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Language Deficiency in Moderately Deaf Adolescents: An Environment-
based Perspective**

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Dedication

I dedicate this work to my family members; to the most person I have ever miss in my life “My Father” Allah yarhmou, to my mother who supported me through my 5 years journey at University, to my beloved sisters Meriem and Ikram.

I also want to dedicate it to my fiance Mohamed who inspired me with this topic, and helped me in each chapter. Finally, I dedicate it to my cousins and my one and only best friend Zineb.

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Abstract

This research aims to determine the factors that help some of the moderately deaf adolescents and suppress the others even if they are equally capable of developing their language and use it effectively. Besides, the main research question of this study is whether the moderately deaf adolescents are able to be bilingual. To achieve that aim this research employs a quantitative approach in collecting data, including checklist tests, interviews, and observations. As to the sample of the study, it was selected from the center of deafness and muteness in Relizane and the data analysis was based on Dell Hymes' communicative competence and Vygorskian sociocultural models. Further, the findings of this research illustrate language deficiency in moderately deaf adolescents and the reasons behind these differences. Therefore, this research identifies the social factors that contribute to language development in some and not in other moderately deaf adolescents.

Key words: language, moderately deaf adolescent, bilingual, language deficiency, social factors.

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General Introduction

Deafness is one of the prevalent sensory disabilities in the world. This deficit affected more than 250 million of world human populations. Furthermore, the deaf person uses a unique language which is based on signs and gestures. Additionally, they are only known by using sign language and lip reading as means of communication. Moreover, the spoken oral language of deaf people is mostly neglected even if a deaf person does not mean a mute person. Besides, the beginning of interest in speech training of deaf's spoken language was in 1550. However, one of the consequences of this disability is the deaf's inability to acquire and develop spoken language properly. Moreover, this fact can cause communication difficulties between deaf people and hearing people. Therefore, it impacts on the deaf person's communicative competence and interaction with hearing people.

This research focuses on the moderately deaf adolescents in Relizane. Besides, it aims to compare the language of the moderately deaf adolescents and to know the circumstances under which they were both at home and at the center of deafness and muteness in Relizane. This comparison will be done to identify the factors that contribute in language development in some and not on other moderately deaf adolescents. Furthermore, this research aims to encourage the parents of moderately deaf children in order to help in their children's language development. Additionally, the significance of this study is to know what interventions and pedagogical approaches in order to raise social interactions between children who are moderately deaf and hearing human beings.

This study contains three research questions. Moreover, each question focuses on the main issue of language deficiency in moderately deaf adolescents.

- Do the moderately deaf adolescents have the ability to be bilingual in sign language and oral spoken language?
- Is communicative competence an important phenomenon that contributes in language development as demonstrated in Dell hymes' theory?
- Is interaction an important phenomenon that influences language development as demonstrated in Vygotsky's theory?

This research attempts to answer the previous questions. However, there are some suggested hypotheses.

- The moderately deaf adolescents can be bilingual because their parents focused on their language and did not rely only on the sign language. This means that the moderately deaf children received different amount of motivation to speak.
- Communicative competence is an important phenomenon because it helps them to have an effective communication with the hearing world. Also, moderately deaf adolescents who are able to speak can complete Dell Hymes Model's elements.
- Interaction is enormously important because moderately deaf child will not feel isolated from the outer world. Then, he will try to talk as a normal child.

Additionally, the significance of this study is to know what interventions and pedagogical approaches in order to raise social interactions between children who are moderately deaf and hearing human beings.

This research consists of three chapters. The first chapter represents the literature review of previous researches including knowledge about the deaf world. Firstly, it provides information about deafness as definition, causes, degrees, signs and provision of hearing aids. Secondly, it includes oral language definition and its relation with sign language. Then, it defines the types of sign languages that are used by deaf people in the world. Moreover, the last section explains the deaf's means of communication. Secondly, the second chapter illustrates the two theories of Dell Hymes and Vygotsky. Additionally, it defines each model and explains its elements. The first theory is communicative competence theory whereas the second theory is sociocultural theory. Further, they are presented in order to test if they influence the deaf's oral language development or not. Finally, the third chapter includes the research methodology, research setting, participants, data collection tools, results, discussion and recommendations. This is conducted in order to establish a better language learning environment for deafs.

Chapter One
Deafness

Introduction

This chapter includes various aspects of deaf community. First of all, it contains multiple definitions of the word “deafness”, including its causes, types and symptoms in babies. Then, it explains the degrees of deafness. Moreover, the sign language of the deaf is neglected especially in Algeria. Therefore, it is important to define the sign language and its types. Besides, the provision of hearing aids to the deaf people so that they can adapt to living in a hearing community. Also, this chapter defines the oral language in order to examine the difference between sign language and oral language. Furthermore, it emphasizes on the relationship between the degree of deafness and other social factors, and the use of oral language. Finally, it ends with the different means of communication used by the deaf people.

1 Definition of deafness

Gallaudet University in the United States (2015, para.3) defined Deafness as “anyone who cannot understand speech (with or without hearing aids or other devices) using sound alone (i.e. no visual cues such as lipreading) is deaf.” (As cited in The Canadian Association of the Deaf-Association des Sourds du Canada, n.d) This means anyone who relies only on the visual means of communication is deaf, mute or both. Whereas the visual means of communication includes sign language, lipreading. Further, it is difficult for the deaf to grasp the meaning of any spoken conversation. (Definition of “Deaf”, 2015). Another definition of Lexico dictionary (2020) deafness /'defnəs / is the condition of lacking the power of hearing or having impaired hearing.

According to Florida Department of Education (2020) “a student who is deaf or hard of hearing has a hearing loss aided or unaided, that impacts the processing of linguistic information and which adversely affects performance in the educational environment. The degree of loss may range from mild to profound.” In other words, deaf student faces delay in the process of learning due to the challenging issue of understanding linguistic information. However, this appears in the academic performance. Moreover, deafness is classified into various levels which are from mild to profound.

In 1998, the White House conference on child health suggested the following definitions: “deaf children are those who are born completely deaf enough to obstruct the construction of speech and language.” Another definition: “deaf children are children who lose hearing in early childhood before language and speech formation, so that the ability to speak and understand language is lost.” Thus, both definitions support the idea of the impact of deafness on language development in deaf children. (Global Council of Sport Science, 2020)

2 Causes of deafness

According to Centers for Disease Control and Prevention (2019), deafness is commonly caused either by genetic or environmental factors. Approximately 50% to 60% babies are born deaf genetically whereas 25% due to environmental causes.

According to Clinic Barcelona (2020), causes of deafness are divided into two main sections, congenital causes and acquired causes:

2.1 The congenital factors

The congenital factors occur at birth but are not necessarily hereditary; they can be nonhereditary or due to maternal infections during pregnancy. Besides, some babies can be exposed to certain diseases due to some complications or medications, including:

- Maternal rubella infection or other maternal infections.
- Certain drugs such as aminoglycosides, cytotoxic agents medications.
- Premature birth or low birth weight.
- The lack of oxygen in perinatal period.

2.2 The acquired causes

The acquired causes refer to hearing impairment which is obtained through environmental forces. They can impair hearing at any age during life, including:

- Ear infections such as meningitis, measles or mumps.
- Ear or head injuries.
- A liquid substance in the middle ear.
- Exposure to loud noises.
- The blockage in the canal ear due to a strange body or wax.

3 Types of deafness

There are three types of deafness:

3.1 Sensorineural deafness

Sensorineural deafness is one of the most widespread types of deafness. In sensorineural deafness, the hair cells which send sounds to the brain are damaged due to various causes. These causes are: the process of growing old which impairs the small hair cells, listening to loud noises for a long time, hereditary transmitted, different types of illnesses, pregnancy-related diseases, certain drugs and injuries in the head or the ear. However, sensorineural deafness is permanent because the hair cells in the inner ear cannot be cured. The hearing does not return to its previous normal state but people use hearing aids to hear sounds properly. (Sensorineural hearing loss, n.d)

3.2 Conductive deafness

Conductive deafness means that the sound from outer and middle ear does not reach to inner ear. This obstruction blocks the transmission of sounds to inner ear due to external ear defects. The most common causes of conductive deafness are: earwax, infections, fluid, ear formation, tumors and different diseases. People with conductive deafness suffer temporary and they can be cured with medicine or surgically. Although, some cases of conductive deafness are treated by the help of hearing aids. (Conductive hearing loss, n.d)

3.3 Mixed deafness

Mixed deafness refers to the presence of both sensorineural and conductive deafness. Otherwise, the inner ear is damaged and also there is obstruction in the external ear. Therefore, it is caused by both sensorineural and conductive deafness conditions. This mixed deafness can be treated by using both treatments of sensorineural and conductive deafness, which are by using hearing aids or surgically. (Mixed hearing loss, n.d)

4 Signs of deafness in infants

Sometimes parents do not notice the impairment of their infant. However, these following symptoms denote that the infant or preschool child might have a hearing loss (Victory, 2020)

- Before the age of four months:

The baby does not have any reflection toward a noise.

- From four to nine months:

The baby does not utter a single word or babble any sound. Also he does not pay attention to motions.

- From nine to fifteen months:

The baby does not repeat or reply to any utterance. Furthermore, he still cannot understand the basics of language as requests, different tones of saying words.

- More than fifteen months :

The infant pay attention to someone only when he can see his face or gestures, but if someone calls his name from a far distance, he does not respond at all.

5 Degrees of deafness

There are several levels of hearing impairment measured by hearing healthcare professionals. The unit of sound measurement is called decibels (dB). (Clason.D, 2015)

5.1 Mild deafness: The person can hear sounds from 25 and 40 (dB). They have difficulties in identifying soft sounds especially in noisy places.

5.2 Moderate deafness: The person can hear sounds from 40 and 69 (dB). They are unable to hear clearly what others are saying in conversations. In this case, hearing aids are helpful.

5.3 Severe deafness: The person can hear sounds from 70 and 94 (dB). They rely on lip-reading and they cannot hear or understand anything without hearing aid.

5.4 Profound deafness: The person can hear only sounds more than 95 (dB). Most of them resort to cochlear implant surgery because they might hear only highly loud sounds. This disability encourages them to rely just on sign language.

6 Sign language Vs. Oral language

6.1 Definition of sign language

According to “Merriam Webster” (2020) sign language refers to any of various formal languages employing a system of hand gestures and their placement relative to the upper body, facial expressions, body postures, and finger spelling especially for communication by and with deaf people. Another definition in “Your Dictionary” (2020), sign language is one of several natural languages, typically used by the deaf, where the words and phrases consist of hand shapes, motions, positions, and facial expressions.

The sign language is a natural language used by all the deaf. It arises in childhood spontaneously without any instructions as the spoken language. Although, there are many sign languages invented in every country, all of them share some same features. Further, it is produced and received through seeing by using hand gestures, face expressions, body motions. (Sign Languages, 2004); However, Fischer.S.D (2014,p.442) says that “Two major factors put sign languages in a unique position: the channel in which they are communicated and the sociolinguistic environment in which deaf children are exposed to them.” Firstly, the visual channel is the means of communication in sign language rather than the auditory channel in spoken language. Secondly, from birth till adulthood, the deaf is exposed to the sign language in different social environments; it can be in a hearing family or a signing one. This facilitates or suppresses the acquisition of the spoken language as the other normal children.

Fischer.S.D (2014, p.445) mentioned that “The earliest systematic description of a sign language occurs in the late eighteenth century.” This indicates that the sign language is a modern language.

Charles-Michel de L’Epee was called “The Father of the deaf”. He was one of the first who was interested in creating an official signing language for the deaf. (The birth of formal sign

language, para.1); According to Michelle.J (2020, para10) «Abbe Charles Michel de L’Epee established the **National Institute for Deaf-Mutes** in 1771. »

In 1755, he founded the first school for the deaf that used sign language. Then, he combined his own manual alphabets with the signs of his students which they used to communicate at home in order to create a signing dictionary. Furthermore, the first school of the deaf in the United States was established by Edward Miner Gallaudet. (The birth of formal sign language, para.1)

6.1.1 Types of sign language

The notion of a universal sign language is completely false. Each sign language is related to the spoken language of that country. Interestingly, there are gestures created by deaf and hearing people but they are not considered as a formal sign language. They only ease communication between deaf and hearing people. Thus, signers from a country have difficulty to understand signers from another country. (SteinbergnD.D, & Sciarini,N.V, 2006)

According to Brooks (2018), there are from 138 to 300 various types of sign language all over the world. However, the most known types of sign languages are French sign language (LSF, for langue des signes française), American sign language (ASL) and British sign language (BSL).

First of all, LSF is one of the youngest sign languages developed by Charles Michel de l’Epee. It helped to construct other sign languages as ASL and BSL. Around 100,000 signers use LSF in France and they use only one hand in fingerspelling. (Brooks, 2018)

ASL is a common sign language based on LSF. There is a huge similarity in both systems till nowadays whereas only one hand is used for fingerspelling. Furthermore, other countries use ASL as Canada, West Africa and Southeast Asia. (Brooks, 2018)

BSL is a form of communication used by 15,000 signers in Britain. Historically, LSF and ASL are more similar than ASL and BSL because the difference in sign languages is not based on verbal vocabulary. Though, signers of BSL use two hands in fingerspelling. (Alison, 2019)

6.1.2 Provision of Hearing Aids

Hearing impairment is a complicated problem which affects the social life of a person. A serious health follow up is necessary from the first diagnosis of the problem. (Hill,S.H, n.d) ; According to Audiology services UK (2016, p.6) “ Hearing aid reviews will need to be very frequent in the early stages of fitting when information is only partial and the child and family are adjusting to the aid. They should never be less than annual.” an early detection of hearing

impairment is important in order to help the child to get used to the situation and accept the changes in his life. Also, this problem requires a serious responsibility from both parents toward the child.

A hearing aid is a listening apparatus placed on the ear. It increases the surrounding sounds to help the deaf to hear, to interact and to intervene in daily life. In addition, it adjusts the right tone of sounds which means it also decreases loud sounds. This device consists of three major components: a microphone, amplifier and speaker. Firstly, the microphone is responsible on receiving the sound. Secondly, the sound turns to electrical signals and the signals go to the amplifier. Finally, the amplifier makes the signals louder and sends them to the ear via the speaker. (National Institute on Deafness, 2017); the degree of deafness plays a big role in choosing the right device for the infant or the child. Nevertheless, hearing aids are not sufficient for infant with severe to profound hearing impairment. Thence, Cochlear implant is the most appropriate solution. (Centers for disease, 2019); Zwolan.T (2015, p.1) defined Cochlear implant as “a cochlear implant is a small electronic device consisting of surgically implanted internal components with an externally worn speech processor.” this means Cochlear implant is placed by a surgery in the inner ear unlike hearing aid.

Hearing aids and Cochlear implants are really helpful in improving the language of deaf child. Especially, children who start to use hearing aids by the age of 3. This helps the child for better development of language skills from early childhood. (Pelosi.A, 2017)

6.2 Definition of Oral language

Language (n.) is “a system of communication consisting of a set of small parts and a set of rules which decide the ways in which these parts can be combined to produce messages that have meaning.” (Cambridge International Dictionary of English, 1995); According to vocabulary dictionary (n.d) “Language is a system of words and grammar used by a group of people. When we write and speak, we are using language.”

The term language is originated from the same root of Latin “lingua” and French “langue” which means “tongue”. Language is known as social phenomenon because it is intimately tied to social surroundings. Further, it is dynamic which means it changes through time. Old languages are completely different in term of spelling, meaning, and pronunciation of nowadays languages. (Meaning of the term, n.d, p.3)

7 Deafness and language

According to Stephens and Jones (2005), hearing impairment leads to difficulties in oral communication. However, early or late identification of deafness influences language skills. (Medical News Today, 2020).

7.1 Prelingual deafness

Prelingual is defined in Merriam-Webster dictionary (2020) as: “occurring before an individual has developed the use of language.”

Prelingual deafness is the lack of acquiring and developing the spoken language. Usually, this hearing problem affects infants with severe to profound deafness from birth till the age of 3. Moreover, it is caused by health problems of mothers in pregnancy and/or baby’s illnesses in the first month. (Kiversal, 2019); the majority of prelingually deafs live with hearing families, who frequently did not use sign language before. Besides, they suffer from delayed language development but provision of hearing aids before the age of 4 can help to solve the acquisition of language issue. (Medical News Today, 2020)

7.2 Post lingual deafness

According to Your dictionary (2020), post lingual deafness is: “The contracting of deafness after acquiring a first language.”

Post lingual deafness occurs after the first language acquisition of the child. Generally, this happens because of several diseases as infection, and accidents which have long-lasting effects. It develops progressively through time and this helps others to recognize the impairment in the postlingually deaf. Then, the choice of hearing aid is associated with the degree of deafness. Furthermore, postlingually deafs have a new challenging life which requires knowledge about various hearing devices, sign language and lip-reading. One of the most common problems after the hearing impairment is isolation because of the inability to use the spoken language as before. (Medical News Today, 2020)

7.3 Unilateral and Bilateral deafness

Unilateral deafness or single-sided deafness affects only one ear. The degree of impairment is from mild to profound. (National Deaf Children’s Society, 2020)

People with unilateral deafness are either children or adults. This impairment in one ear can be sensorineural or conductive deafness. However, it can be caused by genes, head injury, tumors, infections and other diseases. (Unilateral hearing loss, n.d)

It is difficult for unilaterally deafs to continue a conversation in a hearing environment, and to understand the whole message of the speaker. Also, the unilaterally deafs face another

problem of knowing the source of sounds. Moreover, they communicate like normal people in quiet setting. Some babies are born with unilateral deafness which effects on their language development. Then, it gets more complicated with them to interact with normal children.

(Medical News Today, 2020)

Bilateral deafness is the impairment of both ears. (Medical News Today, 2020); Further, The communicative language skills of bilaterally deafs are completely destroyed. (Chien, Niparko, 2012)

8 Means of communication

8.1 Oral communication

One of the major goals of this method is to help deaf children to speak oral language. It relays in communication only on speaking, listening and speech reading. In the 19th century, it becomes one of the most interesting methods used as a means of communication. Two important levels are needed in order to use oral communication by deaf, including auditory training and speech reading. (Maghaoui.T, 2015-2016)

8.1.1 Auditory training

According to Caissie.R (2019): “auditory training refers to the process involved in improving the auditory skills of individuals with hearing loss through structured and repetitive listening exercises.” In other words, this training helps the deaf child to develop his listening skills which helps in the language development.

Auditory training refers to the process of training the deaf child in order to develop the auditory skills, which relays on the residual hearing of the deaf child. This training seeks to help the child to feel and differentiate between the various sounds of environment. Moreover, the deaf child must begin this training in an early age in order to achieve recognizable improvement, including the ability to listen clearer and the development of linguistic information. Generally, the deaf child becomes better due to the provision of hearing aids, but there are other certain modern techniques which enhance quickly the outcome of the deaf child. However, hearing aids make sounds clearer and keep the same tone of any sound regardless its source. (Maghaoui.T, 2015-2016)

8.1.2 Speech reading

M.J. Moseley and S. Baily (Eds.) explain that “Speechreading, a term coined and used by professionals working with deaf and hard of hearing individuals, is a much broader activity, in which individuals utilize all available clues to understand what a person is saying.” (As cited in Lee (1997, p.7)

According to Hearing Loss Association of America (2013, para.1) "...Speech reading is using what you see on the speaker's lips as well as facial expressions and gestures to understand conversation." This means that speech reading or lip reading is a visual means of communication. Observation of any facial or body motion is an important skill in speech reading. According to Lee (1997, p.7) "gestures or body language include any body movement accompanying the spoken utterance that add meaning; for example "Go!" with a finger point."

Lip reading is the total visually focuses of the deaf child on lip movements and sound outputs. The residual hearing plays an important role in this method so that the deaf child can understand speech. There are different methods to teach the deaf child to read speech on the lips, including the analytical method, the encoded speech method and the harmonized pronunciation method. Firstly, the analytical method refers to dividing a word into syllables and trying to pronounce each syllable separately. Then, all syllables are combined and pronounced as one word. Secondly, the encoded speech method begins with the complete understanding of a text. Thereafter, it is important to differentiate the pronunciation of each letter. Although, some letters are produced through the throat and they do not appear on the lips. However, hand gestures in front of the face interpret the invisible sounds on the lips which help the deaf child to distinguish between all sounds. Thirdly, the harmonized pronunciation method relays on body movements and certain breathing exercises in teaching pronunciation. Thus, these methods facilitate for the deaf children the comprehension of spoken speech and the production of spoken words which treat speech defects. (Maghaoui.T, 2015-2016)

8.2 Manual communication

Manual communication in PSYCHOLOGY DICTIONARY (2013) is defined as "is communication which relies solely on the movement of hands opposed to verbal communication. Therefore, manual communication can otherwise be known as signing." Manual communication refers to gestures made only by hands. The common name of this communication is sign language. Some signs refer to words whereas others refer to letters. Litter signs means that each letter in any language has a certain sign, and this sign is expressed via hand fingers. However, these signs become commonly used by deaf people but this happens after they know the meaning of each sign, including words or letters. In addition, specialists gathered all signs which are created by deaf at home. Thus, manual communication is considered one of the most used methods between deaf people. (Maghaoui.T, 2015-2016)

8.3 Total communication

According to Hands and Voices organization (2013) “Total Communication (TC) is philosophy of educating children with hearing loss that incorporates all means of communication; formal signs, natural gestures, fingerspelling, body language, listening, lipreading and speech.” This means the deaf combine multiple ways of communication in the total communication method.

Nowadays, Most of the deaf resort to the total communication method in daily life. Further, some deaf people struggle in communication with others because they rely on one way of communication. Therefore, this method helps the deaf to understand conversations better. However, the degree of hearing impairment and the age of detection of hearing loss determine the best appropriate method of communication such as pronunciation and listening training at an early age. Further, it considers the best method because it helps the child to enhance both sign language and spoken speech. Thus, the deaf child overcomes various social problems, which means he can participate in social life with hearing peers more than other deaf who are not able to use this method. (Maghaoui.T, 2015-2016)

Conclusion

The chapter focuses on the main elements of deafness and oral language. Since the important phenomenon in this chapter is the outcome of oral language of the deaf in relation to the status of the deaf. Thus, it includes the influence of the degree of deafness, the age of diagnosis, and the help of parents to enhance the oral language of the deaf.

Chapter Two
Communicative Competence and Sociocultural Theory

Introduction

This chapter illustrates two important theories that are concerned with communicative competence and social interaction. Firstly, it contains an overview of Dell Hymes' theory and the history behind the term communicative competence. Furthermore, the basic rules for effective communication. Moreover, the questions that are suggested in Dell Hymes' model for using language properly. Secondly, the second theory is Vygotsky's sociocultural theory of cognitive development. This section explains the main elements of the theory. Besides, the process of development of the child's mental functions from elementary to higher mental functions. Then, there are the fundamental themes of sociocultural theory, including key terms as MKO, ZPD, Scaffolding and Mediation. Finally, the chapter includes some figures and tables that clarify some complex concepts about both theories.

1 Chomsky's Linguistic Theory

Noam Chomsky introduced the linguistic theory due to his main contribution to linguistics, which is called Generative Grammar. (Chomsky, 1965)

For Chomsky, Generative Grammar is a set of innate principles that a person uses to create an infinite number of meaningful sentences, and any sentence structure contains a description. In addition, each sentence can be either a noun phrase (NP) or a verb phrase (VP). (Nishad & Abu-Ayyash, 2019)

Then, Chomsky moved to explain "an ideal speaker-listener" term, which refers to the person's fluency in his native language shared by his community. For him (Chomsky 1965, pp. 3-8): "every speaker of a language has mastered and internalized a generative grammar that shows their knowledge of that particular language." (As cited in Nishad & Abu-Ayyash, 2019, p.1601)

Furthermore, Chomsky (1965) explained:

"Linguistic theory is concerned primarily with an ideal speaker-listener, in a completely homogeneous speech-community, who knows its language perfectly and is unaffected by such grammatically irrelevant conditions as memory limitations, distractions, shifts of attention and interest, and errors (random or characteristic) in applying his knowledge of the language in actual performance." (p.3)

1.1 Overview of Chomsky's Distinction (Competence & Performance)

As shown in *Aspects of the Theory of Syntax* (1965), Noam Chomsky views that language consists of two major components "competence and performance". Chomsky (1965, p.04) defines competence as "the speaker-hearer's knowledge of his language.", and performance

as: “the actual use of language in concrete situations.” In other words, competence is a person’s native knowledge of his mother tongue, whereas performance is the actual production of utterances in real life. According to Chomsky, a person’s competence is analyzed through his performance because any errors, slips of the tongue, repetition and pauses are probably caused by one of many factors, including competence. (Chomsky, 1965) Overall, he asserts that linguistic theory is completely concerned with mental processes. Therefore, he argues to study linguistics relying on competence not performance. (Nishad & Abu-Ayyash, 2019)

2 Theory of Communicative Competence

2.1 The definition of Communicative Competence

According to macmillan dictionary (2009-2020), the term communicative competence refers to the ability to communicate well in a language.

A.Al-Mossawi (2017, p.13) mentioned that “Communicative competence is a term in linguistics which refers to a language user's grammatical knowledge of syntax , morphology , phonology and the like, as well as social knowledge about how and when to use utterances appropriately.”

In 1972, the sociolinguist Dell Hymes (Whyte, 2019) introduced the concept of communicative competence in response to Noam Chomsky’s distinction between the competence of “an ideal speaker listener, in a completely homogeneous speech community, who knows its language perfectly ... and errors (random or characteristic) in applying his knowledge in actual performance.” (Chomsky, 1965, p.03); Furthermore, Hymes (1972) criticized that Chosmky ignored to view his own model from a sociolinguistic perspective, and he did not involve any of sociocultural features. This means that Chomsky believed that the use of language is totally a mental exercise. Thus, Dell hymes wanted to add sociocultural significance in rules of use. (Whyte, 2019)

2.2 Overview of Dell Hymes’ Theory

Dell Hymes sees that a person’s competence shows his awareness of the language rules and his own process of using language differently in a variety of social events. (Nishad,& Abu-Ayyash, 2019)

According to Dell hymes (1972), the ability to communicate effectively in different contexts includes the knowledge of two major rules: the rules of language structure as well as the rules

of use in different social contexts. Moreover, the ability to master one of them is useless without the other. (Whyte, 2019); Hymes (1972) defined “communicative competence not only as an inherent grammatical competence but also as the ability to use grammatical competence in a variety of communicative situations (Norany, n.d, p.2). In actual fact, the person’s linguistic knowledge does not mean his capacity to use a language in a variety of communicative situations. So, the person must know the grammar rules of his language, but also he must know how to apply them in concrete events. Besides, Hymes thinks that: “communicative competence thus includes speakers’ knowledge of linguistic and sociolinguistic rules as well as their ability to use this knowledge in interaction.” (Whyte, 2019, p.2) This means that the speaker and hearer must know how to use both of the rules because the knowledge of grammatical and social rules is insufficient for an effective use of language.

Dell Hymes (1967, p.13) sees that communicative competence: “enables a member of the community to know when to speak and when to remain silent, which code to use, when, where and to whom, etc.” (As cited in Eghtesadi,A.R (2017, p.38). In other words, communicative competence guides the speaker and the hearer in conversations in different contexts. Also, when the speaker and hearer respect these rules of use in different situations, they will reach a communicative competence concept. To sum up, Hymes’ communicative competence concept requires knowledge of grammatical and sociolinguistic rules of both speaker and hearer, and their capacities to use all of the rules in different contexts. This shows that communicative competence is different from performance in terms of the importance of the interlocutors’ knowledge of the rules, and not only the speaker’s knowledge. (Whyte, 2019)

2.3 Dell Hymes’ Communicative Competence Model

Hymes suggests four main questions in using language for communicative practice purposes:

Whether the language used is formally possible?

For Hymes, formally possible language use requires a correct grammatical structure, and an acceptable cultural behavior by the community. Moreover, each community has specific cultural and behavioral rules that should be followed and respected by generations through time. On the other hand, there is the formally impossible language use which refers to any ungrammatical structure and any rejected social act. (Nishad, & Abu-Ayyash, 2019)

Whether the language used is feasible?

Hymes views that feasibility in language use is concerned with someone's psycholinguistic state, including his mental capacities in understanding sentences. Therefore, the speaker can create and comprehend formally possible utterances in different social situations. (Nishad, & Abu-Ayyash, 2019)

Whether the language used is appropriate?

Hymes means by appropriateness, the right choice of words and utterances in different situations, including the participants involved in the conversation. Besides, the context determines the acceptable linguistic performance applied by the speaker. Consequently, some expressions and words are inappropriate when they are said in particular speech context, and with specific people. (Nishad, & Abu-Ayyash, 2019)

Whether the language used is really performed?

Participants have several principles of language use. These principles help them to know the grammatically correct, feasible and appropriate sentences according to the surrounding context. For Hymes, this fourth element is concerned with the occurrence of utterances (Nishad, & Abu-Ayyash, 2019) He said that (1972, p.286) "Something may be possible, feasible, and appropriate and not occur." (As cited in Lynn.D, 2019) Accordingly, there are some factors that may impact on the actual production of utterances, because sometimes the sentence is possible, feasible and appropriate but it is not actually performed by the speaker. Thus, the speaker may have psychological difficulties to share his language or other action blocks him. Lynn.D, 2019)

Briefly, Dell Hymes' communicative model consists of three categories. Each category involves specific rules that a speaker should master in order to communicate effectively. The first category requires the rules of language; the second category involves the ability to use the rules whereas the third category includes the actual production of utterances in any particular context. Generally, Hymes primarily focuses on oral language interaction in modeling communicative competence concept. The following table shows the three categories (Whyte, 2019)

Table 1*Dimensions of Communicative Competence (Hymes, 1972)*

COMMUNICATIVE COMPETENCE		PERFORMANCE
Knowledge	Ability for use	Actual use & events
1 What is possible Systemic possibility “Grammaticality” (in terms of syntax but Also culture, communication)	Motivation Affective & volitive factors Capacities in	Behavioural record Imperfect or partial realization of individual
2 What is feasible Psycholinguistic reality Constraints on memory, perception	interaction(e.g., composure, presence of mind, stage confidence)	competence interaction between individual
3 What is appropriate Situational judgment Acceptability in context		competence, competence of others, and
4 What is performed Actual occurrences		properties of events

Note: Reprinted from (Whyte, 2019, p.3)

3 Vygotsky’s Sociocultural Theory of Cognitive Development

3.1 Definition of Cognitive Development

Cognitive development refers to the development of thinking and reasoning of the child from his birth. In addition, the child enhances his skills, capacities in finding solutions, and his cognition through time. Further, this process adjusts the child with the surrounding community. (What is cognitive, n.d) Thus, the first who explained this concept was Jean Piaget in his cognitive development model. (Cognitive development, 2019)

3.2 Overview of Vygotskian Theory

Vygotsky’s theory describes the importance of social interaction in the development of cognition. (Social development theory, 2020) Vygotsky (1978, p.57) asserts that “Every function in the child’s cultural development appears twice: first, on the social level, and later, on the individual level; first between people (interpsychological), and then inside the child

(intrapsychological). “ In other words, every child goes through two main stages in the process of learning; whereas social learning comes before individual learning. Thus, the child’s learning advances through social interaction with people, and it integrates to his mental function.

3.2.1 Elementary versus Higher Mental Functions

Vygotsky thinks that every child’s mind consists of two different forms of mental functioning. For him, children are innately born with some basic abilities known as “elementary mental functions” whereas later on children develop their abilities through time due to social and cultural experiences, and this is known as “higher mental functions”. (Benson, Haith, 2009)

According to Vygotsky, social activities interfere in the child’s higher mental development. (Scott, n.d) In other words, children internalize the social and cultural knowledge through the various group activities. These activities increase the child’s knowledge because every participant in the conversation shares some new ideas and beliefs. This process helps the child to acquire new capacities from others. (scott, n.d). Rogoff & Wertsch (1984) states that: “To summarize Vygotsky’s view, cognitive and linguistic processes are evolved through social activity—a result of mediated activity between children and other cultural members.” (As cited in Justice,L.M, Helen,K. E, 1999, p.112); Thus, social element is important for Vygotsky in the process of learning.

Elementary and higher mental forms are totally different from each other, even though higher mental functions are a result of elementary mental functions. Accordingly, the elementary mental functions develop innately without any interference of the outer world whereas higher mental functions are affected by some social and cultural factors, including language , signs, technology, or more knowledgeable society members. (Benson, & Haith, 2009)

Higher mental function necessarily goes through 2 main stages in its development. The first stage is the external stage which refers to the child’s interaction with other members in different social contexts. Then, the second stage is the internal stage which means the movement of external functions into child’s internal functions. Moreover, the child uses any concept in interaction with other people in the outer world in the external stage. Whereas, his ability to transfer this concept into his inner possession. (Justice L.M, Helen K. E, 1999); Further, the transformation from external to internal functions is called internalization process. (Shabani, khatib, & Ebadi 2010)

Table 2:*Development as a Two-stage Process: A Vygotskian Perspective*

Stage 1. The interpersonal (social or external) plane

Characteristics of children's conceptual performance:

- a. Dependent on a social context within a collaborative activity
- b. Mediated by their own developmental level
- c. Scaffolded by a more capable and knowledgeable peer

Stage 2. The intrapersonal (psychological or internal) plane

Characteristic of children's conceptual performance:

- a. Independent of a social context
 - b. Mediated by their own developmental level
 - c. Automatized and regulated by self
-

Note: Reprinted from Justice L.M & Helen K.E (2020)

3.2.2 The concept of More Knowledgeable Others (MKO)

The term more knowledgeable other describes a person who has disparate knowledge or higher level skills and abilities in different domains or subjects, than the other person with a lower ability level. Most of the time, the more knowledgeable person might be a teacher, mentor, parent or someone who is older than the learner. Besides, children and more experienced and advanced people in learning can be the more knowledgeable others in some cases. However, it is not necessarily that the more knowledgeable other is a person. There are electronic programs and applications that are evolved to develop the learner's level of knowledge. (More knowledgeable other, n.d)

3.2.3 The Zone of Proximal Development

The child is able to assimilate new concepts at school via their previous experiences. Further, the child's ability to calculate at school is gained from his previous knowledge about quantity and numbers at home. In fact, some psychologists reject the idea that children have their own

learning experience in different topics and tasks before they attend school. In fact, the preschool learning is more general because the child learns basic information and simple words whereas the school learning is more specific and scientific. (Lev V.Vygotsky, 1978); According to Vygotsky (1978, p.84) “Learning and development are interrelated from the child's very first day of life.” Alternatively, the infant begins learning names and skills as well as he develops them through time. Thus, the more the infant learns new information, the more he develops his knowledge level.

The psychologist Koffka (1978) contributes to determine the relation between the laws of learning and mental development. He states that children face some difficulties in distinguishing between preschool learning and school learning processes. Moreover, children only focus on simple learning concepts in the preschool years and they do not figure out the new complex concepts in the school. Most of children see that the school learning is characterized by systematic processes while the other learning is randomly assimilated. Although, systematicness is considered one of the main differences, the new complicated concepts provided to children by the school learning phase is also a problem for them. Overall, the new provided concept of zone of proximal development clarifies the various aspects of school learning.

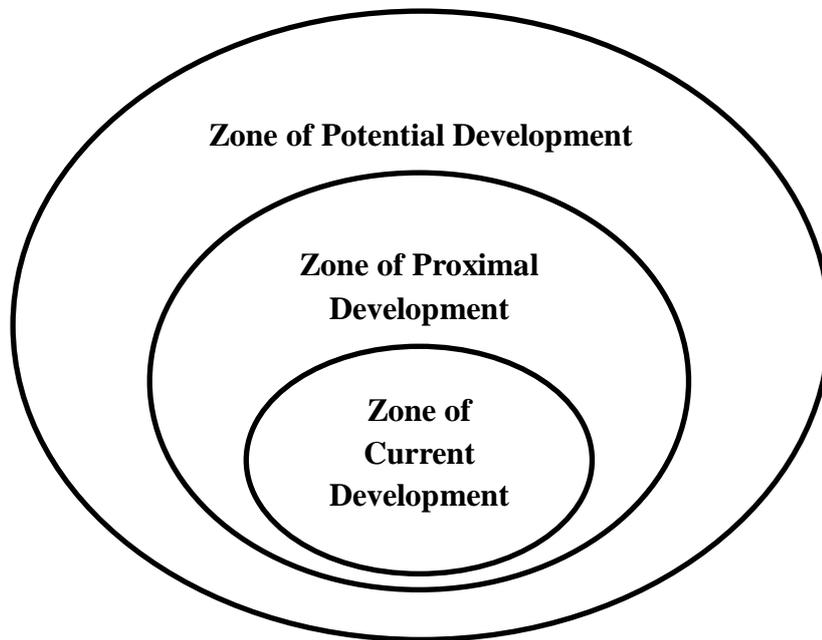
The child in each specific age is able to complete a certain task and learn a new concept, but Vygotsky believes that there are no limits for child's learning in developmental levels. Then, he argued that the fact of relation between development and learning occurs on two levels: (Lev V.Vygotsky, 1978)

First, the actual development level is the current mental knowledge of a child. In this level, the child successfully completes a series of various developmental levels. Besides, the procedures and methods that are used to detect the child's mental age belong to this actual developmental stage. In fact, the tasks that the child can do alone without any help of others determine his mental level. Further, these tasks must be disparate in the degree of difficulty during the process of determining his mental age, including his way of solving these tasks and their degree of complexity. However, a proper indicative test of child's mental level requires other important features; any guidance from the teacher through certain questions and hints in order to facilitate the solution of the task, or any group help during the task invalidates the test truthfulness. Therefore, the child must achieve to the correct solution by himself in this actual developmental level. (Lev V.Vygotsky, 1978)

According to Vygotsky (1978), two children are ten years old chronologically and eight years old mentally. They are considered from the same mental age which is eight years old. In other words, both of them are able to accomplish particular tasks individually of a child who is eight years old chronologically. In fact, these children are experienced only about eight years old's mental developmental level. Moreover, they will go through the same process of mental development and school learning, even though their number of absences or other factors may influence on their developments. Vygotsky proposes some solutions with the guidance of an adult in order to develop the eight years old's level to nine or twelve years old's level. These ways differ from one another (Lev V.Vygotsky, 1978, p.86): "some might run through an entire demonstration and ask the children to repeat it, others might initiate the solution and ask the child to finish it, or offer leading questions." Further, the distance between the mental age and its development as from eight to nine or eight to twelve years old level is known as "the zone of proximal development". Thus, the new level that the child achieved with people's help is proximal level. (Lev V.Vygotsky, 1978)

Vygotsky developed an important concept in the socio-cultural theory known as zone of proximal development "ZPD". Vygotsky (1978, p.86) defined "ZPD" as: "the distance between the actual development level as determined by independent problem solving and the level of potential development as determined through problem solving under adult guidance or in collaboration with more capable peers." In other words, this area of exploration "ZPD" is the link between two main stages; the level of the child's current knowledge and experience, and anything he can manage to do and solve alone by himself as well as the next stage that requires the help of others and social interaction. This social interference from more capable people facilitates the child's movement from the first stage to the developed second stage of learning. (Lev V.Vygotsky, 1978)

Figure 1: *The Scheme that Represents a Common Understanding of Vygotsky's Concept of the Zone of Proximal Development*



Note: Reprinted from (Fadde.A, 2019, p.34)

Vygotsky believes that the child develops various capabilities subconsciously when he imitates a more experienced adult. In addition, the teacher plays a fundamental role in activating the child's learning process within the zone of proximal development; he should motivate the learner to join multiple visual and physical activities in different domains. Accordingly, children can gain new aptitudes and understand new concepts through the shared experiences from the more skilled peers or adults. Finally, Vygotsky's strong belief that the child's learning development is interrelated with social interaction occurs in his zone of proximal development concept, including adult's guidance and social communication. (Sarker, 2019)

Vygotsky (1934/1962) states the three main difficulties that may occur during the child's learning process, and they prevent the learning progress of the child in certain developmental levels; the child may focus only on some specific skills and ignore the others. However, any developmental level consists of these three following obstacles: (Sarker, 2019)

- 1- The child faces certain difficulties that he is able to solve independently without any collaboration with a more capable peer or adult.

- 2- The child faces certain difficulties that he is unable to solve unless a more capable adult helps him.
- 3- The child faces certain difficulties that he is unable to do even with adult's help in particular developmental level.

Psychological education is mostly interested in the second type of difficulties, which require the guidance of a more skilled person in problem solving tasks during the child's developmental process. For Vygotsky, these tasks are completed within the zone of proximal development. (Sarker, 2019)

3.2.4 The Concept of Scaffolding

Scaffolding is a term introduced first by Wood, Bruner & Ross (1976) based on Vygotsky's zone of proximal development concept. It defines as "the support which is given to the child to meet his cognitive potential." (Pathan et al, 2017, p. 233) Furthermore, the child acquires new skills in the proximal development are through the scaffolding process. This concept is used by educators in order to enhance children's abilities in different fields; the amount of assistance decreases through time and it stops when the child becomes able to accomplish certain tasks individually. Wood et al (1976, p. 90) defines scaffolding as: "developmental process that enables a child or novice to solve a task or achieve a goal that would be beyond his unassisted efforts." (As cited in Sarker, 2019, p.11) Then, they note that the concept of scaffolding is under the control of the educator. Accordingly, the more skilled adult is responsible for the selection of certain tasks; the type of any chosen task must be more complicated than the child's current ability. Therefore, this concept helps the child to work hard in order to internalize the important skills associated with his developmental level. (Sarker, 2019)

Vygotsky views that imitation is the best way of learning children new skills. Otherwise, Children get excited to do exactly the same of what an adult does within their zone of proximal development. Moreover, the more knowledgeable others have the ability to increase the child's level current ability, and they are scaffolded by the parent's guidance. To sum up, educators and parents give a list of instructions to the child in each situation so that the child can complete the task progressively by their own. The scaffolding refers to the steps of mastering new skill and achieving the final result without assistance. (Sarker, 2019)

The process of scaffolding children includes the following rules: (Sarker, 2019)

- 1- The extent of adult's guidance must be equivalent to the child's needs.
- 2- The learner must be curious about solving the given task within his developmental level.
- 3- The educator must suggest effective ways in completing learner's tasks.
- 4- The educator must know the learner's psychological problems and deal with them.
- 5- It is necessary to identify the learner's current developmental level.
- 6- The information provided to the learner must be related to his current knowledge and to his future capacity in learning specific concept.
- 7- It is important to break any task into units which helps the learner to control the task and solve it gradually. So that, the learner gives multiple feedbacks to the educator.
- 8- Some techniques helps in developing the children's knowledge: "Prompts, modelling, adapting learning materials and verbal cues" (Mohammad Faysal Sarker, 2019, p.12)
- 9- Interaction is the key element of the concept of scaffolding.
- 10- Group activities and collaborative tasks are needed in scaffolding children.
- 11- Vygotsky suggests an effective method in developing learner's capacities called "Reciprocal teaching". This method includes the child's learning from text independently. Then, the child shares his ideas, remarks, feedbacks with the educator. Besides, the educator clarifies any complicated idea for the child. Thus, it is a method that requires work from both sides' learner and educator. (Mohammad Faysal Sarker, 2019)

3.2.5 Mediation

Another important Vygotskian theme is mediation. Vygotsky (1978) states that "Mediation is the representation of tools." (Pathan et al, 2017, p. 233) It represents the tools that are acquired by children in solving tasks and reaching certain goal. One of the most useful tools is language. (Pathan et al, 2017) Additionally, the other tools are: "various systems of counting; mnemonic techniques; algebraic symbol systems; works of art; writing; schemes, diagrams, maps and mechanical drawings ..." (Vygotsky, 1981, p.137) Furthermore, "computers, calculators, paint brushes" (Scott, n.d, p.2) are items that the child uses in solving certain activities, which are considered as semiotic means. According to Vygotsky, the child's higher mental functions develop through "Mediated activity". Besides, there are two types of tools used within the mediated activity: the physical tools and the psychological tools. However, vygotsky believes that language is the most important psychological tool. (Shabani, 2010)

Wertsch (1985, 1998) asserts that “intersubjectivity” plays an important role in mediation concept. Moreover, it refers to the common comprehension determined between the child and the more knowledgeable other. (Shabani, 2010)

Conclusion

Social interaction plays an important role in child’s language use. Further, it is necessary in the child’s mental development from birth. This fact infers from the explanation of both theories “communicative competence theory” and “sociocultural theory” within this chapter. In addition, Dell hymes mentioned some rules for using language in different social events. Besides, Vygotsky asserts that social interaction impacts on the child’s language learning and development. Thus, these theories helps in examining the deaf’s oral language and in mentioning the social factors that led to oral language delayed in the following chapter.

Chapter Three
Methodology and discussion

Introduction

This chapter represents the practical framework of this research. The first section of this chapter includes research method, research setting, and participants. Then, each data collection tool is explained at the beginning including, checklist tests, interviews and observations. Finally, the results are discussed in details and they are illustrated by tables and figures.

1 Research method

This research is based on a quantitative approach from an environmental perspective. Further, it represents data collection and statistical analysis of a sample of 14 participants. Therefore, it aims to evaluate the variables of deafs' oral language by using different materials including, checklist tests, interviews and observation during the data collection process.

1.1 Research Setting

This research took place in The Center of Deafness and Muteness in Relizane. In this center, all deaf and mute children start studying from 4 years old. Further, they study from primary until middle school in this center.

1.2 Participants

The sample of this study consists of 14 participants. They are divided into two groups of 7 participants in each group. Besides, their ages are from 13 years old to 19 years old. Moreover, they are all adolescents and they are from the same type of deafness "Moderate deafness". Further, 43% (n=6) are males and 57% (n=8) females. In addition, they study in middle school at the center of deafness and muteness in Relizane. In this research, all pupils were informed about this study and the given tests during their classes. To conclude, all participants are adolescents, from the same degree of deafness "moderate deafness", and they all study at the center from 4 years old.

1.3 Data collection tools

In this research, the first aim was to compare the spoken language of both groups. Further, I wanted to prove that the first group can speak properly whereas the second group cannot speak clearly or they only pronounce one or two words. Mostly, the second group relies only on the sign language. In order to collect data for this research, checklist tests and interviews

were conducted. Moreover, I interviewed their teacher because she knows the used to teach them for years and she knows the mental function of each participant. Furthermore, I interviewed the psychologist of the center of deafness and muteness for more information about the psychological status and behaviors of each participant and his environment at home. Besides, she knows their lives and relations between the deaf and his family from childhood, and the extent of interaction that is between both. Therefore, this was done in order to know which group has communicative competence, and if interaction interfered in their language development.

1.4 The Description of the Checklist Test Procedure

The checklist consists of 18 words which are most used in daily life. First of all, I chose the words with the deaf's teacher. In addition, I asked her to give me some hours each day from the deaf's classes. Then, she informed them about this test. Besides, I took their permission to record them while they pronounced the words.

In this test, the teacher asked them to come one by one, and repeat each word twice. This process took 20-30mn with each participant and at the same time I recorded their pronunciation. Further, the two remarks that I focused on are well pronounced and mispronounced. The well pronounced words are clear and understandable whereas the mispronounced words are complicated to understand and sometimes not even pronounced at all. After each session, I discussed with them about any subject in order to compare their formation and understanding of words. Thus, the results of the test were calculated at home after listening to each record for several times.

In this test, the following symbols refer to:

√ = Well pronounced words	P = Participant
× = Mispronounced words	W = Word

The list of 18 words

	Words	Transcription	The meaning in English
1	Bara	/bɑpɑ/	Outside
2	Telephone	/telɪfʊ:n/	Phone
3	Mama	/mɑ:mɑ/	Mother
4	Papa	/pɑ:pɑ/	Father
5	Khouya	/ξʊ:jə/	Brother
6	Tabla	/ɑɑblɑ/	Table
7	Gateau	/gɑɑo/	sweet
8	Kolshi	/kʊlʃi:/	Everything
9	Bezaf	/'bɛzɑ:f/	A lot
10	Facebook	/fɑʊpsbʊ:k/	Facebook
11	Ji3ana	/dʒɪʃɑ:nɑ/	Hungry
12	Ch3el	/ʃɑ:l/	How much
13	Fatiha	/fɑtihə/	Female name
14	Wissem	/wɪsɑ:m/	Female name
15	Yakoub	/jɑð'θu:b/	Male name
16	Oussama	/'ʊsɑ:mɑ/	Male name
17	Hadjer	/hɑdʒər/	Female name
18	Fatima	/fɑɑɪmɑ/	Female name

1.4.1 The Checklist Test 1

	W 1	W 2	W 3	W 4	W 5	W 6	W 7	W 8	W 9	W 10	W 11	W 12	W 13	W 14	W 15	W 16	W 17	W 18
P 1	√	√	√	√	√	√	√	×	√	×	√	√	√	√	√	√	√	√
P 2	√	√	√	√	√	√	×	×	×	√	√	√	√	×	√	√	√	√
P 3	√	√	√	√	√	√	√	×	×	√	√	√	√	√	√	√	√	√
P 4	√	×	√	√	√	√	√	√	×	×	√	√	√	×	√	√	√	√
P 5	√	×	√	√	√	√	√	√	√	×	√	√	√	√	×	√	√	√
P 6	√	√	√	√	√	√	×	×	×	×	√	√	√	√	×	√	√	√
P 7	×	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	×	√

The results

Table 1: the results of checklist (group1)

	Well pronounced words	Mispronounced words
Group 1	83%	17%

The results in the table (1) illustrate that participants of group 1 succeeded in pronouncing 83% of the words. Furthermore, 17% of the words were not pronounced clearly because they could not pronounce all words properly as normal children.

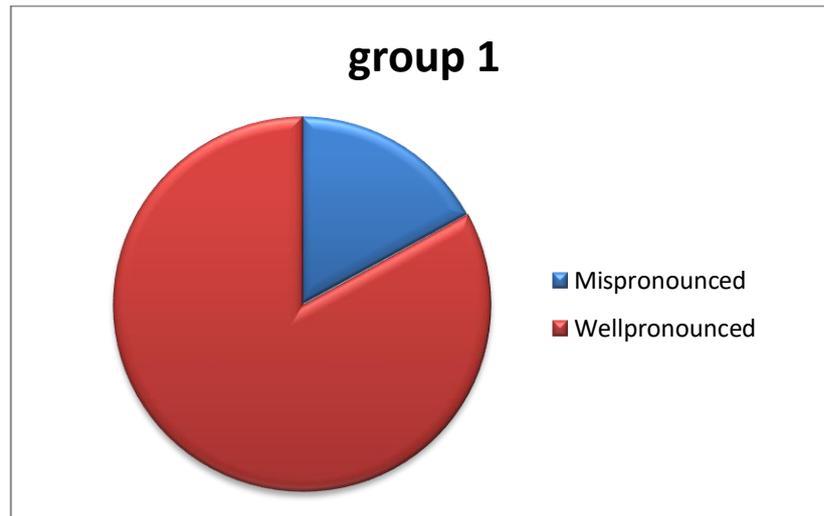


Figure 1: the checklist test's result of group 1

1.4.1.1 Interview (1) Description

The interview that was conducted is a semi-structured interview. I interviewed the psychologist because she had background details about each participant. Besides, she went at their homes and met their parents each period. Thus, she had the needed information for this research.

First of all, I prepared my list of questions before going to the center. In addition, I met the interviewee who is the psychologist of the deafs and we started the interview. In this interview, my focus was on questions about the participants 'social life. Moreover, the questions were: does participant X live with a hearing family? , Do you think that participant X is sociable (introvert or extrovert)? , and do you think that participant X was motivated to develop the spoken language and how?. From the previous questions, I had other questions during the interview. This process took one hour a day. Each day, the interviewee told me about 3 participants.

In conclusion, the aim of this interview was to know the type of social life that helps in developing the spoken language.

1.4.1.2 Interview results

These are the information that I have collected from the interview:

Participant 1

The participant 1 lives with a hearing family. According to the psychologist, she is a sociable participant who is active all the time and interferes in any discussion in the classroom.

Besides, she is motivated by herself because her parents have problems and they do not care about her psychological status. Also, she takes care of her siblings at home and she does the cleaning work. Additionally, her mother speaks to her and does not sign with her. This may help her to develop her oral language rapidly because they were not treating her as a disabled person. Furthermore, she works on her oral language and she has the desire to be a normal person. The teacher told me that she was never shy of making mistakes when she used the oral language in the classroom not like others.

Participant 2

The participant 2 lives with a hearing family. Her family is supportive and interested in knowing details about her often. Her father comes to the center many times to ask about her behaviors. The teacher thinks that the care that she has from her parents and the encouragement at home are the reasons behind her oral language development.

Participant 3

The participant 3 lives with a hearing family. Further, he came to live with his uncle from his childhood in order to study in this center of deafness and muteness. Besides, his uncle gave me a work in his shop of clothes. This helps him to interact with hearing people and he develops his oral language. Therefore, the teacher believes that the motivation of his uncle encourages him to develop his spoken language.

Participant 4

The participant 4 lives with a hearing family. According to the psychologist, his father plays an important role in his life because he helps him to interfere in our normal life. This means that he let him work in his own shop and he gave him the chance to do some activities by himself as traveling from one city to another. This helps him to be encouraged to use the spoken language in the outer world with hearing people.

Participant 5

The participant 5 lives with a hearing family. Additionally, he is an extrovert person and he interacts with his peers. However, his parents were helpful and they created a quiet environment for him at home.

Participant 6

The participant 5 lives with a hearing family. The psychologist told me that she only speaks at home and only with her mother. However, the surprise was that she spoke on the day of the checklist test in her turn. According to the teacher, she is shy and an introverted person. Moreover, she never used the oral language in the classroom even if all her classmates know that she can speak properly. Thus, she is scared to make mistakes and does not speak as a normal person.

Participant 7

The participant 7 lives with a hearing family. Besides, he is aware of everything around him and he is intelligent. Further, he was living an excessive protection at home but he achieved some adolescent's independence years after joining the center.

1.4.1.3 Discussion

The group (1) was able to pronounce the oral words properly. This means that they are able to pronounce oral phrases and sentences clearly. Besides, it helps them in interaction with hearing people. Furthermore, they are bilingual in sign language and oral language.

Based on individual data differences of each participant, the majority of them were encouraged at home to be bilinguals. Additionally, they received parental interventions in order to enhance their spoken language. Then, parents played a fundamental role in their deafs' oral language development. Therefore, the hearing family may encourage the deaf to speak, but only if the parents were able to create a successful bilingual language learning environment for their deaf children.

In other case, the participant was encouraged by herself. Moreover, her discouraged environment and her responsibilities at home pushed her to impose herself. Obviously, her desire to communicate as hearing person helps her in developing her oral language. Thus, the personality of the deaf interferes in his oral language development outcome.

Another case represents the participant who is able to speak only at home. Furthermore, she was afraid to make mistakes in using the oral language. Besides, she never liked to share her oral language with hearing people even though she pronounced properly most of the words of the checklist. Thus, the character of the deaf may not allow him to use his spoken language with all hearing people.

The last case illustrates that the excessive protection that is provided by parents may cause problems in the deaf's psychology. Thus, parents help in language learning when they are a hearing family but also they may over protect him.

1.4.2 The Checklist Test 2

	W 1	W 2	W 3	W 4	W 5	W 6	W 7	W 8	W 9	W 10	W 11	W 12	W 13	W 14	W 15	W 16	W 17	W 18
P 1	√	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×
P 2	√	×	√	√	×	×	×	×	×	×	×	×	×	×	×	×	×	×
P 3	√	×	√	√	×	×	×	×	×	×	×	×	×	×	×	×	×	×
P 4	×	×	×	√	×	×	×	×	×	×	×	×	×	×	×	×	×	×
P 5	×	×	√	×	√	×	×	×	×	×	×	×	×	×	×	×	×	×
P 6	√	×	√	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×
P 7	√	×	√	√	×	×	×	×	×	×	×	×	×	×	×	×	×	×

The results

Table 2: the results of checklist (group2)

	Well pronounced words	Mispronounced words
Group 1	12%	88%

The results in the table (2) show that the group 2 could pronounce only 12% of all the words. Besides, 88% of words were unclear pronounced or not even pronounced most of the time. Only the first letter of each word was pronounced by most of them. Thus, they failed in pronouncing the list of words.

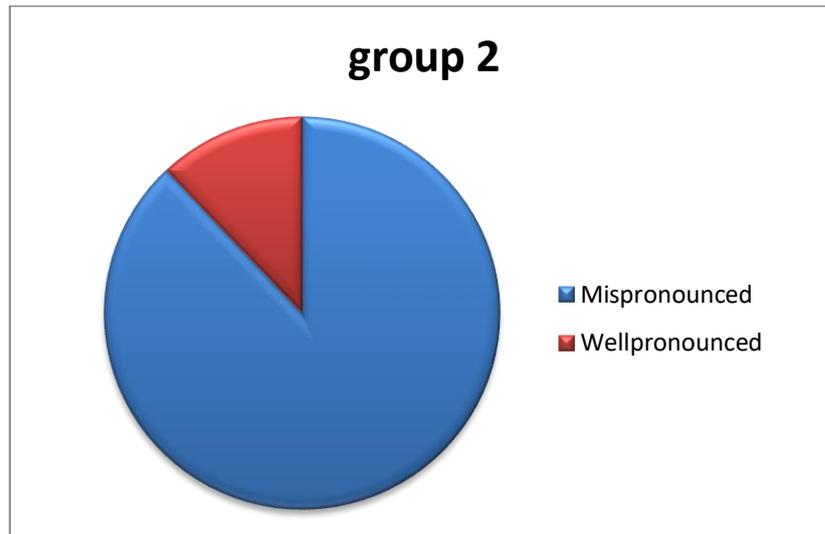


Figure 2: the checklist test's result of group 2

1.4.2.1 Interview (2) Description

The description of this interview with group (2) is the same as group (1)'s interview.

1.4.2.2 Interview results

Participant 1

The participant (1) lives with a hearing family. Besides, her family was not interested in her developmental levels. Moreover, her level of interaction changed between her and her peers from childhood till adolescence and she became more nervous. Further, she had not a stable psychological status and this was caused by the absence of parental care.

Participant 2

The participant (2) lives with a hearing family. Unfortunately, she had lack of self-esteem because she never accepted her disability. This impacted on her psychological status negatively but her parents were not aware of the importance of the deaf's child acceptance of the disability. Additionally, her family did not take care of her at home in childhood period.

Participant 3

The participant (3) lives with a hearing family. Moreover, his family did not help him in order to develop his communicative competence and interaction with hearing people.

Further, the neglect of his mother reflects the lack of acceptance of his disability, which created a kind of tension and nervousness in his adolescence period.

Participant 4

The participant (4) lives with a deaf family. In Addition, her siblings have a severe deafness. Further, she had a discouraged environment in terms of oral language development because of the absence of the oral language at home from birth. In this case, the center helps her to interact with signs with her deaf peers.

Participant 5

The participant (5) lives with a hearing family. Besides, they interact with him using only signs. Moreover, they kept him with them and he did not interact with the outer world. Further, his mother used to treat him as a helpless child because of her excessive sympathy toward him as a disable child. Additionally, his mother treated him as a weak child even if he was in his adolescence period.

Participant 6

The participant (6) lives with a hearing family. Further, her family did not help her at home before she began at the center. Besides, the center could not help her in terms of developing her interaction with others because she did not accept any help. This means that she used to be isolated at home and she did not adapt to interact with people, including deaf peers.

Participant 7

The participant (7) lives with a hearing family. Moreover, her mother used to communicate with her through signs only. Besides, she interacts with signs with her deaf peers but she does not interfere in any oral conversations.

1.4.2.3 Discussion

The group (2) was not able to pronounce the list of words and they were not able to communicate with me at the classroom. In addition, they did not develop their communicative competence and interaction with others. Therefore, the individual differences in terms of their family environments from childhood illustrate their lack of oral language development.

Based on the psychologist's answers about each participant, the reason behind the lack of language development was the neglect of parents which caused also psychological problems from childhood. Further, parent did not care about their child's language outcome because they think that he was not a normal child who can speak.

In some cases, parents did not accept their child's disability which effected on his communication competence and interaction with others. According to Ballantyne (n.d, p.218) that "one of the greatest difficulties facing the parents of a deaf child is their acceptance of the handicap ... Deafness must be accepted. The task that lies ahead is often very great, but cannot be properly begun until one has succeeded in removing the enormous psychological barrier of non-acceptance." Moreover, the child lost his self-confidence, self-esteem and he was isolated at home. Then, when the child started at the center, he did not benefit from it. Therefore, the development of oral language and interaction started at home.

In other cases, the parents treated their deaf child as a weak person who needs more care than others. Moreover, the child did not believe in his capacities and he became attached to his parents. Therefore, he could not interact with outer world and he had any individual activity to do in life.

The last case, when the deaf child lived within a deaf family, he had a less opportunity to acquire and develop the spoken language. Thus, he used only sign language from birth and he would not be able to acquire it after 5 years old anymore.

1.4.3 Discussion about deafs' language deficiency

The group (1) is able to communicate effectively and interact because they know Dell Hymes rules of communicative competence. Based on checklist tests and observations in classroom, the group (1) knows the linguistics and sociolinguistics rules of spoken language, including possible, feasible, appropriate and really performed language. Further, they are motivated in their childhood language development stages. On the contrary, the group (2) does not know both rules in using the spoken language. Moreover, they did not acquire any oral language before starting at the center of deafness and muteness. Therefore, their spoken language is completely weak and unclear.

Moderately deafs who have communicative competence interact better with a stranger hearing person. Besides, participant of group 1 were more comfortable to share their spoken language not as participant of group 2.

The new element that interfere is that also the family's deaf in terms of a hearing or deaf family. In this case, neither encouragement nor deaf's psychology can develop his spoken language. This happens because there is no interaction between parents and deaf with oral language. Therefore, he won't be able to acquire language unless he started from home.

1.5 Observation: Description

This observation was conducted in the classroom during the teacher's lessons. Besides, the teacher showed me how she interacts with them while she explained a lesson.

However, the focus of my observations was to determine the most used language by the deaf in the classroom. In addition, I wanted to know if "group 1" uses sign language frequently even if they are all able to use only the oral language. This observation illustrates their communicative competence process.

1.5.1 Observation of communication in the classroom

	P1	P2	P3	P4	P5	P6	P7	P8	P9	P10	P11	P12	P13	P14
Non-verbal communication (Sign language)	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒
Verbal communication (Spoken language)	☒	☒	☒	☒	☒									

1.5.1.1 Results

The results represent that all participants use sign language in the classroom. Furthermore, some participants (6, 7) are able to speak properly but they prefer to use the sign language with their peers in the center. Moreover, I observed that when they know that the hearing person does not sign, "the group 1" uses the oral language in order to communicate easily with him. Whereas, "the group 2" uses the writing in order to communicate with the hearing person.

1.5.1.2 Discussion

All deaf participants use the sign language in the classroom. Even though, the group (1) is able to use only the spoken language, they prefer to use sign language in the center. In addition, they use it in order to communicate with all deafs from different degrees of deafness, including severe and profound deafness. Furthermore, those who can speak use their spoken language with teachers and a hearing person as workers in the center. However, they use spoken language just little in the center. This had impact on some moderately deafs' spoken language because they are accustomed to use sign language all day in the center.

1.6 The Psychologist Interview

The interview was a structured interview with the psychologist of the center of deafness and muteness in Relizane. The psychologist is the person who knows each deaf personally because she does investigations with their parents. Previously, we managed to meet after the checklist test but the center closed because of the corona-virus. This led us to do a phone interview. However, the following list includes the questions that I had created in order to know the interventions that may help some moderately deafs to speak the oral language. Besides, this interview aims to establish the social factors that impact on the deaf's spoken language outcome. The interview questions were:

- 1- Did the moderately deaf speak before starting at the preschool
- 2- Did some of the deaf start speaking just from the school's methods of teaching?
- 3- At the center, are you interested in developing the moderately deaf's oral language or you focus only on teaching them sign language?
- 4- Is the moderately deaf capable to use only the spoken language?
- 5- Do you think that the moderately deaf adolescents who speak were under specific circumstances at home?
- 6- Do you think that environment encourages the moderately deaf more than the center of deafness and muteness to speak?
- 7- Do you think that the moderately deaf adolescents who do not speak were not encouraged as much as others who can?
- 8- Do you think that the development of language of the moderately deaf is related to their psychological status and personality?
- 9- Do you think that all moderately deafs can speak?

10- Do you think that interaction between the moderately deaf with their hearing peers helps to develop their oral language?

1.6.1 Results of interview

Number of answers	Answers
1	<p>There are two cases for this question:</p> <p>The first case, if the child was born with a moderate deafness, he may acquire some incorrect words or letters. Then, when he joins the center of deafness and muteness, he learns sign language and he will use it in communication with deaf peers. Therefore, his oral language is not proper and clear.</p> <p>The second case, if the child was born normally without deafness. Then, he had a physical injury that caused deafness. Additionally, he can develop his spoken language only before the occurrence of deafness. In this case, the oral language development of the moderate deaf child is related to the moment of the injury.</p>
2	<p>If they attend at the center of deafness and muteness at an early age, they will be acoustically qualified and especially in the first and the second stages of pronunciation.</p>
3	<p>We focus more on speech reading during classes. This means of communication facilitates the comprehension of messages and lessons for the moderately deafs.</p>
4	<p>They are able to use the oral language only if they were taken care of at an early age. Further, the deaf's oral language is not exactly the same as a normal child.</p> <p>Besides, the intelligence capabilities have a role in the linguistic and academic achievements and even the nature of communication.</p>
5	<p>The deaf adolescent is more emotional than the normal</p>

	<p>adolescent because parents 'awareness is deficient in terms of parental accompaniment. Also, the deaf wants to prove himself to society and to be understood.</p> <p>Through time, he becomes more emotional and nervous and this impacts negatively on his academic achievement and communication competence. As for parents who have awareness, they help in a positive way their child to communicate and interact with the outer world. Moreover, the deaf will be able to adapt with society and he will be psychologically comfortable. Therefore, parents play an important role in helping their child in order to develop his spoken language and communicative competence.</p>
6	<p>The environment does not help the moderately deafs more than the center because the necessary facilities are lacking in the outer world, especially the recreational facilities that help him to communicate with others.</p> <p>However, there is no encouragement to speak in the center unless the child has early support at home. So that, there will be coordination between the family's deaf and the center.</p>
7	<p>It is related to the extent of the disability acceptance of the parents because the unacceptability of child's status may generate neglect. Therefore, the moderately deaf child will be unable to acquire and develop spoken language properly.</p>
8	<p>When we talk about the language development of the deaf, we should include that he does not have an exact language. Mostly, he is satisfied with speech communication. However, with the encouragement of parents, especially the mother, including excitement, activities and the acceptance of the disability facilitates</p>

	communication during adolescence. On the contrary, if the family environment is not encouraging the deaf to speak, his communicative competence and interaction with others will be weak in his adolescence
9	If the disability is diagnosed at an early age, the moderately deaf child can acquire language. As well as, parental accompaniment and especially assimilation and excitement from the mother help in the development of his spoken language. Moreover, the deaf's spoken language is understandable in terms of sentence structure and pronunciation but is not totally as our natural language.
10	Interaction between the moderately deaf adolescents with their hearing peers does not help anymore. It helps in the child's language acquisition and development stages.

1.6.2 Discussion

The moderately deaf children can speak before starting at preschool in all cases. Whether, they were born with moderate deafness or they acquired it after birth. This means that the acquisition of the deaf's spoken language happens at home from his birth.

The center of deafness and muteness helps deafs who already acquired spoken language only in being more qualified acoustically. This happens through two stages of pronunciation 1 and 2. Furthermore, the center learning focuses on teaching sign language and speech reading because most of deafs rely only on these two means of communication.

The parental care about the moderate deaf's spoken language is the key element for future linguistic achievements. Moreover, the deaf's intelligence and desire to learn the oral language helps him to achieve it, and use it effectively.

The deaf child needs more care than the normal child. Mostly, parents become anxious when their child is diagnosed by deafness. The period after the diagnosis determines the future linguistic achievements of the deaf. This means that if parents create a comfortable

environment at home for the deaf, he will develop his spoken language. Besides, the parents should be aware of the sensitivity of their deaf adolescents, because the deaf adolescent is more emotional than the normal adolescent. Thus, the more they keep taking care of him, the more is better for his psychological status.

Based on all the collected data, social interaction is important in the deaf's language development especially at home. The deaf child born with the ability to learn sign language which known as elementary function, but the spoken language is considered as his higher mental function. This higher development involves social interaction in order to facilitate this process. In the deaf's case, interaction is needed at early age because he would not be able to develop spoken language in adolescence. Besides, it is not like normal children who would have the chance to learn new aptitudes and learn new languages through time.

Vygotsky (1978) believes that there no limits for child's learning developmental level. However, the deaf child has limits in learning certain aptitudes and in particular period. Then, if the deaf's spoken language did not develop at early age, he would never be able to develop it through social interaction or any other activity. Furthermore, the concept of scaffolding is helpful for the deaf's spoken language development. In addition, the mother is the person who can scaffold her deaf child and help him to adapt to outer world.

Conclusion

In this chapter, different data collections tools used in order to compare the moderately deaf adolescents' oral language. Moreover, the use of the communicative competence theory and the sociocultural theory illustrate their language deficiency. Therefore, discussions after each result helps in detecting the reasons behind these differences.

General Conclusion

The findings of the study indicated that the oral language is the most important means of communication between human beings. Most of people think that the deaf person is unable to use the universal human language, but a deaf person does not mean a mute person. In addition, the moderately deaf children have the opportunity to acquire oral language under certain circumstances. However, there are environmental factors that impact on the process of oral language development of moderately deaf children as well as interventions and recommendations for better language development.

First of all, some parents do not accept the disability of their child. Besides, the child feels rejected in his environment which effects negatively on his psychological status. Moreover, other parents isolate their child from the outer world and they only use their created gestures with him. Obviously, there will be no chance to interrelate the deaf child with oral language after his childhood because he will feel strange to the community. In addition, the deaf learns his own sign language and interact with his deaf peers.

Secondly, the moderately deaf adolescents' oral language is neglected at the center of deafness and muteness in Relizane. Further, the center's learning program focuses on teaching the deaf child only the sign language and speech reading. Additionally, teachers focus on creating a world for deafs which isolate them from the outer world. So, the deaf who sign will feel comfortable and he will not want to develop any oral word.

Thirdly, the personality of the deaf and the belief that he developed about himself at home impacts on his language outcome. Moreover, some of deafs lives in a discouraged environment where the parents do not care about his mental development levels and psychological status. Therefore, the deaf children have not the desire to improve their skills because they do not believe in themselves.

This research concluded that the moderately deafs are able to be bilingual in sign language and oral spoken language. Further, the development of deaf's spoken language take place at home first and the center only helps the deaf to learn sign language and interact with deaf peers. Additionally, the moderately deaf adolescent who acquired communicative competence is able to complete Dell Hymes Model' elements. Finally, interaction between the deaf child and his environment influences his spoken language outcome as demonstrated in Vygotsky's theory, but only in the first years after birth.

There may be some possible limitations in this study. The first limitation is time constraints; the duration of this research was not helping because the center closed due to the covid-19 virus. Then, further researchers should meet and interview the moderately deafs' parents of both cases, those who can speak and those who cannot pronounce any word.

This investigation revealed that early parental interventions and their acceptance of their child's disability effect on the process of language development. Moreover, the parents should find the right interventions which can help their deaf to enhance his oral language including, the different activities that parents provide at home and outside, the responsibility that parents give to the deaf may help in his language development because he will feel that he can be responsible as normal person.

Another recommendation is that the teachers should provide speech training and oral sessions from the first presence of the deaf at the center. Further, it is important to group deaf pupils according to their type of deafness in order to enhance the language of moderately deafs. In addition, the teacher should use both sign and oral languages in order to encourage the deaf to use the spoken language with hearing people. Therefore, motivation in the center is necessary for the deaf in terms of creating a space for using oral language.

The last recommendation is that the center's teachers and psychologist should work in correlation with parents. The psychologist should meet the parents before the child's 5 years old and explain to them how they should treat their child and how they can help him to acquire oral language. Further, the teachers should focus on teaching them a list of words each day. Then, they give the list of words to the parents and ask them to repeat the same words with their child at home. This process helps the child to get used to oral language at the center and at home. Finally, deaf children are helped by a psychologist after 5 years old, which is not sufficient for his oral language development.

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