

The competencies of Sign Language Interpreters toward University translation on students with Hearing Impairment

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Abstract

This study aimed to investigate the competencies of sign language interpreters towards university translation in students with hearing impairment. To achieve the objectives of the study, a descriptive approach was used. The study sample included (41) sign language interpreters. By purposely methods for all Jordanian universities, their ages ranged between (20 - 50) years. Which were represented in the Content Validity (80%). And the Construct Validity for the values of the correlation coefficients between the scale paragraphs and the total degree of the axis to which they belong was higher than (0.30). Reliability indications of the scale were obtained, which were represented by the Cronbach alpha method for the sub-axes, which ranged between (0.707 - 0.916) and the total score of the scale (0.938), and the reliability method using the Split-Half test. The Cronbach alpha coefficient for the first part reached (0.951), and the second part (0.843), and the Spearman-Brown coefficient (0.798). The results showed that the level of competencies of sign language interpreters (legal, professional, personal, linguistic, psychological), was at a high level, as the arithmetic averages ranged between (2.90 and 2.23), and on an overall average (2.70). And those psychological competencies were at the intermediate level. The results showed that there were no statistically significant differences due to the variable of gender, experience, and translation license. The study recommends listing the profession of sign language translation as a university specialization and conducting studies and research related to the comparison between university interpreters and interpreters in the public sectors.

Keyword's Sign language interpreter, Sign language, Deaf, Competencies.

in higher education institutions with deaf students from the point of view of a sign language interpreter.

2. Literature Review

Sign language interpreters are the mainstay of education for persons with hearing impairment and their inclusion in all areas of life, and various educational, legal, and media sectors. We must work to support the competencies of sign language interpreters, and the knowledge and skills that make them able to perform their profession within the specifications.

When discussing the deaf community (Johnston, 2004) pointed out that immigration affected Dutch society in the country's general appearance. Few of the deaf immigrants have taken on specific cultural aspects of their language and culture in the Dutch deaf community.

1. Introduction

This specialized research is one of the research that helps to reach the highest levels of professionalism and mastery of translation in institutions of higher education, and translation in sign language is one necessity to facilitate communication between members of society, and here the presence of a qualified and trained sign language interpreter becomes necessary and sign language is the most used method in teaching Deaf individuals in educational institutions, and the primary role of an interpreter here is to clarify the meaning and addition or abbreviation in a way that ensures the student's understanding of the lesson and the achievement of educational goals. He may add or shorten information at a time that is not accepted by an interpreter outside the educational framework. Hence, the present study came to explain translation problems

level, as well as a scarcity of interpreters with the skill, sets to function effectively in higher education settings. Many researchers echoed this result both in New Zealand and abroad.

Sign language interpreters have been employed actively in the United States and the United Kingdom for many decades, according to Napier (2001, 2004), and most of the literature focuses on the linguistic aspects of sign language. And Ozolins (1998) describes sign language translation as "a new occupation."

Several studies have researched the sign language interpreter for its importance and to identify the characteristics of the translation provided by the sign language interpreter. We find that Abu Shaira (2016) A diagnostic study of translation errors in sign language and their sources from the viewpoint of interpreters considering some variables. This study aims to identify translation errors in sign language and its sources from the point of view. The Arab sign language interpreters considered, according to several variables (skill in sign language, gender, and nature of work (65) Arab sign language interpreters from several Arab countries (11 Arab countries) took part in the study. The study relied on the descriptive approach by applying a questionnaire distributed to the participants through the Internet. The results of the study showed:

- That the most common errors are respectively (the inappropriateness of the Gestural Communication in the sign, the failure to complete the sign in the translation, the use of incorrect sign language, the speed of translation, which weakens the receiver's understanding of the required meaning and then reliance on indicative vocabulary from a different sign language) and that the sources of these errors are (Weak community and official interest in sign language, poor training of interpreters, lack of a law regulating the profession of translation, lack of interpreters' experience in translation, and the difference in the linguistic structure of the sentence in the two languages).
- There is no difference between errors depending on the gender variable in estimating errors in translation and their sources.
- There is a statistically significant difference in estimating errors and their sources according to the job variable in favor of teachers.
- There are no statistically significant differences in the error's estimation, its sources, and the total score

Leeson (2005) showed that there is a great variation in using sign language within the Netherlands in terms of the development of regional lexical variables traditionally around the sites of institutes of the deaf, and the amount of grammatical difference between regions in the Netherlands has not been investigated. The existence of gender and age differences has not been systematically investigated, but it could be a factor involved in the problem that interpreters and other second language learners face in language acquisition and understanding.

McKee (2008) asserts that the quality of interpreters, especially sign language interpreters, is a matter of controversy. He also emphasized Garde and Muller (2011) that discussions revolve around who and who determines the quality of an interpreter. Users of Dutch Sign Language state that there is no satisfaction with the competence of interpreters in the Netherlands. And De Wit (2011); Sluis (2011) show that dissatisfaction is most common with unprofessional attitudes and the inability to translate sign language into spoken Dutch, and deaf sign language users can choose the interpreter they prefer within the quality of sign language interpreters in the Netherlands.

That Dutch Sign Language is not officially recognized by the Dutch government is confirmed by Crasborn and Bloem (2009) they estimate that there are around 7,500 people who use Dutch Sign Language.

Also, Dahl and Wilcox (1990) contend that people communicate with one another on the assumption that others can be understood equally. Because communication with the deaf and hard of hearing becomes a central issue. Every interpreter's primary goal is to make the communication experience as complete as possible. Interpreters provide their "voice". They help them with seminars, lectures, and other official matters. It can also be difficult to locate because of the high cost of translation.

While funding for interpreters is available at New Zealand's higher education institutions, Reffell and McKee (2009) claim that a lack of interpreters often hampered the provision of this service. And Hyde et al. (2009) conclude that the shortage is mainly due to a rise in demand for interpreter services at the post-secondary

Deaf sign language users choose a translator based on the interpreter's location, qualifications, and professional standards. The choice of a particular translator is based on a collection of specific quality parameters. The study's findings revealed:

- The deaf people aim first to choose an interpreter who will provide the translation in sign language in an honest and comprehensible manner.
- That the criteria differ according to the setting, such as employment, education, and society.
- Many deaf sign language users are unaware of the interpreter's professional responsibilities.
- That many interpreters ignore sign language's complexity and sophistication.

Powell (2013) used quantitative and qualitative approaches to investigate a case of trained New Zealand sign language interpreters employed in the post-secondary education system in New Zealand. Post-secondary educational sign language translation causes a special collection of skills and is a relatively new trend in New Zealand. The experiences of sign language interpreters in post-secondary education are unknown. Participants (2) in this study discussed their experiences and expectations of working in this area. The results show that there is a shortage of skilled and trained interpreters in New Zealand:
-There has been no formal training for operating at this stage, and we feel that this is something that should be addressed.
-By making some guidance to assist post-secondary institutions in meeting their legal obligations to ensure equity in education for deaf students through the use of interpreters, this case study helps bridge the gap between theory and professional practice.

Each Abu Maryam and Al-Rousan (2019) conducted a study to see whether a Jordanian sign language training program could improve the interpreting skills of a group of special education students who will work with deaf students after graduation. The research sample comprised (70) students from the University of Jordan's Special Education major who enrolled in sign language classes offered by the university's Deanship of Students Affairs. They used a test of sign language interpretation skills prepared by the researcher for this purpose to apply the training curriculum to the sample and data collection. For this analysis, a quasi-experimental design was used. Under various levels of experience

according to the variable of the participants' level of sign language.

Crasborn and Bloem (2009) also researched the many languages spoken by Dutch people that are linked to the history of the Netherlands as a trading country. For decades, it has taught high school students French, German, and English, with Spanish and, more recently, Chinese thrown in for good measure. Using a spoken language interpreter is a common phenomenon. In the European Union, the interpretation occurs between the various languages of the member states in political and administrative meetings, and the migration of people who speak many languages, starting in the second half of the twentieth century, has encouraged an increase in the number. Of the languages offered by translation agencies. The results showed:

- Being an "interpreter" is not a restricted or protected profession.
- Spoken and sign language interpreters must get a special qualification to work in certain legal places.

Also Haualand (2009) conducted a study entitled "Sign language interpreting: A human rights issue" aimed at seeing sign language interpreters as isolated cases and facilitating communication between one or more persons. When viewed broadly, sign language translation can be seen as a tool for securing the human rights of sign language using the deaf. To achieve this goal, it must provide interpreters with training and work under this code of conduct. A recent international survey of 93 countries found, most of them in the developing world, and the results showed:

- Very few respondents have a native sign language interpretation service, formal education and training opportunities for interpreters, or an ethics-certified license to regulate the practice of interpreters in their country.
- The possibility of violating the human rights of the deaf by discussing the accessibility of sign language interpreters and their training from a human rights point of view in the United Nations Convention on the Rights of Persons with Disabilities and a snapshot of the interpretation scene that was not previously explored in various countries around the world is given.

Besides, De Wit and Sluis (2012) conducted a study to investigate the standard of sign language interpreters in the Netherlands from the perspective of deaf people.

4. Study Significant

Providing knowledge about translation problems to a sample of sign language interpreters.

First: theoretical importance:

- 1-To arouse interest in sign language interpreters.
- 2- Knowing the attitudes of sign language interpreters towards the translation process.
- 3- The scarcity of studies on interpreter competencies for sign language translation.
- 4-Enriching the Arab library with research on sign language interpreters.

Second: The practical importance:

- 1- Identify interpreter's attitudes toward the translation process to improve their skills.
- 2- Helping researchers and sign language interpreters to benefit from the results in dealing and communicating with the deaf.

5. Study limitations

This study has some limitations:

- The results are determined by the limitations of the sample to be studied.
- The difficulty of generalizing the results to the representation of the study population provided by the study sample.

6. Definitions of Terms

1- Sign language interpreter: The person who performs communicating in sign language and transmits information from the spoken language to the sign language and back in a professional manner between deaf people.

2- Sign language: The language in which deaf people communicate with each other and with others and consists of a group of hand gestures, gestural communication, and body language, to express thoughts, attitudes, and feelings.

3- Deaf: People who have a hearing impairment and depend mainly on sign language for communication.

4- Competencies: The set of knowledge and skills that make the interpreter capable of performing his profession within suitable specifications.

7. Methodology: Method and Procedures

and cumulative average, it divided the study into two groups: control (36) students and experimental (34) students. The following were the findings:

- The research sample's success of the curriculum in improving sign language skills.
- That the Jordanian sign language training program is successful in improving sign translation skills among a Jordanian sample of students at the University of Jordan.

Also Russell, Shaw (2016) conducted a study titled "Power and privilege: An exploration of decision-making of interpreters" certified and unaccredited sign language interpreters from North America, deaf and non-deaf, regarding the provision of translation services in legal contexts. The study included the strategies and approaches that interpreters incorporate into their work in legal settings, including working in teams of deaf and non-deaf interpreters, using oral communication with consecutive interpreting, teasing translation into legal contexts, and maintaining appropriate roles in the courtroom. The results of the study showed:

- Some practices support access to the justice system, while other practices create challenges for interpreters and deaf people alike.
- A systematic training sequence that addresses many of the deficiencies of both knowledge and skill currently present in the field is essential.

3. Research Questions

The study answers the following questions:

1 -What are the indications for the validity of the competencies of sign language interpreters towards university translation for students with hearing impairment?

2 -What are the indications for the Reliability of the competencies of sign language interpreters towards university translation for students with hearing impairment?

3-What is the level of competencies of sign language translators towards university interpreted for students with hearing impairment?

4-Are there statistically significant differences at the significance level ($\alpha \leq 0.05$) in the level of the sign language interpreters' competencies towards university translation for students with hearing impairment due to the variable of gender, experience, and a license to accredit sign language interpreters?

central region (47) and the southern region (20) according to the statistics of the Supreme Council for the Rights of Persons with Disabilities 2020 / 2021, who were deliberately chosen.

The study population comprised all sign language interpreters in the Hashemite Kingdom of Jordan, and due to the small size of the study population, the entire study population was chosen as a sample for the study, and the (41) sign language interpreters were chosen, as the study tool was distributed to them electronically Online, due to the repercussions of the Coronavirus crisis The new Covid-19, and Table (1) shows the demographic characteristics of the study sample:

Table (1): Distribution of study sample individuals according to demographic variables

variable	Repetition	Percentage %
Gender		
Male	24	58.5
female	17	41.5
Total	41	100.0
Experience		
<5 years	6	14.6
5 to 10 years	18	43.9
11 to 15 years	9	22.0
16 to 20 years	2	4.9
>20 years	6	14.6
Total	41	100.0
Qualification		
High school or less	8	19.5
Diploma	8	19.5
Bachelor	17	41.5
Postgraduate	8	19.5
Total	41	100.0
license of accreditation of sign language interpreters		
Possesses the license	31	75.6
Does not own the license.	10	24.4
Total	41	100.0
Have you worked in deaf associations?		
yes	31	75.6
No	10	24.4
Total	41	100.0

A (scale) of sign language interpreters 'competencies towards university translation was built on students with hearing impairment. This study scale may have two parts:

7.1 Method of study

This study is based on the use of the descriptive approach. This approach has been used for its suitability for the purposes of the study related to the competencies of sign language interpreters towards university translation for students with hearing disabilities.

7.2 The sample of study

According to the researcher's work as a specialist in translating sign language for the deaf, and when the researcher follows up the community of interpreters of the deaf in universities and colleges, which number (100) interpreter from the northern region (33), the

Table (1) shows that the frequencies and percentages were used to describe the study sample individuals according to gender and disability category.

7.3 The study tool

- 1- The number of sign language interpreters in Jordan was counted (100) from the lists of the Supreme Council for the Rights of Persons with Disabilities.
- 2- The number of sign language interpreters working in governmental and private universities and colleges was counted, and their number reached (41).
- 3- Sign language interpreters were divided into categories according to their getting a license to practice a profession and those without a license to practice the profession.

8. The Study Results

Study questions will be answered according to their sequence:

Results for the first question: What are the indications for the validity of the competencies of sign language interpreters towards university translation for students with hearing impairment?

The indications of the validity of the competencies of sign language interpreters towards university translation for students with hearing disabilities were verified through the following:

- 1- Content Validity:
The scale was presented after preparing the initial image to (7) faculty members of the Special Education Department at Al-Balqa Applied University and the University of Jordan, in order to express their views on the truthfulness of the content and the relevance of the expressions to the scale and their suitability for measuring what was put to measure, and the degree of clarity, and then it was suggested Appropriate modifications, and a standard (80%) was adopted to indicate the validity of the paragraph, and based on the opinions of the arbitrators, some paragraphs were modified in terms of wording to increase their clarity, and some paragraphs were deleted due to their similarity and proximity to other paragraphs, and some paragraphs were deleted because they were not suitable for the purposes of the study and not Some of them are appropriate to the axis to which they belong, and as a result, the scale consists of (40) items distributed on five main axes. and the researcher considered the opinions of the arbitrators and their amendments as an indication of the validity of the content of the study tool.

- The first part: includes demographic information, which comprises gender, experience, academic qualification, the identity of accreditation of sign language interpreters, and whether you worked in clubs and societies of the deaf.
- The second part: which includes the study questions comprising (40) paragraphs, all of which relate to the competencies of sign language interpreters towards university translation for students with hearing disabilities, and the tool was designed along the lines of the (Likert scale), where the following axes were addressed:
 - The first axis deals with the professional competencies of sign language interpreters and includes (8) paragraphs.
 - The second axis related to the personal competencies of sign language interpreters, and it contains (8) paragraphs.
 - The third axis related to the human rights competencies of sign language interpreters, and it contains (8) paragraphs.
 - The fourth axis includes the linguistic competencies of sign language interpreters and includes (8) paragraphs.
 - The fifth axis measures the psychological competencies of sign language interpreters and includes (8) paragraphs.

Scale correction key: The (Likert triple) scale was used gradually in this study according to the rules and characteristics of the scales:

Not agree	Neutral	Agree
1	2	3

And based on the foregoing, it dealt the values of the arithmetic averages reached by the study with as follows according to the following equation:

Highest value - the minimum value of answer alternatives divided by the number of levels:

$$\frac{(3-1)}{2} = 0.66 \quad \text{this value is equal to the length of the Category.}$$

3 3

Thus, the low level of $1.00 + 0.66 = 1.66$

And the average level is $1.67 + 0.66 = 2.33$

The high level is from 2.34-3.00

7.4 Research procedures

To achieve the aims of the study, the following measures were taken:

Table (2): Correlation coefficients for the paragraph with the overall score of the axis to which it belongs using the Pearson Correlation test to identify the Construct Validity of the scale of competencies of sign language interpreters towards university translation for students with hearing impairment.

Psychological competencies		Language competencies		Juridical competencies		Personal competencies		Professional competencies	
#	Correlation	#	Correlation	#	Correlation	#	Correlation	#	Correlation
1	.662**	1	.505**	1	.545**	1	.737**	1	.837**
2	.346*	2	.846**	2	.810**	2	.840**	2	.610**
3	.569**	3	.742**	3	.682**	3	.839**	3	.774**
4	.566**	4	.663**	4	.815**	4	.751**	4	.915**
5	.529**	5	.766**	5	.862**	5	.860**	5	.801**
6	.426**	6	.822**	6	.731**	6	.812**	6	.906**
7	.701**	7	.489**	7	.452**	7	.831**	7	.763**
8	.835**	8	.608**	8	.705**	8	.630**	8	.791**

1- Cronbach's alpha persistence method:
To verify the consistency of the sign language interpreters' competencies scale towards university translation on students with hearing impairment, the consistency of each paragraph of the scale with the dimension to which the paragraph belongs was identified, using the calculation of the correlation coefficients between each paragraph of the scale by using the coefficient Cronbach's alpha, Table (3) shows the test results.

Table (3): Reliability coefficients for the paragraphs of the Sign Language Interpreters Proficiency Scale for University Translation on students with hearing disabilities using the Cronbach Alpha Test.

Factors	Cronbach Alpha Method
Professional competencies	0.916
Personal competencies	0.907
Juristic competencies	0.828
Language competencies	0.821
Psychological competencies	0.707
Total	0.938

2- Reliability Method Using the Split-Half Test:
The reliability of the sign language interpreters' competency scale towards university translation on students with hearing impairment was verified using the split-half test. Cronbach's alpha for the first part reached (0.951), Cronbach's alpha for the second part was (0.843), Spearman-Brown (0.798), which are acceptable values for the present study.

2- Construct Validity:
The significance of the Construct validity of the scale has calculated the correlation of the paragraph score with the dimension to which it belongs, among the members of the current study sample by (41) interpreters of sign language, and Table (2) shows these results:

Table (2) shows that the values of the correlation coefficients between the scale paragraphs and the total degree of the axis to which they belong were higher than (0.30), showing that all the paragraphs contribute to the total score of the scale effectively and that all the scale paragraphs measure the same property, which confirms The construction of the scale is validated.

Results related to the second question: What are the indications for the Reliability of the competencies of sign language interpreters towards university translation for students with hearing impairment?

Reliability connotations were found in the following ways:

Table (3) shows that the values of the Cronbach alpha coefficient for the sub-axes of the scale ranged between (0.707 - 0.916), and the value of the stability coefficient using Cronbach's alpha for the total score of the scale was (0.938), which are acceptable values for the purposes of the current study.

students with hearing impairment, and Table (4) shows these results:

Table (4): Arithmetic mean and standard deviations of the study sample responses from the level of the competencies of sign language interpreters towards university translation among students with hearing impairment arranged in descending order.

The competencies of sign language interpreters	level	Ranking	Number	Arithmetic mean	standard deviation
Juristic competencies	High	1	3	2.90	0.25
Professional competencies	High	2	1	2.85	0.36
Personal competencies	High	3	2	2.80	0.37
Language competencies	High	4	4	2.70	0.34
Psychological competencies	Moderate	5	5	2.23	0.39
Total	High			2.70	0.28

arithmetic mean (2.70) and a standard deviation (0.34), which is from the high level. Finally, and in the fifth place, the psychological competencies came with an arithmetic mean (2.23) and a standard deviation (0.39), which is of the average level.

To identify the level of sub-paragraphs for each axis of the study, The Arithmetic Mean and standard deviations of the sub-paragraphs were extracted, and the following are these results:

1- Professional competencies:

Table (5): the arithmetic means and standard deviations to identify the level of professional competencies for sign language interpreters, arranged in descending order.

Results for the third question: What is the level of competencies of sign language translators towards university interpreted for students with hearing impairment?

The arithmetic averages and standard deviations were extracted to identify the level of competencies of sign language interpreters towards university translation for

Table (4) shows that the arithmetic averages for (the level of competencies of sign language interpreters towards university translation on students with hearing impairment) ranged between (2.90 and 2.23), where the competencies had a total mean of (2.70), which is From the high level, the juridical competencies came first, and they had the highest arithmetic mean, which reached (2.90) and a standard deviation (0.25), which is from the high level, and second came the professional competencies, with an arithmetic mean of (2.85) and a standard deviation (0.36), It is of the high level, and in the third-place came the personal competencies, which obtained an arithmetic average (2.80) and a standard deviation (0.37), which is from the high level, and in the fourth place came the language competencies with

Number	Paragraph	Arithmetic mean	standard deviation	Ranking	level
3	I adhere to the ethics of the profession of sign language interpreting while translating.	2.90	0.37	1	High
2	I adhere to confidentiality while translating and do not divulge secrets.	2.88	0.46	2	High

8	A great knowledge of the culture of the community (the hearing and the deaf).	2.88	0.33	2	High
1	I am good at local sign language translation.	2.85	0.48	4	High
5	Committed to the scientific Secretariat during my translation from the Arabic language to sign language.	2.85	0.48	4	High
6	I have the ability to work in a team work.	2.85	0.42	4	High
7	I take the appropriate distance and location during translation.	2.83	0.44	7	High
4	I am working on developing myself by keeping up with all that is new in sign language.	2.76	0.58	8	High
	Total Arithmetic general average	2.85	0.36		High

the ethics of the profession of sign language translation during translation).

And in the last place came Paragraph No. (4) with an arithmetic mean of (2.76) and a standard deviation (0.58), which is of the high level, as the paragraph stipulated (I am working to develop myself by keeping up with everything new in sign language).

2- Personal competencies:

Table (6): The arithmetic means and standard deviations to identify the level of personal competencies of sign language interpreters, arranged in descending order.

Number	Paragraph	Arithmetic mean	standard deviation	Ranking	level
1	I adhere to the times of attendance and departure during translation.	2.93	0.26	1	High
7	I have the ability to listen well while translating.	2.85	0.48	2	High
4	Able to accept constructive criticism from professionals in the sign language field.	2.80	0.46	3	High
5	I trust my ability to translate tremendously.	2.80	0.46	3	High
3	Able to accept constructive criticism from the deaf.	2.78	0.52	5	High
8	I translate at the acceptable speed from the point of view of the deaf.	2.78	0.42	5	High
2	I have the stamina and patience while translating.	2.76	0.54	7	High

Table (5) shows that the arithmetic averages of (professional competencies) on sign language interpreters ranged between (2.90 and 2.76), whereas the professional competencies got a total arithmetic average of (2.85), which is of a high level, and paragraph No. (3) At the highest arithmetic mean of (2.90), and a standard deviation (0.37), which is of a high level, and the paragraph stipulated (commitment to

6	Prepare to translate anytime and anywhere.	2.68	0.61	8	High
	Total Arithmetic general average	2.80	0.37		High

times during translation). And in the last place came Paragraph No. (6) With an arithmetic mean of (2.68) and a standard deviation (0.61), which is of the high level, as the paragraph stipulated (willingness to translate at any time and place).

3- Juristic competencies:

Table (7): Arithmetic averages and standard deviations to identify the level of legal competencies of sign language interpreters, arranged in descending order.

Number	Paragraph	Arithmetic mean	standard deviation	Ranking	level
2	I respect the university translation profession and do not abuse it.	2.98	0.16	1	High
8	Not to use my workplace for my personal benefit.	2.95	0.22	2	High
1	Respect the code of conduct issued by the Supreme Council for the Rights of Persons with Disabilities.	2.93	0.26	3	High
7	Respect the privacy of the place where the work (Court, University, seminars halls).	2.93	0.35	3	High
3	I respect the deaf person and do not impose my personal opinion on them.	2.88	0.40	5	High
6	I am not trying to build personal relationships at the expense of the translation process.	2.88	0.46	5	High
5	Able to adjust my actions to suit the profession and not to interfere.	2.85	0.48	7	High
4	Able to overcome the problems encountered during the translation process.	2.80	0.51	8	High
	Total Arithmetic general average	2.90	0.25		High

the paragraph stipulated (I respect the profession of university translation and do not offend it). And in the last place came Paragraph No. (4), with an arithmetic mean of (2.80) and a standard deviation (0.51), which is of the high level, as the paragraph stipulated (able to overcome the problems that I face during the translation process).

Table (6) shows that the arithmetic averages of (personal competencies) among sign language interpreters ranged between (2.93 and 2.68), where personal competencies got a total arithmetic average of (2.80), which is of a high level, and paragraph No. (1) The highest average is (2.93), and a standard deviation (0.26), which is of the high level and the paragraph, stipulates (commitment to attendance and departure

Table (7) shows that the arithmetic averages of (Juristic competencies) among sign language interpreters ranged between (2.98 and 2.80), whereas the Juristic competencies got an overall arithmetic average of (2.90), which is of a high level, and paragraph No. (2) At the highest average of (2.98) arithmetic, and a standard deviation (0.16), which is of a high level, and

4- Language competencies:

Table (8): the arithmetic means and standard deviations to identify the level of "Language competencies" of sign language interpreters, arranged in descending order.

Number	Paragraph	Arithmetic mean	standard deviation	Ranking	level
5	Able to translate written text into sign language.	2.93	0.26	1	High
4	I have knowledge of the rules of sign language.	2.80	0.46	2	High
3	I have a large vocabulary of sign language.	2.76	0.54	3	High
6	I remember everything the lecturer said while translating the signal.	2.73	0.55	4	High
7	Follower of sign language dictionaries.	2.73	0.45	4	High
2	Have a large academic vocabulary in the Arabic language	2.66	0.57	6	High
8	A follower of literature, studies and proverbs spread in the Arabic language.	2.56	0.59	7	High
1	proficient in the Arabic language (grammar, morphology, rhetoric, connotation) with high ability.	2.44	0.55	8	High
	Total Arithmetic general average	2.70	0.34		High

into sign language). And in the last place came Paragraph No. (1) with an arithmetic mean of (2.44) and a standard deviation (0.55), which is of the high level, as the paragraph stipulated proficient in the Arabic language (grammar, morphology, rhetoric, connotation) with high ability.

5- Psychological competencies:

Table (9): The arithmetic means and standard deviations to identify the level of "psychological competencies" of sign language interpreters, arranged in descending order.

Number	Paragraph	Arithmetic mean	standard deviation	Ranking	level
1	Control my emotions during the simultaneous translation process	2.78	0.47	1	High
7	I have the ability to build appropriate professional relationships with deaf people	2.73	0.50	2	High
3	I have knowledge of the emotional characteristics of deaf people	2.59	0.63	3	High

Table (8) shows that the arithmetic averages of (language competencies) among sign language interpreters ranged between (2.93 and 2.44), where the language competencies got total arithmetic mean of (2.70), which is of a high level, and paragraph No. (5) At the highest arithmetic mean of (3.93), and a standard deviation (0.26), which is of a high level, and the paragraph stipulated (able to translate the written text

6	I feel that the number of hours of continuous translation is a psychological pressure on the interpreter.	2.51	0.55	4	High
5	I am not charged for the effort I am translating	2.46	0.64	5	High
4	I feel frustrated that deaf people cannot understand my sign	1.98	0.76	6	Medium
2	I feel shy standing in front of a group during the translation process	1.66	0.73	7	Low
8	I feel nervous while translating in sign language	1.12	1.03	8	Low
	Total Arithmetic general average	2.23	0.39		Medium

Results related to the fourth question: Are there statistically significant differences at the significance level ($\alpha \leq 0.05$) in the level of the sign language interpreters' competencies towards university translation for students with hearing impairment due to the variable of gender, experience, and a license to accredit sign language interpreters?

Arithmetic averages and standard error were extracted, and the MANOVA test was used to identify the significance of the differences in the level of competencies of sign language interpreters towards university translation on students with hearing impairment due to the variable of gender, experience, and identity of accreditation of sign language interpreters. Table (10) shows the results:

Table (10): the arithmetic mean and standard error to identify the differences in the level of competencies of sign language interpreters towards university translation on students with hearing impairment due to the variable of gender, experience, and identity of accreditation of sign language interpreters.

	variables	Gender	Arithmetic mean	standard error
Gender	Professional competencies	Male	2.691	.094
		female	2.779	.111
	Personal competencies	Male	2.652	.093
		female	2.666	.109
	Juristic competencies	Male	2.904	.069
		female	2.946	.081
	Language competencies	Male	2.629	.092
		female	2.703	.108
	Psychological competencies	Male	2.193	.108
		female	2.010	.127

Table (9) shows that the arithmetic averages of (psychological competencies) among sign language interpreters ranged between (2.78 and 1.12), whereas the psychological competencies got total arithmetic mean of (2.23), which is of the average level, and paragraph No. (1) At the highest arithmetic mean of (2.78), and with a standard deviation (0.47), which is of the high level, and the paragraph stipulated (I control my emotions during the simultaneous translation process).

And in the last place came Paragraph No. (8) with an arithmetic mean of (1.12) and a standard deviation (1.03), which is from the low level, as the paragraph stated: (I feel nervous during translation in sign language).

	Total	Male	2.614	.076
		female	2.621	.089
Experience	Professional competencies	<5 year	2.743	.171
		5-10 year	2.784	.097
		11-15 year	2.804	.150
		16-20 year	2.510	.267
		>20 year	2.834	.171
	Personal competencies	<5 year	2.567	.169
		5-10 year	2.755	.096
		11-15 year	2.829	.148
		16-20 year	2.315	.263
		>20 year	2.831	.169
	Juristic competencies	<5 year	2.662	.125
		5-10 year	2.912	.071
		11-15 year	3.014	.110
		16-20 year	3.046	.195
		>20 year	2.991	.125
	Language competencies	<5 year	2.611	.167
		5-10 year	2.632	.095
		11-15 year	2.594	.147
		16-20 year	2.780	.261
		>20 year	2.714	.167
	Psychological competencies	<5 year	2.498	.196
		5-10 year	2.185	.112
		11-15 year	2.006	.173
		16-20 year	1.786	.306
		>20 year	2.034	.197
	Total	<5 year	2.616	.138

		5-10 year	2.654	.079
		11-15 year	2.649	.121
		16-20 year	2.487	.215
		>20 year	2.681	.138
License for Sign Language Interpreters	Professional competencies	Possesses the license	2.894	.086
		Does not own the license	2.576	.163
	Personal competencies	Possesses the license	2.789	.085
		Does not own the license	2.529	.161
	Juristic competencies	Possesses the license	2.900	.063
		Does not own the license	2.950	.119
	Language competencies	Possesses the license	2.798	.084
		Does not own the license	2.534	.159
	Psychological competencies	Possesses the license	2.225	.098
		Does not own the license	1.979	.187
	Total	Possesses the license	2.721	.069
		Does not own the license	2.514	.131

impairment due to gender, experience, and the identity of the adoption of sign language interpreters, and to reveal the significance of differences, a test was used

Table (10) shows the existence of apparent differences in the values of arithmetic averages on the level of competency sign language interpreters towards university translation of students with hearing

appear in Table (11):

multiple variation MANOVA test, the results of which

Table (11): The Multiple Contrast Test (MANOVA) test to identify the significance of differences in the level of competencies of sign language interpreters towards university translation on students with hearing impairment due to the variable of gender, experience, and license to accredit sign language interpreters.

Source	variables	Sum of squares	Degrees of freedom	Average squares	Value (F)	Statistical significance
Gender Hotelling's Tris = 0.224 in statistical term (0.273)	Professional competencies	.073	1	.073	.620	.436
	Personal competencies	.002	1	.002	.016	.899
	Juristic competencies	.017	1	.017	.266	.609
	Language competencies	.052	1	.052	.463	.501
	Psychological competencies	.317	1	.317	2.038	.163
	Total	.000	1	.000	.006	.938
Experience Wilkes-lambda = 0.455 in statistical terms(0.169)	Professional competencies	.169	4	.042	.358	.837
	Personal competencies	.542	4	.135	1.178	.338
	Juristic competencies	.227	4	.057	.904	.473
	Language competencies	.089	4	.022	.196	.939
	Psychological competencies	.618	4	.155	.993	.424
	Total	.061	4	.015	.197	.938
License for Sign Language Interpreters Wilks' Lambda = 0.770 in statistical significance (0.144)	Professional competencies	.316	1	.316	2.673	.111
	Personal competencies	.210	1	.210	1.826	.186
	Juristic competencies	.008	1	.008	.127	.724
	Language competencies	.217	1	.217	1.923	.175
	Psychological competencies	.188	1	.188	1.207	.280
	Total	.134	1	.134	1.747	.195
Error	Professional competencies	4.015	34	.118		
	Personal competencies	3.908	34	.115		
	Juristic competencies	2.134	34	.063		
	Language competencies	3.833	34	.113		
	Psychological competencies	5.289	34	.156		
	Total	2.606	34	.077		

Total	Professional competencies	338.297	41			
	Personal competencies	326.719	41			
	Juristic competencies	347.203	41			
	Language competencies	303.719	41			
	Psychological competencies	209.797	41			
	Total	300.991	41			
Total Corrected	Professional competencies	5.132	40			
	Personal competencies	5.559	40			
	Juristic competencies	2.538	40			
	Language competencies	4.559	40			
	Psychological competencies	6.153	40			
	Total	3.045	40			

The results are shown in Table (11) also showed that there were no statistically significant differences at the level of significance ($\alpha \leq 0.05$) in the level of competencies of sign language interpreters towards university translation on students with hearing impairment due to the translation license variable, as the value of the statistic was (F) (2.673, 1.826, 0.127, 1.923, 1.207, 1.747) respectively for professional competencies, personal competencies, juridical competencies, language competencies, psychological competencies, and overall measurement, and the value of (Wilks' Lambda) was = (0.770), which is a non-statistically significant value at the level of significance ($\alpha \leq 0.05$), and the differences between the averages did not reach the level of statistical significance.

9. Discussion

Discussion of the results of the first question: What are the indications for the validity of the competencies of sign language interpreters towards university translation for students with hearing impairment?

The results of the study showed the availability of the indications of validity, which were represented by Content Validity (80%), and Construct Validity for the values of the correlation coefficients between the scale paragraphs and the overall score of the axis to which they belong was higher than (0.30).

Table (11) shows that there were no statistically significant differences at the level of significance ($\alpha \leq 0.05$) in the level of competencies of sign language interpreters towards university translation on students with hearing impairment due to the gender variable, as the statistic value (F) reached (0.620, 0.016, 0.266, 0.463, 2.038, 0.006), respectively, for professional competencies, personal competencies, juridical competencies, language competencies, psychological competencies and overall measurement, and the (Hotelling's)Trace value = (0.224), which is a statistically non-significant value at the level of significance ($\alpha \leq 0.05$).

It was found through the results shown in Table (11) that there are no statistically significant differences at the level of significance ($\alpha \leq 0.05$) in the level of competencies of sign language interpreters towards university translation on students with hearing impairment due to the experience variable, where the value of the statistic was (F) (0.358, 1.178, 0.904, 0.196, 0.993, 0.197) respectively for professional competencies, personal competencies, juridical competencies, language competencies, psychological competencies and overall measurement, and the value of (Wilks' Lambda) = (0.455) which is a non-statistically significant value at the level of significance ($\alpha \leq 0.05$).

and finally and in the fifth place, the psychological competencies came with an arithmetic average (2.23), which is of the intermediate level.

-The results agree with (De Wit, Sluis, 2012) that the deaf first aim to select an interpreter who provides the translation in a sign language in an honest and comprehensible manner.

-The results agree (Russell, Shaw, 2016) that there are Juristic practices that support access to the legal system for interpreters.

-The results differed with (De Wit, Sluis, 2012) that many interpreters lack the keeping pace and sophistication regarding sign language. Also, many deaf sign language users lack awareness regarding the professional requirements of an interpreter.

-The results differed with (Powell, 2013) that there was no specific training for working in the level of education and there is a need to address this matter.

-The results differed from (Journal of Education) that the most common errors are failure to complete the signal in translation, the use of incorrect signals, and the speed of translation, which weakens the receiver's understanding of the required meaning.

-The results differed with each of (Abu Maryam, Al-Rousan, 2019) that the Jordanian Sign Language training program is effective in developing sign language skills among a Jordanian sample of students at the University of Jordan.

The researcher explains: By applying the tool to sign language interpreters, it was found that they have a high level of all-sufficiency, due to integrating sign language interpreters into the deaf community, whether through work, teaching, or social relations because most sign language interpreters in Jordan are families who have people with hearing impairment. And due to the lack of interpreters in Jordan, whether or not they have a license, he was exposed to the same practical experiences, the need for the labor market for them, and attending many courses and working with human rights organizations in translating the International Convention on the Rights of Persons with Disabilities. Thus, sign language interpreters have high experience in the legal field, and this is what the study results showed through the high level.

Discussion of the results of the fourth question: Are there statistically significant differences at the significance level ($\alpha \leq 0.05$) in the level of the sign

- The results of this study did not agree or disagree with previous studies.

The researcher explains: The researcher explains: considering the results, this indicates the validity of the scale, as its use encourages sign language interpreters.

Discussion of the results of the second question: What are the indications for the Reliability of the competencies of sign language interpreters towards university translation for students with hearing impairment?

The results of the study showed that the scale has high-Reliability indications, whether on the degree of the college or the sub-paraphrases, as the results of the reliability of the Cronbach alpha method for the sub-axes ranged between (0.707 - 0.916) and the overall score of the scale (0.938), and the reliability method using the split test (Split-Half), so the Cronbach's alpha coefficient for the first part was (0.951), the Cronbach Alpha coefficient for the second part was (0.843), and the Spearman-Brown coefficient reached (0.798). These are acceptable values for the current study.

- The results of this study did not agree or disagree with previous studies.

The researcher explains: considering the results, demonstrates the reliability of the scale, as its use encourages sign language interpreters.

Discussion of the results of the third question: What is the level of competencies of sign language translators towards university interpreted for students with hearing impairment?

The results of the study showed that the level of competencies of sign language interpreters was at a high level, as the arithmetic averages ranged between (2.90 and 2.23), where the competencies had total arithmetic mean of (2.70). Where the Juristic competencies came in the first place, with an arithmetic average (2.90), which is of the high level, and secondly the professional competencies, with an arithmetic average of (2.85), which is of the high level, and in the third place the personal competencies, with an arithmetic average (2.80), which is of the high level. And in the fourth place, the language competencies with an arithmetic average (2.70), which is of the high level,

males, which requires sign language interpreters to work with this group, and openness to work for Females in Jordan, and support for the right to work for women and their presence in a large number in the labor market, which formed great practical experience They have. Likewise, a license to practice sign language interpreters is relatively recent. Licenses were granted in 2010 for the first time in Jordan, and the examination is held twice a year, and many interpreters who work in government sectors are not legally obligated to get a license to practice the profession, despite their high efficiency and field experience in interpreting sign language with the deaf.

10. Recommendations

Based on the findings: Educational recommendations:
 1-Inclusion of the profession of sign language translation as a university major.
 2- Training of interpreters on psychological adjustment skills.

Research Recommendations:

- 1- Conducting more studies and research related to sign language interpreters.
- 2- Conducting studies related to the comparison between the university interpreter and the interpreter in the public sectors.
- 3- Conducting studies related to developing the translation profession.

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language interpreters 'competencies towards university translation for students with hearing impairment due to the variable of gender, experience, and a license to accredit sign language interpreters?

The results of the study showed that there were no statistically significant differences at the significance level ($\alpha \leq 0.05$) attributed to the gender variable. Also, there were no statistically significant differences at the significance level ($\alpha \leq 0.05$) due to the experience variable. Also, there were no statistically significant differences at the significance level ($\alpha \leq 0.05$) due to the translation license variable.

-The results agree with (Abu Shaira, 2016) that there is no difference between errors depending on the gender variable in estimating errors in translation. And the results differed with a statistically significant difference in estimating errors and their sources according to the job variable.

-The results differed from each of (Crasborn, Bloem, 2009) that spoken and sign language interpreters should get a special qualification to work in certain juridical places.

- The results differed with each of (Hilde, 2009) that very few of the respondents have an approved license to regulate the practice of interpreters in their country.

The researcher explains: The percentage of Females with hearing impairment in Jordan is high compared to

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