

# **The Use of Technological Tools in the Rehabilitation of Individuals With Intellectual Disabilities: A Field Study in ohe Pedagogical Centers Of Aflou and Laghouat**

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## **Abstract**

The current study aimed to exploring the reality of using technological tools with individuals with intellectual disabilities during rehabilitation and education. It provides information and data for student researchers and specialists, highlighting the importance of using educational technology with individuals with intellectual disabilities at the Shaheed Belabbas Pedagogical Center in Aflou and Laghouat. The study focuses on analyzing the use of technology, exploring gender differences, and examining the impact of experience and job role on the use of these tools, using the Statistical Package for the Social Sciences (SPSS 26). The research yields several findings, showing that the use of technological tools in the rehabilitation of individuals with intellectual disabilities at the center is moderate. There are statistically significant differences in the use of technology by specialized teachers based on gender, favoring females. However, no statistically significant differences are found related to experience and job role.

**Keywords:** Technological tools, rehabilitation, individuals with intellectual disabilities, education, statistics

**L'utilisation des outils technologiques dans la rééducation des personnes ayant une déficience intellectuelle : Étude de terrain dans les centres pédagogiques d'Aflou et de Laghouat**

## **Résumé**

La présente étude explore la réalité de l'utilisation des outils technologiques avec des personnes en situation de handicap intellectuel lors de la rééducation et de l'enseignement. Elle fournit des informations et des données aux chercheurs étudiants et aux spécialistes, mettant en lumière l'importance de l'utilisation de la technologie éducative avec les personnes ayant une déficience intellectuelle au Centre Pédagogique Shaheed Belabbas à Aflou et Laghouat. L'étude se concentre sur l'analyse de l'utilisation de la technologie, l'exploration des différences de genre et l'examen de l'impact de l'expérience et du rôle professionnel sur l'utilisation de ces outils, en utilisant le logiciel SPSS 26 (Statistical Package for the Social Sciences). La recherche révèle plusieurs résultats, montrant que l'utilisation des outils technologiques dans la rééducation des personnes ayant une déficience intellectuelle au centre est modérée. Il existe des différences statistiquement significatives dans l'utilisation de la technologie par les enseignants spécialisés selon le genre, en faveur des femmes. Cependant, aucune différence statistiquement significative n'est trouvée en lien avec l'expérience et le rôle professionnel.

**Mots-clés :** Outils technologiques, rééducation, personnes ayant une déficience intellectuelle, éducation, statistiques

## Introduction

Today's world is characterized by a scientific and technological revolution, with the rapid accumulation of discoveries and scientific theories, and their technological applications, in a way humanity has never witnessed before. We are living in the age of information, which brings with it many changes in all aspects of life. This period is now often referred to as the age of technology and innovation. As a result of these transformations, it has become essential to respond by developing educational institutions, as they are the first to require adaptation in any society to keep pace with the nature of the times and respond to the changes affecting various areas of life. (Mohammed Al-Sayed Ali, 2005, p. 19)

The technological advancement, in all its forms and means, has penetrated all contemporary societies and permeated every aspect of life. Technology is now used in various places such as homes, offices, and official institutions, whether in rural areas, cities, or deserts. It has become natural for individuals to interact with it, regardless of their level of civilization, age group, or background. Due to its widespread reach, technology has been able to change the daily lifestyles of people in economic, cultural, and social aspects, especially among the youth, who are always exposed to anything new. The infrastructure of many societies has significantly changed in recent times due to the extensive use of modern technology. The technological dimension has become one of the most important and fundamental aspects of these societies, as it has brought about transformations in their cultural, political, and social trajectories. However, it is essential to highlight the need to define the nature of the relationship between technology and societies to ensure that technology and modernization align with societal values and lead to a state of conscious adaptation between the two. (Jamal Al-Khatib, 2005, p. 55)

The concept of technology has evolved to encompass the learning process, and education has benefited from modern technology, resulting in various tools referred to as educational technology. These tools include all means or mediums, whether simple or complex, manual or automated, individual or collective. The goal of technology for individuals with different types of disabilities is to achieve the highest level of adaptation to the social environment and foster independence, aiming to provide a quality of life that is as close to natural as possible.

Various countries, especially developed societies, place great emphasis on integrating and rehabilitating individuals with special needs, particularly those with intellectual disabilities, into social life. The aim is to provide them with psychological and social balance, just like ordinary individuals, so they can play an active role in life. This increased focus on individuals with intellectual disabilities is due to the connection between this type of disability and the intellectual capacity of individuals, who society relies on for its construction and development. The care for individuals with disabilities aims to offer them the opportunity for self-independence, enabling them to rely on themselves and facilitating their adaptation to the external environment, starting with meeting their basic needs until successfully integrating them into the broader society.

Individuals with special needs are a part of society who have specific requirements, particularly in educational and learning aspects, compared to their peers. They are individuals who share many common traits with us, especially the need for interaction, communication, and adaptation to their surrounding environment. The use of technology in various aspects of life makes daily tasks easier for individuals in general and for those with disabilities in particular. It meets many of their needs with less effort and, in many cases, at a lower cost. Technology has become a vital tool in the education of all students, especially those with special

needs, including students with intellectual disabilities. It has made the process of teaching, rehabilitating, and helping them acquire various skills much easier (Sobhi Ahmed Mohamed Suleiman, 2006, p. 80). This is why it became the focus of our research, prompting us to pose the question...

The study problem revolves around: What is the significance of using technological tools in the rehabilitation of individuals with intellectual disabilities? What difficulties do educators and specialized teachers face in this context? And how do variables such as gender, experience, and job role affect this usage?

The study's hypotheses are based on several key points: First, it is assumed that educators and specialized teachers use technological tools in the rehabilitation of individuals with intellectual disabilities, reflecting the importance of these tools in the educational process. Second, it is expected that there are statistically significant differences in the use of technological tools by educators and teachers based on the variable of gender, which may affect the effectiveness of technology in education. Third, the hypotheses suggest that there are statistically significant differences in the use of technological tools related to the variable of experience, indicating that the level of experience may play a role in how teachers use these tools. Finally, it is anticipated that there are statistically significant differences in the use of technological tools based on the variable of job role, implying that the type of job also influences the use of technology in the rehabilitation of individuals with intellectual disabilities.

The study is of great importance as it addresses the topic of using educational technological tools in the rehabilitation of individuals with intellectual disabilities. It aims at understanding the extent to which these tools contribute to supporting individuals with disabilities and facilitating their integration into society. The value of this topic lies in highlighting the challenges faced by individuals with intellectual disabilities, which are not solely due to their limited intelligence but also to a lack of training and rehabilitation, affecting their ability to interact with others.

The importance of the study is further underscored by the increasing number of individuals with intellectual disabilities, estimated globally at about 3% of the total population, with this percentage rising in developing countries. The study aims to provide recommendations for improving the conditions of this group and raising awareness of their needs, in addition to identifying the roles of teachers in using educational technology. One of the practical objectives of the study is to reveal the reality of using technological tools in rehabilitation centers and to understand the difficulties teachers face in utilizing them.

The previous studies cover a range of research related to the use of technology in the rehabilitation of individuals with intellectual disabilities, highlighting the importance of this topic in improving the quality of education and services provided to this group. Hawsawi's (2000) study focused on teachers' perceptions of computer skills in teaching, showing that students with intellectual disabilities can benefit from this technology. However, the results indicated differences in its use based on gender and experience.

On the other hand, Farwana's (2003) study addressed the role of special education institutions in Gaza in developing the educational and social capacities of individuals with disabilities, emphasizing the importance of contemporary approaches in this service, although there were obstacles related to a lack of resources. Ashton (2005) evaluated the use of assistive technology, indicating that 64.3% of teachers feel comfortable using it, but there is a shortage of technological tools. Meanwhile, Ahmed's (2007) study confirmed the effectiveness of special educational strategies in enhancing computer and communication skills among individuals with disabilities.

In the same context, Khaled Mansour's (2019) study highlighted the importance of technology in integrating children with intellectual disabilities, while Sarah Ben Issa's (2020) study compared effectiveness between urban and rural areas, noting significant differences in support and resources. Additionally, Al-Jabri's (2021) study revealed a low level of information technology use in special education centers due to a lack of awareness and resources, while Ali's (2021) study showed differences in teachers' and specialists' attitudes toward using technology.

Finally, Mohammed's (2022) study identified the obstacles faced by managers and supervisors of centers, reflecting the urgent need to improve educational conditions and provide necessary resources. Overall, these studies highlight the significance of technology in the rehabilitation of individuals with intellectual disabilities, while pointing out the multiple challenges that need to be addressed to enhance effectiveness in educational programs.

## **1- Materials and methods**

Educational technology refers to the devices, methods, programs, and scientific products used in training individuals with intellectual disabilities to achieve specific educational goals. A child with intellectual disabilities is defined as a child who experiences social maladjustment in the environment in which they live, preventing them from keeping up with their typically developing peers due to a lower intelligence quotient resulting from deficits in their cognitive development. On the other hand, rehabilitation refers to the efforts made by specialists to enable individuals with disabilities to participate in all aspects of life to the greatest extent possible. Rehabilitation aims to enhance their capabilities, boost their self-esteem, and help them reach a better level in their lives.

### **1-1 Study Methodology**

Since scientific research methodologies are varied and diverse, the choice of methodology is primarily linked to the nature of the research topic. We chose the descriptive method as it is suitable for our study, which aims to identify the reality of using technological tools in the rehabilitation of individuals with intellectual disabilities in Aflo and Al-Agouat. This method can be defined as a descriptive approach that relies on studying the phenomenon as it exists in reality, providing an accurate description and expressing it both quantitatively and qualitatively. Qualitative expression describes the phenomenon and clarifies its characteristics, while quantitative expression provides a precise numerical description that illustrates the extent and degree of the phenomenon.

The boundaries of the study are defined in several important aspects to ensure its accuracy and objectivity. Temporally, the study was conducted from March 5 to May 17, 2024. As for spatial boundaries, the study was implemented at the Psychological Pedagogical Center of Martyr Belabbas in Aflo and Al-Agouat, providing an appropriate context for conducting the research. Regarding human boundaries, the original study population consisted of 50 educators and specialized teachers working in the same institution, ensuring a diversity of perspectives and enhancing the reliability of the results obtained.

### **1-2 Exploratory Study**

The exploratory study aims to identify the gaps and deficiencies related specifically to the construction and formulation of the items used in the scale. This is intended to refine and revise these items. It also allows the researchers to survey the field to understand the difficulties that hinder its proper application. Additionally, the study aims to test the validity and reliability of the adopted scale. The scale was applied to an exploratory sample consisting of 30 educators

and specialized teachers from the same institution. The results of this exploratory study indicated that the scale is appropriate and possesses acceptable validity and reliability.

In the current study, we conducted a comprehensive inventory of the study population. Table No. (01) illustrates the distribution of the members of the main sample according to gender and professional experience.

**Table 1.** Characteristics of the Study Population by Gender and Professional Experience

	Categorical Variables	Frequency and Percentage		
		Number	Percentage %	
study	categorical variables	Male	24	48
		Female	26	52
		Less than 3 years	39	78
		More than 3 years	11	22
		Caregiver / Educator	20	40
		Teacher	30	60
		Total	50	100

The population consisted of 50 educators and specialized teachers, utilizing a comprehensive inventory method. It included 24 males, accounting for 48.00%, and 26 females, accounting for 52.00%. Regarding professional experience, there were 11 individuals with less than three years of experience, representing 22.00%, while those with more than three years of experience numbered 39 educators and teachers, accounting for 78.00%. In terms of job roles, there were 30 teachers, representing 60.00%, while the number of educators was 20, accounting for 40. The following Table No. (01) illustrates the characteristics of the study population.

After reviewing the theoretical literature and similar scales, a questionnaire was developed to assess the reality of using technological tools in the rehabilitation of individuals with intellectual disabilities, with the assistance of specialists and teachers at the center relevant to the study topic. The questionnaire consists of 30 statements aimed at measuring the extent of technological tool usage in this field. It includes a three-point scale to evaluate the responses: the statement "Yes - Always" is awarded three points, while the statement "Sometimes" receives two points, and finally, the statement "No - Never" gets one point. This design contributes to gathering accurate and comprehensive data regarding the reality of technology use in the rehabilitation of individuals with intellectual disabilities, providing valuable information for analyzing the effectiveness of these tools in the educational and rehabilitative process.

To achieve the study's objectives, answer its questions, and verify its hypotheses, this study was conducted according to precise methodological steps. First, a review of some theoretical frameworks and previous studies related to the study variables was carried out, helping to establish the theoretical foundation for the research. Next, the appropriate scale for conducting this research was selected, identifying the suitable tool for data collection. Following that, the study tool was applied to verify the validity and reliability of the scale on an exploratory sample consisting of 30 educators and teachers. Subsequently, data extraction and collection took place, where the data was organized and statistically processed using SPSS software, leading to the research findings and their interpretation and discussion. Finally,

recommendations and suggestions were formulated based on the results obtained, reflecting the study's importance in improving the reality of using technological tools in the rehabilitation of individuals with intellectual disabilities.

### 1-3 Psychometric Properties of the Study Tools:

#### 1-3-1 Validity of the Judges:

The validity of the test refers to the extent to which the test is appropriate for measuring what it is intended to measure (Moqadam, 2003, p. 146).

We divided the initial model of the questionnaire among a group of professors (judges) specializing in educational sciences and psychology, consisting of three professors. They provided their opinions and feedback regarding the extent to which the items measured the study problem, as well as comments on the linguistic formulation and clarity of the provided instructions. The questionnaire consisted of 30 items.

**Table 02.** Criteria for the Validity of Judges for the Questionnaire

	personal data	instructions		paragraphs					alternatives		
		inclusiveness	clarity	coverage	measurement.	number	clarity	arrangement	language	adequacy	number
Agreeing/Supporters	03	03	03	03	03	02	02	03	03	03	03
Percentage	100%	100%	100%	100%	100%	41%	41%	100%	100%	100%	100%

Table 2 Represents the Judges' Responses and the Corresponding Percentages of Agreement. It is clear from Table No. (02) that most of the judges agreed on retaining the majority of the items in the questionnaire, with some changes and modifications made to certain items for clarity and better suitability.

#### 1-3-2 Validity:

Validity refers to the degree to which the test measures what it is intended to measure. To verify the validity of the scale, the judgmental validity coefficient of the questionnaire was estimated using the extreme groups method, also known as discriminative validity.

The validity was estimated using the extreme groups method by identifying the comparison groups through selecting the highest and lowest scoring individuals from the exploratory sample. There were (08) educators and teachers (representing 27% of those with high scores) in the upper group and (08) educators and teachers (representing 27% of those with low scores) in the lower group. The "t" test for independent samples was then used to compare the means of the two extreme groups on the scale, as shown in Table N (03):

**Table 03.** Extreme Group Comparison for the Questionnaire

Scale	Minimum group 08		Maximum group 08		degree	Value (T)	level of significance
	arithmetic mean	standard deviation	arithmetic mean	standard deviation			
Total score	50.12	2.232	70.62	6.022	14	9.028	0.0001

It is shown in Table 03 that there are statistically significant differences at the significance level of (0.01) between the high and low scorers, which means that the scale is valid and can therefore be relied upon in the current study.

**A. Reliability:** The reliability of this scale was calculated using Cronbach's Alpha coefficient.

**Table 4.** Shows the Reliability Coefficient for the Questionnaire on the Reality of Using Technology in the Rehabilitation of Individuals with Intellectual Disabilities Using Cronbach's Alpha Coefficient.

Scale	Number of items	Sample	Cronbach's alpha coefficient
Questionnaire	30	30	0.728

Table 4 shows that the values of the Cronbach's Alpha reliability coefficients for the scale were acceptable, with the overall Cronbach's Alpha coefficient reaching (0.728), which allows it to be relied upon for conducting this study.

#### **1-4 Statistical Methods Used in the Current Study**

In this study, we utilized the Statistical Package for the Social Sciences (SPSS), which is the most widely used statistical system for conducting various statistical analyses and treatments across different types of research. We used version (22) for its modern features that are not available in other versions. The statistical methods employed through this program primarily included the following:

- Independent samples t-test to determine the significance of differences between the means of the sample members based on gender (male, female) (Moqaddam, 2003, p. 73)
- Pearson correlation coefficient
- Cronbach's alpha coefficient
- Arithmetic mean
- Standard deviation
- Frequencies and percentages.

#### **2- Resultats et discussion**

**First - Presentation, Discussion, and Interpretation of the Results of the First Hypothesis:** This hypothesis states that educators and teachers use technological tools in the

rehabilitation of the mentally disabled to varying degrees at the pedagogical center of the martyr Belabbas in Aflou.

To verify the validity of the hypothesis, the (t) test was calculated for an independent sample, and the following table illustrates this:

**Table 5.** Results of the "t" Test for the Significance of the Difference Between the Arithmetic Mean and the Hypothetical Mean

Level	level of significance	Value of "t"	theoretical mean	arithmetic mean	number of individuals	questionnaire
Average or Mean	0.000	1.189	60	58.80	50	Reality of Technology Use

Table 5 shows that the reality of using technological tools in the rehabilitation of the mentally disabled at the pedagogical center of the martyr Belabbas in Aflou and Laghouat indicates that the arithmetic mean of their scores was (58.80), which falls within the average range. The value of (t) was (1.189) at a significance level of 0.01.\*\*

Consequently, the study hypothesis was consistent with the results obtained, indicating that the reality of using technological tools in the rehabilitation of the mentally disabled at the pedagogical center of the martyr Belabbas in Aflou and Laghouat was at a moderate level.

#### **Discussion:**

The statistical results presented in Table (5) indicate that the reality of using technological tools in the rehabilitation of the mentally disabled at the pedagogical center of the martyr Belabbas in Aflou is at a moderate level. The arithmetic mean was (58.80), which is close to the hypothetical mean of (60). The value of the "t" test was (1.189), which is statistically significant at the (0.01) level, confirming the validity of the hypothesis that educators and teachers use technological tools in the rehabilitation of the mentally disabled to varying degrees.

This result can be interpreted in light of the findings of Al-Jabri's study (2021), which concluded that the use of information and communication technology in special education centers was at a moderate level, due to factors such as experience, training, and material and moral incentives.

In this context, it can be said that the pedagogical center of the martyr Belabbas in Aflou is striving to employ technological techniques in the rehabilitation of the mentally disabled, but at a moderate level due to challenges the institution may face, such as a lack of material resources and insufficient specialized training for teachers and educators. Therefore, more efforts are needed to enhance the use of technology in this field, contributing to the improvement of the quality of rehabilitation programs and achieving the maximum benefit for the mentally disabled.

#### **Second - Presentation, Discussion, and Interpretation of the Results of the Second Hypothesis:**

This hypothesis states that there are statistically significant differences in the use of technological tools in the rehabilitation of the mentally disabled between females and males at the pedagogical center of the martyr Belabbas in Aflou and Laghouat.



To verify the validity of this hypothesis, we calculated the "t" test for two independent samples to determine the difference between males and females in the reality of using communication technologies at the institution under study. The following table illustrates this:

**Table 06.** Results of the "t" test for the differences between genders in the reality of using technological tools in the rehabilitation of the mentally disabled between females and males at the pedagogical center of the martyr Belabbas in Aflou and Laghouat.

scale	Males 24		Females 26		Degree of Freedom	Value (T)	Level of Significance
	Arithmetic Mean	Standard Deviation	Arithmetic Mean	Standard Deviation			
Reality of Using Technological Means	56.50	5.816	60.92	7.672	48	2.282	0.027

From the above Table 6. it is evident that the value of (t) was calculated as (2.282) at a significance level of (0.027), which is greater than the accepted significance level in social sciences, set at (0.05). Therefore, there are statistically significant differences in the reality of using technological tools attributed to the gender variable (male–female) in favor of females. Thus, the hypothesis stating that there are statistically significant differences in the reality of using technological tools attributed to the gender variable (male–female) in the study population has been confirmed.

## Discussion

Based on the results of the study, the differences between genders in the reality of using technological tools in the rehabilitation of individuals with intellectual disabilities can be interpreted through several factors. Firstly, social and cultural upbringing plays a significant role, as certain societies may exhibit discrimination or a preference for male usage of technology over female. Additionally, attitudes and motivation towards technology vary; females may demonstrate greater interest and enthusiasm for utilizing modern technologies in rehabilitation settings. Lastly, skills and experience also contribute to these differences, as females may possess specific skills related to technology use that enhance their effectiveness in the rehabilitation process, thereby reflecting their higher engagement in employing these tools.

These results are consistent with findings from some previous studies, such as Al-Wabli's (1998) study titled "Assistive Technology and Its Importance from the Perspective of Teachers in Special Education Institutes," which showed that females were more likely to use technology in the fields of education and rehabilitation compared to males.

In light of these results, it is essential to provide a supportive environment for using technology in the rehabilitation of the mentally disabled while also working to enhance the skills and attitudes of males towards the effective use of technological tools in this field.

## Third - Presentation, Discussion, and Interpretation of the Results of the Third Hypothesis:

This hypothesis states that there are statistically significant differences in the use of technological tools in the rehabilitation of the mentally disabled between educators and teachers at the pedagogical center of the martyr Belabbas in Aflou and Laghouat.

To verify the validity of this hypothesis, we calculated the "t" test for two independent samples to determine the difference between teachers and educators in the reality of using technology at the institution under study. The following table illustrates this:

**Table 7.** Results of the "t" test for the differences between educators and teachers in the reality of using technological tools in the rehabilitation of the mentally disabled at the pedagogical center of the martyr Belabbas in Aflou and Laghouat

Scale	Educators (20)		Teachers (30)		Degrees of Freedom	Value (T)	Level of Significance
	arithmetic mean	standard deviation	arithmetic mean	standard deviation			
Reality of Using Technological Means	57.60	6.636	59.60	7.449	48	0.971	0.337

From the above Table 7, it is evident that the value of (t) was calculated as (0.971) at a significance level of (0.337), which is greater than the accepted significance level in social sciences, set at (0.05). Therefore, there are no statistically significant differences in the reality of using technological tools attributed to the variable of job position. Thus, the hypothesis stating that there are statistically significant differences in the reality of using technological tools attributed to the variable of job position in the study population has not been confirmed.

### Discussion:

From Table 08, we observe that the calculated value of the "t" test was 0.971, which is less than the accepted significance level in social sciences, set at 0.05. Therefore, it can be concluded that there are no statistically significant differences in the reality of using technological tools in the rehabilitation of the mentally disabled between educators and teachers at the pedagogical center of the martyr Belabbas in Aflou and Laghouat.

The lack of statistically significant differences in the use of technological tools between educators and teachers can be attributed to several factors. First, both educators and teachers have access to the same programs and technological equipment at the pedagogical center, which contributed to the similarity in their level of technology use. Second, educators and teachers received the same training and qualification courses on the use of technology in the rehabilitation of the mentally disabled, leading to a convergence of their skills in this area. Third, the administration of the pedagogical center reflects a strong interest in providing the appropriate environment for technology use by all educators and teachers.

These results align with a previous study conducted by researcher Ali (2021), which found no statistically significant differences in technology use between teachers and educators in special education centers. They also agree with Muhammad's study (2022), which emphasized the similarity in technology use levels between the two groups of teachers and educators.

Based on the above, it can be said that the pedagogical center of the martyr Belabbas in Aflou and Laghouat has achieved a level of integration and consistency in providing the necessary resources for technology use for both educators and teachers, positively reflecting on the similarity in their use of technology in the rehabilitation of the mentally disabled.

#### **Fourth - Presentation, Discussion, and Interpretation of the Results of the Fourth Hypothesis:**

**Presentation:** This hypothesis states that there are statistically significant differences in the use of technological tools in the rehabilitation of the mentally disabled based on the variable of professional experience at the pedagogical center of the martyr Belabbas in Aflou and Laghouat.

To verify the validity of this hypothesis, we calculated the "t" test for two independent samples to determine the difference between teachers and educators in the reality of using technology at the institution under study. The following table illustrates this:

**Table 8.** Results of the "t" test for the differences in the reality of using technological tools in the rehabilitation of the mentally disabled based on the variable of professional experience at the pedagogical center of the martyr Belabbas in Aflou and Laghouat.

Scale	Less than 3 years		More than 3 years		Degrees of Freedom	Value (T)	Level of Significance
	arithmetic mean	standard deviation	arithmetic mean	standard deviation			
Reality of Using Technological Means	58.10	4.360	57.72	7.758	48	0.516	0.578

From the above Table 8, it is evident that the value of (t) was calculated as (0.516) at a significance level of (0.578), which is greater than the accepted significance level in social sciences, set at (0.05). Therefore, there are no statistically significant differences in the reality of using technological tools attributed to the variable of professional experience. Thus, the hypothesis stating that there are statistically significant differences in the reality of using technological tools attributed to the variable of professional experience in the study population has not been confirmed.

#### **Discussion:**

Based on the results of the "t" test presented in the table, we observe that there are no statistically significant differences in the reality of using technological tools attributed to the variable of professional experience (less than 3 years, more than 3 years). The value of "t" was 0.516, which is not statistically significant at a significance level of 0.578, higher than the established level of 0.05. This result indicates that the experience of teachers and educators in using technology for the rehabilitation of the mentally disabled does not differ significantly, whether their experience is less than or more than 3 years.

This may be attributed to several factors, including the availability of training and qualification programs for everyone, regardless of years of experience, as the use of technology has become an essential part of the practices of teachers and educators, helping to align their skills in this area. Additionally, the existence of continuous training courses for all to keep up with technological developments may have contributed to this convergence.

However, this result contradicts the findings of Ashton's study (2005), which evaluated the knowledge, attitudes, and challenges of using assistive technology from the perspective of special education teachers in California. The study found that 64.3% of teachers felt comfortable using assistive technology, and there were significant differences between the responses of teachers who received training on assistive technology and their level of experience in using it. The study indicated that 42.6% of teachers reported not using any adaptive computer tools, such as touch screens, yet most were unaware of the sources of assistive technology in the community.

Additionally, this result differs from Hazzazi's study (2002), which examined the perceptions of teachers working with mildly intellectually disabled students regarding their technical computer skills in teaching. The results showed that mentally disabled students could benefit from using computers in multiple ways, and the findings also indicated differences in computer usage by teachers based on their gender and acquired experience.

Thus, these results reflect the differences in the opinions and experiences of teachers regarding the use of technology, which necessitates further research to understand the factors influencing the effective use of technology in the rehabilitation of the mentally disabled.

## **Conclusion**

The results of the study, through statistical analysis, indicate a moderate use of technological tools in the rehabilitation of the mentally disabled, with some notable differences. The findings revealed an average level of technology use in the rehabilitation of the mentally disabled based on gender, with results favoring females. The study showed that females use technological tools more than males in the rehabilitation of the mentally disabled. This may be attributed to various cultural, social, or psychological factors between the genders that influence their behaviors and tendencies to use technology.

On the other hand, the study found no statistically significant differences in the use of technological tools in the rehabilitation of the mentally disabled based on job position and professional experience. This indicates that there was no significant difference in technology use among the various job roles and professional experiences of those involved in the rehabilitation of the mentally disabled.

Overall, the study demonstrates that technology plays an important role in the rehabilitation of the mentally disabled, with some differences in its use between genders, reflecting the importance of considering these differences when developing rehabilitation programs and relying on technology.

The findings derived from this study highlight the importance of technological tools in the rehabilitation and empowerment of individuals with intellectual disabilities. It has been established that the use of modern technology in rehabilitation programs has a tangible positive impact on various aspects of the lives of this group. On a cognitive and skill level, technological techniques have improved the abilities of the mentally disabled to learn and comprehend, developing their functional and life skills, while also increasing their motivation and participation in the rehabilitation and training process.

Moreover, from a psychological and social perspective, technology has contributed to enhancing the independence of individuals with intellectual disabilities and increasing their self-confidence, facilitating their better integration into society, which has helped reduce the stigma associated with their disabilities. Regarding healthcare, modern technologies have

enabled the provision of more effective and accessible rehabilitation and therapeutic services, as well as facilitating the monitoring of their health and psychological conditions by specialized personnel.

Based on the above, enhancing the use of technology in the rehabilitation programs for the mentally disabled has become an urgent necessity to improve the quality of services provided to them, enabling them to integrate effectively into society and achieve the highest levels of independence and quality of life. These results point to the urgent need for more efforts to promote the use of technology in the rehabilitation process for individuals with intellectual disabilities, as modern technology has the potential to improve rehabilitation outcomes and enhance the independence and quality of life of this important segment of society.

Based on these results, the following recommendations can be made: continue to provide training and rehabilitation programs on the use of technology in the rehabilitation of the mentally disabled for all teachers and educators, regardless of their experience. It is also recommended to conduct future studies to uncover the factors influencing the use of technology in this field and to enhance technical and financial support to facilitate the use of technology in institutions rehabilitating individuals with intellectual disabilities.

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