

Factors Affecting Sign Language Acquisition In Hearing Impaired Learners During Primary Education

Factores que afectan la adquisición del lenguaje de señas en alumnos con discapacidad auditiva durante la educación primaria

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ABSTRACT

The purpose of this research was to identify the factors that affect the acquisition of sign language in hearing-impaired learners during early childhood. The study has undertaken the qualitative approach, a case study in which a triangulation method of collecting data was used. The research was carried out in the state of Perak, where three sign language teachers and eight learners in the early childhood phase were purposively selected for the study. After an inductive analysis approach of the data from interviews, observations and document analysis, the study found that the factors that affect the acquisition of sign language during early childhood, are the very factors that are supposed to enhance, support and nature the same acquisition of sign language in hearing-impaired learners during early childhood that they hinder. At the end of the day, this study intended to equip educators, parents and the society at large with knowledge on factors hindering the acquisition of sign language.

Keywords: hearing impaired, language acquisition, primary education.

RESUMEN

El propósito de esta investigación fue identificar los factores que afectan la adquisición del lenguaje de señas en los alumnos con discapacidad auditiva durante la primera infancia. El estudio ha emprendido el enfoque cualitativo, un estudio de caso en el que se utilizó un método de triangulación para recopilar datos. La investigación se llevó a cabo en el estado de Perak, donde tres profesores de lenguaje de señas y ocho estudiantes en la fase de la primera infancia fueron seleccionados deliberadamente para el estudio. Después de un enfoque de análisis inductivo de los datos de entrevistas, observaciones y análisis de documentos, el estudio encontró que los factores que afectan la adquisición del lenguaje de señas durante la primera infancia, son los mismos factores que se supone que mejoran, apoyan y dan naturaleza a la misma adquisición de el lenguaje de señas en los alumnos con discapacidad auditiva durante la primera infancia que obstaculizan. Al final del día, este estudio pretendía equipar a los educadores, los padres y la sociedad en general con el conocimiento de los factores que dificultan la adquisición del lenguaje de señas.

Palabras clave: deficiencia auditiva, adquisición del lenguaje, educación primaria.

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Introduction

Comprehending language growth in children who are hearing impaired has become even more challenging due to the fact that as individuals, children who are hearing impaired have significantly more variation in their language experiences than ordinary hearing children. Most of the factors influencing the development of hearing children also affect children who are hearing impaired, among them are diversity in their social environments, the socioeconomic status of their parents, early childhood diseases, and many others (Marschark, 2001). The hearing impaired have always encountered countless challenges, as their mode of communication makes them stand out from all other individuals where social communication is led by speech (Vaněk, 2009). Humans are distinguished from animals by language, and our understanding of the human language has been extended widely over the years from just spoken to the signed modality (Cripps and Supalla, 2012). In addition Meier (2002) described that the high quality level of study activity on signed languages during the 1970s and 1980s that boosted this unusual language modality into its overdue position as a member of the human language family. Furthermore, Magnuson (2000) remarkably indicated how the proficiency of linguistic has been called an essential requisite for human life.

Among all hearing impaired (hearing impaired) individuals 95% of them are born into a community and family that has no experience with how hearing impaired people live and learn (Hauser, O'Hearn, McKee, Steider and Thew, 2010). A number of people place more value on the sense of vision, while others put greater value on sense of audition (Baham, 2008). Many hearing impaired parents experience feelings of joy and celebrate when they find out that their new-born is hearing impaired. This is not because their child's loss of hearing, but rather their biological propensity to be more visually orientated (O'Hearn, McKee, Steider and Thew, 2010). In some cases, however hearing impaired learners might not be exposed to an accessible language for acquisition, as their hearing loss limit their exposure to spoken language, and children might not have sign language role models. Thus, they might show signs of language deprivation due to the lack of access to sufficient comprehensible input of language to fully develop an expressive language (Dostal and Wolbers, 2014). Vaněk, (2009) argued that it is reasonable to presume that just like any other language, sign language develops progressively, serving the needs of survival first, such as communication to get nourishment.

Problem Statements

Hearing impaired children encounter difficulties in the acquisition of sign language which causes even further complications in comprehending sign language. Burton (2013) indicated that a number of unique language comprehension challenges are faced by hearing impaired children than their peers with normal hearing. The hearing impaired are majorly restricted from social interactions, and to part take in social venues they should be able to use lip reading or sign language as methods of communications with others. These circumstances are complicated even more by the fact that a number of the hearing impaired children being born in societies where hearing impairments is perceived as a disability, and a parent might think that the child might not be competent enough to measure up with the other students and will not be capable to live self-sufficiently.

Despite the fact that hearing impaired learners are born into hearing families, the parents' choice further complicate the acquisition of sign language by hearing impaired learners. In addition Mayer (2007) stated that a number of hearing parents have ways of adopting non-auditory methods of communication but the majority parents do not have the skills nor the means to communicate effectively with their hearing impaired children.

Burton (2013) continues to state that the lack of communication leads to the hearing impaired child not having suitable development of language and literary abilities that are comparable to their hearing age mates. Meadow (2007) indicated that these pessimistic impressions extend to the hearing parents, with hearing caregivers exhibiting feelings of failure or grief about the child's hearing loss and misrepresenting the child's hearing impairment as a handicap.

Marschark (2001) is of the opinion that many more children who are hearing impaired not only start acquiring sign language later than their peers who also have the same language as their parents, but they also encounter the challenge of minimum consistency in the mode of language used when they eventually do start to acquire language. Apart from these challenges, the progress of both signed and spoken language follows the same pattern in hearing impaired as in hearing children, despite the a lack of early language exposure which creates a gap in the progress for a number of children who are hearing impaired.

Marschark (2001) continues to state that hearing impaired children are faced with a number of challenges associated with medical conditions, parents' difficulties in accepting disability, barriers to access in the family and at school, as well as perceived social stigma in relation with or generated from the loss of their hearing, which are

not encountered by many children who are hearing. In simple, all these challenges leads to more problems for the hearing impaired child such as the feeling of self-pity, depression, and isolation, which can lead to prolonged delay in their acquisition of sign language. Thus by the time they come to school they have little informal language if nothing at all.

Dostal and Wolbers (2014) viewed the development of expressive language (sign language) as an essential need to the attainment of literacy, and that continuous deprivation of language among hearing impaired students is the greatest contributor to struggle in literacy. In the same vein, Marschark (2001) stated that many of hearing impaired children do not have complete access to language during their early childhood life during which it is most critical to language acquisition, due to the fact that the majority of them are born to parents who are hearing and who do not know how to sign. Thus, it was important to consider the link between language development, literacy, and academic success. This emphasizes the importance of early language acquisition in relation to the holistic development of the hearing impaired child. Therefore it is of great importance that the study on factors affecting sign language acquisition in hearing impaired learners is conducted.

Study Objectives

The main purpose of this study to identify and explore in depth factors affecting sign language acquisition in hearing impaired learners during primary education. Furthermore, this research was designed to provide educators with knowledge of the current research on how those major factors affect the acquisition of sign language in hearing impaired learners during primary education.

Research Methodology

The design of this study is qualitative research since the intention is to attain a deep understanding and knowledge of the factors that affect sign language acquisition in hearing impaired learners during primary education. The qualitative research design presented the opportunity to attain a much deeper understanding of the factors affecting the acquisition of sign language in hearing impaired learners during primary education, as it is regarded as a collection of approaches to inquiry, all of which rely on verbal, visual, auditory, thus it ensured a deeper understanding of the phenomenon that has been studied. Further the method of qualitative chosen for the study was the action research method on the ground that the problem studied was based on an educational setting and action research is or are rather systematic procedures done by individual in an educational setting to gather information about, and subsequently improve, the ways their particular educational setting operates, their teaching, and the learning of their students (Mills, 2011). The qualitative study of this research consisted of three hearing teachers and eight hearing impaired learners. The primary school population was chosen on the ground that the research was based on primary education for the hearing impaired and the school chosen for the study provided the correct setting for the study with teachers teaching sign language either as MySL (Malaysian Sign Language) or as SEE (Sign Exact English), with hearing impaired learners from preschool to standard three, thus it was a suitable population for the study. In this study, three types of instruments were brought into play as relevant and appropriate types of instruments to be used in a qualitative research as indicated earlier on under the research design. The three instruments serves as a form of triangulation for the purpose of reliability as well as for validity purposes, as the different information obtain via the three different instruments supported and strengthen one another in the sense that in an area were one instrument failed to attain solid information it was attained through the other instruments. The instruments were as follow: semi-structured Interview, observation and document analysis. Which according to Jonson and Christensen (2012) triangulation main objective is to combine a variety of methods that have non-overlapping weaknesses and strengths, as the weaknesses and strength of the one method will tend to be different from those of a different method, which means that when you combine more if not two methods you will have better evidence.

Results and Discussions

The analysis found that comprehension possess difficulties in hearing impaired learners when it comes to sign language. "One more thing, I think is similar with the, how to make them understand and the meaning of words [T2. I. S10. D14.02.17]." Furthermore, the difficulty in comprehension was emphasised as existing in the comprehension of abstract terms.

"[Aaah, aaah], especially the abstract words [T2 I. S11. D14.02.17]."

In line with that is the findings from the observation which revealed that leaners have other disabilities such as Learning Difficulties (LD), Attention Deficit Hyperactivity Disorder (ADHD) that causes difficulties in comprehension causing interruptive behaviours in learning. "Learners' attitude towards learning and sign language: teacher constantly remind learners to pay attention and repeating of instruction after a few fail attempts from the learners in following instructions [O1.D.14.02.17]."

In addition, lack of creativity in visualisation among hearing impaired learners was found as a hinderer in the acquisition of sign language in hearing impaired learners in the early childhood phase. “How to [hhhmm] visual, visual the abstract words [T1. I. S12. D14.02.17].” Upon which one of the teachers affirmed. “Ja [yes], [T3. I. D14.02.17].” Apart from language itself being challenging, the study also revealed that the hearing impaired learners are also faced with a number of other challenges that pose threats to their process of sign language acquisition.

“[hhhmm]. I can contribute the ideas, of-cause all children have different problems [T2. I. S25. D14.02.17], actually the children also have multiple problems, [hhhmm] not only hearing impaired. They have [hhh] learning, learning disability have multiple problems [T2. I. S24. D14.02.17].”

The observation finding affirmed the existence of other problems than just the lack of hearing being obstacles in the acquisition of sign language acquisition in hearing impaired learner during early childhood. “Multi disabilities: learning difficulties (LD) and Attention Deficit Hyper Disorder [O1.D.14.02.17].” In addition, the hearing impaired learners’ health are among other factors that poses threats and or difficulties to the acquisition of sign language, as learners may miss school due to sickness or generally medical conditions. “Epilepsy, epilepsy [T1andT3. I. S26. D14.02.17].”

Furthermore, the degree and level of hearing varies in severity and are from mild to server or and sometimes profound. Upon enquiring on the types of hearing loss in the school one teacher indicated that, “mixed, from mild to server [T1. I. S31. D14.02.17].”

After what seems like a confusion all three participant teachers affirmed that that hearing impaired varies from mild to server and profound summing it up as mixed. “Mix, mix [T1, T2 and T3. I. S32. D14.02.17].” Furthermore, the degree of hearing loss also plays a role in the acquisition of sign language to some extent as revealed by the findings. “Ja [yes], if they can hearing a bit, so the language is easier to have, because they have, they can hear a bit so can follow [T3. I. S33. D14.02.17].” In connection with the hearing level, the observation findings revealed that learners who have little residual hearing and those with cochlear implant sign language acquisition appeared to be slightly better than those who have no residual hearing or those who do not use assistive hearing aids.

“Assistive hearing aids: two learners have cochlear implants and use both speech and sign language simultaneously [O1. D14.02.17; O2. D24.04.17].”

Age on the other hand is revealed by the finding to play significant a role in the acquisition of sign language in early childhood. “From the early come the school they can get many vocabulary but when their age is thirteen their get little [T1. I. S46. D14.02.17].”

For starters, the study found that the choice of language the parents choose to use with their hearing impaired children can also become a factor hindering the acquisition of sign language, especially if there is no sign language used at home.

“The children come from the Indian family and then at home [home] they speak in Tamil Language and mix Bahasa English [T2. I. S, (57). D14.02.17].” Furthermore, the analysis clearly indicated that parents lack of knowledge and skills of sign language can also hinder the learning and the acquisition of sign language of hearing impaired. “Because the parents don’t know, don’t understand what the children say what the children do [T3. I. S27. D14.02.17].” “For example, read. So the parents can’t teach how to read the sentence, because they don’t have the basics in the sign language. So, is problem [lah]. Big problem [T1. I. S29. D14.02.17].” The observation analysis indicated that there is a lack of sign language vocabulary among both teachers. “Lack sign language vocabulary: the teacher use speech more than signing [O2.D.24.04.17].”

The environment of a child help make or break the development of a child and in this case specifically the acquisition of sign language, the findings revealed that hearing parents turn to use spoken language more instead of sign language.

“The children come from the Indian family and then at home [home] they speak in Tamil Language and mix Bahasa English [T2. I. S, (57). D14.02.17].” Furthermore, if the language used in the environment is not properly structured it can affect the acquisition of the formal language or a more structured one, in way on the other. “They have own sign language from their mothers, fathers, but not the [the] standardised sign language [T2. I. S, (87).

D14.02.17].” As for the observation findings, it is revealed that the use of different languages can also create confusion as to which language the learners’ suppose follow and one language is likely to be neglected in the process. “Use of total communication: sign language is a language on its own, speech or spoken method is a form of a different language on its own [O1. D14.02.17; O2. D24.04.17].” “Lack sign language vocabulary: the teacher use speech more than signing and learners at time use drawing, picture and gesture of pointing to communicate [O2.D.24.04.17].”

The impact of hearing loss in itself can be a threat to the acquisition of sign language to some degree depending to the extent of the hearing loss as revealed by the analysis. “To learn language hearing is very important, coz if we can see only we can, we don’t understand what’s this words for example: is, are [T3. I. S, (87). D14.02.17].” In connection with the hearing level, the observation revealed that learners who still have little residual hearing and those with cochlear implant, acquisition sign language more easily than those who have no hearing or those who do not use assistive hearing aids. “Assistive hearing aids: two learners have cochlear implants and use both speech and sign language simultaneously [O1. D14.02.17; O2. D24.04.17].” Age can affect hearing impaired learners’ acquisition of sign language based on the findings. “Maybe if it’s from the early from the early stage they can many vocab, but if 13 they also can learn the language but they can get the six year old, 19 year old can get the seven year old vocabulary [T3. I. S, (49). D14.02.17].” In support of that, it was stated that “so their development is slow [lah], than the early stage people go, come to school [T1. I. S, (50). D14.02.17].”

The study also revealed that the quantity and quality of sign language input depends’ on the parents, as children of hearing impaired parents turn to be better signers than those of hearing parents. “I have experienced to situation were one parent is hearing and the other hearing impairment. I compare, the improvement their language is very good [T2. I. S48. D14.02.17].” The study found that difficulties in teaching comprehension and other abstract forms of language to learners such as prefix and or suffixes also hinders the acquisition of sign language as stated by one participant. “We want to teach them about the word. No meaning [sign] of the words, addition of word example (prefix and suffix) (ing). So you teach only basic words [T2.I.S72. D14.02.17].” On the other hand, the observation analysis indicated that the knowledge and skills of the teaching approach used by teachers can determine the successful learning of learners in the classroom and more so for the acquisition of sign language. “Use of total communication: sign language is a language on its own, speech or spoken method is a form of a different language on its own [O1. D14.02.17; O2. D24.04.17].”

The analysis of the observation also revealed the importance of socialisation and interaction among individual in order to practice the use of sign language for improvement, development of vocabularies and the acquisition of sign language. “The school environment encourage learners to sign and are moulded and natured by teacher who act as facilitators in the process of language acquisition.” Learners are encourage to use both their hand and voice for communication. The homemade sign which is not standardised is reshaped and standardised step by step according to the learners learning pace without being pressured. [O1. D14.02.17; O2. D24.04.17].”

Language difficulties are generally common among hearing impaired students and their language proficiencies are inferior compared to the normal children (Chaleff and Toranzo, 2000); Siegel, 2000). This unparalleled language difficulty is regarded as the language gap that a hearing impaired student has since birth (Yasin, Toran, Zamin, and Tahir, 2012).

The study found that indeed many hearing impaired learners are born in home where there is no exposure to a standardised sign language and in most cases the spoken language is used, and the hearing impaired learners as an attempt to communicate turn to come up with homemade signs for communication, which is supported by Goldin-Meadow (2003) view that HI children who live with hearing families where only verbal language is used, have no experienced of training in talking, and thus have no accessible sign language, as a result they invent their own systematic means of communication named home sign).

Further, the study found that age can be a hinder to the acquisition of sign language in hearing impaired learners. Providing convincing support are studies in which American Sign Language performance of early and late learners was compared and the study revealed that there is a critical period in age for the acquisition of the full grammatical structure (Newport, 1990) and its dispensation (Mayberry and Eichen, 1991), and Lenneberg’s (1996) critical period hypothesis. The environment in which a number of sign languages are used can create confusion to the learners, and they might not end up acquiring the right sign language effectively.

Further the home environment poses even more threat to the acquisition of sign language at early age for the hearing impaired learners, due to the fact that hearing parents language choice in many cases in never sign language as indicated by the finding of the study. In support with the findings of the study Hock (2007) stated that in Malaysia the teaching and learning process of sign language is faced with a challenge of the lack of MSL dictionary. Based on the findings of the study, when parents are not involved in their child’s development they miss out on what the child really need, which can lead to late detection of the hearing impairment and eventually delays

the process of sign language acquisition. In association with that Vaccari and Marschark (1997) indicated that the communication between a parent of a hearing impaired child and their hearing impaired child is vital for the holistic development of the hearing impaired child, sadly the majority of about 90% of hearing impaired children are born to hearing parents whose choice of communication with their hearing impaired child is not always convenient nor effective.

Moreover, the experience of hearing loss does not only varies among individuals as for a number of hearing parents whose children are diagnosed with a hearing loss, the experience is rather devastating and life changing as they mourn the loss of their child's hearing (Hintermair and Tsirigotis, 2004; Lederberg and Golbach, 2001; Meadow-Orlans, Spencer and Koester, 2004; Pipp-Siegel, Sedey and Yoshinaga-Itano, 2002). More than often hearing impaired children have more than one impairment which further complicate their relationship with their parents, whereas parents of hearing impaired children who are hearing impaired themselves are more able to deal with the situation rather with much ease compared to hearing parents (Hintermair and Tsirigotis, 2004; MeadowOrlans et al., 2004; PippSiegel et al., 2002).

In contrary to the benefits of early intervention, one could equally argue that the knowledge of hearing parent at an early stage after birth that their "perfect" baby has a hearing impairment may be too soon to take in (Gregory, 1999, 2001) and might be a threat to the natural development of early bonding between a parent and their baby (YoshinagaItano and de Uzcategui, 2001). As a result parents are not able to delight in their new born prior to the emotional rollercoaster of both the knowledge of hearing impairedness and the services offered by professionals that come with that knowledge (YoshinagaItano and de Uzcategui, 2001).

Conclusions

In conclusion it is important to recap on the importance of research in hearing impaired education specifically in relation to the acquisition of sign language. Thus, it is yearned that the feedback provided will serve as a guide for enhancement of the processes of the acquisition of sign language in hearing impaired learners during the early childhood phase. It is hoped that the feedback of the study can be used as a stepping stone for tackling issues on sign language acquisition in hearing impaired learners as early as from the point of diagnosis.

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