

Attitudes of deaf teachers in teaching sign language according to the sequence of the five language components

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Abstract:

The deaf category is one of the categories of special education that requires great attention due to its importance in terms of its impact on the acquisition of spoken language and effective communication with the environment. The case with human beings, who use body language and manual sign language accompanying the spoken language most of the time to deliver the message in its full meaning and significance, and since the language of the deaf and dumb does not depend on hand signals only, although it is the basis for that, but it also depends on the body language as a whole, nor The language of the deaf and dumb decreases.

Keywords: Attitudes; teachers; language; sequence; components.

Introduction

The deaf category is one of the categories of special education that requires great attention due to its importance in terms of its impact on the acquisition of spoken language and effective communication with the environment. The case with human beings, who use body language and manual sign language accompanying the spoken language most of the time to deliver the message in its full meaning and significance, and since the language of the deaf and dumb does not depend on hand signals only, although it is the basis for that, but it also depends on the body language as a whole, nor The language of the deaf and dumb decreases. The language of communication and sign, or what is called the language of communication and sign, is more important than other languages and has an integrated structure and linguistic rules as well, its peculiarities are studied and learned to use, so it was necessary to bridge the gap between the mother language and the sign language through the linguistic system of both languages, while there are some studies I tried to make the deaf language different from the mother tongue of the same deaf person, such as the study of Cain (2015), which aimed to use the strategy of separating sign language from Arabic and applying it with the deaf child and his family, so that communication improves among the sample members, which showed its results applied to 8 deaf individuals There is an improvement in their language of communication, while the study of Turki (2017) proved that the most important difficulties facing sign language interpreters are (isolation), followed by professional difficulties, then difficulties in training and rehabilitation, then psychological difficulties, and finally, physical and health difficulties, as were the most prominent The positives for sign language interpreters for the deaf is a community service for the deaf with a rate of (16%), and the most prominent negatives were the unremunerated material return by (25.9%), as the study aimed to identify the difficulties facing sign language interpreters for the deaf in the Kingdom of Saudi Arabia. Saudi Arabia from their point of view.

Attitudes of deaf teachers in teaching sign language according to the sequence of the five language components

This indicates that the separation method may lead to a lack of effective communication between the deaf and other people, and that there is an urgent need to try to find common points between spoken language and sign language.

The World Health Organization report (2012) indicates that there are 360 million people around the world who suffer from hearing loss, with an estimated percentage of 5.3% of the world's population, and 32 million of them are children, or 9%. This percentage is not small and calls for Research more in order to find better ways to improve communication with this group of children. (World Health Organization, 2012).

Hence the interest in the current study in researching the latest methods of communicating with deaf children, which is the strategy of teaching the deaf sign language according to the sequence of the five language components.

Study questions:

What are teachers' attitudes towards teaching sign language according to the five linguistic components?

Are there statistically significant differences between the averages of teachers' attitudes towards teaching sign language according to the five linguistic components according to the variables (gender, educational qualification, recent years, type of job)?

Study hypotheses:

There are no statistically significant differences at the level of significance ($\alpha \leq 0.05$) between the averages of teachers' attitudes towards teaching sign language according to the five linguistic components according to the variables (gender, educational qualification, recent years, type of job).

The importance of study:

The importance of the study shows through its achievement of a number of aspects, namely:

- 1 .Assessment of teachers' attitudes to the subject of teaching sign language according to the five linguistic components that may affect the teacher's performance, which is reflected on students on a daily basis.
- 2 .Contribute to determining the future of sign language and how to prepare, write and teach it.
3. Contribute to the preparation and construction of a sign language dictionary according to the natural sequence of the language.

Objectives of the study:

Among the most important objectives of the current study are:

Identifying teachers' attitudes towards teaching sign language according to the five linguistic components, and knowing the differences in teachers' attitudes due to study variables.

Study Approach

In order to achieve the objectives of the study, the researcher used the descriptive method. It is defined as the method that studies a currently existing phenomenon, event, or issue from which information can be obtained that answers the research questions without interference from the researcher. Through which the researcher attempts to describe the phenomenon that is the subject of the study, analyze its data, and explain the relationship between its components and the opinions that are put forward about it, the processes that it includes and the effects that it produces. It is one of the forms of organized scientific analysis and interpretation to describe a phenomenon or problem, classify and analyze it, and subject it to careful studies through examination and analysis.

Attitudes of deaf teachers in teaching sign language according to the sequence of the five language components**Study population**

The study population consisted of all teachers of the deaf in the area, numbering 70) male and female teachers, according to statistics from the Palestine Red Crescent Center for the year 2021.

The study sample

The study sample included a purposive sample, consisting of (55), i.e. (78%) of the study population. Tables (1) show the distribution of the sample members and the study population:

Table (1): Distribution of study sample members according to study variables.

Variable	The Level	Number	Percentage
Gender	Male	3	5.5
	Female	52	94.5
Years of Experience	Less than 5 years	14	25.5
	From 5-10 years	13	23.6
	More than 10 years	28	50.9
Educational qualification	Diploma	13	23.6
	Bachelor's	35	63.6
	Master's	7	12.8
Type of the job	Administrative work	8	14.5
	Teacher	47	85.5

Study method and tools:

The study followed the descriptive approach by applying the questionnaire prepared by the researcher to the individuals participating in the study. The questionnaire was distributed to the study participants by the researcher himself through a visits to the schools that teach the deaf After the validity and reliability were verified.

Validity of the tool

The researcher designed the questionnaire in its initial form, and then the validity of the study tool was verified by presenting it to the supervisor and a group of arbitrators with expertise and experience, where the researcher distributed the questionnaire to a number of arbitrators. They were asked to express their opinion on the questionnaire paragraphs in terms of: the clarity and linguistic integrity of the language of the paragraphs, the extent to which the paragraphs cover the studied aspect, and to add any information, amendments, or paragraphs they deem appropriate, and according to these observations, the questionnaire was produced in its final form. On the other hand, the validity of the tool was also verified by calculating the Pearson correlation coefficient for the questionnaire items with the total score of the tool. It became clear that there was statistical significance in all items of the questionnaire and indicates that there is internal consistency between the items. The following table shows this:

Table (2): Results of the Pearson Correlation Coefficient for the Correlation Matrix of the Attitudes of Deaf Teachers in Teaching Sign Language According to the Sequence of the Five Language Components

No.	R value	statistical function	Number	R value	statistical function	Number	R value	statistical function
1	0.499**	0.000	11	0.514**	0.000	21	0.564**	0.000
2	0.532**	0.000	12	0.344*	0.010	22	0.721**	0.000
3	0.521**	0.000	13	0.533**	0.000	23	0.740**	0.000

Attitudes of deaf teachers in teaching sign language according to the sequence of the five language components

4	0.404**	0.002	14	0.423**	0.001	24	0.613**	0.000
5	0.652**	0.000	15	0.299*	0.027	25	0.646**	0.000
6	0.657**	0.000	16	0.592**	0.000	26	0.467**	0.000
7	0.704**	0.000	17	0.574**	0.000	27	0.519**	0.000
8	0.544**	0.000	18	0.355**	0.008	28	0.441**	0.001
9	0.630**	0.000	19	0.554**	0.000	29	0.576**	0.000
10	0.429**	0.001	20	0.408**	0.002	30	0.428**	0.001

*Statistical significance at 0.001

*Statistical function at 0.050

Stability of the study

The researcher verified the reliability of the tool, by calculating the stability of the total score of the reliability coefficient, for the fields of study according to the Cronbach Alpha reliability equation. The total score for the attitudes of teachers of the deaf in teaching sign language according to the sequence of the five language components was (0.890), and this result indicates the enjoyment of this tool. The instrument consistently meets the purposes of the study. The following table shows the reliability coefficient for the fields and the total score.

Table (3): Reliability coefficient results for the domains

Fields	Number of Paragraphs,	Reliability Coefficient
The stage of teaching phonological sounds	5	0.850
The stage of Morphological stage	6	0.778
The stage of constructing grammatical sentences	7	0.853
The stage of Concept stage	7	0.745
The stage of social use of language	5	0.736
Total marks	30	0.890

Study procedures

The researcher applied the tool to the Participants of the study sample, where a paper form was distributed, and after the process of collecting the questionnaires from the sample Participants was completed after they answered them correctly, it became clear to the researcher that the number of valid recovered questionnaires that were subjected to statistical analysis: (55) forms.

In order to determine the degree of average response of the study sample, the following degrees were adopted:

The degree	the arithmetic mean
Low	or less 2.33
Medium	3.67-2.34
High	and above 3.68

Theoretical framework :

Communication is of great importance in the development and growth of society, as it is considered as the cornerstone that contributed to the transition of humans from one developmental stage to another since their presence on the surface of the earth to this day; This is due to people's realization of the importance of the process of communication with each other and the formation of social bonds, so they developed the means and methods of communication, which is a continuous process that occurs automatically in human society, and positively affects its development (Zaain Bokhari 2012).

Language also plays a vital role in all societies as it is a means of expression and communication between the people of society, a symbol of individual and community identity, and a tool for preserving civilization, transmitting heritage, and transmitting science and knowledge to future generations. More than one language, and it must be said here that sign language is considered another language from different languages, and the deaf's problem is not linguistic because he is unable to deliver the message or understand it, but rather it is a verbal problem in the way the letters are pronounced, which hinders communication with others who are able to hear. (Shaaban, 2023)

Sign language

Sign language is one of the ways of communication between the deaf and the members of society, and it is of great importance in the world of the deaf, and talking about it is not limited to the process of developing a dictionary for these signs, as we may forget about the deaf and his own signs without referring to him because these are the signs that the deaf deal with his peers. Or with those around him who listen or even those who teach and care for him, it varies from place to place, from one classroom to another, from one teacher to another, from one environment to another, from one state to another, from a young deaf to a deaf adult, from a deaf person to whom it has not been introduced. Educational services to another who has reached a high degree of education. Also, there are special signs that the deaf deal with among themselves, and they are limited to them only, so that they always feel the need for them to inquire and ask about the meaning of these signs. And their teachers are the owners of the actual participation in the development of this dictionary, and that the selected group are those who have reached high educational levels through which we can inquire from them in order to reach the closest possible point between sign language and natural language, and that there are some similarities and duplications in the meaning and meaning of some signs. (Gulfkids,2022)

We must also not forget that sign language should be a prescribed subject, to which the importance we place on phonetics is given to the sounds of the letters that we teach to the deaf, and that sign language and its dictionary be within the programs and curricula contained in the special education teacher preparation curricula, bearing in mind that reading books are provided. Pronunciation exercises for the deaf in a distinct way are exercises for the deaf learner about sign, especially in the subject of linguistic expression and constructional expression, and the dissemination of sign language in Arab countries' televisions during news or media releases as a kind of dissemination of these signs and creating a kind of communication and understanding between the audience of deaf and other viewers of the misfits. (2016, www.vetogate.com. Al-Shafei)

The term sign language is applied to the non-verbal means of communication used by people with hearing and voice impairments (deaf and mute); To send and receive language and communicate with it, in order to enable them to understand others, or to express oneself, sign language began to be used in the eighteenth century. To be the first to spread this language in European countries

Attitudes of deaf teachers in teaching sign language according to the sequence of the five language components

and in the whole world, and after that the British, French and Swedish sign language appeared. As stated in (Forest, 2014)

Al-Turki (2017) described the importance of studying sign language sciences as facilitating the education of the deaf, studying sign language sciences and communicating with them.

The study of sign language sciences satisfies the following:

- 1 -Raising the level of sign language for the deaf.
- 2 -Raising the level of education for the deaf
- 3 -Raising the level of access to services and information
- 4- Raising the level of rights of deaf people in developing countries. (Turkish, 2017)

There is a contrast and similarity between spoken languages and signed languages, but the similarities between them appear in several points:

The Similarities Between Sign Language and Spoken Language:

- . Both types are used to communicate and convey thought, knowledge, and feelings.
- . The two types are both human language.
- . Both languages are not free from particles of the other kind, as sign language contains some sounds, spoken language contains sign language.
- .Facial expressions and body gestures are an essential part of correct expression.
- . Both languages are used by a human group, regardless of judgment.
- . The two types have writing systems.

Hearing loss and its classifications

Hearing loss:

Smith (Smith, 2007) defines the hard of hearing as the person who has sufficient residual hearing, to enable him through the use of a stethoscope or sound amplifiers to understand the speech of others and communicate with them orally, while Moores (2008) sees that the hearing impaired is the person who The amount of his hearing loss ranges between (35-69) decibels (the unit of sound measurement), and this range of hearing loss leads to difficulty and not a disability in understanding speech through the ear alone, and by using a stethoscope, he is able to process and understand information (Zureikat, 2009), i.e. partial or total loss of sound sensitivity, and abnormally produced, in any part of the auditory system, where hearing is the main area of oral communication exchange (Martin & Clark, 2010).

Hearing disability includes both deafness and hearing impairment, and the most important is the person who suffers a hearing loss of more than (90) decibels, and the hard of hearing person is the one whose hearing loss ranges between (25-90) decibels, which means that the person with a hearing loss He has hearing on certain vibrations or at certain degrees, or that hearing varies during his presence in different environments, that is, he is not completely deaf, or that the term describes certain audiometric standards, and it does not mean that we are sure of the degree of his hearing loss, and the term hearing loss is used to describe children in general. With hearing problems and does not include hearing problems as a result of middle ear infections or hearing problems that can be solved (Al-Khatib and Al-Hadidi, 2004).

The deaf

It is the individual who has a profound hearing loss of (90dB) degrees or more on most vibrations even if he hears loud sounds, and here he means the one who does not depend on hearing in the communication process (Communicative processes) even using medical headphones, they live in a static world, and they can be classified according to age timeline into two groups:

- a) Congenitally deaf since birth or shortly thereafter, and it is also called: having a hearing disability before learning the language, and he is usually unable to use speech.

b) He is deaf after an accident or acquired disease (adventitiously deaf), which is deaf after learning the language and is able to use speech in communication. ((Beblawi and Suleiman, 2006)

Deaf children are those whose sense of hearing does not perform its functions related to the purposes of normal life. Deafness can be divided here into two parts: congenital deafness (hearing loss since birth), and acquired deafness. Here children are born with a normal degree of hearing and then their sense of hearing loses its functions. The degree of hearing loss for deaf people reaches more than (90) decibels, which prevents them from relying on the sense of hearing to understand speech, whether with or without aids, and they are unable to acquire language through the normal steps of acquiring it (Al-Beblawi and Suleiman, 2006).

The five components of language

The American Speech-Language-Hearing Association (ASHA) classifies five language levels as stated in Al-Qasim (2010)

phonological system

Phoneme is based on the study of the phoneme structural unit. and to distinguish it About the indicative phoneme, we use the term Signing Phoneme It is called the Structural Signing Unit (SSU), so it does not happen Disturbance and confusion in the understanding of the student

The phonological system in spoken language and its equivalent in sign language. Language is spoken word, exchanged orally before writing was invented (Kaddour, 2008) and the language was made up of syllables (words and sentences) without paying attention to single sounds. The concept of the single sounds that make up the word with meaning remained absent until the invention of the alphabet and writing, in which the single sounds were symbolized by letters. However, writing did not depict the language accurately; This is what happened with sign language, as it was not written until the second half of the twentieth century. in the year 1960; The credit was given to William Stokoe William (where the idea of writing sign language appeared for the first time and was then called Stokoe Notation), and the abbreviation SN was used to refer to it, and although it was published in a private book, it was not widely accepted, and it was used only when needed and necessary by specialists; A codified version of it was never prepared; Therefore, it cannot be considered an integrated system, although it is sometimes used to take notes (Martin, 1998).

Morphological system

Morphology is the science that studies the smallest sound unit that has meaning and is called the morpheme, and its impact on the weights of words, as the modification of the morphological unit leads to a modification in the meaning of the linguistic vocabulary (Johnston (2005). Morphemes show the relationship between linguistic vocabulary, and clarify vocabulary formulas Their meanings and the clarification of the grammatical aspects (Gadour, 2008).

Johnston, T. (2006). Morphology deals with the regular, minimal, meaning bearing. Elsevier Ltd. All rights reserved

It can be used to determine the type of the singular: a noun, verb, or letter, and to determine the conjugation of a word, such as "book writer of a book." Grammar rules differ between spoken and sign languages and differ between different sign languages. Each indicative vocabulary consists of one or more morpheme Signing morphological units, and most indicative vocabulary has more than one morphological unit. And if the sign components (Phoneme signing units) have no meaning without their presence in the sign, it turns into a morpheme signing unit) in most cases, this means that when modified, this building unit can change the meaning of the singular.

Attitudes of deaf teachers in teaching sign language according to the sequence of the five language components

Catford divided the morphological units starting with the morpheme as follows: "Morpheme Then a word, then a group, then a phrase, then a sentence" (Catford, 1975 .). In sign language, the morphological structural unit (the morpheme) may consist of the shape of the hand or their direction, location, movement, contact points, body gestures, and facial expressions.

Catford, J. (1975). A linguistic theory of translation (5th ed.). London
grammatical system

In terminology, the science of syntax, and it is defined as the science that studies the integrity of the linguistic structure in the sentence (Ibn Huwaili, 2009) and grammar is the understanding of speech structures, the analysis of its places and the construction of its images in the sentence (Al-Atabi, 2007). The term Grammar has been used in the syntax, but recent studies have used the term syntaxes to refer to the structure of the sentence and the relationship of the vocabulary to each other, and the meanings that result from those structures (Kaddoura, 2008). In sign language, there is no reference to the past, present and subject except through the context and the accepted meaning.

Semantics: Concept and Importance:

Semantics studies meanings; It studies the conditions that must be met by the symbol in order for it to be able to carry the meaning (Omran, 2009). In the sense that the relationship between the symbol and its meaning is based on the acquaintance of the members of the community, their placement of meanings in relation to the words, and their connection between the signifier and the signified, and this is most of the vocabulary and in sign language. The signs for the days of the week, for example, are all customary, and the relationship may be a double natural and customary at the same time, such as a sign Black and orange colors

Pragmatic context

It is the social use of language that determines expressive values of culture or context and reflects the psychological connotations and style of the individual speaking. In the sign language, some symbols that indicate a psychological state such as tension or relaxation appear, as in the symbol of the mechanism and nature of movement, or through some symbols. (Omran, 2009).

Previous studies

Hijazi (2019) conducted a proposed study to teach deaf and hard-of-hearing students through template printing the basic colors and geometric shapes and translate them into sign language. A complete lesson with its components of grammatical rules, pauses and synonyms, like any language translated from Arabic to another that has its own peculiarity, and by reviewing the results and their relationship to the hypothesis, it was found that there is a positive relationship between the data of translating an art education lesson in sign language and achieving communication with deaf and dumb students by means of finger spelling. And that is through the use of the finger-spelling writing program, whose job is to search for its translation of the text that we are facing. It was found that it proved effective, especially when used in communicating with the deaf and mute when writing by computer, which is now used in most of their schools, as well as when it was found that there is no indicative term for some words in their life situations, it uses finger spelling to find a means of communicating with them. Which led to the stability of the effectiveness of the hypothesis, especially when translating the text from Arabic into indicative using finger spelling, which is one of the ways of communicating with the deaf and dumb.

Abu Shaira (2017) also conducted a study aimed at identifying the attitudes of deaf teachers towards writing sign language. Where 17 teachers from a number of countries participated in the study and were contacted via the Internet. The researcher used the descriptive approach in the study. To achieve the objectives of the study, the researcher prepared a questionnaire consisting of

Attitudes of deaf teachers in teaching sign language according to the sequence of the five language components

14 items. It included the most prominent attitudes of deaf teachers towards writing sign language according to the variables (country, gender, educational level). The results of the study indicated that the trends are positive and high, where the lowest average for paragraphs was ($P2 = 3.82$) and the highest average ($P14 = 4.58$ out of 5) and the average on the score Total trends = 59.64, and the results showed a statistically significant difference in trends due to the gender variable in favor of males. The results also indicated that there were no statistically significant differences due to the variables of the state and the level of education.

Al-Turki (2017) also conducted a study that dealt with the content analysis approach of the first and second Arabic Signal Dictionary for the Deaf for the phonological (acoustic) system in the Arabic sign language for the deaf. The results of the study also indicated that there are forms of movements in the sign language of the deaf to movement, stop, movement. And stop, movement and stop, movement and stop, movement and movement and movement and stop, and the study recommended more analytical studies of the linguistic systems in the Arabic sign language for the deaf as the semantics system, and the sociolinguistic system.

Abdullah (2017) conducted a study aimed at knowing the role of sign language and gesture in shaping the mental image of expression among the deaf, by analyzing the mental images that are formed by hand and body language, and observing the linguistic aspect of this language in terms of creating, acquiring and producing sign language and comparing those Formations in sign languages from different countries, analysis of the structure of sign language and the cultural difference of the deaf. The researcher used the correlative description method as well as the observation method. To achieve the objectives of the study, experiments were conducted on a sample of students from Al-Amal Institutes for the Deaf and deaf students at Sudan University of Science and Technology, where the number of the sample was (120) deaf and deaf students. To extract the results, the researcher used the Statistical Package for Social Sciences (SPSS). The study resulted in the results, which are characterized by a high level of expressive ability using sign language for the deaf. And there were no statistically significant differences in the expressive creativity of the deaf according to the gender variable (male/female). There are statistically significant differences in the level of expressive creativity according to the deaf, according to the age variable. And the absence of statistically significant differences in the expressive creativity of the deaf according to the variable causes of disability. Based on these results, the researcher made several recommendations, including for male and female teachers with the deaf, highlighting the similarities between the signs and their references. And conducting a study on the role of the family in accepting and caring for the deaf child

Turki study (2017) The study aimed to identify the difficulties facing deaf sign language interpreters in the Kingdom of Saudi Arabia from their point of view. The results of the study showed that the most prominent difficulties faced by these translators were (isolation) where the arithmetic average reached (4.45), followed by (the professional difficulties) where the arithmetic average reached (4.32), then (the difficulties in training and rehabilitation) where the average reached Arithmetic (4.31), (psychological difficulties) where the arithmetic mean reached (4.15), and finally) physical and health difficulties) where the arithmetic mean reached (3.85). The most prominent positives of sign language interpreters for the deaf were a community service for the deaf (16%), and the most prominent negatives were the unrewarding financial return of (25.9%).

Masoud (2010) conducted a study aimed at identifying the characteristics and specifications that should be available in sign language interpreters from the point of view of the deaf, teachers and translators in the Kingdom of Saudi Arabia. The study also aimed to know whether there are statistically significant differences in determining the characteristics between the deaf, teachers

Attitudes of deaf teachers in teaching sign language according to the sequence of the five language components

and translators on the one hand, and whether there are differences due to the study variables consisting of gender, marital status, educational level, age, work and occupation. In order to reach these goals, the researcher applied a special tool prepared by him, through which he identified a set of characteristics divided into three dimensions: the ethical professional dimension, the academic dimension, and the human dimension. The study sample consisted of 122 individuals, including 30 deaf, 80 teachers and three translators. The results of the study showed a general agreement among the study sample on the set of characteristics contained in the study tool, and there were no statistically significant differences on all dimensions of the study due to all study variables except for the educational level, where it was found that there were significant differences in favor of the higher academic levels.

Results related to the first question:**What are the attitudes of deaf teachers in teaching sign language according to the sequence of the five language components?**

To answer this question, the researcher calculated the arithmetic means and standard deviations of the study sample's responses to the questionnaire domains that express the deaf teachers' attitudes in teaching sign language according to the sequence of the five language components.

Table (4): The arithmetic means and standard deviations of the responses of the study sample to the attitudes of deaf teachers in teaching sign language according to the sequence of the five language components

No	Domain	arithmetic means	standard deviations	Score	percentage
1	Stage of teaching sounds Phonology	4.3564	0.55202	High	87.1
5	Stage of social use of language	4.3091	0.64615	High	86.2
4	Stage of semantics	4.2208	0.58245	High	84.4
2	Stage of morphology	3.8848	0.74940	High	77.7
3	Stage of syntax	3.8000	0.53211	High	76.0
Total score		4.0927	0.42974	High	81.9

It is noted from the previous table that expresses the arithmetic means and standard deviations of the responses of the study sample to the attitudes of deaf teachers in teaching sign language according to the sequence of the five language components. Sign language, according to the sequence of the five components of the language, came in a high degree, with a percentage of (81.9%). The domain of the phonology stage of teaching sounds obtained the highest arithmetic average of (4.35), followed by the field of the social use of language with an arithmetic mean of (4.30), and then the field of the stage of semantics with an arithmetic mean of (4.22), followed by the field of the morphology stage with an arithmetic mean of (3.88). Then, the domain of the syntax stage with an arithmetic mean of (3.80), and all domains came with a high degree.

The researcher believes that this result indicates that teachers of the deaf consider that the natural sequence in teaching sign language, according to the five language components, facilitates the process of teaching sign language, and they prefer teaching sign language like teaching any other language.

Attitudes of deaf teachers in teaching sign language according to the sequence of the five language components

The researcher calculated the arithmetic means and standard deviations of the study sample's responses to the questionnaire items that express the field of phonology education stage.

Table (5): The arithmetic means and standard deviations of the study sample's responses to the field of teaching phonology stage

No	The paragraph	arithmetic means	standard deviations	Score	percentage
1	I expect to teach a deaf child the symbols of the letters of the alphabet	4.58	0.686	High	91.6
2	I would like the deaf to practice the place of articulation as a system	4.38	0.707	High	87.6
5	It is supposed to teach the child the sign symbols that indicate the letters	4.38	0.850	High	87.6
3	I prefer training the deaf on the manner of articulation as a system	4.27	0.651	High	85.4
4	It is preferable for the child to practice on the voiced and voiceless as a system	4.16	0.764	High	83.2
Total score		4.3564	0.55202	High	87.1

It is noted from the previous table, which expresses the arithmetic means and standard deviations of the study sample's responses to the field of teaching phonology, that the arithmetic mean for the total score is (4.35) and a standard deviation (0.552). 87.1%.

The results in Table No. (5) also indicate that all items were highly rated. The paragraph "I expect that the deaf child will be taught the symbols of the alphabet" got the highest mean (4.58), followed by the paragraph "I would like the deaf to be trained in the place of articulation as a system" and the paragraph "It is supposed to teach the child the symbols of the sign indicating the letters" with a mean (4.38). The paragraph "I prefer to train the child on the voiced and voiceless system as a system" got the lowest arithmetic mean (4.16), followed by the paragraph "I prefer training the deaf on the way manner of articulation as a system" with an arithmetic average of (4.27).

The researcher believes that the field of the phonetic system, from the point of view of teachers, is considered the cornerstone of the distinction between written letters and spoken sounds, and this in turn paves the way for other subsequent fields in terms of their connection to each other within the sequence of letters, syllables, words, and sentences.

The researcher calculated the arithmetic means and standard deviations of the responses of the study sample on the paragraphs of the questionnaire that express the field of morphology stage

Table (6): The arithmetic means and standard deviations of the responses of the study sample to the field of morphology stage

Attitudes of deaf teachers in teaching sign language according to the sequence of the five language components

No	The paragraph	arithmetic means	standard deviations	Score	percentage
5	I estimate that a deaf child can identify the image of a dual (masculine, feminine)	4.04	0.816	High	80.8
1	I would like the deaf child to be able to learn the derivation of words at this stage	3.98	0.991	High	79.6
6	I think that a deaf child can be trained on the plural sign (masculine, feminine)	3.98	0.933	High	79.6
4	Suppose the child selects the singular form (masculine, feminine)	3.84	1.151	High	76.8
2	I expect the deaf child to be able to distinguish between signs of pronouns	3.78	1.066	High	75.6
3	I think it is possible to teach a deaf child verb forms such as: past, present and imperative	3.69	0.960	High	73.8
Total score		3.8848	0.74940	High	77.7

It is noted from the previous table, which expresses the arithmetic means and standard deviations of the responses of the study sample to the field of morphology stage, that the arithmetic mean for the total score is (3.88) and a standard deviation (0.749).

The results in Table No. (6) also indicate that all items were highly rated. The paragraph "I estimate that the deaf child can identify the form of the dual (masculine, feminine)" got the highest arithmetic average (4.04), followed by the paragraph "I would like the deaf child to be able to learn derivation of words at this stage" and the paragraph "I believe that the deaf child can be trained to The plural sign (masculine, feminine)" with an arithmetic mean of (3.98). The paragraph "I believe that teaching a deaf child verb forms is possible, such as: past, present and imperative" got the lowest mean (3.69), followed by the paragraph "I expect the deaf child to be able to distinguish between signs of pronouns" with a mean (3.78)

The researcher explains this result by saying that teachers of the deaf are aware of the importance of the morphological field, which is considered the link between sounds and words, and its importance in forming sign language in terms of masculine, feminine, singular, dual, plural, and other morphological linguistic derivations at the level of free and restricted morphemes, which constitute a starting point for sign language for the deaf to communicate with words. And understandable sentences.

The researcher calculated the arithmetic means and standard deviations of the study sample's responses to the questionnaire paragraphs, which express the scope of the syntax stage.

Attitudes of deaf teachers in teaching sign language according to the sequence of the five language components

Table (7): The arithmetic means and standard deviations of the study sample's responses to the syntax stage domain

No.	The paragraph	arithmetic means	standard deviations	score	percentage
7	Encourage the deaf child to speak in short sentences (beginner and declarative)	4.07	0.813	High	81.4
6	I prefer that the deaf child be trained in short sentences (verb subject and object)	4.00	0.770	High	80.0
5	I expect to master negation formulas)	3.82	0.945	High	76.4
3	I think he can tell the events or elements of a short story in sign language	3.80	0.848	High	76.0
4	I appreciate that a deaf child can learn question formulas	3.73	0.990	High	74.6
2	I am confident that a deaf child can sequence the events of a short story.	3.64	0.910	High	72.8
1	Suppose a deaf child makes up long sentences through sign language.	3.55	1.068	High	71.0
Total score		3.8000	0.53211	High	76.0

It is noted from the previous table, which expresses the arithmetic means and standard deviations of the study sample's responses to the grammatical sentence structure stage, that the arithmetic mean for the total score is (3.80) and a standard deviation (0.532). 76%.

The results also indicate in Table No. (7) that (5) paragraphs came with a high degree and two paragraphs came with a medium degree. The paragraph "I encourage the deaf child to speak in short sentences (beginner and declarative)" got the highest mean (4.07), followed by the paragraph "I prefer that the deaf child be trained in short sentences (verb subject-object)" with a mean (4.00). The paragraph "I assume that the deaf child will compose long sentences through the sign" got the lowest arithmetic mean (3.55), followed by the paragraph "I trust that the deaf child can arrange a sequence of events of a short story" with an arithmetic mean (3.64).

The researcher believes that the grammatical field may be the most difficult field in terms of composing sentences in a correct grammatical manner. This is what made the paragraphs of narrative sequence and long sentences come in at a moderate degree and the rest of the paragraphs at a high degree, as teachers of the deaf are still influenced by sign language, given that it is a special language for the deaf group and may not resemble Ordinary language.

The researcher calculated the arithmetic means and standard deviations of the study sample's responses to the questionnaire items that express the field of concepts stage.

Attitudes of deaf teachers in teaching sign language according to the sequence of the five language components

Table (8): The arithmetic means and standard deviations of the study sample's responses to the semantic stage domain

No.	The paragraph	arithmetic means	standard deviations	Score	percentage
1	I see that the deaf child learns the concepts of body parts	4.58	0.534	High	91.6
2	Support the deaf child's training in the concepts of space and time	4.29	0.685	High	85.8
3	Suppose to practice the concepts of volumes and lengths	4.24	0.693	High	84.8
5	I expect him to practice number concepts	4.18	0.884	High	83.6
7	I find it appropriate for a deaf child to practice the concepts of shapes	4.13	0.963	High	82.6
6	I prefer to be trained in the concepts of dimensions and distances.	4.09	0.928	High	81.8
4	I expect him to practice concepts and colors.	4.04	0.816	High	80.8
Total score		4.2208	0.58245	High	84.4

It is noted from the previous table, which expresses the arithmetic means and standard deviations of the study sample's responses to the conceptual stage domain, that the arithmetic mean for the total score is (4.22) and a standard deviation (0.582).

The results in Table No. (8) also indicate that all items were highly rated. The paragraph "I see that the deaf child learns the concepts of body parts" got the highest mean (4.58), followed by the paragraph "I support the training of the deaf child on the concepts of space and time" with a mean (4.29). The item "I expect to be trained in concepts and colors" got the lowest mean (4.04), followed by the item "I prefer to be trained in the concepts of dimensions and distances" with an average of (4.09).

The researcher interprets this result by saying that the field of concepts is the most widespread field in sign language, which is easy for the deaf to deal with. This is why the result came with a high score on all items because the teachers have extensive experience in teaching concepts to the deaf.

The researcher calculated the arithmetic means and standard deviations of the study sample's responses to the questionnaire items that express the scope of the stage of social use of language.

Table (9): The arithmetic means and standard deviations of the study sample's responses to the field of the stage of social use of language

No.	The paragraph	arithmetic means	standard deviations	Score	percentage
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Attitudes of deaf teachers in teaching sign language according to the sequence of the five language components

2	I would like him to practice the sign language of saying hello and leaving	4.47	0.879	High	89.4
1	I encourage him to learn sign language that indicates feelings (crying, laughing, etc.).	4.40	0.830	High	88.0
3	I see that the child should be trained on the signs that indicate the classification of things (fruits, vegetables, transportation, animals, clothes, etc...)	4.36	0.969	High	87.2
4	I find that it is appropriate for the deaf child to teach the signs indicating the manner of speaking according to his status with others (big, small).	4.29	0.896	High	85.8
5	I expect the child to be able to resume speaking after a brief interruption	4.02	1.045	High	80.4
Total score		4.3091	0.64615	High	86.2

It is noted from the previous table, which expresses the arithmetic means and standard deviations of the study sample's responses to the field of social use of language, that the arithmetic mean of the total score is (4.30) and a standard deviation of (0.646). 86.2%.

The results in Table No. (9) also indicate that all items were highly rated. The paragraph "I would like him to be trained in the sign language of greeting and leaving" got the highest mean (4.47), followed by the paragraph "I encourage him to learn the sign language of feelings (crying, laughing, etc.)" with a mean of (4.40). The paragraph "I expect the child to be able to speak again after interruption for a while" got the lowest arithmetic average (4.02), followed by the paragraph "I find it appropriate for the deaf child to teach signs indicating the manner of speaking according to his status with others (big, small)" with a mean (4.29)

The researcher believes that the result of the field of social use of language came with a high score for all paragraphs because it deals with social situations that have a direct relationship to the natural body language of normal people, as well as among deaf people. It does not differ in terms of acquisition in the early stages of life and develops based on previous events and experiences, and it does not constitute difficulty. When teachers teach the deaf.

Results related to the second question

Do the study sample members' estimates of the attitudes of teachers of the deaf in teaching sign language differ according to the sequence of the five language components depending on the variables of the study: years of experience, educational qualification, and type of job?

To answer this question, it was transformed into the following hypotheses:

Results of the first hypothesis: There are no statistically significant differences at the significance level ($\alpha \geq 0.05$) in the average attitudes of teachers of the deaf in teaching sign

Attitudes of deaf teachers in teaching sign language according to the sequence of the five language components

language according to the sequence of the five language components due to the years of experience variable.

The first hypothesis was examined by calculating the arithmetic averages of the response of the study sample members to the averages of the attitudes of teachers of the deaf in teaching sign language according to the sequence of the five language components attributed to the years of experience variable.

Table (10): The arithmetic means and standard deviations of the response of the study sample to the averages of the deaf teachers' attitudes in teaching sign language according to the sequence of the five language components due to the variable years of experience

Domain	Years of experience	Number	Arithmetic mean	Standard deviation
Phonology stage	Less than 5 years	14	4.1143	0.60620
	From 5-10 years	13	4.4000	0.50332
	More than 10 years	28	4.4571	0.52735
Morphology stage	Less than 5 years	14	3.8690	1.02361
	From 5-10 years	13	3.5769	0.82668
	More than 10 years	28	4.0357	0.49557
Syntax stage	Less than 5 years	14	3.8776	0.66028
	From 5-10 years	13	3.7582	0.59012
	More than 10 years	28	3.7806	0.44413
Semantics stage	Less than 5 years	14	4.2449	0.56432
	From 5-10 years	13	3.7473	0.53182
	More than 10 years	28	4.4286	0.49640
Pragmatics Stage	Less than 5 years	14	4.1000	0.76359
	From 5-10 years	13	4.0154	0.68538
	More than 10 years	28	4.5500	0.47022
Total marks	Less than 5 years	14	4.0381	0.53331
	From 5-10 years	13	3.8692	0.35550
	More than 10 years	28	4.2238	0.36446

It is noted from Table No. (10) that there are apparent differences in the averages of the attitudes of deaf teachers in teaching sign language according to the sequence of the five language components due to the variable years of experience. To find out the significance of the differences, one way ANOVA was used, as shown in Table No. (11). :

Table (11): The results of the one-way analysis of variance test for the response of the respondents in the averages of the deaf teachers' attitudes in teaching sign language according to the sequence of the five language components due to the variable years of experience

Domain	Source of variance	Sum of squares	Degrees of freedom	Mean of squares		F-value	significance level
Phonology stage	between groups	1.130	2	0.565		1.916	0.157
	within groups	15.326	52	0.295			
	the total	16.455	54				

Attitudes of deaf teachers in teaching sign language according to the sequence of the five language components

Morphology stage	between groups	1.873	2	0.937		1.712	0.191
	within groups	28.453	52	0.547			
	the total	30.326	54				
Syntax stage	between groups	0.117	2	0.059		0.201	0.818
	within groups	15.172	52	0.292			
	the total	15.290	54				
Semantics stage	between groups	4.132	2	2.066		7.573	0.001
	within groups	14.187	52	0.273			
	the total	18.319	54				
Pragmatics Stage	between groups	3.359	2	1.679		4.551	0.015
	within groups	19.187	52	0.369			
	the total	22.545	54				
Total marks	between groups	1.172	2	0.586		3.463	0.039
	within groups	8.800	52	0.169			
	the total	9.973	54				

It is noted that the value of P for the total score is (3.463) and the level of significance is (0.039), which is less than the level of significance ($\alpha \geq 0.05$), meaning that there are statistically significant differences in the averages of the deaf teachers' attitudes in teaching sign language according to the sequence of the five language components due to the variable years of experience, as well as For the fields of the conceptual stage and the social use of language, and thus the first hypothesis was rejected. The results of the LSD test were examined to indicate the direction of the differences, and they are as follows:

Table (12): The results of the (LSD) test for the post-comparisons between the arithmetic means of the responses of the study sample according to the variable of years of experience

domain	Variables	Years of experience	differences in mean	significance level
Semantics stage	Less than 5 years	From 5-10 years	0.49765*	0.017
		More than 10 years	-0.18367	0.288
	From 5-10 years	Less than 5 years	-0.49765*	0.017
		More than 10 years	-0.68132*	0.000
	More than 10 years	Less than 5 years	0.18367	0.288
		From 5-10 years	0.68132*	0.000
Pragmatics stage	Less than 5 years	From 5-10 years	0.08462	0.719
		More than 10 years	-0.45000*	0.028
	From 5-10 years	Less than 5 years	-0.08462	0.719
		More than 10 years	-0.53462*	0.011
	More than 10 years	Less than 5 years	0.45000*	0.028
		From 5-10 years	0.53462*	0.011
Total marks	Less than 5 years	From 5-10 years	0.16886	0.291
	From 5-10 years	Less than 5 years	-0.16886	0.291

Attitudes of deaf teachers in teaching sign language according to the sequence of the five language components

	More than 10 years	More than 10 years	-0.35458*	0.013
		Less than 5 years	0.18571	0.174
		From 5-10 years	0.35458*	0.013

It is noted that the differences in the total score were between (more than 10 years) and (5-10 years) in favor of (more than 10 years).

The researcher believes that this result is logical in terms of teachers who are more experienced in teaching the language of the deaf and therefore are better able to distinguish which areas are most accessible to deaf students and which areas require a longer period of time in education. In general, it can be asserted that teachers of the deaf are looking for easier ways to teach Sign language as a second language has the same characteristics as other languages, especially since deaf people can write and use non-verbal expressions. Teachers of the deaf, when they become familiar with the five areas of language and based on their previous experiences, see that there is a clear possibility of teaching the deaf according to the five linguistic components.

The results of the second hypothesis: There are no statistically significant differences at the level of significance ($0.05 \geq \alpha$) in the averages of deaf teachers' attitudes in teaching sign language according to the sequence of the five language components due to the educational qualification variable.

The second hypothesis was examined by calculating the arithmetic averages of the response of the study sample to the averages of deaf teachers' attitudes in teaching sign language according to the sequence of the five language components attributed to the educational qualification variable.

Table (13): The arithmetic means and standard deviations of the response of the study sample to the averages of the deaf teachers' attitudes in teaching sign language according to the sequence of the five language components due to the educational qualification variable

Domain	Educational qualification	No.	Arithmetic mean	standard deviation
Phonology stage	diploma	13	4.2154	0.56840
	BA	35	4.4000	0.55094
	Master's	7	4.4000	0.56569
Morphology stage	diploma	13	3.8718	0.86108
	BA	35	3.8429	0.73202
	Master's	7	4.1190	0.67847
Syntax stage	diploma	13	3.7692	0.58186
	BA	35	3.7510	0.52927
	Master's	7	4.1020	0.40165
Semantics stage	Diploma	13	4.0989	0.49619
	BA	35	4.2286	0.61999
	Master's	7	4.4082	0.55591
Pragmatic stage	diploma	13	4.3385	0.66023
	BA	35	4.2400	0.67003
	Master's	7	4.6000	0.46188
Total	diploma	13	4.0359	0.44917
	BA	35	4.0705	0.43819
	Master's	7	4.3095	0.32530

Attitudes of deaf teachers in teaching sign language according to the sequence of the five language components

It is noted from Table No. (13) that there are apparent differences in the averages of the attitudes of deaf teachers in teaching sign language according to the sequence of the five language components due to the educational qualification variable. To find out the significance of the differences, one way ANOVA was used, as shown in Table No. (14).

Table (14): The results of the one-way analysis of variance test for the respondents' response in the averages of the deaf teachers' attitudes in teaching sign language according to the sequence of the five language components due to the educational qualification variable

Domain	Source of variance	Sum of squares	Degrees of freedom	Mean of squares	F-value	level of significance
Phonology stage	between groups	0.338	2	0.169	0.546	0.583
	within groups	16.117	52	0.310		
	the total	16.455	54			
Morphology stage	between groups	0.448	2	0.224	0.390	0.679
	within groups	29.878	52	0.575		
	the total	30.326	54			
Syntax stage	between groups	0.735	2	0.367	1.313	0.278
	within groups	14.555	52	0.280		
	the total	15.290	54			
Semantics stage	between groups	0.441	2	0.221	0.641	0.531
	within groups	17.878	52	0.344		
	the total	18.319	54			
Pragmatic stage	between groups	0.771	2	0.385	0.920	0.405
	within groups	21.775	52	0.419		
	the total	22.545	54			
Total	between groups	0.388	2	0.194	1.053	0.356
	within groups	9.584	52	0.184		
	the total	9.973	54			

It is noted that the value of P for the total score is (1.053) and the level of significance is (0.356), which is greater than the level of significance ($\alpha \geq 0.05$), meaning that there are no statistically significant differences in the averages of the deaf teachers' attitudes in teaching sign language

Attitudes of deaf teachers in teaching sign language according to the sequence of the five language components

according to the sequence of the five language components due to the educational qualification variable. As well as for all fields, and thus the second hypothesis was accepted.

The researcher attributes this result to the fact that the educational qualification of the deaf does not constitute a clear difference due to the different specializations that work in institutions for the deaf in Palestine. There are educational specializations that are not related to special education and very few special education specializations, in addition to the academic qualification (diploma, bachelor's, master's). The same prevailing system for teaching sign language to the deaf works in all institutions in Palestine, according to only one protocol, and this is the most important.

The results of the third hypothesis: There are no statistically significant differences at the level of significance ($\alpha \geq 0.05$) between the averages of the deaf teachers' attitudes in teaching sign language according to the sequence of the five language components due to the job type variable.

The third hypothesis was examined by calculating the results of the "T" test and the arithmetic averages of the response of the study sample in the averages of the deaf teachers' attitudes in teaching sign language according to the sequence of the five language components due to the variable of job type.

Table (15): The results of the "T" test for independent samples of the respondents' response in the averages of deaf teachers' attitudes in teaching sign language according to the sequence of the five language components due to the job type variable

Domain	Type of the job	the number	arithmetic mean	standard deviation	"t" value	level of significance
Phonology stage	Administrative work	8	4.3500	0.45040	0.035	0.972
	Teacher	47	4.3574	0.57170		
Morphology stage	Administrative work	8	4.1875	0.38253	1.242	0.220
	Teacher	47	3.8333	0.78636		
Syntax stage	Administrative work	8	4.0536	0.34941	1.474	0.146
	Teacher	47	3.7568	0.54838		
Semantics stage	Administrative work	8	4.5357	0.48143	1.682	0.098
	Teacher	47	4.1672	0.58548		
Pragmatic stage	Administrative work	8	4.6000	0.42762	1.389	0.171
	Teacher	47	4.2596	0.66714		
Total	Administrative work	8	4.3333	0.32902	1.745	0.087

Attitudes of deaf teachers in teaching sign language according to the sequence of the five language components

	Teacher	47	4.0518	0.43421		
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It is clear from the previous table that the value of "T" for the total score is (1.745), and the level of significance is (0.087), meaning that there are no differences in the averages of the attitudes of deaf teachers in teaching sign language according to the sequence of the five language components due to the variable of job type, as well as to the domains, and thus The third hypothesis was accepted.

The researcher attributes this result to the fact that the type of job at the administrative level and at the educational level works according to one system followed by the institution's management in moving towards educating the deaf, and this in turn does not make a difference towards teaching the deaf sign language in an appropriate manner, but rather according to the prevailing law followed by the deaf education institutions, especially The Palestinian Red Crescent institutions are considered the foundation in Palestine.

Recommendations

- 1- The need to work on developing laws related to the education of deaf students in institutions
- 2- Paying attention to employing appropriate specializations in the field of special education
- 3- Conducting experimental research to deal with sign language as a second language with the same five language components
- 4- Work to give sufficient time to teach the components of the language according to their difficulty and importance

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