed as a disability, a curse, or a taboo, so.. the deaf kids are turned to be hidden and then they are not exposure to the right environment [T4P5A1S30D15'04]."

1.4 Suggestions from participants

"Teacher and parents relationship should be encouraged so they work together. parents should be taught sign language [T2P3H1S31D03'04]."

"mmmh...what can be added I think...like I said they need to use varieties of reading materials not only textbooks, they need to watch different you know articles or conversations of signed conversation for that matter between maybe deaf, that are translated into words for them to be able to make connections of what is going on and what's the word, only then they can pick up okay..this is what the meaning of this term or this is how we sign this word and so on [T3P4L1S45D07'04]."

"mmmmh..I think what need to be done is to produce more reading materials for hearing impaired, specially like on your topic, your research now text with pictures, it will really help the learners to make the meaning out of what they are reading, I'm really encouraging that to happen in different ways not only in textbooks, can be in games and all other things, or through games[T3P4L1S50D07'04]."

first of all I think I will be very very unfair if I finish this interview without encouraging you to take this research further, and maybe develop the books that you are talking about in your research, I feel your research is very very relevant and it can do great work in our deaf education an further, I just want to say that, maybe our government can evaluate the teachers, this is me now talking from the Namibian perspective right?, the government should maybe evaluate the teachers that are teaching haring impaired learners, either their level of sign language or the level of English or they can only have a teacher who is only teaching English for the hearing impaired learners then this teacher only focus on English, develop materials and have enough to do all these work,to be able to deliver good quality work in English that the comprehension of learners can improve,another thing also I think I should suggest is that the government should the work load of the teachers, the administration work, lower primary have seven files, if I'm not wrong, seven files that you have to submit every thursday, imagine that, when are you going? mmmh...yes! so.. and I just want to...what else should I say, I think the teachers should just go an extra mile for their learners, and the parents should definitely get involve in the education of their children, the parents should not just drop the kids at school and go home, they must come and see what the children are doing.they should make an effort to learn sign language, because in Namibia the parents comes from home to school for the interpretation of what the child is saying. they should get involved and except the child that is not a curse, is not a taboo, is just a disability but not inability they must just encourage and support their children [T4P5A1S40D15'04]."

Appendix L: Coding

No.	Code	Meaning
1	A1	Apartment one
2	D14'02	Date: 14 February 2017
3	D03'04	Date: 03 April 2017
4	D07'04	Date: 07 April 2017
5	D15'04	Date: 15 April 2017
6	H1	Huts one (Place of Interview)
7	L1	Library one (Place of interview)
8	M1	Methodist one (Place of interview)
9	P1	Participant one
10	P2	Participant two
11	P3	Participant three
12	P4	Participant four
13	P5	Participant five
14	T1	Transcribe one
15	T2	Transcribe two
16	T3	Transcribe three
17	T4	Transcribe four
18	S	Sentences number

Appendix M : Cover Letters

Letter A: To the School

To,

The Director,
.....School,
Malaysia

Subject: **PERMISSION TO COLLECT DATA FOR MY RESEARCH:**

My name is Renate Olga Thomas and I am a student at Universiti Pendidikan Sultan Idris (UPSI) in the program of Special Education. Currently, I am doing a research on the topic “Using text with pictures in primary school to improve reading comprehension for hearing impaired students.” This research work is an essential part of completion of my study.

I have selected this School for my research. The reason is that this school is an integrated school and it has hearing impaired students at a primary level. The focus of my research will be hearing impaired students studying in this school. However, the participants of the research will be the hearing impaired students, their teachers. To collect data for my research, I will do observations and interview. The observations will be audio/video recorded. I want to do recording of classroom situation during the English lessons. Thereafter, I will conduct interviews with the teachers. The interview will take about half an hour.

Here I would like to mention the ethical considerations during this process:

- The participants are entirely voluntary.
- The personal information about the participants will be kept completely confidential.
- The school will have every right to access the complete record and information that I will obtain.
- All information will be used only for this research.
- I assure you the protection of the participants from any harm.

At the completion of the research, the school can request for results of the research. Your cooperation is highly solicited in this important exercise.

Yours Truly,

Renate Olga Thomas
MA Special Education
Matric No. M20152002386
Mobile No. +60 17 790 5770 or +264 81 204 2354
E-mail: renatethomas@ymail.com

Letter B: Consent Form for class teachers

Dear Sir/Madam,

My name is Renate Olga Thomas and I am presently doing my MA in Special Education at Universiti Pendidikan Sultan Idris (UPSI).

As part of my present studies, I am conducting a research work that aims to improve reading comprehension for the hearing impaired students in primary school. This research work is an essential part of the completion of my study. As you teach English for year 3 hearing impaired students, I would be delighted if you will consent your participation in the research.

This study will contribute towards the improvement of reading comprehension for hearing impaired students. Any significant information obtained through this research will be helpful to improve and modify the current implementation of reading comprehension in my country. This will in turn lead to the betterment of the education of hearing impaired students.

If you agree on your participation in this study, please sign this consent form. I assure you that any information obtained will be held entirely confidential. Your information will not be used for any purpose other than this study. Furthermore, the school will also have access to any information or records that I hold.

Name: _____

Signature: _____

Looking forward to your reply,

Yours truly,

Renate Olga Thomas
MA Special Education
Matric No. M20152002386
Mobile No. +60 17 790 5770 or +264 81 204 2354
E-mail: renatethomas@ymail.com

Letter C: Consent Form for parents of hearing impaired student

Dear parents,

My name is Renate Olga Thomas and I am presently doing Masters (MA) in Special Education at Universiti Pendidikan Sultan Idris (UPSI).

As part of my present studies, I am conducting a research work that aims to improve the reading comprehension of hearing impaired students. This research work is an essential part of the program. As your child is now studying in an integrated setting in the School, I would be delighted if you will consent to your child's participation in the research.

This study will contribute towards the improvement of reading comprehension. Any significant information obtained through this research will be helpful to improve and modify the current implementation of education in my country. This will lead to the transformation of the education for hearing impaired students.

If you agree on your child's participation in this study, please sign this consent form. I assure you that any information obtained will be held entirely confidential. Your child's information will not be used for any purpose other than this study. Furthermore, the school and parents will also have access to any information or records that I hold about the child.

Name: _____

Signature: _____

Looking forward to your reply,

Yours truly,

Renate Olga Thomas
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E-mail: renatethomas@ymail.com