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# The Effectiveness of Using Visual Organizations in Improving Reading and Writing Skills for Students with Learning Disabilities from the Teachers' Point of View

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**Abstract**

The study aims to identify the effectiveness of using visual organizations in improving the reading and writing skills of students with learning disabilities from the point of view of the teachers of learning resource rooms, according to the variables of gender, scientific qualification and educational experience through the use of analytical descriptive method. The study was carried out on a sample of 87 male and female teachers, (38) males and 49 females. A questionnaire of 53 items was used and analyzed statistically, the results showed that the most prominent item in the effectiveness of the use of visual organizations to improve reading and writing for students with learning difficulties is: "able to read sentences enhanced with pictures and without pictures, and distinguish between the image of the character and its writing", the most prominent obstacle to the effectiveness of using visual organizations is not to use visual organizations that fit with the teaching methods of students with learning disabilities, as for the variables, the study showed the existence of differences attributed to the impact of gender and for the benefit of females, the results showed that there are statistically significant differences due to the effect of scientific qualification, and the absence of statistical differences due to the effect of years of experience.

**Keywords:** visual organizations, students with learning disabilities, reading and writing skills

## 1. Introduction

Language has a major function in human life, it is the main means and the first communication tool to express the individuals' feelings and ideas, as he achieves his goals, and it gives him many opportunities to make use of his time. Language is also considered as a window overlooking the world, increasing his knowledge and intellectual production, reading and writing are linguistic wealth which the person use to face of all challenges in his literal and figurative sense. Educators and learners have sought to create new programs aimed at improving reading and writing skills; as a means of communication between members of the human community and in building the knowledge of the individual and the integrity of his personality.

The teachers focused their attention on the development of students' reading and writing skills, especially in the basic stage, so it was necessary to pay attention to the early detection of the students' weaknesses in reading and writing, and the manifestations of their failure. To develop appropriate educational programs to treat them before the problem escalates, and affects the community, and its educational efforts and human wealth for the emerging generations, teaching methods and strategies should therefore be provided to treat students with learning disabilities, the subject of reading and writing which were represented in the work of mastering these skills in terms of the correct use of grammatical rules, punctuation, handwriting, spelling and creativity (Abu Daqqa, 2010).

However, while teaching in classrooms, teachers encounter students who have difficulty reading or writing or interpreting codes or slow and inability to distinguish between similar words and letters. Hence, reading and writing weakness is considered one of the most common problems among students with learning difficulties (Sartawi, 2002).

According to the current federal definition of learning difficulties, it is the sharp contrast between expected and actual achievement, it results in difficulty in processing information, it is not the result of an emotional, mental, visual, auditory, motor or environmental disturbance and may be learning difficulties associated with these conditions (IDEA, 2004).

Visual organizations play an important role in the effectiveness of the learning process and the development of the various cognitive aspects of the students. It is a visual language shared by teachers and students that improves learning and communication between them. It also improves the skill of storing information and increasing their ability to organize and increase their thinking. And contributes to the development of higher levels of thinking among students such as application and evaluation and scientific and creative thinking, and the formation of a deep mental image of the concepts. As for students with learning disabilities, they have created a philosophical basis for making concepts a key element in building knowledge through visual organizations. For those with learning disabilities, it is considered a strategy of learning strategies to facilitate learning and help to understand the structural structure of knowledge (Abdel Wahab, 2007).

Visual organizations are used in multiple and important areas as a methodological tool in the planning and organization of the curriculum, which increases the learners' understanding and progress. Where the knowledge contained in the content of the curriculum is organized through the extraction of concepts from the study text and arranges it in accordance with the degree of comprehensiveness and generality, thus, the curriculum is coherent and integrated for teachers, and visual organizations can be used to give a holistic idea of the curriculum in different classes sequentially. In addition, it is an educational tool to illustrate the hierarchical relationships between the concepts involved in a subject, at the same time or a course; it also contributes to linking new concepts to previous concepts regarding teachers (Tantawy, 2001).

Visual organizations help to clarify and highlight the concepts and ideas that are learned and focus on the discussion between the teacher and the learners. The learners are involved in building the visual organizations. They test the concepts and arrange them, which helps to the accuracy of thinking and to increase understanding. It helps the teacher to generate ideas at learners and especially complex ideas (Jonassen & Grabowski, 1993).

It is used as an evaluating tool in diagnosing and evaluating students' learning of the subject or lesson they learned rather than the traditional written tests, using them to assess the extent to which the student learns the concept and the ability to relate concepts to each other in a hierarchical form (Tantawy, 2001).

### *1.1 The Study Problem*

The difficulties of studying and understanding the basic language, especially reading and writing, were a major concern of the Ministry of Education, researchers and educators, especially the aspects that deal with the process of teaching and learning, the studies and research in this area have confirmed the weakness of students in the basic stages of education, especially those with learning disabilities in the skills of reading comprehension and written expression, as the level of these skills ranges from 37% to 73% among students in basic education (Hashemi, 2002; Qasem & Mazroui, 2009). The reason for this weakness is the use of teaching methods in reading as a quick realization without paying attention with previous students' experience and relying on them in providing and building new experiences.

Since visual organizations are modern methods that can be used to facilitate meaningful learning in the construction of a new learning experience, it has been designed for this type of education, facilitating it and increasing its speed. Students are also able to maintain learning for a longer period. Hence, the current study problem is determined by the low literacy skills of students with learning disabilities, as visual organizations are modern methods that can be used to facilitate meaningful learning in the construction of a new learning experience, it has been designed for this type of education, facilitating it and increasing its speed. Students are also able to maintain learning for a longer period. Hence, the current study problem is determined by the low literacy skills of students with learning disabilities, in order to address this problem, this study was used to determine the effectiveness of using resource room teachers for visual organizations in improving the reading and writing skills of students with learning disabilities from the point of view of their teachers.

### *1.2 Questions of the Study*

This study seeks to answer the following questions:

1) How effective is the use of educational resource room teachers for visual organizations to improve the literacy skills of students with learning disabilities from their point of view?
2) Does the resource room teachers' point of view differ according to their gender, qualifications and experience?
3) What are the obstacles the resource room teachers face in improving the literacy skills of students with learning disabilities?
4) Are there any barriers that the resource room teachers face according to their gender, qualifications and

experience?

*1.3 Objectives of the Study*

The aim of this study is to shed light on the effectiveness of the use of visual organizations in improving the reading and writing skills of students with learning difficulties, and the teachers' awareness of the importance of using visual organizations in the resource rooms to teach students basic language skills. This study is a guide for parents in dealing with children and the necessity of the necessary growth and development to reach conclusions and recommendations useful in addressing the phenomenon of learning difficulties and in particular the difficulty of learning to read and write.

*1.4 The Importance of the Study*

The importance of this research comes in the use of teaching methods that stimulate motivation of students through the teacher's method and what he presents to students of the aids, leads to readiness, focus and attention to the subject matter of the lesson, and then the student is more able to participate in the situation and more vital, they are students with learning disabilities and are in dire need of diversification in teaching methods , taking into account the developmental characteristics of each student in terms of his potential and mental abilities by providing them with special educational programs suitable for students with learning disabilities. The visual organizations have been selected as important strategies in the field of the learner more vital and effective and this is proved by many studies of importance to both teacher and student together", Attieh (2008).

- The importance of this research is to identify the effectiveness of the use of teachers of learning difficulties for visual organizations in improving reading and writing and to provide scientific and educational addition to scientific research in the field of teaching students with learning difficulties and improve literacy in the use of visual organizations.
- Introduce proposals, recommendations and provide an educational strategy for curriculum planners that will contribute to improving the literacy skills of students with learning disabilities.
- This study is of importance to a research process. The elements of the teaching and its strategies were described by the visual organizations as it provides an opportunity for teachers of the resource rooms and for students with learning difficulties to learn about the procedures of using visual organizations and its methods to improve reading and writing skills and other scientific concepts.
- It opened the door for researchers to undertake further studies to develop reading and writing skills using modern learning strategies for students with learning disabilities.

*1.5 Determinants of the Study*

This study deals with the effectiveness of the use of visual organizations in improving the reading and writing skills among students with learning difficulties. This study was carried out within the following determinants:

- This study was applied to the teachers of the resource rooms at the directorates of education in the province of Irbid for the academic year 2017/2018 to study the effectiveness of the use of visual organizations in improving the literacy skills among students with learning disabilities.
- The results of the study are determined by the accuracy and observations of the study tool prepared by the researcher for the purposes of this study. The study was implemented after the tool was judged and ratified.

**2. Previous Studies**

Studies have been conducted, some of which sought to reveal the effectiveness of visual organizations in the development of scientific concepts and their impact on academic achievement and improve the skills of reading comprehension and written expression and improve reading and writing for students with learning disabilities.

Balawi (2014) conducted a study aimed at identifying the impact of using the illustration strategy in improving the reading comprehension skills in the literal and cognitive level among students of learning difficulties in Saudi Arabia. The study used the experimental method, the study sample was (40) students from the fourth grade level was chosen in a reasonable manner. The study reached several results, the most important of which are: there are statistically significant differences at the level of ($\alpha$= 0.05) among the experimental group that received training in the illustrations program and the control group which received training in the traditional way in the overall degree on reading comprehension skills, these differences were in favor of the experimental group, and there were statistically significant differences at the level of ($\alpha$= 0.05) between the control and experimental groups and for the benefit of the experimental group in the level of literal and deductive reading comprehension.

In a study of Sharif (2011) the aim of the study was to find out the effect of the use of concept maps on achievement

and adjusting the lack of attention among special education students. The study used the experimental method. The study sample consisted of (18) students distributed in the control and experimental groups. The results of the study showed that there were statistically significant differences between the mean of the experimental group, which was taught using the concept maps and the mean of control group, which was taught in the usual way of achievement, and for the benefit of the experimental group, as well as an adjustment in the lack of attention in favor of the experimental group.

The study of Zuboun and Natur (2017) aimed at verifying the impact of planning organizations on the development of written expression skills among students with learning difficulties. The study used the experimental method. The study sample consisted of (30) students with learning difficulties in the fifth grade at Al-Mafraq, distributed into experimental and control groups. The results showed a statistically significant effect of the method of teaching based on the planning organizations in the development of written expression skills for the field of form and content in the telemetry in favor of the experimental group. This result also showed the positive effect of the teaching method used.

In 2011, Brown (2011) conducted a study aimed at understanding students' achievement when using visual organizations to organize ideas and beliefs during the process of pre-writing and compiling the writing process, the sample of the study consisted of (21) students from the tenth grade enrolled in secondary school from different categories including learning difficulties and mental disabilities, several methods were used for all data. The results indicated the effect of the use of visual organizations in developing the students' ability on the effective use of pre-write operation with higher performance than general writing.

In the study of Mohammad and Mohammad (2009), the study aimed at finding out the effect of the use of concept maps in the achievement of the first grade students in the sciences subject and the development of their reasoning. The study used the experimental method. The study sample consisted of (65) individuals divided into two groups, the first experimental was taught according to concept maps and the other control group was taught using the traditional method. The results of the study showed that the experimental group was superior to the control group in the achievement and the development of reasoning thinking.

Al-Muhanna (2012) conducted a study aimed at identifying the effect of the use of cognitive maps in the development of the skill of writing "Hamza" and keeping it among the students of the third intermediate grade. The study sample consisted of (30) students. The study used the experimental approach; the results showed that the experimental group was superior in the test of accelerated post-achievement at the levels of (remembering, comprehension and application) combined and separate. The results showed that the experimental group was superior to the control group in the delayed post-achievement test at the levels of (remembering, comprehension and application) Combined and separate, There is also a significant impact on the use of knowledge maps as organizer to reduce spelling errors and to maintain the learning impact of the experimental group compared to the control group.

Lancaster's (2013) study aimed at determining the impact of the use of planning organizations or not used in teaching writing on the attitudes of students in the first grade, towards writing and efficiency in selecting and organizing words, the study used the survey method, The sample of the study consist of (65) students. The results of the study showed that the planning organizations have an effective teaching method in writing, and that the students showed an improvement in their attitudes towards writing and their use to select and organize the word.

Shammari (2012) conducted a study aimed at uncovering the effectiveness of conceptual mapping strategy in the composition of the written artistic image and developing the skills of creative thinking in the expression material among the third grade students in the Kingdom of Saudi Arabia, the study used the experimental approach, the sample of the study was (65) students from the intermediate stage, the results of the study showed that there are statistical significant differences in the construction of the artistic picture and the existence of statistical significance differences in the development of creative thinking skills, fluency, flexibility and originality for the benefit of the experimental group.

Sharrock's (2008) conducted a study aimed at finding out the impact of planning organizations on the development of creative writing among students. The study used the experimental method and the study sample consisted of (21) students, and the results of the study showed that students' creative writing improved after the use of planning organizations.

## 3. Methodology and Procedures

### *3.1 Study Approach*

The researcher based his study on descriptive quantitative approach because of its suitability for study purposes.

The researcher built the study tool and distributed it to the teachers of learning difficulties in the directorates of education in Irbid governorate, and then the researcher collected, categorized and coded data in order to extract and discuss the results.

*3.2 Population of the Study and Its Sample*

The study population consists of all male and female teachers of students with learning disabilities who work in the programs of learning difficulties in the public schools in the directorates of education in Irbid for the first semester of the academic year 2017/2018, which are (38) male teachers and (49) female teachers according to official statistics. The sample of the study consisted of the entire study population, because the possibility of containing all members of the study. Table 1 shows the distribution of study members according to its variables.

Table 1. Study sample by study variables (gender, scientific qualification and experience)

| Variable | Category | N | Ratio |
|---|---|---|---|
| Gender | Male | 35 | 40.22% |
| | Female | 52 | 59.78% |
| Scientific qualification | Higher Diploma | 34 | 39.08% |
| | Bachelor | 46 | 52.87% |
| | Postgraduate | 7 | 08.05% |
| Experience | Less than 5 years | 8 | 09.20% |
| | From 5 to less than 10 years | 29 | 33.33% |
| | More than 10 years | 50 | 57.47% |
| | Total | 87 | 100% |

*3.3 Study Tool*

To achieve the objectives of the study, the researcher built the tool of the study after reviewing the theoretical literature on the subjects related to learning difficulties, reading and writing and visual organizations (Habayeb, 2010; Shammari, 2012; Balawi, 2014). Where the initial image of the study tool was built by two domains and (53) paragraphs, and the opinions of the arbitrators who arbitrated the questionnaire were taken into consideration. The study tool was finalized as follows:

**First**: demographic information: (Gender, qualification and teaching experience).

**Second:** the effectiveness of visual organizations in improving the literacy skills of students with learning disabilities.

The questionnaire consisted of (51) paragraphs distributed over two dimensions as follows:

- The first dimension: the effectiveness of the use of visual organizations in improving the literacy skills of students with learning disabilities.
- The second dimension: the obstacles of the use of educational resource room teachers for visual organizations in improving the literacy skills of students with learning disabilities.
- Third: Proposals that contribute to the use of resource room teachers to improve the literacy skills among Students with difficulties in a better manner. This includes an open question for the target group to study their proposals to use male and female teachers with learning difficulties for the visual organizations to improve their reading and writing skills in a better manner.
- Fourth: the five-step Likert scale was used to measure the response they are: Very high (5) degrees, high (4) degrees, medium (3) degrees, low (2) degrees, very low (1) one degree.

*3.4 Reliability of the Study Tool*

The questionnaire was presented in its preliminary form to a group of specialized arbitrators from the faculty members at Al Yarmouk University and supervisors of male and female teachers with learning difficulties in the departments of education of Irbid, in terms of the wording of the paragraphs and their suitability for the purpose for which they were formulated either by approving or amending or deleting it because it is not important. The opinion of the majority has been taken into account in the arbitration of paragraphs, so that it became in its final form. It consisted of two domains and included, in addition to the basic data, 53 of the 57 paragraphs that were before amendments were made.

*3.5 Validity of the Study Tool*

After verifying the validity of the study tool from the arbitrators, the researcher verified its validity by applying the study tool to a survey sample of (20) male and female teachers outside the study sample. The validity coefficient for the total score was (0.83) on a scale as shown in Table 2 (Cronbach Alpha).

Table 2. Cronbach' Alpha coefficient value for tool reliability

| Domain | Number of items | Internal consistency |
|---|---|---|
| Usage of visual organizations | 37 | 0.82 |
| Obstacles to use visual organizations | 16 | 0.84 |
| Total | 53 | 0.83 |

It is clear from the table above that the total score has been characterized by appropriate validity coefficients, which confirms that the questionnaire is applicable to the final sample.

Correct the study tool (Weighted mean): the weighted arithmetic mean was used to assess the effectiveness of the use of visual organizations and obstacles to the effective use of teachers with learning disabilities for visual organizations in improving the reading and writing skills among students with learning difficulties, which uses the five-fold Likert scale, as shown in Table 3.

Table 3. Determination of the importance of the response of the sample members according to the weighted arithmetic mean

| Scale | Very high | High | Moderate | Low | Very low |
|---|---|---|---|---|---|
| | 1st degree | 2nd degree | 3rd degree | 4th degree | 5th degree |
| | 4.21-5 | 3.41-4.20 | 2.61-3.40 | 1.81-2.60 | 180 and less |

*3.6 Study Variables*

The study included the following variables:

3.6.1 Independent Variables

- Type: two levels: (male, female)**.**
- Educational qualification: and has two levels: (Diploma, Bachelor and more).
- Experience: It has three levels: (less than 5 years, 5-10 years, more than 10 years).

3.6.2 Dependent Variable

It is to respond to the paragraphs of the questionnaire.

*3.7 Statistical Processes*

After the responses of sample members were emptied, they were encoded and data was entered using the computer. The data was then statistically processed using the statistical package program and the statistical treatments used (SPSS) for Social Sciences Recursions, arithmetic averages, percentages, and standard deviations (independent t-test) T test for two independent samples (One Way ANOVA) Mono-variance analysis test.

**4. Results of the Study and its Discussion**

**Results relating the first question:** What is the level of effectiveness of the use of educational resource room teachers for visual organizations in improving the literacy skills of students with learning disabilities from the point of view of teachers?

To answer this question, the arithmetical averages and standard deviations of the level of effectiveness of the use of the teaching resource room teachers for visual organizations were extracted in improving the reading and writing skills of students with learning disabilities from the point of view of teachers and the table below illustrates this.

Table 4. Means and standard deviations of the level of effectiveness of the use of educational resource room teachers for visual organizations in improving the literacy skills of students with learning disabilities from the point of view of teachers in descending order by the arithmetic mean

| Rank | N | Items | Mean | Standard deviation | Level |
|---|---|---|---|---|---|
| 1 | 1 | Able to read sentences enhanced with pictures | 4.24 | .747 | High |
| 2 | 2 | Unable to read sentences without pictures | 3.59 | .857 | Moderate |
| 2 | 27 | Able to distinguish between the image of the character and its writing | 3.59 | 1.147 | Moderate |
| 4 | 25 | He avoids reading | 3.56 | 1.086 | Moderate |
| 5 | 28 | Has the ability to note points locations in letters | 3.54 | 1.087 | Moderate |
| 5 | 29 | Able to grasp the things he sees when reading or hearing them | 3.54 | 1.098 | Moderate |
| 7 | 30 | Has the ability to track visual images | 3.54 | .925 | Moderate |
| 8 | 33 | He doesn't repeat reading some words | 3.53 | 1.010 | Moderate |
| 9 | 15 | Can remember the names of letters | 3.46 | .846 | Moderate |
| 10 | 31 | He remembers the sounds of the letters | 3.45 | .949 | Moderate |
| 11 | 3 | Doesn't flip some letters while typing | 3.44 | .949 | Moderate |
| 12 | 35 | Can distinguish between similar letters in writing | 3.37 | .891 | Moderate |
| 13 | 34 | Capable of distinguishing between similar letters in reading | 3.34 | .962 | Moderate |
| 14 | 13 | Can control eye movement during reading | 3.32 | .800 | Moderate |
| 14 | 14 | He can distinguish the pronunciation of letters | 3.32 | .842 | Moderate |
| 14 | 16 | He can remember letter shapes | 3.32 | .934 | Moderate |
| 14 | 23 | He has very slow handwriting | 3.32 | .934 | Moderate |
| 18 | 32 | He has the ability to track typed letters | 3.31 | .880 | Moderate |
| 19 | 26 | Can distinguish between the image of the letter and reading it | 3.29 | .791 | Moderate |
| 20 | 17 | He can read the words correctly | 3.28 | .996 | Moderate |
| 21 | 11 | He is able to configure words from a character set | 3.25 | 1.025 | Moderate |
| 22 | 6 | Capable of placing characters in place while typing | 3.18 | .959 | Moderate |
| 23 | 12 | Maintains line integrity while typing | 3.08 | .918 | Moderate |
| 24 | 10 | Adds characters that are not needed during reading | 3.07 | 1.043 | Moderate |
| 25 | 19 | Capable to copy written works | 3.06 | .826 | Moderate |
| 26 | 18 | Capable to finish reading tasks | 3.05 | .999 | Moderate |
| 27 | 21 | Do not write off during the writing | 3.02 | 1.034 | Moderate |
| 28 | 5 | Has the ability to connect the correct words in sentences | 3.00 | .835 | Moderate |
| 28 | 8 | His face turns red during reading | 3.00 | 1.057 | Moderate |
| 28 | 24 | Performs involuntary movements during reading | 3.00 | 1.121 | Moderate |
| 31 | 7 | He can read the lesson taking into consideration the linguistic methods. | 2.98 | 1.110 | Moderate |
| 32 | 22 | Do not get too much stuttering during reading | 2.95 | .820 | Moderate |
| 33 | 36 | Delete characters in the read word | 2.92 | 1.154 | Moderate |
| 34 | 4 | Take into account the appropriate reading speed | 2.90 | .793 | Moderate |
| 35 | 9 | Consider stops during reading | 2.89 | 1.039 | Moderate |
| 36 | 20 | He makes no mistake while reading | 2.83 | 1.059 | Moderate |
| 37 | 37 | Deletes characters while writing | 2.80 | 1.109 | Moderate |
| | | Usage | 3.25 | .487 | Moderate |

Table 4 shows that the mathematical averages ranged from (2.80-4.24), where paragraph (1), which states "able to read sentences enhanced with pictures" came in the first place with an average of (4.24), while paragraph (37), which states "delete letters while writing," ranked last with an average of (2.80), and the arithmetic mean of the effectiveness as a whole (3.25) this result can be attributed to the effectiveness of visual organizations in organizing scientific material, and sequencing and summarize it scientifically and systematically in the minds of students with learning difficulties, this result was consistent with the study of Muhammad and Mohammad (2009). In addition, it is due to the role of teachers of the learning resource rooms used in teaching the students and using the appropriate visual organizer for the scientific material to be taught, this is due to the discrimination of visual organizations in organizing students' ideas and building a sound knowledge structure. It has attracted the attention

of as many students as possible during the lesson. It also has a role in trying to reduce the attention deficit and distraction of students with learning disabilities, which can be preoccupied with many things occupy him and his behavior on the subject of the lesson.

The opportunities offered by visual organizations to students with learning difficulties in organizing their written production according to sequential and organized steps led to a significant improvement in the improvement of their literacy skills as visual organizations worked to help them organize the process of reading and writing serially and in a certain way, therefore, the use of visual organizations in teaching students literacy skills has a meaningful effectiveness, which helps him to connect ideas with each other and express them read and write, and understanding the meanings contained in the text through the process of linking ideas and identifying it and the ability to write and read, and identifying key titles in texts, the results of the study also agreed with the results of several studies that sought to reveal the impact of visual organizations in improving written expression skills including the study of Sharrock (2008) the results of this study were also agreed with the study of Shammari (2012), Brown (2011) and Lancaster (2013), all of which were applied to students with learning disabilities.

**Results relating to the second question:** Does the resource room teachers' point of view differ according to their gender, qualifications and experience?

To answer this question, the arithmetical averages and standard deviations of the level of impediments to the effectiveness of the use of instructional resource room teachers for visual organizations were extracted in improving the reading and writing skills of students with learning disabilities from the point of view of teachers, the table below illustrates this.

Table 5. Means and standard deviations of the level of impediments to the effectiveness of the use of educational resource room teachers for visual organizations in improving the literacy skills of students with learning difficulties from the point of view of teachers in descending order by the arithmetic mean

| Rank | N | Item | Mean | Standard deviation | Level |
|---|---|---|---|---|---|
| 1 | 14 | Non-use of visual organizations that fit the teaching methods of students with learning disabilities | 4.44 | 0.604 | High |
| 2 | 10 | It needs a double effort on the part of the teacher and do not lead to the desired benefit | 4.26 | 0.769 | High |
| 3 | 3 | The use of visual organizations in reading and writing doesn't suit the abilities of students with learning disabilities | 4.14 | 0.668 | High |
| 4 | 8 | Weak professional competence in the use of visual organizations | 4.05 | 0.875 | High |
| 5 | 12 | The futility of using visual organizations to implement literacy skills | 3.99 | 1.115 | High |
| 6 | 1 | Visual organizations need from the teacher to use extra effort over his teaching load | 3.66 | 1.032 | Moderate |
| 7 | 4 | The use of visual organizations hinders the completion of the lesson in its time | 3.59 | 1.018 | Moderate |
| 8 | 15 | Lack of using elements of attractions and suspense in the use of visual organizations | 3.51 | 1.363 | Moderate |
| 9 | 6 | Lack of use of visual organizations in teaching students with learning difficulties because of their desire to use traditional methods of teaching | 3.44 | 1.042 | Moderate |
| 10 | 16 | The large number of students prevents their teaching using visual organizations | 3.43 | 1.085 | Moderate |
| 11 | 13 | Using visual organizations is one of the types of entertainment and play for students with learning disabilities. | 3.41 | 1.467 | Moderate |
| 12 | 2 | Students with learning difficulties tend to be chaotic while using visual organizations in the lesson | 3.39 | 1.442 | Moderate |
| 13 | 7 | Lack of financial incentives leads to inappropriate use of visual organizations | 3.38 | 1.026 | Moderate |
| 14 | 11 | Teachers of learning difficulties see visual organizations not achieving educational goals | 3.11 | 1.195 | Moderate |
| 15 | 9 | Non-consideration by visual organizations of the privacy of students with literacy learning difficulties | 3.01 | 1.307 | Moderate |
| 16 | 5 | Lack of desire for students with learning difficulties to learn using visual organizations | 2.86 | 1.564 | Moderate |
| | | Total | 3.60 | 0.551 | Moderate |

Table 5 shows that the mathematical averages ranged between 2.86 and 4.44. Paragraph (14) states that "Not to use visual organizations that fit the teaching methods of students with learning disabilities" came in the first place with an average of (4.44) while paragraph (16), which states: "Lack of desire for students with learning difficulties to learn using visual organizations "came at the last rank with an average of (2.80) and the arithmetic average of the obstacles as a whole (3.60).

This result is due to the fact that students with learning difficulties suffer from difficulty in reading, writing, distinguishing between form, concept, form stability, understanding spatial relationships in letters, and the composition of sentences read and writes.

There is awareness among the male and female teachers of students with learning disabilities. The introduction of visual organizations into learning resource rooms does not mean that the learning process will occur , this depends to a large extent on the ability to employ the appropriate visual organizations in the appropriate educational situation, this requires an appropriate ability to select the appropriate visual organizer for the learning material and accuracy in design, implementation and observance of the principles of good learning within the resource rooms. Thus, visual organizations may lose their role because of the way they are used, design and employ it appropriately to achieve the desired educational goals.

And the concentration of students with learning difficulties for a long time creates difficulties for them, reading or writing sentences need a special focus especially to follow the words and characters, helps to enhance the result, lack of confidence in the student himself and his knowledge of the characters and forms, which drives him to continue erasing (finishing)as result of the similarity of the letters and the pressure on the pen, which causes him excessive tension in order to highlight the letters and write and read the words.

**Results relating to the third question:** What are the obstacles the resource room teachers face in improving the literacy skills of students with learning disabilities?

To answer this question, the arithmetical averages and standard deviations were extracted for the level of effectiveness of the use of educational resource room teachers for visual organizations to improve the reading and writing skills among students with learning disabilities according to gender variables, qualifications and years of experience.

Table 6. Means and standard deviations of the level of effectiveness of the use of educational resource room teachers for visual organizations to improve the literacy skills of students with learning difficulties according to gender variables, scientific qualifications and years of experience

| Variable | Categories | Mean | Standard deviation | N |
|---|---|---|---|---|
| Gender | Male | 3.17 | .462 | 38 |
| | Female | 3.32 | .500 | 49 |
| Scientific qualification | Higher Diploma | 3.21 | .532 | 45 |
| | Bachelor | 2.98 | .399 | 18 |
| | Postgraduate | 3.54 | .274 | 24 |
| Experience | Less than 5 years | 3.21 | .576 | 24 |
| | From 5 to less than 10 years | 3.18 | .410 | 33 |
| | More than 10 years | 3.37 | .482 | 30 |

Table 6 shows an apparent variance in the arithmetical averages and standard deviations of the level of effectiveness of the use of educational resource room teachers for visual organizations to improve the reading and writing skills of students with learning difficulties due to different categories of gender variables, academic qualification and years of experience, to illustrate the significance of the statistical differences between the arithmetic averages, the triangular variance analysis was used in Table 7.

Table 7. Three-way analysis of variance of the impact of gender and the scientific qualification and years of experience on the level of effectiveness of the use of educational resource room teachers for visual organizations to improve the literacy skills of students with learning disabilities

| Source of variance | Sum of squares | Df | Mean of squares | F | Sig |
|---|---|---|---|---|---|
| Gender | 1.255 | 1 | 1.255 | 6.508 | 0.013 |
| Scientific qualification | 3.515 | 2 | 1.758 | 9.118 | 0.000 |
| Years of experience | .066 | 2 | .033 | .170 | 0.844 |
| ERROR | 15.613 | 81 | .193 | | |
| Total | 20.363 | 86 | | | |

Table 7 shows the following:

There were differences of statistical significance (α= 0.05) due to the effect of the type, where the values of (6.508) and statistical significance amounted to (0.013) and the differences were in favor of females. This result explains that female teachers see the use of visual organizations more and more useful because they are closer to students, and follow them in every sentence or letter in writing, female teachers have the care, patience and the ability to write on the board in different colors using visual organizations, taking care to correct errors and modify them.

There were statistically significant differences (α= 0.05) due to the impact of the scientific qualification, where the value of "F" (9.118), and statistical significance of (0.000), in order to show statistically significant differences between the arithmetical coefficients, dimensional comparisons were extracted in the same way as shown in Table 7.

The absence of statistical differences (α= 0.05) due to the effect of years of experience, where the value of "F" (0.170), and statistical significance amounted to (0.844), and the researcher believes that there is no impact of experience in this.

Table 8. Scheffe post-comparisons of the impact of the educational qualification on the level of effectiveness of the use of the educational resource room teachers of the visual organizations to improve the literacy skills of students with learning disabilities

| Scientific qualification | Mean | Higher diploma | Bachelor | Postgraduate |
|---|---|---|---|---|
| Higher diploma | 3.21 | | | |
| Bachelor | 2.98 | .23 | | |
| Postgraduate | 3.54 | .34* | .57* | |

* Significant at the significance level (α = 0.05).

Table 8 shows that there are statistically significant differences (α = 0.05) between postgraduate studies on the one hand and high diploma and bachelor degree on the other hand. The differences are in favor of higher studies. The researcher attributes the variable of scientific qualification to postgraduate studies, as the number of postgraduate studies more than the holders of the diploma and bachelor, in addition, the various courses received by the graduate campaign contribute effectively to the effectiveness of the use of visual organizations for students with learning disabilities as a more knowledgeable in the subject of specialization, and in their ability to know the difficulties faced by students with learning difficulties as a result of their knowledge in their university studies.

**Results related to the fourth question:** Are there any barriers that the resource room teachers face according to their gender, qualifications and experience?

To answer this question, the arithmetical averages and standard deviations of the level of impediments to the effectiveness of the use of educational resource room teachers for visual organizations were extracted in improving the reading and writing skills of students with learning disabilities from the point of view of teachers, by sex variables, qualification and years of experience.

Table 9. Means and standard deviations of the level of obstacles to the effectiveness of the use of educational resource room teachers for visual organizations in improving the literacy skills of students with learning difficulties from the point of view of teachers according to gender variables, scientific qualifications and years of experience

| Variable | Categories | Mean | Standard deviation | N |
|---|---|---|---|---|
| Gender | Male | 3.53 | .372 | 38 |
| | Female | 3.66 | .656 | 49 |
| Scientific qualification | Higher diploma | 3.64 | .712 | 45 |
| | Bachelor | 3.56 | .442 | 18 |
| | Post graduate | 3.58 | .133 | 24 |
| Experience | Less than 5 years | 3.71 | .736 | 24 |
| | From 5-10 years | 3.53 | .575 | 33 |
| | More than 10 years | 3.60 | .302 | 30 |

Table 9 shows an apparent variance in the arithmetical averages and standard deviations of the level of constraints on the effectiveness of the use of educational resource room teachers for visual organizations in improving the reading and writing skills of students with learning difficulties from the point of view of teachers due to the different categories of gender variables, qualifications and years of experience, to illustrate the significance of the statistical differences between the arithmetic averages, the triangular variance analysis was used in Table 10.

Table 10. Three-way analysis of variance of the impact of gender and the academic qualification and years of experience at the level of obstacles to the effectiveness of the use of educational resource room teachers for visual organizations in improving the literacy skills of students with learning disabilities from the point of view of teachers

| Source of variance | Sum of squares | Df | Mean of squares | F | Sig |
|---|---|---|---|---|---|
| Gender | .489 | 1 | .489 | 1.572 | .214 |
| Scientific qualification | .010 | 2 | .005 | .017 | .984 |
| Years of experience | .505 | 2 | .253 | .812 | .447 |
| ERROR | 25.175 | 81 | .311 | | |
| Total | 26.139 | 86 | | | |

The results of Table 10 show the following:

- There were no statistically significant differences ($\alpha = 0.05$) due to the effect of gender, with a value of "F" (1.572) and a statistical significance of (0.214).
- There were no statistically significant differences ($\alpha = 0.05$) due to the impact of the scientific qualification, with a value of "F" (0.017) and statistical significance of (0.984).
- There were no statistically significant differences ($\alpha = 0.05$) due to the years of experience, with a value of "F" (0.812) and statistical significance of (0.447).

The researcher explains this result that the gender, qualifications and years of experience at the level of obstacles to the effectiveness of the use of educational resource room teachers for visual organizations in improving the literacy skills of students with learning disabilities from the point of view of teachers do not need the scientific specialization or experience of the teacher, because the difficulty is not limited to reading only but extends to writing also.

**5. Recommendations and Suggestions**

In light of the research results, the researcher recommends and suggests the following:

1) Interest in the use of visual organizations in the teaching of literacy and improvement in students with learning disabilities as a source of learning, because of their effect in clarifying letters and sentences and reading, and the teacher to prepare the appropriate visual organizer that achieves the prescribed material.
2) Conduct further studies to verify the credibility of the results of this study in order to generalize their results, in larger samples and in different communities.

3) More studies on the effectiveness of the use of visual organizations using the variables of gender and scientific qualification and experience, and in particular to improve the skills in reading and writing in English.
4) Conduct more studies on the effectiveness of the use of visual organizations in other subjects for ordinary students without learning difficulties and who have difficulties in learning courses and scientific and mathematical lessons.
5) Application of the teaching method using visual organizations in the development of literacy skills of students with learning disabilities.
6) Conducting workshops to train the teachers of the resource rooms to apply the use of these visual organizations in improving the language and writing skills of students.
7) Include English language books introductory courses in visual organizations and theories used as the theory of "Ozbel specialized models of learning.

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