

# People's Democratic Republic of Algeria Ministry of Higher Education and Scientific Research Dr. MoulayTahar University, Saida Faculty of Letters, Languages and Arts Department of English Language and Literature



Investigation on the Strategies for Teaching Hearing Impaired

Learners: A Case Study of Teachers in AbbadFathallah School for

Deaf Students -Saida

Dissertation submitted as partial fulfillment of the requirements for the degree of *Master* in Didactics.

Presented by: Supervised by:

Miss. A. CHIKHI Mrs. K. ABDELLAOUI

#### **Board of Examiners:**

Dr. ALIRABEH (MCB) Chair Person University of Saida

Mrs. ABDELLAOUI (MAA) Supervisor University of Saida

Dr. MAAROUF (MCA) Examiner University of Saida

Academic Year: 2021/2022

# **Declaration of Originality**

I hereby declare that this submission is my work and that, it contains no material previously published or written by another person nor material which has been accepted for the qualification of any other degree or diploma of a university or other institution.

Date: 24/05/2022

Name: CHIKHI Asmaa

Signature:

#### **Dedication**

This dissertation is dedicated to those childrensuffering from learning disabilities. Their daily persistence and courage are a lesson for us. And I'm particularly thankful to all teachers and professionals who devote their lives, work and enough attention to the children with learning disabilities, far away from discrimination, and whose understanding, awareness and sensitivity to assist these pupils by doing their best in making a difference in disabled student's life.

In addition, I would to thank my parents for having supported me all these years, to my dear Ali, who was the best brother and friend who gave me courage in in my difficult times; also my beloved two sisters Souhila and Wahiba who help me to complete this dissertation with their positive energy and complements.

#### Acknowledgements

I would like to thank my supervisor, Mrs. Abdellaoui, for her help in completing this research work, also for the patient guidance, encouragement and advice she has provided to me. I have been extremely lucky to have a supervisor who cared so much about my work, and who responded to my questions and queries so promptly.

My thanks go to my supervisor.

I would also like to thank the members of the committee, Dr. ALIRABEH and Dr. MAROUF who have given their time to read and evaluate this humble work.

Likewise, I am deeply indebted to Prof Remil and Dr. Lakhdari for the wonderful experience, and the most enriching learning journey I have ever had.

Last but not least, I would like to express my regards and blessings to all of those who provided me with support during the completion of this research work.

#### **Abstract**

This study aims to investigate the various teaching strategies, styles and activities that teachers of deaf students use in the classroom. In addition, it seeks to examine the learning situation and the students' needs. For this purpose, eleven (11) teachers from the special education school "AbbadFathallah", in Saida, were involved in the investigation. This research is based on a triangulation of research tools; the first instrument is a semi-structured interview, the researcher used two types, face to face interview with pronunciation stage and middle school whereas the second type was multiple group interview with primary school teachers. The second instrument is classroom observation, the researcher attended ten sessions with the three grades for one hour to each module as non-participant, in order to observe the teacher's and the student's interactions. The last tool is the oral questionnaire for the five students in the middle grade (there was only five students in the classroom) to collect the learner's opinions. The results found showed that teachers in the school for the deaf used the total communication approach of teaching, since it allows the teacher to use different strategiesat the same time, such as sign language and speaking out loud. Furthermore, the findings indicate that deaf learners at the target school are comfortable with teachers modifying their strategies and finding ways to communicate with them.

**Key words:** Deaf education, teaching strategies, Total communication approach, sign language.

# **Table of Contents**

Declaration	on of Originali	ty	V		
Dedication	n		II		
Acknowle	dgements		III		
Abstract.			IV		
Table of C	Contents		V		
List of Ta	bles		V		
List of F	igures		IX		
List of Ab	breviations		X		
General I	ntroduction		1		
Chapter (	One: Literatur	e Review			
1.1.	Introduction		6		
1.2.	Learning Disability6				
1.3.	Deaf Disability				
1.4.	Teaching Strategies8				
1.5.	Deaf community and Deaf disability8				
1.6.	History of Deaf Education9				
1.7.	Methods of T	eaching Deaf Learners	10		
1.7	.1. Clinica	al-Pathological Paradigm	11		
	1.7.1.1.	Oralism	11		
	1.7.1.2.	Total Communication Approach	13		
1.7	.2. Socio-G	Cultural Paradigm			
	1.7.2.1.	Manualism			
	1.7.2.2.	The Bilingual Method	17		

1.8. 1.9.	Strategiesof Teaching Deaf Learners					
1.10.	Teac	ching Vocabulary	20			
1.	10.1.	L.I.N.C.S strategy	20			
1.	10.2.	S.L.A.N.T strategy	21			
1.11.	Visu	nal aids	22			
1.12.	Teac	ching Mathematics and Writing for Deaf Children	25			
1.13.	The	Role of the Teacher and the Parents in Deaf Education	25			
1.14.	Dea	f Education in Algeria	27			
1.15.	Con	clusion	27			
Chapter	Two: ]	Research Methodology				
<b>2.1.</b> In	troduc	tion	30			
<b>2.2.</b> Pt	ırpose	of the Study	30			
<b>2.3.</b> St	atemer	nt of the Problem	30			
<b>2.4.</b> Re	esearch	Questions	30			
<b>2.5.</b> H	ypothe	ses	31			
<b>2.6.</b> Si	gnifica	nnce of the Study	31			
<b>2.7.</b> Li	mitatio	ons	31			
<b>2.8.</b> Ta	arget P	opulation	32			
<b>2.9.</b> Ta	arget P	lace	32			
2.10.	$\mathbf{N}$	Methodology	33			
2.11.	Ir	nterview analysis	34			
2.12.	C	Observations	42			
2.13.	Q	Questionnaire	47			
2.14.	C	Conclusion	50			
Chapter	Three	: Data Analyses and Interpretation				
<b>3.1.</b> Ir	ntroduc	ction	.53			
<b>3.2.</b> D	Discuss	ion of the Collected Data	.53			
3.	<b>2.1.</b> T	The interview	53			
3.	<b>2.2.</b> T	The observation	55			
3.	<b>3.2.3.</b> The Questionnaire					
<b>3.3.</b> T	he resu	ults of the Comparison Between the Tools	57			

<b>3.4.</b> The answers for the Research Question	ons58
<b>3.5.</b> School Observation	60
<b>3.5.1.</b> The Positive Data	60
<b>3.5.2.</b> The negative Data	61
<b>3.6.</b> The role of the Teacher in Deaf Educ	ation62
<b>3.7.</b> The Role of the School and the Minis	stry of Education64
<b>3.8.</b> The Role of the Parents in Deaf Educ	ation65
<b>3.9.</b> Challenges that Face the Teacher in the	he Classroom66
<b>3.10.</b> Conclusion	68
The general Conclusion	69
References	71
Appendix	77

# **List of Tables**

Table 01: The most common researchers in deaf education	10
Table 02: The summary of observation sessions	43
<b>Table 03:</b> Students' answers of the questionnaire.	50

# **List of Figures**

Figure 1:Example of a LINCS note card using the modified approach to the voc	abulary
learning	21
Figure2: The students' number in each observation session.	56
Figure 3: The Teaching Strategies Used in the Classroom	59

#### **List of Abbreviations**

**ASL**: American Sign Language

**FM:** Frequency Modulation

**HOH:** Hard Of Haring

IDEA: The Individual with Disabilities Education Act

L.I.N.C.S: List the part-Invent a sentence-Note linking story-Create a linking picture-Self text

**Sim-com:** Simultaneous communication

S.L.A.N.T: Sit up- Lock and Listen- Ask a question and Answer- Nod the head with yes or

no- Talk with your teacher.

#### **General Introduction**

From the beginning of the creation, deaf people were seen as a mistake that the creator made, they never treat them as a human being or treat them equally as normal people; especially in the western countries, where the church was neglecting them and never provided them with their simple life conditions, such as home, food or education. In the 1500s, the term of deaf education appeared with the Spanish monk that was called Pedro ponce de l'ean that gave a chance to those people and educated them with several strategiesand that was the basic of deaf education. Deaf education started to become an interesting field to search for, it turns to be the closed book of the decades and it brought with it several researchers and writers that gave different strategiessuch as oral and sign language.

The ninety four (94) version of the American law of 1975, was the first step in the world that gave the deaf learners the right to study in normal schools and have the same privileges as non-disabled students. Moreover, the teaching strategies that the teacher used in inclusive classrooms is not the same as the special school. The strategies that the teachers of deaf education use nowadays are really related to the past experiences, since the deaf learners are using the finger spelling, lip reading and gestures. This case study shed light on the teachers' creativity and behavior toward the deaf learners.

Nowadays, the special education became important since it's the only way that remediate the society from the idea of disable people are useless persons in the society, and engage the deaf learners in the society as an active humans and save them from the isolation of their disability. These goals are achieved only with the successful strategies of teaching that are applied in the classroom. The significance of the present research is on investigating the methods and strategies that the teachers of deaf and hard of hearing learners use to enhance the level of the learners.

The aim of this study is to investigate the strategies and methods used by teachers of deaf education used in the classroom to enhance students level, since it is really important to know how do teachers deal with this kind of disability to know the effectiveness of those strategies according to the students reaction; in addition, this thesis focuses on the development on the field of deaf education. The target population is the teachers of "Abad Fathallah" school, in the sake of reaching the goals of collecting qualitative and

quantitative data. The researcher attended several sessions with the deaf learners as an observer and took some interviews with different teachers in the target school, in order to answer the research questions and questionnaire the hypotheses in the target place.

The purpose of this research work is to examine the strategies that the teacher in deaf education uses in teaching disabled learners, since several strategies appeared on the last three centuries and created a big conflict about the suitable strategies for the deaf learners, for this purpose, the formulated research questions are as follows:

- 1. What are the strategies that are used in teaching deaf learners?
- 2. How do teachers of deaf learners perceive the curriculum and it's appropriateness for disable learners?
- 3. To what extent are the strategies and methods used to deaf learners effective?

In the sake of answering the research questions, the researcher suggests a set of hypotheses that might answer those questions, which are:

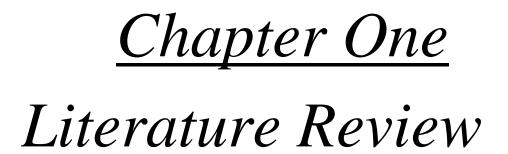
- 1. The major strategy that the teachers used in teaching deaf learners is sign language; in addition to, the oral strategy with flimsy use of body language, lip reading and eye contact.
- 2. Teachers do not agree on the curriculum and programs used in teaching deaf learners which are designed for non-disabled learners.
- 3. Deaf learners are obliged to deal with any teaching strategy since all the teachers used.

The present study attempts to explore the effectiveness of the strategies that the teachers used in transferring information in the classroom; in addition, take views and opinions of the teachers toward the curriculum that the ministry of education uses with deaf learners, the last aim is to give the opportunity to deaf learners to express themselves and share their ideas about the techniques that they appreciate and comprehend with.

The researcher used in investigating and testing the hypotheses in the field, both quantitative and qualitative data collection tools in order to ensure the reliability and the validity of the result. The researcher used three tools of investigation: interview, observation and a questionnaire. Firstly, the researcher used two types of interview, face to face interview and a multiple group interview. The first type of interview was with six (6) middle school teachers from both genders, it took 15 min with each teacher. Most of the

teachers in the target school were involved (Arabic, English, physics, history, Islamic and ICT). The second type of interview took 30min with a group of primary school teachers; Secondly, the observation took 6 sessions with middle school learners and two sessions with primary school and pronunciation stage. The last tool is the questionnaire for the students to investigate their attitude toward the strategiesthat teachers used in the classroom.

The present research work in composed of three chapters. The first chapter is the theoretical part and literature related to the topic, it starts with definition of the main terms in deaf education such as sign language and oral strategy. The second chapter contains two parts, the first one explains the research steps, for instance, the research questions, hypotheses and the methodology of the research; the second part is devoted to the practical segment were the researcher collect all the data and translate it to quantitative and qualitative data, in this stage each tool of investigation was analysed individually. The last chapter is based on the verification of the hypotheses and provides an interpretation of the outcomes of the investigation, complements them and gives the answers to the research problem; also, it gives a general overview of negative and positive aspects of deaf education and proposes some recommendations.



1.1.	Introduction6				
1.2.	Learning Disability6				
1.3.	Deaf Disability				
1.4.	Teaching strategy8				
1.5.	Deaf community and Deaf disability				
1.6.	History of Dea	f Education	9		
1.7.	Methods of Te	aching Deaf Learners	10		
1.7	.1. Clinical	l-Pathological Paradigm	11		
	1.7.1.1.	Oralism	11		
	1.7.1.2.	Total Communication Approach	13		
1.7	.2. Socio-C	ultural Paradigm	15		
	1.7.2.1.	Manualism	15		
	1.7.2.2.	The Bilingual Method	17		
1.8.	Strategies of Te	eaching Deaf Learners	19		
1.9.	Inclusion Class	sroom	19		
1.10.	Teaching Voca	ıbulary	20		
1.1	<b>0.1.</b> L.I.N.C	S.S Strategy	20		
1.1	<b>0.2.</b> S.L.A.N	T.T Strategy	21		
1.11.	Visual aids		22		
1.12.	. Teaching Mathematics and Writing for Deaf Children25				
1.13.					
1.14.	Conclusion 27				

### 1.1.Introduction

Deaf Education in Algeria faces a series of problems concerning the curriculum design, classroom atmosphere, syllabus, and the teachers' way of teaching, that decrease the learning process for those students .Teaching disabled learners (Deaf Students) needs forward-thinking on their future through employing highly qualified teachers in order to deliver information in an appropriate manner, and help the students to overcome their disability and become effective and integrated individuals in society.

This chapter deals with the most important theories of prominent personalities throughout the history in order to help people with disabilities namely Deaf Students through the suggestion of strategies that teachers may use, so as to integrate this category into the educational community. Throughout history, theories have appeared such as oralism, manualism, total communication approach and the bilingual approach that aim to educate the deaf learners, and each researcher by the passing of time brought ideas or methods that support and contradict the other ones. Most of them support the three aspects, the psychological, moral and the educational aspects, that work hand in hand to create the safe atmosphere of learning far away from the conflict of the learner, society and moral. That is related to how the education crew deal with these students without hurting their feelings and focus on the educational aspect which is the most important in this chapter, how the teacher is transferring the information to the deaf students; and what are the methods and strategies that serve them . This chapter extract all the contradictions to find strategies, that help students with special needs to raise their educational level.

For a clear image of learning disabilities, in this chapter, as a first step, the researcher will introduce the main terms that are related to deaf disability and special education.

#### **1.2.Learning Disability**:

Thelearning disability related to the studenthimself, whocannotlearn as normal students, sincetheirdisability prohibits themfromdeveloping the cognitive skills such as deaf disability, in this case the learner cannot produce speech or listen to the lesson without extrinsic aides. Oxford dictionary defines that term as a condition giving rise to learning difficulties, especially when not associated with physical disability; Moreover, it defined the learning disability as a condition that affect the ability of understanding or using spoken or written languages, or doing mathematical calculation ... etc. Itseffect on the young children become remarkable when the child reach the school age.

Correspondingly; Slavin (1992) defined this term as:

This is a generic term that refers to a heterogeneous group of disorders manifested by significant difficulties in the acquisition and use listening, speaking, reading, writing, reasoning, and mathematical or problem solving concepts. These disorders are intrinsic to the individual and presumed to be due to central nervous system dysfunction. Even though a learning disability may occur concomitantly with other handicapping conditions or environmental influences, it is not the result of these conditions or influences. (p. 409)

Salvin linked the disability of learning to thenervous system in the human body, and he claimed that it affect the learner's ability to acquire knowledge and produce a set of skills such as speaking, writing and reading.

#### 1.3. Deaf Disabilities:

The Individual with Disabilities Education Act (IDEA) defined deaf disabilities as "hearing impairment that is so severe that the child is impaired in processing linguistic information through hearing, with or without amplification" that is to say the deaf disability is the misunderstanding of the information dealing with a disability of hearing. The learner cannot receive data as normal students, without aid from the parents, teachers and expensive materials, even if all conditions appear, the learner cannot receive data since the deaf disability have different levels from low deafness or total deafness. Also it is known as the invisible disability since the handicapped person has no symptoms; people could have a misunderstanding with that person from the first contact. According to Martin and Clark (2000)"There are three types of hearing loss: conductive, sensor neural and mixed" the first type it could be seen since it is related to the outside features of the ear, that is to say the disability is related to the shape of the ear and that is called the congenital malformation; the second type is invisible since it is related to the inner organs, discovered only through a set of examinations by specialist doctors and with sophisticated equipment, it does not have any relation with the shape of the ear. The last type which is mixed is a combination between the two previous disabilities, i.e.: that person has problems in boththe inner organs and the shape of the ear.

#### 1.4. Teaching Strategy:

Special education is an exhausting process, the teacher gives information from different modules to a learner who cannot hear what he/she says. In normal situation, the teacher can design the course or improvise in the classroom, gives random examples from varied situations, telljokes during the lesson, share information between students during the discussion of the lesson. Teachers could only write the lesson in the board and the students could easily understand it; In contrast, the teacher of deaf students must follow a strict schedule by following a set of strategies such as using sign language, eye contact with students and lip reading; and with high level of energy, passion, and proficiency of using ICT materials.

According to Lawton definition, "teaching strategy is a generalized plan for a lesson(s) which include structure desired learner behavior in terms of goals of instructions and an outline of planned tactics necessary to implement the strategy". It refers to the ability of choosing the right method or philosophy that meet the learners' needs. In this process the teacher is the addresser ofthe information he/she needs to know the background of the learners and their abilities in each module. After that the teacher is able to design a course, set the needed materials and develop goals that he/she needs to achieve with these students in order to conduct a successful course and identify the right strategy to the target group.

#### 1.5. Deaf Community and Deaf Disability:

The handicapped people who suffer from loss of hearing are called deaf, but there are two different meanings in writing the word; deaf with small "d" (deaf) or with capital "D" (Deaf), both forms are used in expressing dissimilar ideas. The firstone "deaf" is used to describe the situation of the patient who suffers from losing the sense of hearing, this term is mostly used in US and UK; whereas the second one, "Deaf" is a formal concept mainly used to narrate a whole situation as the Deaf community. According to Grees (2003) "Deaf" is used to describe a group of people who share the same language, culture and the hearing loss. Deaf community is unique in itself since they share the same sign language that they can learn from their childhood and develop a culture that they are proud of it.

Educator	Year	Country	Method	Use of the method

#### 1.6. History of deaf education:

The process of teaching deaf learnersfacesdifferentchallenges that started from early centuries, in order to develop strategies that pound the deaf person into the society. After different experiments from different people and teachers, they could provide a set of strategies to teach these people. All of the hearing-impaired in the 17th century were persecuted by English society by the greatest institution in society, the church. They believed that the hearing-impaired were a punishment from God for his sinful servants, as they were deprived of their most basic rights such as inheritance and participation in religious rites, and they were called idiots and retarded at the beginning. In the 17th century, there were signs of teaching this class by a Spanish Christian priest named Pedro Ponce De Leon (1529-1584) who began to teach writing, reading, speaking, arithmetic, and prayer. According to Lou Ann Walker, "the first real efforts to educate deaf people began around 1550, when Pedro Ponce de León, a monk from Spain, taught deaf children in a monastery in San Salvador" (p.11). After many years, the phenomenon of teaching the hearing-impaired spread widely among many people, including Juan Martin Bonet, a soldier and politician (1620), who in turn worked on the creation of a one-handed alphabet which was called manualism. He published a book entitled Simplifying the Alphabet and the Method of Teaching Deaf and Dumb Speech, in which he stated that the student must learn in an orderly and sequential manner, first learning the letters then expressions, and finally reading and writing. Belief in the possibility of teaching the hearing Impaired throughout Europe and schools for the deaf were established. In 1644, john Bulwer believed that education could be combined between sign language and lip reading. In the 18th century, several schools for the hearing impaired appeared in several countries, including Germany, France and England for all backgrounds of society, such as England, which founded a school by Thomas Braidwood (1715-1806) that was known as the Society, and the second school in London was known as the Connecticut Asylum for the Education and Instruction of Deaf and Dumb Persons. In the late 1870s, more than 22 schools were opened.

Pedro ponce de l'ean	1520 1584	Spain	Sing language and oral method	Teaching students speaking, writing, reading and math
Juan Pablo Bonet	1556 1620	Spain	One handed alphabet	Teaching students alphabet first after that speaking and writing
John Bulwer	1606 1656	England	Sign language	Learning throw signs and gestures
Samuel Heinicke	1727 1797	Germany	Oral method or Oralism	This method is based on lip reading and using throat.
Charlie Michel Abbé		France	Sign language	Learning throw signs and Gestures
Rock AmbrioseCucurronAbbé		France	Sign language	Learning throw signs and gestures
Thomas Gallaudet	1817	USA	Sign language ASL	Learning throw signs and g
Frederick Martiz	1805- 1874	Germany	Natural method	Using sign language

**Table 01:** The most common researchers in deaf education (updated by the researcher)

#### 1.7. Methods of teaching deaf learners:

The process of choosing a suitable method to teach deaf learners depend on the need of the learner and which strategy they can use as teachers to transfer the course in a successful way. The current situation of deaf education need more attention and intelligence in choosing the methods and approaches that enhance the creativity of the learners and focus on the psychological aspects that serve the Deaf community needs. During the past years, researchers developed two different paradigm theories that helped the special education to progress in the field of education and engaging with normal world. Paradigm, according to Covey (1992), "isa model, theory, perception, assumption, or frame of reference" (23). The first type of paradigm is Clinical-Pathological Paradigm and socio-cultural paradigm each one treats the deaf learner according to its principles and its way of teaching.

#### 1.7.1. Clinical-Pathological Paradigm:

This paradigm is known as the clinical method, its view for the deaf learner as disable person who cannot change their life or control it without an extrinsic motivation, supporting this idea with the claim of Naiker et al 1999"in need of assistance, as objects of pity, and eternally dependent on others ... underachievers and people who are in need of institutional care and thus special schooling" (14). Baker-Shenk&Cokely (1980) defined the disability as "a minority group composed of persons who are treated in certain negative ways by the hearing majority" (54), in another words the disabled person is double handicapped. According to the UNESCO report (2002), which has focused on disabled people's impairments and has explained the difficulties they experience in their lives in terms of these impairments. This medical model sees disability as a 'personal tragedy', which limits the capacity of the disabled person to participate in the mainstream of society (21). The teaching process in this method focus on the oral method "oralism" as a successful way of teaching in addition to the total communication approach.

#### 1.7.1.1.Oralism:

Oralism is the process of teaching deaf learners how to produce the language by using a set of strategiessuch as spelling, lip reading and writing. Johnson, Liddell &Erting (1989) claimed that the deaf learners acquire the spoken language by seeing and hearing it, and that make them get a great communication with the hearing world. The oral approach emphasizes on the auditory skills and aims to educate deaf children to speak and communicate by using assistive devices such as: hearing aids, FM system (frequency modulation) and cochlea implants. The non-manual approach discourage students from relying on the visual aids, since it isolates the deaf learner from their society as Johnson, Liddell and Erting (1989) claimed that the use of the usual cues decrease the cultural knowledge and the socio-emotional, also the learners could not communicate with each other in adequate way since the cognitive development is neglecting the visual aids. In the same way, gestures can disturb the learner in acquiring the spoken language. According to Schmulain, "If you want to make use of his residual hearing as primary input, additional visual input will detract from that. It will confuse his understanding more" (2002, p.33). Also he added in the same year that, if the learner usesgestures, in this case the educator must repeat the action to the spoken form. The oralism approach existed since the mid of 18 c, practiced by the European countries. The way of teaching in this approach is totally different from the sign language method, which they work with the vocal/speech of the learners and how to produce the sounds. (Rachel, 2008). Lip reading is one of the strategiesused in the oral method, which help the deaf learner to know the shape of lips in order to produce the sound according to what they see. According to the observation made by Gallimore (2000), he found that the hearing people rely on what they hear and the sound produced, in contrast, deaf people rely on what their eyes read from lips. Fitzpatrick gave a general definition for this approach "Oral communication is a mode of communication that relies solely on speech (2011).

Oralismas a way of teaching needs commitment from both the learner and the teacher, since it requires hard work and high attention, supporting this idea with the claim of Schmulain (2002) "This is a skill that cannot be taught but which is rather developed via "routine, everyday play and care giving activities to enjoy, share, request, assist, inform and/or learn about the world" (28). Moreover, the educators of deaf learners should engage in the teaching process with their students by showing them how to produce sounds, the shape of the chest, and the vibration during speech. This method improved by a researcher called Moores (2009) who claimed that the teacher should be a part from the deaf courses, by letting his students touch his face, throat to feel the vibration of consonant and vowels, chest movement and lips in order to know the shape of them when he pronounce the sound. This approach enhances the reading and the writing skills of the deaf learner. According to the observation made by Kozulin (2001) for normal and deaf learners in the level matching written letter to sounds; on one hand, these conditions (matching written letter to sounds) improve the reading and spelling skills for normal people; on the other hand, the deaf students tested with the same instrument; they reach the level of sounds awareness and increase the phonemes. This idea supported by Leybaert and Algeria (1995), they reclaimed that if there is unclear speech presentation that affects the reading process and as a result it impacts negatively the reading and spelling for deaf learners.

Oralismis supported by different countries that see it as the most useful approach in teaching deaf learners."The German teachers for the deaf preferred the oral methods and the spoken language to any other method" (Schuman, 1940). Also according to Young (2002) enchain the oral method is the dominant in all deaf institutions and the government makes it the official way of teaching. Equally, to New Zeland (ABHR 1879, cited in Townsend (1993), India (Randhawa, as cited by Moores, 2009), and Singapore (Guarinello, Santana, Berberian, &Massi, 2009) concerning the last country, they used the

written language and speech training, the result was fragment spoken language; in addition, the parents of deaf students encouragedoralism since it motivates them and makes them active persons in society. As Schmulian (2002) claimed: They want their child to grow up into a fully independent adult who does not need to depend on the help of another person. Interestingly, parents choosing the Oral route for their child believe that their child has "the same innate wiring to acquire spoken language that a normally hearing child has. (29), in order to engage with the normal world without depending on them. The deaf learner can be a person who can present himself as a capable person not as imperiled one, the parents want their deaf children by using the oral method to engage with the hearing community by using the communication competence as "how to say something, when to say it and to whom say it "(Schmulian, 2002.p27). However, oralism links the deaf students with the hearing world, but at what cost? The hearing aids and the cochlea are too expensive for poor learners; also they need time and a lot of ongoing commitment from the educator, students and parents. According to Johnson, Liddell & Erring who claimed that oralism is a field as well as an approach of teaching, because the learners are still deaf and limited in their abilities "only small part of the spoken English signal may be comprehend visually" (1989.p 4), in the same context, Chayou (2006) argued that the oral method has a risk on the linguistic, cognitive and social and personal development of the deaf learners.

#### 1.7.1.2.Total Communication Approach:

According to Scheetz (2001) the total communication approach was less a method and more a theory, where the students encourage using any and all methods that would help the deaf learners. In the same way Barcker (2011) described this method as a philosophy that the students choose from all the theories that were used in teaching deaf students at that time. As a philosophy, it consist of the use of the sim-com to enhance the learner ability such as finger spelling (the Sign Language alphabet), mime, writing, visual imagery (pictures), lip-reading, gestures and oral speech may be used. In the way Lane, (1999) claimed that "Total Communication included amplification, speech therapy, speech reading, writing, pictures, and signing; in practice it was commonly believed to mean speaking and signing at the same time or simultaneous communication". As a definition to this method it is the combination of all the successful method in teaching deaf learners. Likewise, Fitzpatrick (2011) claimed that "Total communication, hence, recognizes in totality any form or method of communication that works".

Total communication philosophy appeared in 1950, in order to relive the oral method (oralism). Byton (1996) claimed that oralism is a way of teaching, compared with the other schools at that time. Oralism had its supporters, but after the appearance of the total communication approach they were attracted to its way of teaching; such as Germany which changed its method from oralism to this current philosophy (Gunther, Hennies&Hintermair, Moores& Miller, 2009). Also it was practiced by a man called Rd. Roy Holcomb, an educator in a school for the Deaf in Santa Ana (Gannon, 1981; Garretson, 1976) and in Maryland school in America (Denton, 1976).

Although the total communication philosophy deals with most successful theories and methods in deaf education, but it never gets the purpose of teaching those students which is associating them with the hearing world, protect them for loneliness, educating them as normal people and give them an equal chances as any human being (workers, creators, writers...). First, as known this philosophy deals with different ideas that is totally expansive for poor deaf learners; Even though; on one hand, it is expensive but it could give satisfying results, and it could be not. Supporting this idea with Most (2006), Wiesel (2001) claimed that the developed countries could plant a cochlear implants in the ears of the young children and it was a successful idea. In the other hand, according to the claim of Barcker et al. (2009) if these aides are planted before the age of 18 month, it could help the learner to acquire the language as a normal person, but it does not show the same result for deaf who implanted it at a later age when they show less acquiring a language. Alike, Venon (2007) agree with the idea of Barcker. Second, this method deals with two powerful methods which are oral and sign language and in order to complain them in one method that could make the learner face different obstacles that have an effect on the reliability of this philosophy. Supporting this idea with Johnson observation when he found that simultaneous approach in educating deaf learners is quiet difficult since the teacher cannot reach the comprehensive communication, also he added that there are expressions in the oral form that cannot express the ideas with the sign language (Liddell &Erting, 1989; Tevenal and Villanueva, 2009). "Deaf learners in classrooms where Total Communication is used often experience boredom as they receive limited amounts of knowledge as the educators take a long time to communicate information via Total Communication" (Smuts, 2002,p.54). Smut (2002) supported this idea when he claimed that the students who learn from this method face a series of problems with their language skills, especially when it comes to reading, writing, and understanding of concepts and abstract vocabulary (54). In

the same context, he added that if the total communication could not reach the goals of deaf education so they need to use the Bilingual Bicultural approach.(2002.p. 54).

#### 1.7.2. Socio-Cultural Paradigm:

This concept could be defined as a social method; it is the most useful for understanding the problem of losing the senses of hearing, the deaf learner is treated as a unique person, mostly all people or educators who support this method use the sign language. Woodward and Markowicz defined deafness as "a group of persons who share a common language and a common culture" (1975:32); Equally, Schlesinger and Meadow (1972) defined deafness in the same way «a group of persons who share a common means of communication (signs) which provide the basis for group cohesion and identity." (16). the current paradigm change life if the disable person made them confidant people with their own language (sign language) and a special culture for their own. After many difficulties the deaf people changed their selves by creating a community that have its culture, language, and attitude and they called it the Deaf community with capital "D", which rely on a group of people who share the same circumstance, not as deaf with small "d", which rely on an individual person who lost the hearing sense.

#### **1.7.2.1. Manualism**:

Manualism is an approach which supports the use of Sign Language, which is formed in thevisual/gestural modality and which uses space rather than sound produced using the upper body, and hands and face (Petitto, 1994; Bellugi, 1980; Klima&Bellugi, 1979; Stokoe, 1974). The Manualism is related to the socio-cultural paradigm, it never deals with the oral communication approach. The concept of sign language is related to ancient Greek philosophers. According to Domingus (2009), Socrates believes in the use of human body as a tool of communication with deaf people. The development of teaching imperiled students never stop and brought huge progress related to the sign language, according to Candano associating deaf students with the representative thing could help them to symbolize it and write it(Butterworth&Flodin, 1995). The history of educating imperiled students started with a monk from Spain church, he tried to teach deaf people braying and writing using different methods among them the sign language. After years a man called Pablo Ponet who was interesting of ponce way of teaching, he developed a book called "THE MANUAL ALPHABET" and published it in the 1600c. The book made

a huge revolution for deaf education and specially sign language in Europe; for instance, according to Butterworth and Foldin (1995) the first school of teaching deaf learners was in Paris. Charles Michel de Labbés was influenced with the sign language so he established the first school of imperiled students in the capital of France Paris. In the 1800c, an American man called Thomas Galloudet was interested in the sign language as a way of teaching, first he went to join the oral school but the educators forbidden him to join them in order to not show their way of teaching, so finally he went to Abbé school where he learnt the sign language and became one of the supporters of this method; Later on, he developed the American Sign Language (ASL) and introduced it in Hart Ford deaf school in 1817, and established Gallaudet university in Washington D.C. According to Moores (2009) "This era was then referred to as the "Golden Age of Deaf Culture and later followed by the Dark age of Oralism".

Sign language is treated as a method/approach and as a language; first, it was considered as a method since it appeared as a way of teaching a particular group of people who share the same disability, and the need to be associated with the hearing world; supporting this idea with the reclaim of Webster and Wood (1989) sign language help the deaf learners to be less isolated and less resentment, and loaded with the language competence. Secondly, manualism is unique in its structure, the deaf learner could engage with his community in a comfortable way, and be successful in their studying field. Paddon and Ramesy (1966) claimed that knowing the ASL connected the reading process and enhance the English ability. Since the sign language got a confusion from the linguistic researchers who describe it as a language could be acquired from a young age, supporting this idea with a saying" Further linguistic evidence demonstrates that sign languages are fully-fledged languages entirely capable of expressing all the nuances of meaning that all spoken languages canexpress "(Bellugi, 1989; Petitto, 1984; Aarons &Akach, 1999:8). According to the department of education (2001) oral school learners face aset of barriers in acquiring the language: the first one is the deaf Lerner will never achieve his goal which is communicating with the hearing world; the second is the Bilingual-cultural problem could be not solved in the oral school (p.7-18). They add that the sign language should be educating in all the field of deaf not only because it is the official language for the deaf society.

Although sign language is the most useful method in special education, yet it faces a problem with bilingualism. According to Vonens (2007) observation most of the deaf

communities are bilingual and in each community there was the sign language and the spoken one. Ramesy 1997 argued that the deaf learner should know the way of structuring the context in the perfect manner in the sign language by providing the right instrument and sources, also having a clear idea about what they wantin the same context, the handbook for the teachers of hearing imperiled agenda (2011) recognize the use of bilingualism in the deaf community, as a reaction they demand the promotion of the sign language.

#### 1.7.2.2.The Bilingual Method:

According to Gegory (1998) the appearance of bilingualism is from the limitation of the oral method and the total communication philosophy. That is to say the goal of educating a deaf learner appeared in set of causes that must be shown in the ground, which are: Firstly, educating the students in order to make them get a linguistic competence that may facilitate the engagement with the hearing world; secondly, if the deaf learner could engage with normal people he may engage in any topic he want and that what called wide curriculum the learner learn in direct way, what he see and what he notes and observe; thirdly, the literacy skills become easier to acquire and finally provide a good image and build a strong personality and provide the learner with positive sense of their own personality(Gegory 1998.p. 68.69). All the methods that seek for teaching deaf learners surrender at some point and that kills the art of teaching, since you teach a learner cannot collaborate or share his ideas as Komesaroff, (1996) claimed "They need to admit that the methods they have been using in the past have failed or limited the Deaf learners they teach and then "Change then becomes a necessary process rather than something to resist" (40). The Deaf community is mostly bilingual in itself since they are learning in multiple methods the manualism, oralism and the total communication approach and that make a huge problem for the deaf community, in order to solve this lacuna the bilingualism combines them in one approach which set the priorities to facilitate the process of teaching deaf learners in classroom and outclassroom. In this approach the deaf learner is in the beginning of learning process; he learns the first language which is the sign language to become as a mother tongue for the Deaf society; after that, the disable learner could acquire the spoken and the written forms as a second language, supporting this idea with the claim of The World Federation of the Deaf which calls for the introduction of Bilingual-Bicultural education "into schools for the deaf, for native sign languages to be recognized and used as the first languages for deaf children, and for second languages to be

taught through reading and writing" (World Federation of theDeaf,1993:13);.Likewise, Cummins(1989) claimed that if the learner have a base language it could be easy to acquire the second one. The purpose of this approach is to link the manualism and the oralism in abilingual community; were the learner can use the sign to know the meaning of the world and take a broad idea about its use, Which means the goal of this theory is the learner competency of lexicons and grammar, in order to teach them the next step which is how to read and how to write and finally, the competency of phonetics and phonics. In this approach the sign language is treated as a mother tongue not because it is better than oralism, in contrast, it treats both of them equally supporting this idea with the claim of Akamatsu (1999), sign languages and spoken languages could both play equally important but different roles in the acquisition of written languages by deaf children.

When the deaf learner acquire the first language (sign language), the teacher is the map of the learner is the light and the guide line of those pure soles, so in order to teach a student make you as an idol the process of choosing a teacher for disable learners it's a significant one if the teacher dislikes his job, so, there will be no interaction between the learner and the teacher and the process of transforming information fail as well. Supporting this idea with the claim of Komesaroff(1996) "Deaf children need schools filled with qualifiedteachers, positive role models, and staff fluent in their language" (40). The bilingual model raises the special education of deaf learners, which makes the world look at them as a community that has a unique language and a unique culture and gives huge importance to the sign language. (Storbeck, 2000:52; Ewoldt, 1996; Sacks, 1991:150). Some countries are attracted by this method such as Australia and China who added the bilingual method in their system of teaching deaf (Moore, 2009), also according to the ministry of education of Singapore (2006), their country link the total communication philosophy with bilingualism method that promote the signing exact English. Similarly to Portuguese, the approach facilitates the written form of its language (Moora, 2000). As a conclusion, Moores (2001) claimed that the Bilingual method was believed, too, to be beneficial in special education.

#### 1.8. Strategies of Teaching Deaf Learners:

All the teachers of special education agree that: teaching is the hardest process that they ever dealtwith, and the difficulty changes and rises from the kind of disability to another one. Teaching students with deaf disability or hard of hearing is one of the difficulties that the teacher deals with in his teaching career, De l'Epee said "The deaf-anddumb are somewhat like animals as long as we do not make an effort to release them from the dense darkness in which they are plunged" (Roorda, 1910). From one hand, the learner is obliged to learn a language that he never chooses to use (sign language), the paradigm it could be from a young age or by disease or an accident. The deaf learner is in situation that pushes him to learn and write and speak and the sign language that use only with small groups that share his disability or in special schools. On the other hand, the educator is dealing with a student who feels himself isolated from the world, he needs to deal with psychological side of the learner, and enhance the creativity of the student who lost the ability to motivate himself in the hearing community, Also choosing the suitable methods and approaches that may serve the learner such as: the oral method, sign language, total communication philosophy and bilingual method. Moreover, teachers should think to use a group of strategiesthat helps them as well as their learners. The effectiveness of these learning strategies often depends on the instruction being consistent, intensive, and explicit (Lenz, Deshler, &Kissam, 2004).

#### 1.9.Inclusion Classroom:

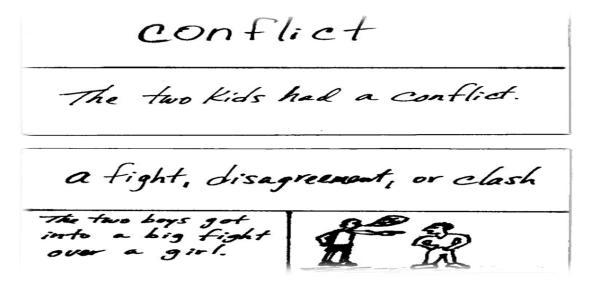
The deaf learner is a person who suffer from loneliness, since they learn a language they have never chosen, and got a disability that could destroy their life, if their parents work hand in hand to save them from their darkness, here the role of the teacher is more important since he may solve the problem by a set of strategiessuch as inclusive classrooms. Moores (2010) said that the inclusion wave start before 25 years from the Individual with Disabilities Education Act (**IDEA**). According to the U.S. Department of Education 2007 inclusion" typically means deaf children are placed in predominantly hearing classrooms with assistive listening devices or interpreters that allow for their participation in their educational environment". Thesestrategiesguide the learner to be more social and engaging with the hearing world, by making a direct interaction between the disable student and the normal ones in the same classroom in the normal schools not in the special schools, supporting this idea with the claim of Most (2007) that inclusion support deaf student to be more active in hearing world. Similarly some researchers

support this program since it change the mental situation of the deaf learner from a passive person to an active one and from a social segregation and isolation to sociable people. (Antia, Jones, Luckner, Kreimeyer, & Reed, 2011). In the same way Leigh (1999) purported that "being the only deaf/Hard of Hearing student in a hearing classroom profoundly effects self-perception, social growth, and peer relationships".

#### 1.10. Teaching Vocabulary:

# 1.10.1 List the part-Invent a sentence-Note linking story-Create a linking picture-Self text (L.I.N.C.S)strategy:

The LINCS **strategy** focuses on linking the deaf learner with the situation indirectly by use of some materials that may facilitate the learning and the teaching process. This strategyis divided in a set of steps that each letter expresses, the "L" (list the part) this stage the learner will deal with new vocabulary at the first time for example (conflict) after that the learner takes the new concept and write it in small paper. The second letter "I" (invent a sentence) in the same paper of the new concept, the learner will write the direct meaning of the concept in a small definition, the third letter is "N" (note linking story) in this part the student is ready to create a story or a sentence that have the meaning of the word and he may easily work with it; for example:" the two boys got a conflict on girl". the letter "C" means ( create a linking picture) the student in this part will draw the idea of a conflict in small piece of paper supporting the sentence that he creates before : draw two boys with open mouths and raising their hands to restate the understanding of angry in the picture, the purpose of this stage is to link this new word with his long term memory, after that the next stage which is the last letter in this strategy"S" (self-text) the learners will examine themselves by seeing the picture that they draw before and see if they could understand what it means, after that they compare it with the definition of the target word to be sure that when sees the word in any place he may consider it easily through remembering the image.



**Figure 1**: Example of a LINCS note card using the modified approach to the vocabulary learning (Chris O'Brien 2005).

# 1.10.1. Sit up- Lock and Listen- Ask a question and Answer- Nod the head with yes or no- Talk with your teacher (S.L.A.N.T) strategy:

This strategy is the same as the LINCS, the only difference is that it focuses on the interaction between the teacher and the learner; it is based on opening the mind of the deaf learner's on asking questions and motivates them to participate in the classroom. Each letter has a different meaning that is connected with the next one; the first letter is "S" (sit up) to show that the learner needs to sit in his place to receive the information in a comfortable situation. The second letter "L" (look and listen) it shows that in this process the learner is passive and the teacher is the source provider, and that is to give the learner chance to recognize the information by eye contact and lip reading and analyzing the sign that the teacher used or listening with hearing aids. The third letter is "A" (ask question and answer) the teacher gives the opportunity to the learner to ask a question about the course or anything that he cannot understand, also the learner can answer the question that the teacher asks to see how much learners engage with the course. The fourth letter is "N" (node the head with yes or no) during the course the teacher asks a question that may be easy to answer by the learner with moving his head yes (moving the head up to down), no (moving head left to right) in order to show to the teacher that the learner is engaging with the course. The last letter is "t" (talk with your teacher) the final stage is to conduct a conversation between the deaf learner and his educator when the learner is free to express his thoughts in a group of ideas related to the course, on the other way the teacher can

analyze the data that he collected it from his students behavior, and concentrate on what they failed to understand and remediate it.

#### 1.11. Visual aids:

Deaf and hearing impaired people can acquire even their mother tongue through different ways such as gestures, sign language, finger spelling; as Luckier, Bowen, & Carter, (2001) claimed that even the tools and the styles of educating deaf learners are quiet different, although the most used one is the visual strategy. Deaf students have different learning styles, although most are visual learners. It means that those people can acquire their native language only through visual modality (Fromkin, Rodman, &Hyams, 2011). The visual aids are a fundamental part from deaf education, since it enriches the learner with vocabulary that is the basis of every communication; According to Pohl (2003) "Teachers may wonder why it is important to teach vocabulary. First of all, comprehension improves when you know what the words mean. Secondly, words are the currency of communication. Last but not least, when children and adolescents improve their vocabulary, their academic and social confidence and competence improve, too" (p. 5); Similarly, As Wilkins (1972) epitomizes: "without grammar very little can be conveyed, without vocabulary nothing can be conveyed" (p. 111). Althoughit is significant in deaf education, but it's the hardest process in this field since the education curriculum maintains a set of modules that need the largest vocabulary in order to succeed in this process such as: math, second language, poetry, philosophy, informatics...etc. Fowlkes (2009), claims: "one prevalent area of difficulty is vocabulary in teaching deaf students" (p. 2). Moreover, the visual aids are a crucial part in handicapped learning, it makes the idea that the teachers sent to their learners more clear and understandable; supporting this idea with Krcelic and Matijevic (2015) claim that "teaching and learning foreign language can be facilitated by using visual tools, such as pictures or videos". In the same way David (2000) gave Steps that the deaf educators should follow in order to teach the second language:

- Use visual materials as much as possible,
- •Focus on what the students can do,
- •Set up a positive language experience,
- •Break down the titles into small parts,
- •Use multiple examples,
- •Provide cultural comparisons,
- •Use different colors so as to attract the students' attention,
- •Try computer assisted language learning programs, and make use of cognates"

In an effort to relate new vocabulary or concepts to old knowledge, professionals can use semantic maps and graphic organizers to show how words and ideas are related to each other (Luckner, Bowen, & Carter, 2001). The visual materials give the right way of learning on one hand and teaching on the other hand, for example, a teacher of math wants to teach the deaf students a lecture about the Geometric forms (Square, A rectangle, circle, pentagonal shape, Hexagonal shape, triangle...etc), if he uses his finger spelling to shape the form it could be clear but if he draw it in a paper or table or give them 3D shape in their hands, the process will be more successful and reliable in the students schema" using origami as a visual material was significant in a mathematic lesson when teaching mathematics to deaf/ hard hearing students" (Chen, 2006); In addition, the process of choosing the suitable tool up to the teacher so he should know his students needs and what is suitable for them, since it helps them to recall the information that they learn through imagining the lateral or the tool used to learn it. Supporting this idea with the claim of Lukneret al (2001) and Nikolaraizi et al, (2013) that the visual aids may enhance the learner abilities and motivate them to discuss their ideas with the teacher in order to solve their problems, it can be even useful for normal students. Those multiple tools are aiming at one purpose which is to show the idea, many scholars gave examples of those tools such as Kate and Marquez (2011) mentioned the kind of visual aids used in the classroom, such as pictures, posters, postcards, word calendars, charts, graphic organizers, picture books, television, videos from iTunes, and Computers; Moreover, Konomi (2014) set a group of those materials such as posters, flashcards televisions, videos, word calendars picture books; Konomi (2014) also stated that" visual aids can be created by the teacher, for example, charts, graphic organizers, and board drawings and gestures"; Moreover, Hamad et al 2015 state that "The visual aids are also named as instructional designs which consist of models, charts, film strip, projectors, radio, television, and maps".

The consequence of using the visual aids is mainly positive, since it deals with the acceptance of the deaf learner toward using the tools. Different researchers maximized the role of visual tools in special education, according to the quantitative and qualitative data that they collected by series of experiments, observations and questionnaire of the reaction of deaf learner before and after the use of those materials and they mainly gave the same result, which is that most of the handicapped or normal learners became motivated and understand better when they learn with these tools; supporting this idea by Kate and Marquez (2000) when they claimed that the visual aids are facilitating the teaching and learning processes at the same time linking the learner with his experiences. Similarly,

Bozdogan (2011) stated that the impact of these materials is very successful in the special education field. Then Birinic (2014) claimed that deaf students are visual learners who need visual aids to learn. Different researchers valued the role of those tools in facilitating the education process, such as Chimhega and Mpofu (2013) and Ramerz (2016).

Although the visual materials show a reliable result in deaf education, but those tools never could take the place of the educator and the eye contact between the learners and their teacher, some of teachers depend on these tools neglecting the crucial purpose of using it. The deaf educator should be more wise in using it, for instance, when the teacher is using notes or posters or graphs as a tool of teaching, he/she must give a break to the students in order to analyze and comprehend these tools; according to the (NDCS 2004) "The teacher must also take into account that the visual material cannot be too overwhelming or the student will be unable to process the information quickly, and therefore may fall behind". In addition, these tools are only facilitators never play the role of the teachers, for that the educator should keep the learners in the learning atmosphere by keeping eye contact with them, writing words in the board, questioning them and using signs. Supporting this idea with the claim of Chang, Richards& Jackson (1996) "The teacher stills able to face the classroom while lecturing, allowing the student to access the information on the overhead, as well as to see the teacher while he/she is talking". Moreover, if the teacher is using a tool such as video or TV or any equipment that needs high level of focus from the learner, the teacher must stop it from time to time to check students' comprehension (NDCS, 2004; Battat, 1998), in like manner, they claimed that the teacher gives his students notes in order to check what they learn and what they must focus on. Also, the learner needs to engage in activities that take them out of the mood of robots or the slave of visual aids by playing games, make a course without using these tools from time to time, set courses outside the classroom and making real experiments that help the learner from becoming lazy and unmotivated in the course, Nationally determined contribution (NDCS),(2004) claimed that" The use of hands-on activities gives the student a break, benefits the entire class, and does not single out a specific student as needing accommodations in order to learn". That means in order to manage the classroom in a good manner the teacher must deal with a set of activities during the course; give attention to all the students to participate, to enhance the collaborative atmosphere in the classroom.

#### 1.12. Teaching Mathematics and Writing for Deaf Children:

Special education search for syndicate the hearing world with deaf community, by educating them the same modules and programs, as known the disability is not the barrier of life and that is the crucial purpose of it; Researchers and scholars try many ways to educate deaf students by creating **strategies** and methods and philosophies, such as oralism, manualism, the total communication philosophy and bilingualism; but the appearance of the short coming of those researches since they focus only on the vocabulary, and neglecting the importance of mathematics and mainly because they face a problem in its hard vocabulary. Tobe more engaging with this hard module the teacher and the parents must work hand on hand with each other to build basics in child's brain. There are steps that both of them should concentrate on, and work on it to change it from a weak point to a strong one by working hard and be patient to repeat the course without submit from trying; in addition to that, the basis of the mathematics is learning the numbers and solving problems and that can be thought by learning the number with the sign language, and repeating it many times also playing games of counting and puzzle to enhance their creativity and way of thinking; Moreover, Nowadays the web sites play a massive role in education of different subjects, parents can download any application that might help their child in a positive way, or they could draw the problem in a clear way and ask direct questions, or as Ray (2001) and Pagliaro (1998) claimed: "presenting word problems as informal stories with math facts, then moving towards the presentation of the action of the story into a math sentence"; the last step is solving the problem to show the learner the purpose of this process to play the role of the idol to develop the cognitive skills for the learners. Teaching writing is basically a hard process for both normal and disable students, but it could be more hard for the deaf learners since they deal with two languages, they learn by using sign language and writing with normal and formal letters, so that could be quite hard to recognize and use.

#### 1.13. The Role of Teacher and Parents in Deaf Education:

In the field of education, the teacher is responsible for students' level and their progress in the academic syllabus, the learner and the teacher might switch the role of the course explanation with discussion and presentation of courses or home works. The teacher deaf learners is the center or the soul of this field, in this situation the educator is responsible in different ways toward these students in academically, psychologically, socially and mental ways in order to engage these students in a healthy manner to the

normal world. As a first step in this crucial job, the teacher needs to know that his learneris considered as a member of his family or more; supporting this idea with Luckner& Muir (2001) claim that before choosing the plan of education for the deaf learner, it's important to collect a data about the child because it effects on his life (79). In addition, the atmosphere of learning is so important in the educational process, the teacher must love his job and do it to create unbroken contact with his/her students; Dusek (1975) stated that "Teachers who have negative attitudes toward teaching students with disabilities in regular classrooms tend, intentionally or unintentionally, to hold lower expectations for their students, which adversely could affects students' learning experiences". In the course, the teacher may become bored from the silence, repeating words for many times, eye contact all the time and speaking alone; face to face from the beginning of the course until its end; Florian (2012); Scruggs &Mastropieri (1996) stated that "teaching students with special needs required the regular education teachers to pay more attention and spend longer time with them and allocated less time for their typical peers". Koutrouba, Vamvakari, and Steliou (2006): There is a set of features that must appear in the teachers of deaf students:

- 1. The self-confidence of the teacher is important because it reflects on the way of teaching and the discipline in classroom.
- 2. Believing in the ability of teaching the deaf and normal students in the same classroom with the same result.
- 3. Belief that the deaf learner is an effective person in the community that has a future and dreams and the ability to learn.

Moreover; the inspectors of deaf education must be strict in choosing the perfect teacher in the right place, by setting rules toward teachers who implement for the job of deaf teacher, Johnson (2004) suggests that "deaf and hard-of-hearing teachers should receive extra course work in regular education curriculum and teaching methods as well as better preparing of preserves training for working effectively with diverse deaf and hard-of-hearing students", that is to say teacher with a good training and methods is more suitable to be teacher for handicapped learners, more than random teachers who just work in teaching for getting income. In addition, the result that the imperiled student get from exams and tests, it does not show the weakness in the cognitive skills of the learner, it could be the result of the failure in transforming the course in the appropriate way, similarly Gayot and Brugmans (1896) claimed that "It is not the imperviousness of the deaf and dumb but your lack of insight, your inability to influence his soul which makes that you do not achieve what you want to achieve" (p. 59). Moreover, the process of

teaching start from a young age, and that depend on the parents in the first step. Marschark (1993) claimed that "over 90% of deaf children are born to hearing parents and less than 10% have at least one deaf parent "that is to say the disability of deafness is mainly caused by the parents or some of health effect. The deaf educated parents could increase the level of their child by teaching him/her the basics of sign language, in order to engage with the Deaf society in a young age and to accept their disability in a good way without giving them the feeling of useless and as a mistake in the hearing world; similarly, Van Gent et al (2012) said that the parents who are familiar with the sign language may rise their child in a good atmosphere of communication that took them to a safe associated adolescent.

### 1.14. Deaf Education in Algeria:

Deaf learners in Algeria generally learn in regular schools in general cases, since there is no special curriculum, no interpreters, and no access to sign language as a thought subject, such as Arabic and French languages. There is no official Algerian sign language; only a dictionary published recently; it contains some Algerian signs and some signs borrowed from the old French language.

The Algerian educational system depends mainly on sign language since the ministry cannot cover the materials for teaching deaf learnersbecausethey are very expensive, so the sign language is the only suitable technique of instruction in this country. In addition, at the same country there are many different sign languages, for instance, some researchers stated that each district has its sign language: Oran sign language (Mansour, 2007), Algerian Jewish Sign Language (Lanesman& Meir, 2012a; Lanesman& Meir, 2012b; Lanesman, 2013), Algerian Sign Language of Laghouat (Djama, 2016), Algerian Sign Language of Adrar(Abdelouafi, 2018).

According to Abdelouafi (2019), since there are no enough specialists in Algerian Sign Language (e.g., trained teachers and sign language interpreters), Deaf children are denied access to education in LSA, for example. Alternatively, they are taught in Signed or Written Arabic merely. It does not improve the high-quality of education for Deaf youngsters either, especially because they know that LSA interpreting the service itself is not available in classrooms.

### 1.15. Conclusion:

As a conclusion, this chapter tackled the main literature related to the deaf disability in the eyes of different scholars in the past years; in addition, it stated the initial steps that paved the way for the field of special education. Moreover this chapter dealt with the common **strategies** that adopted to enhance the level of the deaf learners. The next chapter is devoted to the presentation of research methodology and data collection tools.

# Chapter Two Research Methodology

<b>2.1.</b> Intr	roduction	30
<b>2.2.</b> Pur	pose of the Study	30
<b>2.3.</b> Stat	tement of the Problem	30
<b>2.4.</b> Res	search Questions	30
<b>2.5.</b> Hyp	potheses	31
<b>2.6.</b> Sig	nificance of the Study	31
<b>2.7.</b> Lin	nitations	31
<b>2.8.</b> Tar	get Population	32
<b>2.9.</b> Tar	get Place	32
2.10.	Methodology	33
2.11.	Interview analysis	34
2.12.	Observations	42
2.13.	Questionnaire	47
2.14.	Conclusion	50

### 2.1. Introduction:

In this chapter, the investigator will describe the research process and state the problem and the research questions with an assumption that might help to resolve it. In addition, the researcher describes all the important elements of the research such as the target population and the special school and shows the obstacles that limit the research; moreover, this chapter describes the methodology used in collecting data from the field which is the special school of deaf education 'Abad Fathallah' in Saida, and at the same time it analyses and discusses it to find answers to the research questions, and prove the research hypotheses.

### 2.2. Purpose of the Study:

This thesis deals with the main strategies that the teachers of special education of deaf disability used in transmitting the information to a deaf learner; In addition, this investigation focuses on the teachers attitudes, methods, tools and the way of teaching that a teacher uses with learners who have a deaf disability that is entirely unglued them from the hearing world.

### 2.3. Statement of the Research Problem:

The Algerian government mainly focuses on the field of education of normal students, they build primary, middle, and high schools and universities, and even gives them extra courses in all the grades, for instance, in one district you can find more than five primary schools for normal students with teachers who have the abilities to understand their learners and the perfect tools to teach them. In contrast, the ministry of education does not give the same attention to the special education, that is to say in the hole city of Saida there is only one special school for deaf learners that contains three grades which are the pronunciation stage, the primary school and the middle school while concerning the high school there are only 3 different schools in Algeria. In this investigation, the main problem in the special school of deaf learners "Abad Fathallah" is that teachers who studied in normal schools and became teachers in deaf schools, searching on the strategies that they should use in the classroom during the absence of the ministry instructions.

### 2.4. Research Questions:

This study is investigating the following research questions:

1. What are the strategies that are used in teaching deaf learners?

- 2. How do teachers of deaf learners perceive the curriculum and its appropriateness for disable learners?
- 3. To what extent are the strategies and methods used to deaf learners effective?

### 2.5. Hypotheses:

In order to answer these questions, the researcher suggest the following hypotheses:

- 1. The major strategy that the teachers used in teaching deaf learners is sign language; in addition to, oral strategy with the use of body language, lip reading and eye contact.
- 2. Teachers do not agree on the curriculum and programs used in teaching deaf learners which are designed for non-disabled learners.
- 3. Deaf learners are obliged to deal with any teaching strategiessince all the teacher used.

### **2.6.** The Significance of the Study:

This study is attentive on the disable learners who are deaf and cannot express their needs in a society that treats them as creation mistake and suffer from the family treats and the isolation from society due to the repeated bad experiences, that is to say deaf students are suffering enough outside the special school and even in schools with their teachers who may not understand them. The teachers of special education in deaf schools should be well informed about this disability, most importantly the strategies that help them to educate these learners in a safe and creative atmosphere. The significance of this research lies on the efforts made by the teachers to provide strategies that help the deaf learner in order to become an effective person in the society. Moreover, this study is shedding a light on the ministry of education and the ministry of solidarity's role in developing the special education.

### 2.7. Limitations:

In this research the researcher suffered from the limited data that was similar when using the data collection instruments, which are the interview and the observation. In addition, the corona virus pandemic affected the process of the investigation. Besides, I wished I could have an interview with deaf learners' parents to know the effect of the strategies that the teachers used in the classroom on their disabled children. Moreover, learners used sign language in the classroom all the time and I could not understand what they sign about and that had an effect on the observation process.

### 2.8. Target Population:

In this research work, the target population is teachers, who teach deaf learners in the special school "Abad Fathallah" in Saida. In the target school there were three categories of teachers, the first category: the teachers of pronunciation stage who teach the basics of the language and the manners to the new students who never dealt with sign language, the second category: the teachers of primary school; these teachers taught all the subjects to the learners who graduate from the pronunciation stage and it takes five years. The last category of teachers: middle school teachers, the experience of these teachers (male and female) in the target school is from three to thirteen years.

### 2.9. The Target site"Abbad Fathallah":

The deaf school 'Abad Fathallah' in Saida opened its doors in 1976, with the assistance of the department which was a woman and only three of assistants that receive only students from Saida, because at that time there was no interior system.

In 1984, under the supervision of Miss Zhore El Wenisy and the minister of social protection a lobby was opened in "Hamam Rabi", at that time the learners could join the school and became internal students and that went with the increasing of teachers and the assistants.

In 2002 the minister Aboujara Soltani visited the institution and with his order he changed its place to Saida in infirmary institution and it started work officially in April 2003, in order to make it suitable for deaf learners; they built extra four classes and kinetic hall.

The school has three grades; the first grade is the pronunciation stage that consists of two classes: first year pronunciation and second year pronunciation. In this stage the age of the deaf learners is between four to five years; the second grade is primary school where the learners study five years with the same teacher that teach them all the subjects and in the third year they learn the French as a foreign language with a new teacher. The last grade is the middle school which consists of four years with different teachers and subjects in order to graduate in the last year to the high school.

### 2.10. Methodology:

The current study is Attempts to investigate the main strategies that are used in teaching deaf students in special schools, the target setting of the research is

"AbadFathallah" School in Saida which is responsible for teaching deaf learners. In order to test the hypotheses and to answer the research questions, this research is based on quantitative and qualitative data that are collected from the field by using three different tools which are the interview, direct observations and a questionnaire. The first tool is the interview; the researcher set a group of questions related to the topic of investigation that are prepared for the target population, in this research there are two types of interview, the first one was depth interview with 6 middle school teachers from both genders, the process was face to face interview, it took 15min with each individual teacher in the classroom after finishing their lesson with the students; Moreover, the second was focus group discussion, it took 30 min with the primary school teachers, the purpose of choosing this type of interview was dealing with the corona virus pandemic, the teachers were obliged to leave the school, so it was the only chance to interview them all at the time in the cafeteria of the school, they were 5 teachers of primary school. The questions of the interview were semi-structured prepared previously by the researcher; it included 10questions dichotomies and open ended questions in order to create a smooth path in the interview from the general to the specific. In addition, both interviews tackle the same sample of the questions in order to compare the different views of the teachers and select the dissimilarities and the similarities in their responses to create a reliable qualitative data. As a tool of collecting information, the researcher depended on taking notes in intelligent verbatim transcription (focuses only on the context).

The second tool of investigation in this thesis is the observation, it's a tool of investigation that the researchers use in order of collecting data, based on the researcher views and observes of the actions and behaviour and take note that could serve the researcher in feeding the curiosity of his/her topic., in this process the researcher observed the teacher in the classroom in order to find answers to the research questions and examine the hypotheses. On one hand, as a non-participant observer, the researcher observed teachers in differentways, i.e., to focus each time on appoint such as: the strategy that they used, tools, relationship with the learners and the method of teaching; on the other hand, the researcher observed the students attitude, behaviour during the lesson and the students sitting, numbers and gender in the classroom. In addition, this process based on 6 sessions with one hour for each subject matter which are (mathematics, Arabic, English, physics, history, ICT) with middle school grades. As a tool of collecting data, taking notes was the suitable tool in order to not miss any important details.

The last tool in this investigation was the questionnaire, it was prepared for the learners in a written form, in the mother tongue which is Arabic language. The questionnaire was based on direct questions that were translated to them in the sign language with the assistant of the Mathematics teacher; the researcher designed the questions in a carful way to not hurt the learner's emotions. The aim of the questionnaire was to take the learners opinion in what they like and dislike in their subjects matter and to compare it with the interviews and the observations to know what are the ways that they like to learn with, also to give them a feeling of safety that they are not under study, but also to give them the right way to express their opinions and feelings. The questionnaire was answered by five learners from the third grade of middle school. Some questions were very hard; to ask the learners about the teachers and the administration help, since it could hurt the learners.

### 2.11. Interview Analyses:

The data collected from the interview was very important since it is related directly to the target population of this research which is teachers of deaf learners. The setting of the interview was in the classroom and it took 15min for each teacher. The target population was multiple choice all the teacher from both gender are involved, and from different subjects matter (Arabic, English, math, history, ICT, physics). The interview was Simi-structured, based on 10 questions from general to specific, including yes/no questions; Moreover, the school have three grades which means the researcher tackle on two types of interview with the same questions; the first one is face to face interview which was applied with (6) middle school teachers it took 15 min after the course conducted to students, the second type was multiple group interview with (5) primary teachers in the teachers' room it took 30 min. As a tool of collecting data, taking notes in a brief way by concentrating on the main reasons. In this stage the discussion and the analysis of the interview will complain the two types with symbolizing teachers with (T).

### Q1: How do you become a teacher in special education?

The collected data from the first type of the interview which was done with middle school teachers answered that question in similar way. On one hand, (T1), (T2), (T3) and (T4) answered that they have sent their CV to the youth employment agency (ANEM) after graduation from university and waited until they called them to join the work that that agency chose for them which is teaching deaf learners; on the other hand, (T5) answered

that she/he applied in the same agency with a CV of administration assistant, but she was surprised to be hired as a teacher of special education. The second type of the interview with primary stage, the answer was that they wanted to teach deaf students from the beginning.

### **Discussion & Interpretation:**

The interview held with five teachers from the middle school, teachers were very honest toward this question and gave a reliable data that portrayed the reality of deaf education in e a big country such as Algeria, the first type of interview shows that all the teachers were obliged to teach those students, although they graduated from normal universities and they never dealt with sign language, so in this stage as researchers we can ask the question that did the education ministry care or take these students in serious view of a human that have a future? Why they don't have a teacher who graduates from special universities that teach sign language?

### Q2: What is the subject matter that you teach?

In the middle school interview they answered as follows: (T1) Mathematic teacher, (T2) English teacher, (T3) Geography and history teacher, (T4) Physics teacher, (T5) Islamic and Arabic teacher, (T6) ICT teacher. Moreover, the primary school teacher answered that each teacher hastheir students that teach them all the subjects.

### Q3: How much experience do you have in teaching deaf learners?

In face to face interview the teachers had experience between 4 to 10 years, (T1) had an experience of 9 years, (T2) had an experience of 4 years, (T3) 5 years of experience, (T4) 9 years of experience, (T5) 9 years of experience and the last one (T6) had 8 years of experience; Moreover, the answers in multiple group interview for that question is too far from the first one since they answered with a high number of experience from 10 to 30 year, the first teacher had 11 years of experience, two teachers had 18 years of experience and the last one had 30 years and all these teachers are responsible for primary school.

### **Discussion & Interpretation:**

Both interviews showed that experience really matters in deaf education; all the teachers in the target school are close to these students from young age, particularly the primary school teachers. Experience proves and develops the teacher abilities by training and examining all the methods that can enhance the learner's aptitude. According to

Courtade, Spooner, Browder, and Jimenez (2012) propose that "teaching students with significant cognitive disabilities grade level standards offers them a complete educational experience".

### Q4: Do you study how to teach these students?

In this research, that question is the doorway that makes the researchers know the reality of special education in Algeria. (T1) said that after getting the job from the agency they have been trained about general things for 4 days such as what is deafness? What are its degrees? After years of becoming a teacher in this school she/ he applied for national competition for teacher of deaf learners and have a course of 7 months in Algeria, and finally graduated by preparing a thesis in the end of it, and she/he have 3 courses in this field. In addition to that, (T2), (T3), (T4) and (T5) had the same answer which is after getting the job from the agency they had training of 4 days about general information and after some years they applied for the competition and hada training from 8 to 12 months in Constantine and graduated by submitting a thesis at the end. In the second type of the interview all the teachers claimed that they studied how to teach deaf learners, that is to say after getting their license they chose this branch as future teachers of deaf learners and studied it.

### **Discussion & interpretation:**

In order to teach a student who have disability of hearing, the ministry of education is obliged to create a safe and educational atmosphere, but the results of the first part of the interview shows that all the middle school teachers never dealt with sign language which is the mother tongue of the deaf learner, the teacher learn from the learner the sign language from the beginning of their career, and that create huge gap in special education field. According to Croft (2010) "Whereas some knowledge of sign language and the use of equipment that would enhance communication are some of the skills needed by teachers of deaf learners, how to use this knowledge while teaching in order to achieve effective learning is more crucial".

### Q5: Do you support inclusive class rooms? If no, why?

Since the teacher is the nearest person for the deaf learner and he knows their abilities, did he agree to merge the deaf learners with normal students as a strategy of teaching? In the first and the second type of the interview all the teachers disagreed with this idea by saying that is not good for the learners neither in the psychological side nor the

educational side; for instance, they gave the example of exams, deaf learners study the hole semester in the special school and they get good marks, but when it comes to the final exams they take them to normal schools and the result that they get it's not the same as the previous one in their school, it even affected on diligent students, this is due to, the deaf learner needs the teacher to explain the questions and its forbidden for them to attend in the exam's room; in addition, it effects on the psychological side of the learner, because the deaf learner in special schools they see themselves in a safe atmosphere that share the same disability and suddenly take them to a normal school that have more than 20student can speak and hear and ask them to work, it affects their mental abilities and their motivation. According to Leigh (1999) "purported that being the only deaf/HOH student in a hearing classroom profoundly effects self-perception, social growth, and peer relationships".

### **Discussion & interpretation:**

The inclusive classroom is a failed system in deaf education, all the teachers agreed that the inclusive classrooms harm the learners in different ways: **a**-they cannot study in a place that makes them feel like a disable person. **b**-The classrooms are overcrowded for a deaf learner who learns through the observation and lips reading. **c**- The teacher in normal school cannot give the deaf learner the attention that he needs and what he take in special schools. **d**-The normal school teachers can never deal with the sign language that the disable learners work with, so the teacher cannot evaluate the learner even if they can answer better than the normal students.

## Q6: What are the strategiesthat you used as teachers of deaf learners to transfer the information?

### **Analysis**:

The answers for this question in both types of the interview, in the first type the teachers of the middle school answered that they used sign language as the main strategyin teaching deaf learners, but the difference was that the teacher learned the language from the learners since it is the formal language between them. They added that there were other strategiesused in the classroom such as keep eye contact with learners by explaining the course face to face, also use the lip reading strategybecause they have good observation abilities; Moreover, they added that in the same classroom there are different types of deaf disability, some of them can hear more than the others and some have a hearing aid so in this stage the teacher uses the strategyof speaking loud, the learners who hear the teacher and understand what he/she says they translate it to the sign language for their

friends.Inaddition, the second type of the interview showed that all the teachers agreed on the sign language as the main strategyused in teaching primary schools.

### **Discussion& interpretation:**

The teachers of special education of deaf learners based their strategies of teaching according to the learner needs, that is to say the deaf learner from a young age used the signs to communicate but in general in the sake of express their needs for a hearing world, in the special schools they developed the signs to a sign language and changed it from the general to the formal shape or the academic phase that all the world deals with. The sign language is the most useful strategy that the teachers uses according to the observation and the interview with all the grades in the target school "AbbadFathallah" along with the strategies of eye contacts, the FM radio that are used with the students who can hear, the teachers speaks in a microphone that is hanged near to their mouths and the learners coanhear them by using a head phones that help them to hear the teachers; Moreover, the oral strategythat the teacher mostly uses in the classroom that includes students that have the degree of hearing better than the others. In general the deaf learner understands the teacher through the actions and what they see that is to say their cognition depend on the visual actions. According to Fromkin, Rodman and hymas (2011) "Deaf and hearing impaired people can acquire even their mother tongue through different ways such as gestures, sign language, finger spelling, etc. It means that these people can acquire their native language only through visual modality".

### Q7: What are the materials that you use in teaching deaf learners?

In both interview, the teachers claimed that in order to transfer the information for a learner who cannot hear or speak, they need extra effort from the teacher for preparing everything, such as pictures, data show, maps, textbook, phone if it is necessary, FM radio which is an equipment that the teacher use with the students who have the ability to hear more than the others and computers in the session of information.

### **Discussion and interpretation:**

The deaf learners are visual learners they depend on the sense of seeing, they learn what they see, so the visual aids are the center tools that facilitate the learning process, during the course the learner observe the teacher from the beginning of the course to its end and never break the eye contact with them, the visual aids are the most used

strategiesin the classroom such as the data show, maps, textbook, computers and the board. According to Hyjánková (2010) saying, "Material stimulating visual perception is thought to be essential for education of the hearing impaired pupils. A serious hearing loss totally preventshandicapped pupils or students from auditory perception during lessons and that is why visuals have evidently a dominant role in language teaching to deaf learners" (p. 26).

### Q8: Do you think the textbook and the programs suite the deaf learners?

This question touch the sensitive part in all the reaction of the teachers during both interviews, in face to face interview (T1), (T2), (T3), (T4) and (T5) said that the textbook and the programs are the same as the books of normal students, it is really exhausting for them and hard to understand, even for the teachers to follow the program with them, moreover, they claimed that some courses took from them more than three hours. In multiple group interviews, the teacher agreed with the same idea that the programs and the textbooks are really hard for a disable learner.

### **Discussion & interpretation:**

The teachers in any school follow the ministry guidelines even if it's not suitable for the learners whom they teach. The deaf learners study the same program with the normal students and with the flexibility of the teachers change it to fit the deaf learner comprehension level but even though it stay hard and unfair for them as disable learners. According to Spencer and Marschark (2010) In order to meet the academic needs of students with hearing loss, there is a need to consider these differences when designing specialized teacher training, curriculum, approaches to instruction, and teaching and learning materials and activities other than just focusing on communication barriers.

# Q9: How do you evaluate your students? And what is your way of punishment and rewards?

For the first question, in both interviews they answered that, they evaluate them as normal students how they work, observing their homework, correcting the exercises that they have in the classroom, tests, projects, and exams. For the second question, all the middle school teachers said that; on one hand, the reward could extra mark, positive words, and small gifts; on the other hand, the punishment (T4) said that the teacher should be strict with his learners, so punishment could be writing some words many time, stand at the back of the classroom, give them low marks and warning them by words and gestures. For

the primary school there is no punishment the teacher remediates the misbehavior by sending the learner to the psychologist and giving them games to complete.

### **Discussion & interpretation:**

The process of evaluation is the same as normal students since they share the same ministry of education that treat the deaf learners and hearing students in an equal way, but the teacher in special education deals every day with a learner that cannot speak and cannot hear and the most important thing they cannot express their thoughts freely, so the teachers must be creative and know how to evaluate them based on the practice in the classroom and the home works that they solve, in the case of the reward and the punishment the deaf learner need to build his personality, some of students can express their hate and their irritate feelings toward their circumstances, in this case the teacher must be smart and be creative in this process to change the punishment to a positive side, such as they use punishment in the primary school in the target school, take the learner to the psychologist of the school to know the source of the problem it can be from the school or the family or the student himself; in the same way, rewards are really significant in teaching deaf learners since the teacher is the responsible for these students they need to create a motivated atmosphere to these learners to know that they are doing well even with their disability.

### Q10: What are your recommendations to help this field to develop in next years?

In this question the researcher needs to know what the teacher needs beside the strategythat he used. So the result of both of the interviews showed that the teacher asks the education ministry to create an adjusted programs for those learners, and print for them books that contain sign language, the exams should be in the atmosphere that help the learner to be productive, see them as an effective part of the society by creating high school for them, because in the hole of Algeria there are only two high schools for deaf learners, so most of the learners give up after finishing the 10 grades.

### **Discussion & interpretation:**

The domain of special education seeks for raise the deaf learners' level and became a part of the normal world in all fields of life, in order to develop these constitutions the interview

> "The process of educating students who are deaf and hard-ofhearing is affected by different factors like attitudes, qualified and

skilled teachers, quality of services offered to schools and families, acoustic environment, family environment, type and degree of hearing loss, language and speech abilities, and the existence of additional disabilities" (El-Zraigat, 2009).

### 2.11.Interview with the Pronunciation Grade Teacher:

The pronunciation stage is really a significant stage in deaf education, so the researcher made this interview apart from the others since this stage is related to the new deaf learner's age of 4 to 5. The interview was face to face with taking notes. It tookmore than 30min with a female teacher with the same questions which are semi- structured. The teacher had experience of 11 years with deaf learners, she graduated from the National Center for Staff Multi-staff Task in "Birkhadem", and she became a teacher of deaf school in "El Bayad" and took courses of the sign language from teachers that study in "Constantine" for three months. In the pronunciation stage there are two years, the first year, the teacher observing the learners behaviors and teach them important parts from the program which are:

- The manners: As new comers the learners must learn the basics such as greet and respect.
- The rhythm of the body: the teacher teaches the learners the letters using all her/his body that help them to know how the letter spells.
- The audio education: the teacher help the learners to know the sound sources using
  the SOVAC device which help to enlarge volume size; for instance, the teacher put
  on the microphone a song from her/his phone and ask them from where the sound
  come from.
- Sensory education: the teacher develops the sense of hearing with the assistance of the "orthophonist" with the learners who can hear, also the sense of observing the lip reading and the actions.

The strategiesthat the teacher used in pronunciation stage were: physical spelling, speak loud and eye contact, and concerning the used tool in the classroom: pictures, drawing, monologues and plays. The teacher gave two examples about how she/he used these strategies, the first one:The learner came to school in a young age and they could not know their names, the teacher wrote all students names in the board with their photos, and each session the teacher call the learners names and they recognize their

names and at the same time they learn how to write it. The second example is about how to teach the learners the outlet voices by using the physical spelling, the teacher starts explaining the voice 'b' in the Arabic language she start hurry her/his foot on the ground to help them to imagine the sound of the letter, and at the same time, spelling the sound to help them to read her/his lips.

The program is prepared by the ministry of education, the ministry of solidarity and the national training center, the teacher work with it all the year consist of courses and the strategies that should use, and in the second year of pronunciation the teacher teach them the sign language (finger spelling) of all the letters and numbers.

### 2.12.Observations:

As a second tool of investigation in this thesis, the researcher used the observation as a non- participant person in order to collect a qualitative data. The process of observation is divided into three different stages the first one is middle school, the second is primary school and the last one is pronunciation apartment, each session of observation took 60 min from (7) classes. In this process the teacher and students reaction is under observation. The main purpose of this process is to observe the teachers during explaining the lesson and if the strategy that they spoke about in the interview is applied in the field, method of teaching, tools, body language and how the teacher tolerating his students; in addition, the learner is also a main part in the observation, in order to know how they react with the tools, strategies, and if the method that teacher use is useful for the learners.

As a beginning, the following table will explain all the general data about the middle school observations that help to understand the atmosphere that the process works.

Time of observations	Level of the learners	Module	Gender of the teacher	Students number	Males	Females
13:00-14:00	2 middle school	English	Female	6	2	4
10:00-11:00	3 middle school	mathematics	Female	5	4	1
10:00-11:00	4 middle school	English	Female	2	2	0
13:00-14:00	4 middle school	Geography and history	Female	2	2	0

09:00-10:00	2 middle school	physics	Male	6	2	4
09:00-10:00	4 middle school	Arabic and Islamic	female	2	2	0
10:00-11:00	4 middle school	ICT	Male	2	2	0

The table 02:The summary of observation sessions

The first observation was with second middle school, the course started from 13:00 to 14:00 with an English teacher. In the classroom there are 6students, 2males setting in the middle of the class and the 4 girls setting in the first places next to the board. One of the 6 learners can hear well than the others. In the beginning the teacher started checking the home work one by one and that take more than 10min, after that the teacher gave a handout that contain drawings to all the learners related to learning the colors, after that the teacher stand in front all the students and ask their attention by clapping her hand and wave to them to take their full attention and start explaining the 1<sup>st</sup> task using the sign language slowly and repeating the words many time in order to help them to use the strategy of lip reading; Moreover, in order to give them the right meaning, the teacher use her phone in order to explain an odd word, for instance, the students could not understand the word "fair hair" so in this stage the learner could only understand after seeing the photo, Also the use of the mother tongue all the time and whenever she explains a word she asks her students to write it in their note book and learn it by heart, because in their exams students deals only with what they learn. During the course students could not understand some words that the teacher wants to give them, since the teacher never studied the sign language, so she relied on students to help her as dealing with the student that can hear since the student masters the sign language better than her, after that she explained to her colleagues what the teacher said, or in another case the teacher asks the students what they call the orange fruit in sign language to give them an example about the orange color in the real life. After that the teacher started checking what they wrote in the copybook and correct for them one by one and that was the end of the session the teacher never site in her place from the beginning to the end of the course, she never stop explaining to students, and that create calm and a collaborative atmosphere.

The second observation started from 10:00 to11:00, with an English teacher who has session with 4t year. In this class there were only two male students. The course was about practicing on a sample of exam in order to prepare them for the final exam. In the beginning the teacher start greeting them with smiling face, the method of teaching that she use is to read only the questions and explain it using sign language and repeat the words loudly many times to help them to use the lip reading strategy, and the text is the student responsibility to read and understand, after them finishing the explanation the student understand what the teacher ask them to do, during the time that she gave them which is 2 hours the students ask the teacher for help and the she helped them one by one.

The third observation start from 13:00to 14:00 with a female teacher that teach Geography and History, the course was about the population in Algeria, the target class was the last year in the middle school with only two male students. According to the observation the teacher use two methods of teaching the first, she write the first part of the course on the board and ask them to write with her at the same time, after they finish she explains what she wrote using sign language and making eye contact with the learners and speaking loud to help them to use the lip reading strategies, the second method the teacher write one title and explain at the same time with the same strategies. Moreover, in this course the learners has to learn by hart every definition so the teacher ask them about previous knowledge, for instance the concept of "collective gestures" the learners start brain storming and give the definition in the sign language with the teacher help. During the course the teacher could not explain the word birth miss organizing so the teacher used the book as material aid to make them understand. The course was long and the teacher divided it in two sessions by her effort to designing a course that fit the deaf learner. In the end of the course the teacher ask the students to summaries what they understand using the sign language. The students in this course were free to discuss with the teacher and collaborate with her to find words meaning and examples and that create a good learning atmosphere that there is no autonomy of teaching is based on the teacher.

The 4 observation started from 9:00to 10:00 with a male teacher of physics module, the target class was second year with 6students 4 girls setting in the first places and the 2 boys in the back of the classroom. The course was about "the movement point of a hard body". As a method of teaching the teacher write the course on the board with two different pens (blue and red)and under each definition he sticks a photo; for example the teacher defined "the street" under it he put a photo of it. The strategythat he used in

explaining the course was sign language that he was very good on it and lip reading and facing the learners during explaining. During the course the teacher gave chance to the learners to participate in the board and discuss with them the course and shared jocks in the sign language give them examples from the real life. After finishing the course the teacher started to check the learner's copybook one by one and explained the misunderstanding that they had. The learners are so comfortable in this session they had the ability to speak with their teacher since he was good in sign language, and they collaborate between each other to solve the tasks that the teacher gave them, the learners were happy and laughed from time to time with the teacher. As a source of information the teacher used the textbook and photos but he could not give them the experience in the field since the school does not have an experiment class, so the learners learn all the courses theoretically, and the most important the teacher does not focus only on the learner that could hear more than the others, he gives the same attention by making eye contacts and calling their names and ask questions directly to them as dealing with normal students.

The 5 observation started from 10:00to 11:00 with a mathematics female teacher, with the third grade middle school, in this class there are 5 students 4 male and one girl. The course was about "the triangle and the circle". The teacher started writing on the board and drawing a triangle shape from the textbook and started explaining the course using the sign language that she learn it from students in her 10 years of experience and made eye contact and spokealoud with all students to help them to read her lips. In the session whenever the teacher drew a shape she checks the learner copybook one by one, in order to know what the problems that they face and could not express it. After more than 30min the teacher still explaining the course in the middle of the classroom and each title she explains it more than one time, during the course she asks the learners to remember the last course and link it with today course and solve tasks that she wrote on the board and explain it to them using sign language and asks them to collaborate between each other. The learners in the classroom were excited to be part of the course, because they could understand from the first explanation and after solving the exercises they were active in the class by sharing their ideas on the board and correct it with the teacher. The learners are much disciplined they have their books and all math equipment's that they needs.

The  $6^{th}$  observation started from 9:00to 10:00 with an Arabic and Islamic teacher that was a female. The session was with the  $4^{th}$  grade that contained 2 male students. The course was about ( التوكيد اللفظى و التوكيد المعنوي). The teacher was not the same as the others

she deals with these students as a normal ones, at the beginning, she wrote the examples and askedthe students to find the difference, after that she gave them the role and explain it with sign language and making a lot of eye contact; Moreover, she spoke out loud even though that she knows that they will not hear her if she was shouting or just moving her lips. The teacher wrote the course with the exercise and asked them to solve it, the teacher started checking the learners' problems one by one and that take more than 10min, after that she asks them to write the answers on the board and they were very good in it. In this course the teacher face a several problems since she was not a proficiently in sign language she learned it only from her students through her long experience of 10years teaching deaf students, she could only read for them explain what she could and write simple words for them to make them understand.

The last observation was with the informatics male teacher from 10:00to 10:00 with the final year of middle school, with two male students, the course was about the functions of "Exel". The teacher draw a table and started explaining with the sign language that he was very good in it and the learners seemed to be exited to the attention that their teacher gave them by learning their language by heart, the teacher write few details on the board and explain more, during the course the teacher asks them about definitions of some programs, the learners could easily answer because the definition was not set of words it was signs that their teacher gave them to facilitate their way of learning.

The observation with primary school, started from 10:00to11:00 with a female teacher; the classroom consist of 11 students (2 girls and 9 boys). The teacher was really familiar with the sign language equally with the learners, the first thirteen minute of the observation the teacher dealt with the Arabic module she wrote the exercises and explained hem for the learners more than three times with the sign language and asked them to solve them, after few minutes the teacher started checking the exercises one by one, the learners where very excited to write their answers in the board; the second thirteen minutes of the observation the teacher dealt with the mathematicssubject, she asked them to write on the plate chalk the numbers that the teacher sign to them and she rewarded the learners who got the correct answers by showing there plate In front of their friends and that created a competitive atmosphere, after finishing the exercise the teacher started teaching them the numbers and how they can write them on letters, she wrote the first example and solve it with them and that took less than a minute, after that she asked them to solve the next one, the teacher observed and corrected for the learners and that took too much time for one

formula. The strategiesthat the teacher used are the sign language, eye contact, lip reading, physical signs and speak loud, as a tools the teacher used the text book as the main source of information. The teacher had a great way that helped the learners to learn new words and numbers, she wrote a group of verbs and explainedthem with the sign language and revisedthem with the learners each course and created phrases and paragraphs using them, and after five days they learned new ones; moreover, the teacher wrote the numbers with the letter spelling on the board and never delete them.

### 2.13.Questionnaire:

As a third tool of collecting data in this investigation, the researcher used the questionnaire in order to see the deaf learner's opinion toward thestrategies that their teachers applied in the classroom. The questionnaire was a set of direct questions that were written in the Arabic language since it is their mother tongue; the students were from the 3<sup>rd</sup> grade of middle school, they were 5 students 4male and 1 girl. With the assistance of the math teacher who translated the questionnaire questions into sign language to make it easy for them to understand it; it took less than 15min.In this questionnaire the learners were very collaborative to answer the questions, they were very excited to share their thoughts with their friends and teacher. Moreover, the researcher respected the learner's disability so there is no question that can hurt the feelings of the learner, and some questions answered from the teachers and the head of the department like the last two questions.

The first and the second questions of the questionnaire are related to the learners opinion how they categorize their subjects matter between hard and easy and the results showed that the subjects that have a teacher who share sign language and use different tools and the student participate in it are very familiar with it such as the mathematics and physics English; moreover, the modules that have the passive role of the students and complicated program are though for students such as Arabic and French.

The third question was like the interview even the results showed the same reaction for both students and teachers, in this question the learner claimed that the program that they learn from it is very hard to learn from it.

The 4th question discusses an important strategy that some countries deal with in teaching deaf students, such as Algeria that use this strategy in the exam phase which is inclusive classrooms. The student disliked this idea and claimed that they like their school more and want to study in it all the time. This result showed that the deaf learners are very sensitive toward this topic and they get affected in a negative way from it.

The answers of the 5<sup>th</sup> question was really a chock, according to the results of the questionnaire the learners have occupational dreams in jobs that does not need an academic level, such as builder, electrician, hair making...etc., the other students chose their hobbies such as painting and computing, in order to know the causes of this dreams why they did not mention the university? Why they did not speak about the exam of the final year of the middle school? So in order to answer these questions the teacher said that they have 3 high schools in all Algeria and some parents cannot send their children to study there dealing with money problems and they claimed that after they succeed the middle school they go to normal schools with more than 20 student and they mainly cannot succeeded at this level.

The 6<sup>th</sup> question was related to the opinion of the deaf learners toward the sign language that is supposed to be their mother tongue and the formal language of the Deaf society, all the learners who participated in this questionnaire agreed that it is between hard and easy for them but they don't have the choice so they learn it even it is not easy. In addition, the next questions which are what the learner want, the first one the learners chose the teacher who have more experience than the novice ones, the second question was about if the learner agrees to have a new teacher that master the sign language and they were very confused and finally most of them chose to say no.

The 8<sup>th</sup> question was about what the learner thought about their school and what it miss, in order to take away the filling that the questionnaire gave them that they are a subject of study so they were very excited to answer this question and speak about the experiment room that they need in physics subject, and about the computers that they need in the ICT subject.

The last two questions were too much personal and they can hurt their feelings, so in order to answer these questions, the researcher investigated on the administration and the teachers of these classes. But as an important details the learners who had parents that know the sign language they created an atmosphere that helped the learners to develop; they have an extra place that is different from school to communicate and formulate a strong personality; however, in the target school most of the deaf learners have hearing parents and may be they are illiterate so the learners suffer from the lack of communication and a fragrance personalities and these factors affect the learners educational level, Deaf children whose parents are hearing have been reported to experience less responsive and fewer supportive scaffolding behaviors from their mothers during interactions than hearing children (Spencer &Marschark, 2010).

	S1	S2	S3	S4	S5
Hard subject	History- English- Arabic	Arabic-	Arabic	History- English- Arabic	History- English- Arabic
Easysubject	English and physics and English	English and physics	English and physics and English	Math- physics- French- English- History	Math- physics- French- English- History
Books and programs	Hard	Hard	Hard	Hard specially Physics and French	Hard specially French
Inclusive classroom	No	No	No	No	No
Dreams	Hairdressing- making sweets	Builder-get married and pray	Painter and make an art gallery	Builder- electrical wiring installation	Sell electronics
Sign langage	Though little	Though little	Though little	Though little	Though little
Old teacher haveexperience	Yes	Yes	Yes	Yes	Yes
New teacher know the sign language very well	No	Yes	No	No	No
What you need in this school	/	Experiment room-computers	/	/	/
Parents know the sign language	No	No	No	No	Yes
The disability is genetic	/	/	/	/	Two brothers in the same family have

		deaf
		disability

**Table03:** Students' answers of the questionnaire

### 2.14.Conclusion:

In this chapter, the researcher discussed issues that are related to the methodology used in this research that helped to collect a qualitative and quantitative data and ask the questions that help to develop the strategiesused in deaf education. The target population was really welcoming and collaborative during the interview and observation.

During the process of investigation the researcher could cooperate with new world of teaching that is based on silence, the role and the effort that the teacher of deaf learners does in the classrooms highlighting the crucial role of teaching process. It was really ecstatic experience to learn the sign language and interact with the learners who were very excited to share with the researcher their dreams and what they like and dislike in their subjects matter.



# Findings and recommendations

<b>3.1.</b> Introduction						
3.2.Discussion	n of the Collected Data	53				
3.2.1.	The interview	53				
3.2.2.	The observation.	55				
3.2.3.	The					
	questionnaire		56			
3.3.The results	s of the Comparison Between the Tools	57				
<b>3.4.</b> The answers for the Research Questions.						
3.5.School Ob	60					
3.5.1.	The Positive Data	60				
3.5.2.	The negative parts	61				
<b>3.6.</b> The role o	f the Teacher in Deaf Education	62				
<b>3.7.</b> The Role of	of the School and the Ministry of Education	64				
<b>3.8.</b> The Role of	of the Parents in Deaf Education	65				
3.9.Challenge	s that Face the Teacher in the Classroom	66				
2 10 Conch	3.10 Conclusion 69					

### 1.1. Introduction:

In this chapter, the researcher will deliberate the results of the collected data from the investigation made in deaf school "Abad Fathallah", the methodology used in this research work focuses on the teachers' effort in transmitting the information is a safe, motivated and a creative manner. The researcher will interpret and discuss the data, in order to prove the hypotheses and answer the research questions. Moreover, the environment of the school has been observed as part of improving the teaching skills.

### 1.2. Discussion of the Collected Data:

In the second chapter, the researcher discuses and interprets data collected from the qualitative and the quantitative data collection tools. The result of the research based on three tools the interview, observation and the questionnaire, was really a productive experience for the administration and the teachers who were really collaborative with the investigation process. In this section, all data collected in the field will be reviewed and compared individually to provide a general overview of this research.

### 1.2.1. The Interview:

The overall time that the interview took was from fifteen to thirteen minutes, with semi-standardized questions to the researcher guides, the questions were direct and the same thing for the answers. The ten questions focused on the target population which is the teachers, during the interview the researcher classified the questions from the general to the specific. The collected data showed that the reason of teaching deaf learners is mostly for occupational purpose and most of them were obliged to face the reality of teaching the disable learner. The problem in this case is not the teachers, because the teacher is obliged to work and seeks for work. The ministry of education should set strict rules and make a competition for teachers who study how to teach deaf learners, it was really shocking to know that a person who has a management certificate became a teacher of Arabic language in special school for deaf learners; in the same context, most of the teachers never

dealtwith a disability in their previous career and it was really an exhausting process and it stilled at the same level of difficulty.

The research, based on two types of interview, with three different stages in the school, but the result was nearly the same since they agreed on the obstacle that the teachers face during teaching a deaf learner such as: the first contact, the learners' behavior and the teacher misunderstanding of the sign language. That consequence the misunderstanding and the lack of communication between the learners and the teachers; in the same context, the main aim of this research is to look for the strategiesthat the teacher used in the classroom to transfer information in the right way to a disable learner. According to the results of both interviews the teacher of the deaf learners deals mainly with different strategies, but the most important one is the sign language and they claimed that the sign language, it's the mother tongue of the deaf learners. Moreover, the results of the interview shown that the teachers depend on more important strategies that is not less than the sign language such as: the lip reading and eye contact strategy, as known the deaf are visual learners they depend and learn on what they see and note. The teachers, claimed that the student must be face to face with the teacher in order to help them to read the movement of their lips, also to protect the link that the teacher built by making the learner focus with the teacher from the beginning of the course. In addition, the teachers used the strategyof speaking leads, while the school cannot provide the expensive equipment in the classroom; in this case, the teacher is obliged to speak in a high and a slow voice to help the learners who can hear to understand what the teacher want to explain, some other teachers claimed that the teacher must use a different strategies with the deaf learner For example, the first stage in deaf education, the learners who have the first contact with the teacher they learn their names and the alphabets with the sign language. So the teacher uses the physical actions, speaking loud, eye contact, face to face speaking and lip reading; the learners observe the teachers' behavior and imitate them. The learner could produce the sound in the same way.

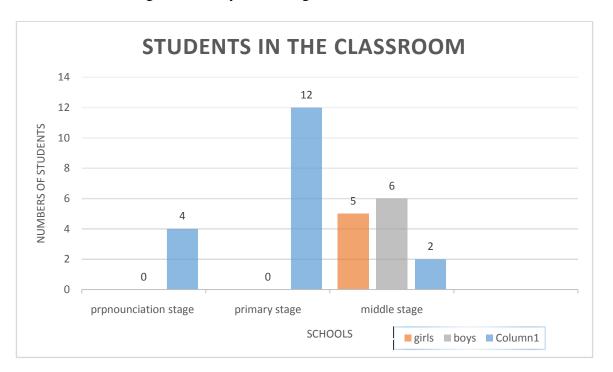
The teacher of the pronunciation stageclaimed that in order to produce one sound, the teacher use all his/her body to show the learners what the sound look like. Also, they help the learners to produce the sound with the assistance of the ortophonist who helps the learners to use and fill their throats. When the learners succeed the first year of pronunciation they learn the general sign language, that all the world deals with and learn the manual alphabet from their teachers.

Regarding the result of the interview, the strategies that the teachers used in the classroom, It shows that all the teachers in the target school use the same strategies only it differ to the primary and the middle school, that they depend on the sign language, eye contact and lip reading. The questions of the interview were targeting the teacher reacts toward the tools that they used, in explaining the program for the learners, the result shown that, the teachers vary their tools in personal or schools' efforts; that is to say, the expensive materials that the deaf learners need, the teacher playsan important role in it, since the classrooms are not prepared with simple technology such as data show and a computer; so in this case, the teachers during the interview had the same answers that they used photo, phones and their computers or buy the needed equipment; for example, the administration staff, gave the researcher a simple example that explains how much the school is missing a simple tool, she/he claimed that the physic teacher, during his course that speak about magnetic, so in order to show the learners what does it means, he asks the school for it, but they cannot make it available for them until they bought it from their homes. The point of view of the teachers toward the programs of the ministry of education was the same. They agreed that the deaf learner needs a special curriculum that serves their disability, not put them in the same level with normal students. It was very shocking to know that the deaf learner cannot obtain three words of questionnaire that contain three hundred words. In another question, that target the teacher reaction or view toward the inclusive classrooms, the answer was the same for all the teachers, they even gave examples of their students, when they pass the exams in normal schools; they claimed that the students became less motivated and show low marks compared to the result that they got in their school. So from the result of this question, teachers of all grades in "Abad Fathallah" school do not support the Inclusive classrooms as a strategyof teaching.

### 1.2.2. Observation:

As a second tool of investigation, the researcher attends eight sessions with different teachers, from three different grades; in order to answer the research questions and prove the hypotheses. The observation took one hour for each subject, with both male and female teachers as a non-participant person. The results of the observation that focus on the strategiesthat the teachers uses in the classroom found that, all the teachers use: the sign language, eye contact, lip reading and speaking loud; moreover, as for the tools that help the teachers and learners they used: photo, drawing, text book, personal phones and different colors in the board. In the same way, the learners were concentrating and

collaborative with the teacher explanation, from the beginning of the course till its end. The most obvious noted thingwas that the teachers explained the course and the examples more than three times. They had patience and spoke slow and rarely sat in their desk, during the whole hour the teachers were standing at the middle of the classroom in front all the students checking them one by one during the exercises.



**Figure02:** The student's number in each observation session.

### **1.2.3.** The Questionnaire:

The questionnaire was short and very simple, because the effective way to find out what learners think about the skills their teacher uses is to ask them. The questions were simple, written in the Arabic language that they study after they learn the sign language. With the help of mathematics professor, the researcher could translate the questions into sign language on one hand, after matching the easy subjects, that they prefer it in the questionnaire which are (math, physic, English) with the observation of the teacher. It was found that these teachers are really familiar with the sign language, also they depend on visual tools such as pictures, drawing, giving examples; moreover, teachers, wrote the course and explained at the same time; the students were all the time involved in the course, they were very excited even if their answers were not correct. On the other hand, the hard subject according to the learners (Arabic and history), those teachers wrote directly on the board everything, and after that they explained from the beginning and that is really exhausting, even for the observer. The teacher wrote and deleted the whole hour,

and the students kept just nodding with their heads or chatting with their colleagues; in the same way, the students claimed that the French language has a complicated program.

### 1.3. The Result of the Comparison Between the Tools:

The methodology that the researcher used work hand in hand with the research problem, which seeks for understanding the strategiesthat the teacher of special education of disable learners used in the classroom. The second chapter, was a rich full with the data that the researcher could collect from the target field "Abad Fathallah" school with three instruments, in order to make the results of the investigation more reliable and to achieve the vital purpose of this study. The second part or tool is the observation, it was 70% focus on the teacher from the beginning of the course to the end, based on comparing the results of the interview and what the teachers used in the classroom; in order to know if the teachers apply what they said in the interview on the ground, the tools that they used and the method of teaching; Moreover, the 30% of the observation, was on the students during the course, that help to know if the strategies that the teacher apply in the classroom are sufficient for them and if they are interested on the courses. The last tool of investigation is the questionnaire that the researcher prepared for the deaf learners to give them the opportunity to express their thoughts. The results of this investigation was similar, all the instruments of the research showed that the strategiesthat the teacher used in the classroom are the sign language which is the main important one, eye contact, speak loud and lip reading; in the same way, the tools that the target used in conducting their courses are equal and it matches in both types of the interview and the observation: text book, ICT (even if it's not available in the school, but from the effort that the teacher does, in the observation process, there was phoning), maps, FM radio, pictures and drawings, but the method of teaching was different from a teacher to another some of them apply what they claimed on the observation and some of them does not, in the same way, the questionnaire could prove that the teachers and the subjects which they liked, they were the same teachers who have answered similarity in the result of the interview and the observation which are (mathematics, physics, English).

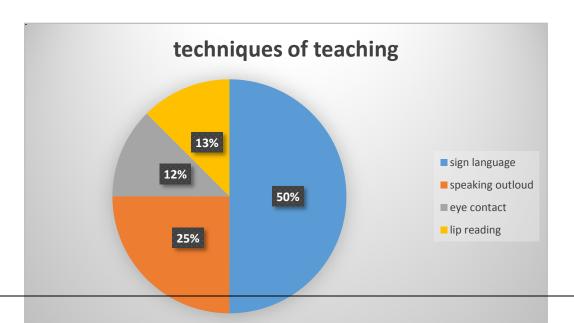
### 1.4. The Answers for the Research Questions:

The research questions of this dissertation were:

1. The First Question: What are the strategies that are used in teaching deaf learners?

According to the collected data from the target school, the teachers of deaf education based their teaching on the sign language as the most important strategysince it's the mother tongue of the deaf learners; at the same time, they depend on several strategies that help them, such as: speaking loud (Oralism), several teachers in the three grades used it, since the classroom are not prepared with the FM radio, and there are some of classes that contain learners that have hard of hearing, so this strategy help those learners and it even help the teachers. For instance, during the observation with second year middle school, the teacher speaks loudly and the learners who hear the teacher more than the others, he/she could help the teacher to transfer what the teacher want to say to the learners, by using the sign language and all the learners could understand. In the same context, the teachers help the learners to read their lips with maintaining eye contacts with them, this process oblige the teacher to be more patient and have the ability to repeat the course for the learners more than one time, this strategywas really obvious in the observation and even in the interview.

The answer for the research problem, is that the teachers vary their strategies in teaching deaf learners, which give the authenticity to the second theory and, also, it is called the total communication approach that is based on taking all the positive side from each strategy and apply it in one; the total communication approach uses a variety of methods such as gesture, sign, drawing, facial expression and mime. It is based on the idea that any means of communication are valuable as long as it works, the purpose of this strategy is to give the teacher more access to all the available strategies that serve the learners' needs; sustaining this idea with Marschark, Lang & Albertini, (2002) claim, that in a good order of optimize the communication abilities, the teachers use the total communication approach with the assistance of other aids such as hearing aids and cochlear; in the same context, Smith, Polloway, Patton & Dowdy (2004) stated that total



communication approach with the assistive of hearing devices help the learners to receive the appropriate education.

**Figure 3:** the Teaching strategiesUsed in the Classroom

**2. The Second Question:**How do teachers of deaf learners perceive the curriculum and it's appropriateness for disable learners?

According to the data that the researcher took from the interview with several teachers from the target school, the programs that the ministry of education prepares for the disable learners is really hard and is not suitable for them, since the textbook was made for normal students and is not available with signs, that the disable learner needs. In the same way, According to the questionnaire results the learners suffer from the complicated curriculum-as they mentioned specially the French program- they classify it as really hard to cooperate with.

**3.** The Third Question: To what extent are the strategies and methods used to deaf learners effective?

The deaf learners might not express their thoughts only by the sign language. But to take their opinion as a strong basis to create a strategy depend on the learners need is really rare, so the learners obligation to deal with all the teachers' strategies, but the result of the questionnaire show that the learners have a problem with the method of teaching that they used; on one hand, The learners like the teacher who use all the strategies and act as one of them, even if the subject matter is hard, the teacher makes it easy for them. On the other hand, students dislike the teachers who explain and write at the same time, and who have not a mastery of the sign language, even if the subject is easy the teacher could not transfer

the data in the appropriate way and that make the learners became bored and lazy and give a negative atmosphere in the classroom.

The student has a positive reaction toward the available strategiesthat were used in the last two centuries. According to the results of the investigations, all the teachers that work in the target school used the same strategies, but in the questionnaire and the observation, the learners work with some teachers in a productive atmosphere that both the teacher and the learner are active. But with other classes, there was a centeredness of the teacher was a conclusion the hypotheses that said the student could only learn and accept what his teacher gives is true, but in another way the learner have a problem with the way of teaching that the teacher used with them; for instance, the first and the second stage in "Abad Fathallah" school the learners deals only with one teacher that taught them all the subjects and use several strategies in teaching, the learners are really comfortable and active all the time; while the third stage, which is the middle school each subject have a teacher, the learners could understand and like some of them and in other subject could not, and that caused by the ministry of education that they don't give too much importance to this field, it is required from the head masters is to put the right person in the right place.

### 1.5. School Observation:

In the school of "Abad Fathallah", you can find positive and negative aspects during the observation, and in order to know the atmosphere that the teacher work in and the conditions that they received the learners every day.

### 1.5.1. The Positive Data:

• The administration of this institution is such kind persons and collaborative with the question asked to them every time, they open the school with a real heartwarming smiles and welcoming the visitors. In addition, the most important part, they are following strict rules to protect the learners and protect the internal system of the school; for instance, when the researcher went there was obliged to bring papers that prove her identity as a researcher from her university, after that the school signed it for her and she wrote all the details of her research and the methodology that she used in it and how much time will take in the investigation also the target population, and after 5 days the researchergot the permission to enter the school with the agreement of the psychologist. Moreover, they put a condition to bring a copy of the dissertation for them at the end of the research.

- The learners and the team that works in the school are really related to each other mostly like a family, since they deal with them every day and the internal system that the school followed since 2002 help them to be one hand.
- The school tries its best to make all the services that the deaf learners need available for them such as: the dorms, restaurant, classes with worm systems, boards, tables and chairs, the bus that transport learners who live near their homes, security guards, the gardens for the learners to play, also the antagonist that helps the pronunciation students to produce sounds and the psychological doctor that help the learners in their behavior.
- The school gives chance to deaf people to work on it, but not as a teacher.
- The discipline of the system is really good; the teachers took their learners from the dorm whenever they have a session with them, and if the teacher did not appear the learners stay in the dorms.

#### 1.5.2. Negative Data:

- •The classrooms of the deaf learner are really simple, even normal students can study in it, that is to say, the equipment that helps the deaf learner who have the ability to hear more than his /her colleagues are missing; such as FM radio in the whole school there are only two instruments that the teachers swapped between each other. The administration justifies that by saying; these instruments are a really expensive to buy; for example, the FM radio need to be located on the classroom walls, and the learner should wear the cochlear aids that help them to hear, but most of the learners are from the middle classes.
- The deaf learners are visual learners who depend on the sense of seeing, so the role of the teacher in this stage is to clarify and simplify the ideas at the utmost level; for instance, the physics subject, according to the observation that made by the investigator at the middle school, the teacher could not explain the course of the object movement without the physical actions or using pictures., So in the investigation, the teacher was asked why he/she is prepared for a live trail to help the learners understand through experience. The teacher and the administration proved that there is no experiment classroom in the school, due to the lack of space. It's truly hard for the teacher to explain a course of science or physics that depend on live actions, even with the positive strategythat they used in the same context. In addition, the ICT teacher give the course on how to use a computer to the learners in a theoretical way; on one hand, the teacher claimed that, there is no informatics classroom to practice the courses only with his effort, by bringing his computer to work

with; on the other hand, the administration claimed that there is one computer in the administration that all the learners work with, but the ICT teacher refuses to use it. In this case, the teacher is not mistaken because the administration is for workers not for students, since it does not achieve the atmosphere of learning that the deaf learner needs; in the same way, the informatics need an individual computer to correct the misunderstanding that the learners could have and could not express.

• The school is for deaf learners, but there are no teachers who have the same disability. In this case, the learners could take a low level of expectations of their future, and that was really evidently on the result of the questionnaire. The teachers could study the strategiesor predict ones, but in the reality they could not know the deaf learner more than that. Because, when they finish the day they returned to their normal word; that is to say, the deaf learners need a high model or an idol to look for, and to change the view of their disability as a wall that destroy their dreams.

#### 1.6. The Role of the Teacher in Deaf Education:

In the special education, the teacher is the basic and the main source provider. Every learner looks to his teacher as model and idol that snatch him from the darkness of his disability to the light of the science and the knowledge. The role of the teacher in special education is really significant, since they are the first contact that the learners deal with in special education; in the same way, they build a safe relationship that's based on a teacher who share their knowledge and experience and a learner who gave a huge trust to their teacher and develop themselves with the assistance of the safe and the creative atmosphere that the teacher build with the learners on each session; so, the teacher role is really important in the classroom and out of it, in this passage the researcher will discusses the main practices that the teacher of deaf education should master and be educated with:

- The teacher of deaf education should maintain all the strategies that help the deaf learners, to develop their learning skills, and the important thing he/she should master the sign language; since it's the mother tongue of those students.
- The relationship between the teacher and the parents of the deaf learners should be strange and collaborative at the same time, since the deaf learner should rise in worm and understanding atmosphere. That is to say, what the teacher begun in the classroom the parents should develop it in good way not in the bad way, the role of the teacher at this stage is to create these connections.

- The teacher should be knowledgeable about the tools that help the learners who suffer from the hard of hearing to develop their senses, such as the FM radio, SOVAC, the hearing aids and the cochlear implants.
- Preparing a meeting with the other teachers, parents, ortophonist and the school employee analyse the learner's progress and make the missing equipment available for them during the academic year.
- The teacher should create a relationship with the learners; in order to know their problems, and seek for solutions that could help them, it could be psychological problems that need a specialist; such as a doctor or social and family problems that need to contact the parents.
- The teacher should know the learners and collect several data about the learners before the first contact in the classroom, such as degree of deafness, the family condition and the medical report of psychological doctor, as Luckner& Muir (2001) claimed that the teacher should know the learners as much as possible, before teaching them.
- The teacher must be flexible and creative in designing the courses, not only depend on the ministry curriculum and tools. According to Konomi (2014) the teacher could create a visual ides; for instance, charts, graphics, drawings and gestures.
- Give instruction to the parents of the children, and teaching them some basics to not hurt the deaf learners, so that to not effect on the flow of the courses and to increase the effectiveness of the learner environment (family).

# 1.7. The Role of the Ministry of Education and the School:

The teacher is an important part in a complicated system that looks like a hierarchy, the top of it is the ministry of education, which symbolizes the head of the education department. After that the schools that took its orders from the ministry and lastly the teachers. That is to say, with the view of creating a good and productive learners, it's a must to work hand in hand with all the participants to provide a successful system that achieve the goals of special education; for instance:

Providing an integrated educational environment with the means and the tools that suit
the need of deaf and hard of hearing students, whether audio, visual, sensory or
technical.

- Providing the classrooms with all the necessary equipment that facilitate the teaching
  and the learning process, including the data show, the FM system and the hearing aids.
  Even if the FM radio is really expensive the government could organize a charity event
  to collect money from people who are interested in this field, and fill the gap of the
  lack of necessary materials in special schools.
- Providing the special schools with the important facilities; such as: the medical apartment, experiment room, informatics classroom and conference room for the teachers.
- Design a curriculum that suit the disability of the learners, and facilitate it at the same time, since the deaf learners are visual learners, the ministry of education should add a lot of pictures and finger spelling that help the learner to understand the courses without the assistance of the teacher sign language books. According to the claim of Bunch (1987) "students who are deaf and hard-of-hearing need special language, speech, and audio logical rehabilitation curriculum".
- Create competitions for the teachers who want to teach students with disabilities, and that to give a reliability to the teacher since they can work in job that they choose, since the person can be creative in a place that he/she likes, not as the current system that the teachers in the target school "Abad Fathallah" are obliged to take the work of deaf teacher even if it's not their field depending on the young agency.
- The ministry of education should give the teachers who work in this field a good salary, since they challenge themselves by teaching students that have a disability of hearing loss and also to encourage the teachers to be interested in this field.
- Build schools and universities for the deaf students, in order to help them finishing their studies and give them the opportunity to make dreams and goals, for example, the investigation of this thesis shown that the in Algeria there are only three high schools for deaf learners in different places in the country, for that purpose many students leave the schools after the fourth grade of middle school and attend the vocation training to learn some trades to earn money and that proved by the questionnaire that the learners answer and the school became temporary place that they spent their childhood in it.
- Diagnostic the situation in the special schools from time to time, in the sake of developing this field.

#### 1.8. The Role of Parents in Deaf Education:

The teacher is not the only responsible in teaching deaf learners, the parents also share the same responsibility with the teacher, it could be emotion or material assistant, a lot of parents blame their children for the disability that they have and compare them with normal students and that canaffect the psychology of the learners in and out the classroom. In this study the target population was the teachers but without the assistance of the parents the teacher cannot achieve the goals that the ministry set for the learners; moreover, the role of the parents can symbolize in set of basics, such as:

- The parents should know their child more than any one, that is to say knowing the power and weakness point of the child, what could hurt him? And what could help him?
- The parents should Keep a space for communication with their children, for instance, the child who suffer from the teacher or cannot understand with the strategiesthat might he/she used, so in this case the parents through talking with them they can remediate the problem.
- Collecting data about the disability of their children by meeting other parents and share and exchange their experiences, with view of avoiding the mistakes that might harm the child.
- Take courses in sign language to help the deaf child in his daily life and practice the same signs that they learned in the classroom, because some parents could create signs for their children to communicate but when the learner enter the special school they might find other signs and that make them confused since they deal with two different signs at the same time.
- The relationship between the teacher and the parents should be strong, that is to say the parents must know the teacher of their child very well, including the strategiesthat the teacher uses in the classroom, the subject that he/she teaches, the mastery of the sign language...etc. in this way both of them can collaborate to enhance and increase the learner ability.
- The parents should know the school background, programs, parents meetings, Participation in the activities of the Foundation, and the most important knowing the missing materials that the school cannot make it available for their children so they can create groups to support the school with other resources.

 Protect the child from the problems that could effect on him, such as divorce, bullying, racism and isolation.

## 1.9. Challenges that Face the Teacher in the Classroom:

It was really worrying to know that despite all the efforts that the teacher made in the classroom, the deaf learners could only acquire five to ten words in a questionnaire that have three hundred words, the teachers in this job deals with a disability that require hard worker's with patient, motivated and positive teachers, educators that have knowledge and experiment. The teacher in the classrooms neither ancient nor the new ones face different challenges with the learners that require them to be flexible toward those problems, with the aim of creating a safe atmosphere for the deaf learners that is full with the creativity and positive energy far from the complicated issues of the surrounding environment, the family concerns, the inner problems or the psychological problems. Furthermore, the challenges that face the teacher of the deaf learners was really important for some researchers and each one of them provide group of difficulties that might effect on the teacher work; for instance, according to the study of Agyem Et al (2013) the deaf students are visual learners, so the teachers for the sake of avoiding the lack of language hearing or written forms they need to deal with visual materials all the time to fill the gap of their disability.

Dearm, Saeva and Zamfivrov (2012) claimed that teaching a second language to a deaf learners is a big challenge that the teacher could face in the deaf education, in other words, the deaf learner deal from a young age with the sign language of the country that they live in as a first language, for instance Arabic sign language (ASL) in Arab world, American sign language (ASL) in America, after year of study they deal with second language that they learn new signs, vocabulary, sounds and culture; such as in Algeria the second language that the learners learn after the Arabic is the French language, the challenge that face the teacher is to teach these students the basics, and according to the questionnaire that the researcher made in the target school "Abad Fathallah" the French subject is really hard to learn for them; in the same context, Wankhede (2014) stated that the loss of hearing sense effect on the auditory functions of the deaf learners, so the main deaf learners are dumb. During investigation, the observation found that all the learners are dumb they only produce high sounds and it became really noisy when they became motivated and it's not a clear sound to understand.

Dalton (2013) claimed that some teachers might forget that thought deaf learners and start explaining the course while walking in the classroom or writing on the board, in this case the learners could not receive the course in a successful way; in addition, Mpofu and Chimhenga (2013) during their study they found three challenges that might face the teachers in the classroom; the first is the lack of fluency in sign language, the teacher of deaf disability learners need to know the sign language by heart, since it is the official language for those students, with the view of building a bridge of communication between the teacher and the learners they need to learn the sign language, for instance, the investigation of this thesis shows that the learners were completely comfortable and active with the teachers who use the sign language as their first language; the second is developing the vocabulary, as known each language have it linguistic form that make it unique and beautiful and interesting, merely it is really tough for a teacher of deaf learners to explain the meaning of those words, namely conjunction in English language ( furthermore, in addition, in the beginning, at the end...), position of things (before, after, above...), feelings( jealous, sadness...), synonyms and antonyms; the last challenge that isMpofu and Chimhenga (2013) found is the stress and the inflection words, in the Arabic language the stress is really important to get the right meaning of the words and even the tone of speak, since the deaf learners could not distinguish between the warning tone and the normal tone, it make it genuinely difficult for the teacher to give the learners the sound that explain the sentence situation (exclamation, warning, informative, questioning...), they received it only on signs or jesters and sometimes those strategyare not adequate and appropriate to transfer the real meaning behind the sentence.

Finally, there are extra challenges that may not relate to the classroom, among others, family problems (divorce, death, poverty, racism), sometimes learners who live in the dorms far from their homes missed their families, for instance, in the observation that the researcher made with the primary school, noticed a young girl move every were and make different sounds and disturb her colleagues and the teacher warned her each time and did not punish her, at the end of the course, the researcher asked the teacher about her, and she claimed that the girl was the top of her class She lives in the institution away from her family. She's always hard-working and polite, but once she misses her parents, her behavior changes. Also the lack of remedial education programs, the teachers all the time challenge themselves and try to find solutions by their own, in the absence of the ministry of education gaudiness.

#### 1.10. Conclusion

In this chapter, the researcher analyzed all the collected data from the target school" Abad Fathallah" and ave the general conclusion of the research after comparing all the data from the three different instruments of the research (interview, observation and the questionnaire), that indicates the strategy that the teachers of deaf education used in the target school is the total communication approach; in addition to that, in this chapter, the researcher answered the research question and after testing the hypotheses.

Furthermore, giving the general view (positive and negative) about the school as an important factor for enhancing the teachers abilities; in the same vein, the researcher gave the challenges that face the teacher in the classroom supporting by different researchers and set the roles of education triangle(ministry, schools and the teachers) beside the significant role of the parents in enhancing the learning process of the deaf learner and asses the teacher in his crucial role to achieve the goal of special education. Moreover, in a note mentioned in the previous paragraphs, as a negative thing in the schools or the ministry of education, that they do not employ the deaf teachers, only depend on normal ones. These behaviors affects the learners future in a negative way, that was really clear in the questionnaire result, since the learners dream only to become builders or electricians or more simple getting married and have children.

The questionnaire put the deaf learners in a position of a judge of their teachers, that role that they never got in the ancient ages or even now. Some people who create the programs and the curriculum of the teacher who teach the deaf learners forgot that the deaf learner is a person who can express his thoughts in the sign language to the right persons.

### The General Conclusion

Different researchers created and developed theories and strategiesthat might educate the disabled learners, in the last years. The deaf disability changes from neglecting the problem, which the previous countries try to avoid it to a mystery and challenge for the philosophers and the teachers. The strategiesappeared to help the teachers of special education to create a bridge of communication between the deaf learners and the educational field. Mainly the main strategy that is really known is the sign language, but if this strategy is not sufficient to educate the deaf learner; in this case, the current thesis investigate on the main successful strategiesthat the researchers in the deaf education field suggest in the last five (5) centuries.

The aim of this study is to investigate on the main strategies that the teacher of disabled learners uses in the classroom. In the same way, the researcher seek to know the way that the deaf learners in the target school "Abad Fathallah" obtain their education, also, to observe the teachers, which are the target population in this research, in the sake of answering the research questions and examining the hypotheses in the field. The current research based on qualitative and quantitative data that the investigator collected from specific tools, which help the researcher look under the scene of the topic, the mixture of the tools used: interview, observation, and the questionnaire help collect a variable data. Regarding the first question, the teachers in the target school never extended to one strategy, all the teachers showed that any strategy that could help the deaf learner to understand and show a positive development in the learning process are used, but the main strategy that all the teachers depend on and try to master it is the sign language. The second question was significant since the teacher is related to the given program, but the findings from the observation and the interview and the questionnaire indicated that both learner and teacher are not sufficient with curriculum, and to shed light on a very important point that the disabled learners share the same program with normal students. The last question in this investigation target the deaf learner, in the sake of understanding the attitude of the learners toward their teacher's way of teaching, the findings from the observation and the questionnaire, show that the deaf learners are oblige to deal with any strategy that the

teacher use in the classroom. Nevertheless, after comparing between the findings of the three tools, the researcher can know what the learner like in the teacher, the deaf learner needs an educator who master the sign language and can create a collaborative and creative atmosphere in the classroom.

The findings indicate that, the strategiesthat serve the deaf learners are limited in the target school; since some of the strategiesneed advanced technologies that, the school cannot make them available, due to different obstacles; such as, the lack of government support, the lack support of charity organization and lack of parent's awareness. The FM Radio in the oral strategy is important but since the school cannot make it available, the teacher was obliged to use a primitive strategy such as raising their voices in the classroom. In this context, the investigation also cares about the school since the teacher is part of this constitution and its effect on the strategy that the teachers use in the classroom. Since the missing of an important element, such as the experiment classroom might effect on the strategy that the teacher choose.

The investigation in this thesis, was taken firstly a personal purpose, the deaf learners are really pure and have never chosen to deal with a such hard disability, rising with this kind of paradigm need a strong personality that can stand in front of the negative views of the community; secondly a proficient purpose, the strategies that the teachers of deaf education use in the classroom should be defined and developed and with the assistance of the findings of this thesis, special education could be seen as an interesting research field.

This thesis focuses on the teacher's strategiesthat they used in the classroom, it could be not taken a broad ways in the investigation process, so for future searches: investigating on the special education in Algeria since this research was local and cannot generalize the findings. The inclusive classroom effect on the deaf learners, since as was mentioned in the current dissertation, the deaf learners study in special schools from the pronunciation to the middle school stage and the high stage in normal schools. Moreover, investigating on the purpose of using the same curriculum of normal school in teaching disable learners is recommend.

## References

- Antia, S. D., Jones, P., Luckner, J., Kreimeyer, K. H., & Reed, S. (2011). Social outcomes of students who are deaf and hard of hearing in general education classrooms. *Exceptional Children*, 77(4), 489-504. Retrieved from http://search.ebscohost.com/login.aspx?direct=true&db=a9h&AN=63017931&sit e=ehost-live&scope=site
- Aseery, V. A. (2016). Teachers' attitudes toward the inclusion of deaf and hard of hearing students in regular education classrooms in Saudi Arabia (doctoral dissertation, ball state university muncie, indiana). Retrieved from <a href="https://drive.google.com/file/d/14s3d">https://drive.google.com/file/d/14s3d</a> trncpt7x8pjsfobltuzw8nerhdt/view
- Baker-Shenk, C., &Cokely, D. (1980). *American sign language: A teacher's resource text on grammar and culture*. Washington, DC: Gallaudet University Press
- Barker, D.H., Quittner, A.L., Fink, N.E., Eisenberg, L.S., Tobey, E.A., Niparko, J.K, .(2009).
  - Predicting behavior problems in deaf and hearing children: The influence of language, attention, and parent-child communication. Dev Psychopathol. Ponce de Leon Boulevard, Coral Gables, USA
- Baynton, D. C. (1996). Forbidden signs: American culture and the campaign against sign
  - language. Chicago: University of Chicago Press
- Bellugi, U. (1989). *Clues from Similarities between Signed and Spoken Languages*. In Signed and
  - Spoken Language: Biological Constraints on Linguistic Form, edBellugi and Studdert-Kennedy.
  - VerlagChemie: Weinheim and Deerfield Beach, Florida
- Berke J. (2003, December 26). Samuel Heinicke, father of oral deaf education.
  - Retrieved from <a href="https://www.verywellhealth.com/samuel-heinicke-oral-education-1046549">https://www.verywellhealth.com/samuel-heinicke-oral-education-1046549</a>
- Bowen, S., & Carter, K. (2001). *Visual Teaching Strategies for Students Who are Deaf or Hard of Hearing* (Doctoral dissertation, University of Northern Colorado Sandra). Retrieved from
  - https://www.researchgate.net/publication/299373684 Visual Teaching Strategies for Students Who are Deaf or Hard of Hearing
- Brueggemann, B. Jo (2021, October 12). *John Bulwer. Encyclopedia Britannica*. https://www.britannica.com/biography/John-Bulwer
- Brugmans, J. G. (1896). De eersteeeuw van het instituutvoordoofstommente Groningen. [The first century of the institute for the deaf-and-dumb in Groningen]. Groningen, the
  - Netherlands: Wolters.
- Bunch,G.(1987) Designing an integration rating guide. *Volta Review*, 89, 35–47
- Courtade, G., Spooner, F., Browder, D., & Jimenez, B. (2012). Seven reasons to promote standards-based instruction for students with severe disabilities: A reply to Ayers, Lowrey, Douglas, &Sievers. *Education and Training in Autism and Developmental Disabilities*, 47(1), 3-13. Retrieved from http://www.daddcec

- .org/Portals/0/CEC/Autism\_Disabilities/Research/Publications/Education \_Training \_Development\_Disabilities/2011v47\_journals/ETADD.
- Covey, S. R.(1992). The Seven Habits of Highly Effective People. Restoring the Character Ethic.

Simon and Schuster: London

- Croft, A. (2010) Including Disabled Children in Learning: Challenges in Developing Countries, London/Sussex: Institute of Education/CREATE <a href="http://www.createrpc.org/pdf\_documents/PTA36.pdf">http://www.createrpc.org/pdf\_documents/PTA36.pdf</a>
- Cummins, J.(1989). *Empowering Minority Students*. California Association for Bilingual

Education: Sacramento, California

- Davis, C. D. (2000). Foreign language instruction: Tips for accommodating hard-of-hearing and deaf
  - students. Washington, DC: Western Oregon University Press
- Department of Education. (July 2001). *Education White Paper 6. Special Needs Education*.
  - Building an Inclusive Education and Training System. Government Printer: Pretoria
- Dominguez,N.(2009). *America Sign language Histroy:* Retrived on 01.07.2011 from <a href="http://www.lifeprint.com/asl101/pages-layout/history2.htm">http://www.lifeprint.com/asl101/pages-layout/history2.htm</a>.
- Ellen Tacchi. (n.d.). Hearing loss | Chapter 4: Teaching strategies and accommodations. Retrieved from <a href="https://www.trinity.edu/sites/students-vision-hearing-loss/hl-teaching">https://www.trinity.edu/sites/students-vision-hearing-loss/hl-teaching</a>
- El-Zraigat, I. (2009). Hearing loss: Principles of audiological, speech, and educational rehabilitation. Amman,

Jordan: Dar Al-Fiker

- Engelbrecht, P; Green, L; Naiker, S & Engelbrecht, L. (1999). *Inclusive Education in Action* 
  - in South Africa. Van Schaik: Pretoria
- Fitzpatrick, L. (n.d). Teaching Techniques for a Deaf Preschooler: *eHo Contributor Para* 
  - 4. Retrived on January, 27, 2011
  - http://www.ehow.com/way\_5347363\_teachingtechniques-preschooler.html#ixzz1YC5x7zrN.
- Fitzpatrick, L. (n.d). Teaching Techniques for a Deaf Preschooler: *eHow Contributor Para* 
  - 4. Retrived on January, 27, 2011 from
  - http://www.ehow.com/way\_5347363\_teachingtechniques- deaf-preschooler.html#ixzz1YC5x7zrN.
- Fowlkes, L. (2009). *Vocabulary acquisition utilizing technology*. Retrieved from <a href="http://faculty.rcoe.appstate.edu/koppenhaverd/s08/5040/papers/laurenf.pdf">http://faculty.rcoe.appstate.edu/koppenhaverd/s08/5040/papers/laurenf.pdf</a>
- Fromkin, V., Rodman, R., &Hyams, N. (2011). *An introduction to language*. Boston, MA:
  - Wadsworth Cengage Learning.
- Gallimore,L.(2000).Resources for teaching the deaf or hearing impaired: Retrieved December
  - 14.2010 from www.nathhan.com/deafresource.htm.
- Geers, S. (2003) When 'Equal' means 'Unequal' And Other Legend Conundrums, in: C. Lucas (Ed), Language and the Law in Deaf Communities, (Volume 9), (Washington, D. C., Gallaudet University)

- Gregory. S. (1989). Issues in Deaf Education. David Fulton Publishers, London
- Gunther, K.B., Hennis, J., & Hintermair, M. (2009). Trends and development in deaf education in Harris, M., & Beech, J. (1998). Implicit phonological awareness and early reading
  - development in prelingually deaf children. *Journal of Deaf Studies & Deaf Education*, 3(3), 205-216
- hyjánková, E. (2010). Hearing impaired learners and their learning styles in English language classroom (Diploma Thesis). Masaryk University, Brno, Czech Republic
- JamieBerke. (2003, December 26). Samuel Heinicke, father of oral deaf education.
   Retrieved from <a href="https://www.verywellhealth.com/samuel-heinicke-oral-education-1046549">https://www.verywellhealth.com/samuel-heinicke-oral-education-1046549</a>
- Johnson, H. (2004). U.S. Deaf education teacher preparation programs: A look at the present and a vision for the future. American Annals of the Deaf, 149 (2), p. 75-91
- Johnson, R. E; Liddell, S. K & Erting, C. J. (1989). Unlocking the Curriculum: Principlas for Achieving Access in Deaf Education. Paper 89-3. Gallaudet University Press: Washington, D. C
- Johnson, R. E; Liddell, S. K & Erting, C. J. (1989). *Unlocking the Curriculum: Principlas for Achieving Access in Deaf Education*. Paper 89-3. Gallaudet University Press: Washington, D. C
- Komersaroff, L. (1996). Removing Barriers in Deaf Education. The Role of AUSLAN
  in the
  Education of Deaf Children in Australia. Australian Journal of Education of the Deaf.
  Vol 2 No 1
- Kozulin, A. (2001). Mediated learning experience and cultural diversity. ICELP, Jerusalem.Israel
- 1 Conference on Pidgin and Creole Languages: HonoluluLane, H. (1999). The mask of benevolence: Disabling the deaf community. New York: Knopf.
- Leigh, I. W. (1999). Inclusive education and personal development. *Journal of Deaf Studies and Deaf Education*, *4*(3), 236-245. Retrieved from http://search.ebscohost.com/login.aspx?direct=true&db=mnh&AN=15579891&sit e=ehost-live&scope=site
- Lenz, B.K., Deshler, D.D.,&Kissam, B.R. (2004). *Teaching content to all: Evidence based inclusive practices in middle and secondary schools*. Boston: Pearson Education, Inc.
- Leybaert, J., &Alegria, J. (1995). Spelling development in deaf and hearing children:Evidence for use of morpho-phonological regularities in French. Reading andWriting.
- An Int erdisciplinary Journal, 7, 89–109Chaoyu, C (2006). New Teaching Methods for Deaf Children: An Introduction to the SigAm
  Bilingual Deaf Education Project Houghton-Mifflin. Impaired. Kappa Delta Pi
  Record. 42(78/3) pp. 68-71. Kappa Delta Pi, International Honor Society in Education
- Luckner, J and Muir, S. (2001) Successful Students Who Are Deaf In General Education
  - Settings. American Annals of the Deaf. Volume 146, No 5, 2001

- Luckner, J and Muir, S. (2001) Successful Students Who Are Deaf In General Education
  - Settings. American Annals of the Deaf. Volume 146, No 5, 2001
- Marschark, M. (1993). Origins and interactions in language, cognitive, and social development of deaf children. In M. Marschark& D. Clark (Eds.), Psychological perspectives on deafness (pp. 7-26). Hillsdale, NJ: Lawrence Erlbaum Associates
- Martin, F. N., & Clark, J. G. (2000). Introduction to audiology. Boston: Allyn & Bacon.
- Method of teaching deaf learners. (n.d.). Retrieved from https://doc-00-3k-docs.googleusercontent.com/docs/securesc/k36evc9ifhkvgk7vlnfvnd8ddopmojih/mhdc 43t3s29rbhqp9bspf57bms9t3u1k/1637519850000/04016585823268485201/040165858 23268485201/1y6YeXHjXNWX12bDSZbiD57vzX3BsmX\_7?e=download&authuser= 0&nonce=j0t7pmopkh9p4&user=04016585823268485201&hash=2090d3n2bhg9ievp4 905ie60cq4u6jds

https://wiredspace.wits.ac.za/bitstream/handle/10539/265/dissertation.pdf?sequence=1 &isAllowed=y

- Moores, D. F. (2001). *Educating the deaf: Psychology, principles, and practices* (5th ed.).
  - Boston: Houghton-Mifflin Co
- Moores, D. F. (2010). Integration inclusion oblivion. American Annals of the Deaf,
  - *155(4)*, 395-396. Retrieved from 132
  - http://search.ebscohost.com/login.aspx?direct=true&db=ehh&AN=57247334&sit e=ehost-live&scope=site
- Moores, D.F. (2009). Residential Schools for the Deaf and Academic Placement Past, Present.
  - and Future American Annals of the Deaf Volume 154, Number 1, Spring 2009, pp. 3-4 Gallaudet University Press
- Moores, D.F&Miller, M.S. (2009). Deaf people around the world: Educational and social. perspectives. *Gallaudet University press*. Washington, D.C
- Most, T. (2007. Speech intelligibility, loneliness, and a sense of coherence among deaf<sup>1</sup> and hard-of-hearing children in individual inclusion and group inclusion. *Journal of Deaf Studies and Deaf Education*, 12(4), doi:10.1093/deafed/enm015
- Most,T.(2006). Communication rehabilitation of children with hearing impairment intheeducational setting: A guide to the educational staff. Jerusalem: The Ministry of laborand Social Services, Rehabilitation Branch
- O'Brien, C. (2005). Example of a LINCS note card. Retrieved from <a href="https://www.semanticscholar.org/paper/Modifying-Learning-Strategies-for-Classroom-O%27Brien/5b6a4e34d133012cd2ae62eea0d22a35afef1f57/figure/0">https://www.semanticscholar.org/paper/Modifying-Learning-Strategies-for-Classroom-O%27Brien/5b6a4e34d133012cd2ae62eea0d22a35afef1f57/figure/0</a>
- Parfitt E. (2020, June 1). 10 easy methods to learn sign language (with tips!). Retrieved from <a href="https://www.hearinglikeme.com/how-to-learn-sign-language/">https://www.hearinglikeme.com/how-to-learn-sign-language/</a>

75

- Peel, E. L. (2004). "Inclusive Practice in South Africa: A Deaf Education Perspective" (Unpublished doctoral dissertation). University of the Witwatersrand.
- Petitto, L. A.(1994). On the Equipotentiality of Signed and Spoken Languages in Early Ontogeny. In Post-Milan ASL and English Literacy by Snider, B (ed). Issues, Trends, and
  - Research. GallaudetUniversityPress: Washington, D.C
- Pohl, D. (2003). The teaching of vocabulary in the primary school foreign language classroom.
  - Munich: Grin Verlag.
- Rachel, R. (2008). Looking at each deaf child as an individual under the spoken language approach. University College London. Gower Street. London. RritreivedFeburary,
  - 2.2011 form <a href="http://cochlearimplantonline.com/site/189/looking-at-each-deaf-child-as-anindividual-under-the-spoken-language-approach">http://cochlearimplantonline.com/site/189/looking-at-each-deaf-child-as-anindividual-under-the-spoken-language-approach</a>
- Raising deaf kids. (n.d.). Raising Deaf
   Kids. https://www.raisingdeafkids.org/learning/math/teach.php
- Ramsey, C. L. (1997). Deaf children in public schools: Placement, context, and consequences. Washington, DC: GallaudetUniversityPress.
- Roorda, P. (1910). The deaf child in the family. Groningen, the Netherlands: Noordhoff.
- Scheetz, N. A. 2001. Orientation to Deafness (2nd ed.). Boston: Allyn & Bacon
- Schlesinger & Meadow (1972). Sound and Sign: Childhood Deafness and Mental Health. University of California Press: Berkeley, Ca
- Schmulian, D. (2002). Choosing the Oral Route. In Challenges and Choices by Hugo and Blumberg (eds). Van Schaik: PretoriaSession 2a. (n.d.). Retrieved from <a href="https://www.bris.ac.uk/Depts/DeafStudiesTeaching/deafed/Session%202A.htm">https://www.bris.ac.uk/Depts/DeafStudiesTeaching/deafed/Session%202A.htm</a>
- Shabiralyani G. (2015). Impact of Visual Aids in Enhancing the Learning Process (Doctoral dissertation). Retrieved from<a href="http://repository.umy.ac.id/bitstream/handle/123456789/19674/Bab%20II.pdf?sequence=6&isAllowed=y">http://repository.umy.ac.id/bitstream/handle/123456789/19674/Bab%20II.pdf?sequence=6&isAllowed=y</a>
- Smith, T.E.C., E.A. Polloway, J.R. Patton and C.A. Dowdy, 2004. Teaching students with special needs *in inclusive settings* (4th ed). Boston: Pearson
- Smuts, E. (2002). *Schools Deciding on a School for the Deaf*. In Challenges and Choices by Hugo and Blumberg (eds). Van Schaik: Pretoria
- Storbeck, C. (2000). *Bilingual Education for the Deaf in South Africa Can it Work?* The South African Journal of Communication Disorders. Volume 47, 2000. Special Edition.
- U.S. Department of Education. (2007). *Building the Legacy: IDEA 2004*. Retrieved from
  - http://www.ideapartnership.org/index.php?option=com\_content&view=article&id =1344&oseppage=1
- Uganda National Examinations Board (2005, 2006, 2007, 2008, 2009). *The Achievement of* 
  - Primary School Pupils in Numeracy and Literacy in English..UNEB

- United Nations Education, Scientific and Cultural Organization (UNESCO). (2002).
   Open
  - File on Inclusive Education. Support Materials for Mangers and Administrators. UNESC
  - Inclusive education: Paris, France.
- Vonen, A.M. (2007). Bimodal bilingualism in children Similar and different. In M.Hyde&
  - G. Hoie (Eds.), *To be and to become language and learning in the lives of young deaf children* (pp.32-43). Oslo: Skådalen Resource Centre
- Webster, A & Wood, D. (1989). Special Needs in Ordinary Schools. Children with Hearing
  - Difficulties. Cassell: London
- Wilkins, D. A. (1972). Linguistics and language teaching. London: Edward Arnold
- Woodward & Markowicz (1975). Some handy new ideas on pidgins and Creole languages.
  - Paper presented at the 1975 Internationa
- World Federation of the Deaf (WFD). (1993). World Federation of the Deaf Report on the Status of Sign Language. World Federation of the Deaf Publications
- دور معلم الصم في المدرسه وبعض مسئولياته الوظيفيه. 2013April 26). Retrieved from <a href="https://kenanaonline.com/users/anamel-tasmaa/posts/528736">https://kenanaonline.com/users/anamel-tasmaa/posts/528736</a>
  - https://www.asjp.cerist.dz/en/downArticle/432/5/2/166788

# **Appendix:**

> Sample questions of the Interview:

Q1: How do you become a teacher in special education?

**Q2:** What is the module that you teach?

**Q3:** How much experience do you have in teaching deaf learners?

**Q4:** Do you study how to teach those students?

**Q5:** Do you support inclusive class rooms? If no,why?

**Q6:** What are the strategiesthat you used as a teacher of deaf learners to transfer the information?

**Q7:** What are the tools that you use in teaching deaf learners?

**Q8:** Do you think the textbook and the programs suite the deaf learners?

**Q9:** How do you evaluate your students? And what are your ways of punishment and reward?

Q10: What are your recommendations to help this field to develop in the next years?

# > Sample of questionnaire questions in the Arabic language:

# > Sample of the questionnaire in the English language:

Q1: What are the easy and difficult modules in deaf education programs?

**Q2:** Are education and book programs accessible to deaf children?

**Q3:** Do you find studying in mixed departments useful and better than private schools?

**Q4:** What dreams do you want to make in the future?

**Q5:** Do you find sign language difficult to learn?

**Q6:** What would you prefer an experienced old professor or a new teacher who knows sign language?

Q7: Do parents know sign language?

**Q8:** Is deaf hereditary or acquired?

**Q9:** Does the current institution provide all the necessary conditions for teaching deaf children?