



## THE DEGREE OF AVAILABILITY OF SERVICES PROVIDED TO STUDENTS WITH DISABILITIES AT THE HASHEMITE UNIVERSITY

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### ABSTRACT

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#### Keywords

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The present study aimed to identify the degree of availability of services provided to students with disabilities at the Hashemite University. The study sample consisted of (68) students with disabilities at the university. To achieve the objectives of the study, it adopted the descriptive survey method where the researchers, developed a scale of the degree of availability of services provided to students with disabilities. The final version of the scale consisted of (92) items classified into nine domains. The researcher extracted the psychometric properties of the scale and found that it had appropriate validity and reliability coefficients. The results indicated that the arithmetic averages for the Hashemite University's total services ranged between medium and high, where services related to activities and events ranked first with the highest average, while social services and psychological support were ranked last. The results also indicated that there were no statistically significant differences due to the gender impact. The results also indicated statistically significant differences due to the impact of the type of disability on the degree of availability of services provided to students with both physical, and audio disabilities. This difference was equally seen in several other services such as academic services, social services and psychological support services and medical, financial and economic services as well. The study came up with a set of recommendations.

**Contribution/Originality:** This study is one of the very few studies which have investigated the degree of availability of services provided to students with disabilities in Jordan. It sheds light on challenges that they face in availing academic, social, psychological support, medical, financial and economic services provided to them.

### 1. INTRODUCTION

University education is a very important step in every individual's growth process as it is the period in which the student acquires a specific professional training. The university education also offers many opportunities to develop the skills necessary for adult life. Recent trends in rehabilitation have contributed to the increased support towards the integration, empowerment, and participation of persons with disabilities in all aspects of life, reiterating them to be an integral part of the community and to improve their social, behavioral, and learning skills (Aldabas, 2015). This has created significant opportunities to increase their numbers within universities and higher education institutions (Baker, Boland, & Nowik, 2012). However, this steady increase in the number of students with disabilities within universities also created new challenges. The current study aims to highlight these challenges that students with disabilities face in availing facilities in the universities. Once higher education institutions are confronted, anyone with the skills acquired during the university period can make personal contribution to their

society's development and well-being. The years spent by undergraduate students are the most important period for these young people to develop their characters and build their future. Not only do they develop their educational potential, but they also develop their practical thinking abilities required in their future (Maggiolini and Molteni, 2013). This is what is faced by faculty members, students, and officials of higher education institutions every day to provide an atmosphere and facilities to promote young people's academic success with disabilities (Harbour & Madaus, 2011). Within this framework, Khalifa, Nasser, and Alkhateeb (2018) emphasize that access to learning in classrooms, learning resources and information, and physical access to buildings and other facilities are a few critical aspects of higher education services, where the user-service interaction experience can be evaluated. Under this definition, however, it is doubtful whether access is genuinely accessible to students with disabilities.

One of the biggest challenges facing higher education institutions is promoting accessibility and the principle of equal opportunities. This requires eradicating deep-rooted cultural prejudices that have over time contributed to the stereotyping of an individual with a disability as a subject of compassion or a charity or has come to be seen as a burden on society (May & Stone, 2012). This misconception leaves individuals with a disability in constant need of others and confines them to a life that limits their ability to meet the challenges and successes of adults (Myklebust, 2013). Achieving high-quality educational standards is another major challenge being faced by higher education (Al-Sunbul, Al-Khatib, Metwalli, & Abdul-Jawad, 2004). Quality assurance of learning includes the student's ability to acquire learning skills, effective interactive communication, contemporary advanced curricula, and advanced technical education facilities. Hence there is an urgent need to develop a modern educational system within higher education institutions that goes beyond traditional teaching and assessment methods to create an integrated environment for all students, including students with disabilities (Aldabas, 2015).

The reality of higher education institutions is that persons with disabilities still face a wide range of barriers to access to different educational opportunities, services, and spaces in higher education institutions compared to those without disabilities (Mullins & Preyde, 2013). As a result, many students with disabilities are placed in situations where they must use services and facilities that may not be of high quality or are compatible with their expectations and needs. Newly enrolled students are often unaware of the types of disability services offered in their new learning environment; so they may have difficulties in finding tangible benefits that serve their specific needs (Khalifa et al. (2018) Following this path, it is difficult for these students to reach a high-level education that supports the professional competencies required for the labor market. It is therefore essential to remove institutional barriers and teaching methods that limit the learning of persons with disabilities within these institutions (Maggiolini & Molteni, 2013). It is required to work seriously to adopt a university environment appropriate to their specific needs and improve the educational services provided to them. It is important to work for increasing their energies and abilities in order to reach an ideal society that is based on the principle of equal educational opportunities (Maajini, Al-Thubaiti, Al-Khuraiji, Al-Kaddoumi, & Huwaidi, 2009).

### *1.1. The Problem of the Study and its Questions*

Access to higher academic education for individuals with disabilities has increased dramatically in recent years. This is owing to the legislative initiatives that have supported the implementation of important measures to protect the right of persons with disabilities in university education. This has played a crucial role in building their identity and facilitating their entry into the world of profession (Gordon, Habley, & Grites, 2008). Etymologically, development of a country is a shared responsibility of all its individuals and institutions, especially higher education institutions, because they bear the banner of bringing about positive change and building human capacities that lead societies towards development and growth. But how can persons with disabilities contribute to this development if their environments are not adapted to their needs and capabilities? There is an urgent need to assess the extent to which university educational facilities are designed to suit the needs and emotional needs of individuals with disabilities and to identify the set of organizational and procedural methods adopted by the Hashemite University to

remove the academic constraints faced by individuals with disabilities. More precisely, this study attempts to answer the following questions:

1. What is the degree of availability of services provided to students with disabilities at the Hashemite University?
2. Are there any statistical differences at the level of significance ( $\alpha \leq 0.05$ ) to the extent that the services provided to students with disabilities at the Hashemite University which can be attributed to the gender variable?
3. Are there any significant differences at the level of significance ( $\alpha \leq 0.05$ ) on the availability of services for students with disabilities at the Hashemite University due to the type of disability variable?

### 1.2. Objectives of the Study

This study is an attempt to find out the degree of availability of services provided to students with disabilities at the Hashemite University. It aims to identify the differences in the degree of availability of these services according to gender and disability variables, in order to determine the weaknesses and strengths of these services. This will help to reach the provision of appropriate educational services that take into account the needs and capabilities of individuals with disabilities at the Hashemite University.

### 1.3. The Importance of the Study

The present study's subject draws its importance from the nature of the category of adults with disabilities within higher education institutions. This category provides an essential and influential human energy to the society. The findings about the degree of availability of services provided to students with disabilities at the Hashemite University will draw attention of the university administration to review and strengthen these services. It will help them to modify these services to suit the needs of students with disabilities, and also offer solutions and strategies to cope up with the challenges being faced by them.

### 1.4. Limitations of the Study

The following are the limitations of the study:

1. *Human Limitations*: Individuals with disabilities enrolled in the Hashemite University in all disciplines.
2. Time limitations: academic year 2018/2019.

### 1.5. Procedural Definitions and Terms of Study

**Services**: It is procedurally defined as a set of academic, organizational, and administrative facilities provided by the Hashemite University to students with disabilities to facilitate their learning process and to overcome the obstacles that are faced by them while they are at the university. These services are measured by the tool used in the current study.

**Students with disabilities**: This term is used for all students studying at the Hashemite University in various disciplines and hold official books stating that they have one or more of the following disabilities: physical disability, hearing impairment, visual impairment.

**The Hashemite University**: This university is one of the official Jordanian public universities and recognized by the Ministry of Higher Education.

## 2. LITERATURE REVIEW

Masada (1990) observed that problems faced by students with disabilities in Jordanian universities can be ranked in descending order as follows: Service, right on the top, followed by future career, health, social, academic, economic, and finally psychological domains. The results of this study showed no statistically significant differences

between the average problems of students with disabilities in Jordanian universities owing to the variables of gender, educational level, type of disability, place of residence, monthly household income, and college type.

Among studies conducted on students with disabilities in South Korea, Kim (2001) found that the percentage of students taking leave or dropping out among those undergoing academic admissions is the highest among students with disabilities versus ordinary students.

In the same context, the results of the Al-Hadidi (2003) indicated that the main problems faced by this category of students with special needs in Jordanian universities are the nature of the conditions of admission to higher education institutions and lack of infrastructure to suit students' abilities and needs. The results of the study pointed to the need to make adjustments in teaching methods, assessment, examinations, registration of materials, and modification of devices used by teachers.

Kim, Park, and Lee (2003) in South Korea also found their undergraduate students with a lower level of educational attainment and were generally dissatisfied with these universities' academic support.

In a survey study which was conducted by Fuller, Healey, Bradley, and Hall (2004) to assess the experience faced by students with disabilities in higher education due to learning barriers in a higher education institution in England, the analysis of the study indicated that attention should be paid to issues of equal opportunity and flexibility in service delivery and to the development of staff capacity to make reasonable adjustments required by legislation.

The study of Abu Mariam (2007) aimed to identify the needs of students with hearing disabilities in Jordanian universities and colleges. The results of the study indicated that the requirements related to academic guidance ranked first, followed by academic needs, social and psychological needs, the need for speech training, and finally the need for family support. The results also showed no statistically significant differences based on gender, college, and family support.

In examining the relationships and attitudes of university students in China towards persons with disabilities, the findings of Hampton and Xiao (2009) indicated that values of "charity, humanity and a sense of justice" were positively correlated with attitudes towards persons with disabilities. The study also suggested that the values of social and internal cultural traditions (cultural superiority and intolerance) have been negatively associated with attitudes towards persons with disabilities. The results also indicated that university students specializing in special education or those having more knowledge of disability, showed more positive attitudes in their relationships and attitude towards persons with disabilities than other university students or who have little understanding of disability.

Vickerman and Blundell (2010) found that much work remains to be done to settle higher education experiences for students with disabilities in the UK. The findings identified five key issues to be addressed in order to enable access to education and rehabilitation for this group: pre-university support, the commitment of higher education institutions to facilitate barrier-free curricula, open channels of dialogue with students with disabilities, institutional commitment to the development of support services; and inclusion of personal development planning.

In the same context, Aljowair's (2010) study found that a newly opened college designed and constructed for individuals with disabilities, under King Saud University, Saudi Arabia did not have provisions such as outdoor signboards and car parking, while other elements such as slopes, interior signboards, and toilets were though present but partially incomplete or with irregular dimensions. This indicates a lack of awareness among the architects and designers about the needs of individuals with disabilities.

Mole (2011) conducted a study in the United States of America aimed at evaluating services for students with disabilities in American universities. The study results showed that places where services were available of a medium degree, the program's domain ranked first, while the domains of facilities and cooperation with students and relations with students ranked in the last place. The study showed the need to adopt a social model that meets persons with disabilities' services according to their physical, psychological, and social needs.

Al-Khashrami (2011) found that despite efforts at support centers at Kingdom of Saudi Arabia KSA, many students with disabilities faced difficulties in conducting their social and educational affairs at the university.

In his study, Ibrahim (2011) explained that blind students enrolled in Jordanian universities faced problems of moderate degree. The study pointed out that there were differences in reading and exam problems due to the variable of severity of disability in favor of blind students. The results also indicated that there were no differences in the issues of blind students in Jordanian universities due to gender, scientific level, and specialization.

The study of Al-Ayed and Abdullah (2012) addressed the problems faced by students with disabilities at Taif University, Saudi Arabia. The results indicated that the most problematic dimension of the disabled were the economic problems, administrative problems, and then mobility and transportation. Among the least dimensions for individuals with disabilities were psychological problems. The results indicated that there were no statistically significant differences in the problems faced by students with disabilities with different educational level, specialization and type of severity of disability. The results also indicated that males had a higher degree of problems than females.

Al-Adra (2016) tackled the challenges faced by students with disabilities at the University of Jordan in various administrative, academic, environmental, and social aspects. The results indicated that students with disabilities in the university suffered from different types of difficulties namely: (1) administrative difficulties in the registration procedures with no academic guidance and inadequate procedures; (2) study difficulties presented in competition with ordinary students, performance in examinations, and lack of absorption of educational material, (3) environmental difficulties, such as the library lacking suitable classrooms and facing difficulty in participating in activities, university programs, roads and sidewalks unprepared for them; and (4) social difficulties represented in the failure of teachers to take into account their circumstances, the negative perception of ordinary students and the difficulty of finding peer relationships by them.

Gavira, Morina, and Aguilar (2016) show that classrooms may lack specific services for Spanish people with disabilities, but teaching methods are the same for both ordinary people and people with disabilities. However, some faculty members use special software for people with disabilities to facilitate their homework and research work. The study presented a proposal that would remove physical barriers for persons with disabilities, such as creating facilities, guidance signs, and specialized rooms. The study also emphasized on removing psychological barriers such as negative attitudes and providing services that people with disabilities require for their daily task.

Kendall (2016) conducted a study in a UK university in northern England, and found reluctance in detecting disability because of the stigma attached to the concept of disability. However, on-campus student support services were seen as a positive resource. Learning support plans (LSPs) were considered useful, but "general" and not individual. The results also showed that the obstacles faced by students with disabilities were the lack of awareness among staff about the student's disability, their unwillingness to make reasonable adjustments, and not choosing appropriate or special assessment methods.

Alshuaibi (2017) examined the learning patterns of adult students with disabilities at King Saud University, Saudi Arabia. The results revealed that the majority of participants were well-balanced learners in learning styles. There were no statistically significant differences in the gender variable. On the other hand, the study found statistically significant differences in age variables and special needs conditions in the visual/verbal dimension.

Khalifa et al. (2018) aimed to compare students with disabilities and ordinary students about their perception of services in Qatar's public higher education system. The results showed that students with disabilities were less satisfied with services in university education systems. The results also indicated that all students in both classes felt that campus facilities were below average; students with disabilities also rated university services less than ordinary students. The results showed that all students felt that learning systems were above average, with higher rankings among regular students. In Malaysia, Amka (2018) reviewed the policy of integration in university colleges and identified physical barriers in those colleges. The study used a descriptive-analytical method. The

results indicated that students with disabilities still face obstacles in accessing the campus's physical environment, the existence of architectural barriers for persons with physical and visual disabilities, and accessibility in the social environment.

In another context, Al-Wabli and Al-Omran (2018) aimed to identify the nature of support services and facilities provided to students with disabilities at King Saud University, Saudi Arabia. The results showed complete satisfaction with the support services offered to students. The overall average of responses indicated general satisfaction with the various services. The results also showed that students face some problems and obstacles related to the services and facilities provided to them. McCarthy, Quirke, and Treanor (2018) conducted a study in Ireland to reveal the availability of services for people with disabilities in Irish universities and the role of a specialist and universities in improving them. The results showed that the services were moderately available and include facilities and learning support activities such as methods and equipment and professional and psychological counseling services. The results also showed that the competent employee would like to know the needs of the facilities and guidance signals and the readiness and development of university buildings and cooperation with students and faculty in facilitating the movement of people with disabilities and providing resources that facilitate their learning.

### 2.1 Comment on Previous Studies

- By reviewing previous studies, it is revealed that these studies varied in their objectives, as well as varied in the methodology and sample taken from institutions of higher education in several Arab universities and international universities.
- Most of the previous studies agreed that there are problems and needs in higher education systems and institutions that do not meet needs of students with disabilities.
- Previous studies differed in the degree of university services in supporting individuals with disabilities, facilitating the process of their education, and varied between rare and medium depending on the university.

## 3. METHOD AND PROCEDURES

### 3.1 Study Methodology

The present study relied on the descriptive survey method to suit the nature of the study objectives and answer the study questions.

### 3.2 Study Population and Sampling

The study population consisted of all students with disabilities enrolled in the Hashemite University, which were estimated at (75) students according to university statistics for the academic year 2019/2020. The study was also conducted on the final sample size of (68) students with disabilities in the university. Table 1 shows the distribution of the study sample according to the study variables.

**Table 1.** Distribution of the study sample according to the study variables for students with disabilities in the Hashemite university (N=68).

Variable (n=68)	Levels	Repetition	Ratio
Gender	Male	35	51.5
	Female	33	48.5
Type of Disability	Physical	28	41.2
	Visual	22	32.4
	Auditory	18	26.5
	Total	68	100.0



### 3.3 Study Tool

To achieve the study's objectives, the researchers developed a scale of the degree of availability of services for students with disabilities. This was done through a survey of previous literature on the subject to identify studies that reflected these roles including Al-Khashrami (2011); Al-Wabli and Al-Omran (2018); Ibrahim (2011); May and Stone (2012); Myklebust (2013); Aldabas (2015); Harbour and Madaus (2011).

The researcher was able to limit (100) items reflecting the degree of availability of services provided to students with disabilities in the Hashemite University under (9) domains. The scale was presented in its preliminary form to (12) arbitrators with experience and specialization in special education, who recommended merging four identical paragraphs and deleting four items because they were repeated. The scale in its final version consisted of (92) items divided into two parts: The first included demographic information related to study variables, namely: gender and type of disability, while the second part in its final version consisted of (92) items under nine domains, which are: academic services, administrative and logistical services, services related to activities and events, environmental and educational facilities, supportive technological services, mobility services between university facilities, medical services, financial and economic services, social services and psychological support.

#### 3.3.1 Constructive Validity

To extract the significance of constructive validity for the scale, the correlation coefficients of the items of the scale with the total score were extracted in a pilot study from outside the study sample consisting of (20) students with disabilities. In the pilot, the items of the scale were analyzed, and the correlation coefficient of each item was calculated. The correlation coefficient is an indication of validity for each item in the form of the correlation coefficient between each item and the total score on one hand, and between each item and its correlation with the domain to which it belongs, and between each domain and the overall score on the other hand, and paragraph correlation coefficients with the tool as a whole ranged between (0.37-0.63), and with the domain (0.38-0.77). It should be noted that all correlation coefficients were acceptable and statistically significant, and therefore none of these items were deleted.

#### 3.3.2 Reliability of the Study Tool

To ensure the reliability of the study tool, the test-retest method was verified by applying-reapplying the scale, within two weeks to a group outside the study sample consisting of (20) students with disabilities. The Pearson correlation coefficient was calculated between their estimates on both times. The reliability coefficient was also calculated by the method of internal consistency according to the Cronbach alpha equation. Table 2 shows the coefficient of internal consistency according to the Cronbach alpha equation and the test/retest reliability of the domains and the tool as a whole. These values were considered appropriate for the purposes of this study.

**Table 2.** Coefficient of internal consistency Cronbach Alpha and test/retest reliability of the domains and the total score.

Domain	Test-retest reliability	Internal consistency
Academic services	0.89	0.79
Administrative and logistical services	0.91	0.81
Services related to activities and events	0.92	0.84
Environmental and educational facilities	0.88	0.87
Technical support services	0.84	0.86
Mobility services between university facilities	0.86	0.82
Medical services	0.90	0.84
Financial and economic services	0.93	0.78
Social services and psychological support	0.87	0.82
Total Degree	0.94	0.91

#### 4. RESULTS OF THE STUDY

Question 1: What is the degree of availability of services provided to students with disabilities at the Hashemite University? The averages and standard deviations to the extent of the services provided to students with disabilities in the Hashemite University were extracted to answer this question.

**Table 3.** Arithmetic averages and standard deviations to the extent of the availability of services provided to students with disabilities in the Hashemite University from their perspective in descending order according to the arithmetic averages.

Rank	No.	Domain	Mean	Standard deviation	Degree
1	3	Services related to activities and events	2.49	0.218	High
2	2	Administrative and logistical services	2.45	0.256	High
3	4	Environmental and educational facilities	2.38	0.309	High
4	1	Academic services	2.35	0.263	High
5	6	Mobility services between university facilities	2.31	0.287	Moderate
6	8	Financial and economic services	2.30	0.212	Moderate
7	7	Medical services	2.27	0.180	Moderate
8	5	Technical support services	2.23	0.321	Moderate
8	9	Social services and psychological support	2.23	0.252	Moderate
Total Degree			2.34	0.166	High

Table 3 shows that the averages ranged between (2.23-2.49), where services related to activities and events ranked first with the highest average of 2.49, while social services and psychosocial support came last with an average of (2.23), and the total average of the tool as a whole was (2.34).

Question 2: Are there any statistical differences at the level of significance ( $\alpha \leq 0.05$ ) to the extent that the services provided to students with disabilities at the Hashemite University are attributed to the gender variable?

To answer this question, the mean and standard deviations were extracted to the extent of the availability of services provided to students with disabilities in the Hashemite University by gender. To illustrate the statistical differences between the arithmetic averages, the "T" test was used, and the tables (Tables 4,5 &6) show this.

**Table 4.** Arithmetic averages, standard deviations, and t-test for gender impact the availability of services provided to students with disabilities at the Hashemite University.

Domain	Gender	N	Mean	STD	"T" value	Df	Sig
Academic services	Male	35	2.32	0.253	-0.858	66	0.394
	Female	33	2.38	0.274			
Administrative and logistical services	Male	35	2.42	0.254	-1.029	66	0.307
	Female	33	2.48	0.257			
Services related to activities and events	Male	35	2.52	0.222	1.051	66	0.297
	Female	33	2.46	0.214			
Environmental and educational facilities	Male	35	2.35	0.251	-0.637	66	0.526
	Female	33	2.40	0.363			
Technical support services	Male	35	2.18	0.337	-1.415	66	0.162
	Female	33	2.29	0.298			
Mobility services between university facilities	Male	35	2.33	0.301	0.681	66	0.498
	Female	33	2.28	0.275			
Medical services	Male	35	2.26	0.195	-0.373	66	0.710
	Female	33	2.27	0.164			
Financial and economic services	Male	35	2.26	0.220	-1.653	66	0.103
	Female	33	2.35	0.198			
Social services and psychological support	Male	35	2.21	0.266	-0.629	66	0.532
	Female	33	2.25	0.237			
Total degree	Male	35	2.33	0.166	-0.757	66	0.452
	Female	33	2.36	0.168			

Table 4 shows no statistically significant differences ( $\alpha = 0.05$ ) attributable to gender impact in all areas of the services provided to students with disabilities at the Hashemite University due to gender variable and total score.



Question 3: Are there any significant differences at the level of significance ( $\alpha \leq 0.05$ ) on the availability of services for students with disabilities at the Hashemite University due to the type of disability variable

To answer this question, the mean and standard deviations were extracted to the degree of availability of services provided to students with disabilities at the Hashemite University according to the type of disability variable.

**Table 5.** Arithmetic averages and standard deviations to the availability of services offered to students with disabilities at the Hashemite university by variable type of disability.

Domain	Category	N	Mean	STD
Academic services	Physical	28	2.43	0.246
	Visual	22	2.19	0.212
	Auditory	18	2.43	0.270
	Total	68	2.35	0.263
Administrative and logistical services	Physical	28	2.53	0.257
	Visual	22	2.30	0.217
	Auditory	18	2.49	0.232
	Total	68	2.45	0.256
Services related to activities and events	Physical	28	2.55	0.205
	Visual	22	2.42	0.184
	Auditory	18	2.50	0.258
	Total	68	2.49	0.218
Environmental and educational facilities	Physical	28	2.48	0.310
	Visual	22	2.27	0.287
	Auditory	18	2.35	0.299
	Total	68	2.38	0.309
Technical support services	Physical	28	2.36	0.277
	Visual	22	2.05	0.293
	Auditory	18	2.27	0.328
	Total	68	2.23	0.321
Mobility services between university facilities	Physical	28	2.43	0.242
	Visual	22	2.16	0.275
	Auditory	18	2.30	0.297
	Total	68	2.31	0.287
Medical services	Physical	28	2.35	0.162
	Visual	22	2.18	0.182
	Auditory	18	2.24	0.152
	Total	68	2.27	0.180
Financial and economic services	Physical	28	2.38	0.175
	Visual	22	2.21	0.220
	Auditory	18	2.30	0.217
	Total	68	2.30	0.212
Social services and psychological support	Physical	28	2.30	0.262
	Visual	22	2.09	0.172
	Auditory	18	2.30	0.254
	Total	68	2.23	0.252
Total degree	Physical	28	2.43	0.127
	Visual	22	2.22	0.124
	Auditory	18	2.36	0.176
	Total	68	2.34	0.166

Table 5 shows an apparent variation in the arithmetic averages and standard deviations to the extent of the availability of services provided to students with disabilities in the Hashemite University due to the different categories of variable type of disability, to illustrate the significance of statistical differences between the arithmetic averages, one-way analysis of variance was used according to the following table:

**Table 6.** One-Way analysis of variance of the effect of the type of disability on the degree of availability of services provided to students with disabilities at the Hashemite University.

Domain	Source	Sum of squares	Df	Mean of Squares	"F" value	Sig
Academic services	Between groups	0.831	2	0.416	7.088	0.002
	Within groups	3.811	65	0.059		
	Total	4.642	67			
Administrative and logistical services	Between groups	0.690	2	0.345	6.085	0.004
	Within groups	3.686	65	0.057		
	Total	4.376	67			
Services related to activities and events	Between groups	0.212	2	0.106	2.317	0.107
	Within groups	2.980	65	0.046		
	Total	3.192	67			
Environmental and educational facilities	Between groups	0.555	2	0.278	3.081	0.053
	Within groups	5.857	65	0.090		
	Total	6.412	67			
Technical support services	Between groups	1.192	2	0.596	6.780	0.002
	Within groups	5.712	65	0.088		
	Total	6.904	67			
Mobility services between university facilities	Between groups	0.877	2	0.439	6.125	0.004
	Within groups	4.655	65	0.072		
	Total	5.533	67			
Medical services	Between groups	0.368	2	0.184	6.663	0.002
	Within groups	1.793	65	0.028		
	Total	2.160	67			
Financial and economic services	Between groups	0.377	2	0.189	4.642	0.013
	Within groups	2.642	65	0.041		
	Total	3.019	67			
Social services and psychological support	Between groups	0.662	2	0.331	6.013	0.004
	Within groups	3.579	65	0.055		
	Total	4.241	67			
Total degree	Between groups	0.565	2	0.282	14.299	0.000
	Within groups	1.284	65	0.020		
	Total	1.848	67			

Table 6 shows that there are statistically significant differences at the level of significance ( $\alpha = 0.05$ ) attributable to the type of disability in all areas of availability of services provided to students with disabilities in the Hashemite University and the tool as a whole, except in the field of services related to activities, activities and environmental and educational facilities, to show the statistically significant marital differences between the arithmetic averages, the post comparisons were used orally as shown in Table 7.

Table 7 shows the following:

- The presence of statistically significant differences ( $\alpha = 0.05$ ) between the visual on one hand and both physical and auditory, on the other. The differences came in favor of both physical and auditory, in academic services, social services, and psychological support, and the total degree.
- The presence of statistically significant differences ( $\alpha = 0.05$ ) between the physical and visual categories was in favor of the physical in the administrative and logistical services, supportive technological services, mobility services between university facilities, medical services, financial and economic services.

**Table 7.** Post-oral comparisons of the impact of disability type on the availability of services provided to students with disabilities at the Hashemite University.

Domain	Category	Mean	Physical	Visual	Auditory
Academic services	Physical	2.43			
	Visual	2.19	0.24*		
	Auditory	2.43	0.00	0.24*	
Administrative and logistical services	Physical	2.53			
	Visual	2.30	0.23*		
	Auditory	2.49	0.05	0.18	
Technical support services	Physical	2.36			
	Visual	2.05	0.31*		
	Auditory	2.27	0.09	0.21	
Mobility services between university facilities	Physical	2.43			
	Visual	2.16	0.27*		
	Auditory	2.30	0.13	0.13	
Medical services	Physical	2.35			
	Visual	2.18	0.17*		
	Auditory	2.24	0.11	0.06	
Financial and economic services	Physical	2.38			
	Visual	2.21	0.17*		
	Auditory	2.30	0.09	0.09	
Social services and psychological support	Physical	2.30			
	Visual	2.09	0.21*		
	Auditory	2.30	0.00	0.21*	
Total degree	Physical	2.43			
	Visual	2.22	0.21*		
	Auditory	2.36	0.07	0.14*	

Note: \* Significant at the significance level ( $\alpha = 0.05$ ).

## 5. DISCUSSION OF THE RESULTS

*Discussion of the results of the third question:* The results indicated that the arithmetic averages for the total services available in the Hashemite University ranged between medium and high, where services related to activities and events ranked first with the highest average, while social services and psychosocial support were ranked last with the lowest average. These results are quite logical, especially given that the Hashemite University, with all its successive cadres and departments, seeks to facilitate university life for students with disabilities in line with the principle of the rights of individuals with disabilities. It is one of the leading universities in this context, believing in its integration into the service of the Jordanian society and the participation and interaction with all segments of society.

In this context, the Hashemite University established a special unit to support people with disabilities so that they are provided with all the needs in terms of the process of early registration and payment of money, choosing classrooms, facilitating the mechanism of entering the university, and providing them with educational needs in special and suitable rooms for them. A club called the Friends of Students with Disabilities Club, which is supervised by the Deanship of Student Affairs, was established within the university, to provide awareness to the local and university community about People with Disabilities (PWD.) Besides, it also took dozens of initiatives to support and stand by students with disabilities, integrating them within the local and university community and organizing workshops, courses and forums on their rights. The university also taught sign language and allocated rewards to students who helped them integrate into the university. The awards were launched to motivate and inspire creativity among them. Their tuition fees were limited to 10 percent of the total fees paid by their peers. It is noteworthy that this result intersects with Masada study (1990), which indicated that the psychological field came in the last rank. Likewise, it disagreed with the Al-Hadidi (2003) which confirmed that the main problems facing this category of students with special needs in Jordanian universities are the nature of admission requirements in higher education institutions and the lack of infrastructure to suit students' abilities and needs.

It also disagreed with the Kim et al. (2003) study indicated that students with disabilities were generally dissatisfied with those universities' academic support, and contradicted the findings of the Abu Mariam (2007) which showed that there were substantial needs, where the needs related to academic counseling came first, followed by academic needs, then the social and psychological needs, the need for speech training, and finally the need for family support. The findings of this study also crossed the (Hampton & Xiao, 2009), which found that values of charity, humanity, and a sense of justice were positively correlated with attitudes towards PWD. These findings are also similar to the results of two other studies, first, Mole's (2011) which showed that services were available to a moderate degree and second of Al-Ayed and Abdullah's (2012), which confirmed that the least dimensions that are a problem in individuals with disabilities are psychological problems.

This study also contradicts the results of Kendall (2016), which showed that the barriers faced by students with disabilities were the lack of awareness among staff of student disability. It also disagreed with the Khalifa et al. (2018) study results, which indicated that all students felt that the campus facilities were below average. It disagreed with the Amka (2018) study, which indicated that students with disabilities still face obstacles in accessing the campus's physical environment. It also intersected with the Al-Wabli and Al-Omran (2018) which showed complete satisfaction with students' support services. At the same time, the students face some problems and obstacles related to the services and facilities provided to them. Finally, these results are similar to those of McCarthy et al. (2018) which showed that services are moderately available and include facilities and learning support activities such as methods and equipment.

*Discussion of the results of the second question:* The results indicated no statistically significant differences due to the impact of gender in all areas of providing services to students with disabilities at the Hashemite University. It is largely a logical conclusion, and this result can be justified by the gender-neutral nature of the services provided to them, similarly, the university system in which all students are treated equally. This result is similar to the Masada (1990) which showed no statistically significant differences between students with disabilities' average problems in Jordanian universities due to the gender variable. It also agreed with the results of the study of Ibrahim (2011) in his study, which indicated no differences in the problems of blind students in Jordanian universities according to gender. It also agreed with Abu Mariam (2007) study, which showed no statistically significant differences attributed to gender. It is intersected with the Alshuaibi (2017) study results that showed no statistically significant differences in learning patterns among students with disabilities in the gender variable. The results also differed with Al-Ayed and Abdullah (2012) results, which indicated that males had a higher score in the problems they faced compared to females, perhaps due to the nature of the sample to which the study was applied.

*Discussion of the results of the third question:* The results indicated that there are statistically significant differences attributed to the impact of the type of disability in the degree of availability of services provided to students with disabilities in the Hashemite University, in academic services, social services, and psychosocial support, and there are differences in favor of physical disability in administrative and logistical services, supporting technological services, mobility services between university facilities, medical services, financial and economic services. These results are highly predictable and natural due to individual differences in characteristics and traits that distinguish each disability from another. People with hearing disabilities need sign language, but it does not need corridors (ramps), which are needed by people with physical disabilities, nor Braille books, which are needed by people with visual impairments. Hence, these services are specialized services, some of which need one category that is not needed by another. Therefore, the differences in their consideration must be different. This finding differs from Masada (1990) which showed no statistically significant differences between the mean problems of students with disabilities in Jordanian universities due to the variable type of disability. This difference may be due to the period in which the study was conducted three decades ago. This finding also differed with Al-Ayed and Abdullah (2012) study, which indicates that there are no statistically significant differences in the problems faced by students

with disabilities with different types of disabilities. This difference can be justified by the sample's nature applied to the latest study and Saudi society's specificity.

## 6. RECOMMENDATIONS

Higher education institutions have a great mission in developing awareness and support for individuals with disabilities, and the sum of these roles can be summarized by serving these students and the community. Perhaps the progress of societies depends on the degree of awareness of this category. Therefore, the provision of services that meet their needs and suit their capabilities to strengthen the economy by providing it with graduates appropriate to the labor market, the current study recommends the following:

1. Calling upon the Hashemite University officials to use the results of the present study to improve the services provided to individuals with disabilities and improve and evaluate them permanently and continuously.
2. Awareness of staff and students about the importance of these services and their positive impact on the lives of individuals with disabilities.
3. There is a need to provide all necessary devices and tools and ensure their safety and maintenance regularly to ensure the principle of equal opportunities and accessibility.
4. There is a need to pay attention to the periodic and continuous follow-up of these services to ensure the success of students with disabilities in the Hashemite University and evaluated or adjusted from time to time to suit the nature, capabilities, and capabilities of these students.
5. There is a necessity of conducting several studies in the field of the availability of services for individuals with disabilities at the level of higher education institutions and comparing them with each other to benefit from the experiences of other universities, as well as the development of cooperative strategies between these universities in this framework.

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