

# The Reality of the Services Provided by the Administrations of Palestine Technical University Kadoori and Al-Quds Open University for Students with Disabilities from Their Perspectives

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## Abstract

The study aimed to reveal the reality of the services, which the administrations of Palestine Technical University-Kadoori (PTUK) and Al-Quds Open University (AOU) offered to students with disabilities from their perspectives. To achieve the objective of the study, the researcher designed a questionnaire, which consisted of 34 items. It comprised three main areas, including academic services, administrative services, and facilities and mobility. The questionnaires were distributed among a sample of 110 students with disabilities at Palestine Technical University - Kadoori and Al-Quds Open University. The results showed that the score of the first area (academic services provided by the administrations of Palestine Technical University-Kadoori and Al-Quds Open University) was high, with an arithmetic mean of 3.52. However, the scores of the second area (administrative services) and the third area (facilities and mobility) were moderate with arithmetic means of 3.40 and 3.01 respectively. Similarly, the total score was also moderate with an arithmetic mean of 3.31. They also showed that there were no statically significant differences due to the variable of facilities and mobility in terms of gender. However, there were statically significant differences regarding academic services, administrative services, and the total overall score. On the other hand, there were no statically significant differences due to the variables of university name, level of education, and type of disability. Based on the results, the study reached a set of important recommendations.

**Keywords:** university administration, people with disabilities, disability, disabled

## 1. Introduction

The issue of education and rehabilitation of persons with disabilities is a cultural challenge for communities and nations. Indeed, this issue touches humanity in the first place and it can impede the advancement of nations. The disabled people represent an important part of the society with almost 10% of the whole populations at both local and worldwide levels.

These vital figures are considered an educational loss that endangers local and international economies. According to some published statistics, the number of disabled people in the world amounts to 600 million, and 80% of them are in developing countries. Apart from these varying figures and statistics, the major common problem is lack of services available to this group in these countries and only 1.9% of the disabled people can benefit from the provided services and care. (Hassan & Abdul Muti, 2010).

The present research explores the status of the services offered by Palestine Technical University and Al-Quds Open University for students with disabilities from their perspectives. These services are deemed essential, so that the disabled may attain the best possible benefits from academic and administrative services, facilities and mobility, and achieve the highest possible level of personal balance and social interaction in line with their abilities and capacities. (Abdul Sabour & Mansour, 2010, 222).

Human societies have tackled the issues of disabilities for a long time. During history, there were various perceptions towards the people with disabilities in addition to countless treatment methods in line with the prevailing social and

religious culture, values and ideas. However, the development of science and human civilization, as well as increased studies and recommendations, assisted the disabled people to gain more rights and services in various fields. Therefore, nowadays, they enjoy happier welfare within their inadequate abilities and capacities. (Al-Adra, 2016, 2013)

Disability is a worldwide phenomenon. Globally, large-scale studies showed that there are nearly 600 million people with disabilities all over the world – more than 10% of the world's population. These people are in dire need of services in the field of education, infrastructure facilities, rehabilitation, counseling, and guidance for many reasons. Such figures and statistics are growing in the light of population growth estimates that in 2025 the world population will be nine billion. Al-Awwad (2006) pointed out that the percentage of people with disabilities in developing countries reaches 15% and that it exceeds 25% in some third world countries.

Recently, there has been a positive worldwide interest in human capital. With the latest technological developments in science and knowledge domains, the world governments, along with other competent international organizations, have been working to apply the principle of equality and equal opportunities in various aspects of the public life in general and in education in particular. There was thus a remarkable development of educational programs and services because people with disabilities represent an important sector in the society. At present, there is significant progress in educational philosophies, systems, content, and processes. Further, the level of educational services for people with disabilities has even become a real scale of the nation's progress and urbanization. (Mansour, Somaya, Awad, & Raja, 2012)

Community-based organizations and institutions, including universities, have been endeavoring to identify the problems incurred by society and tackle them in a deliberately scientific manner. They are motivated by the 3rd-millennium massive transformations in the public image, philosophy, processes, and strategies towards this marginalized group of people with special needs. Additionally, there are rapid changes and information revolution in every aspect all over the world. Such influential changes have necessitated the need to conduct actual changes in the existing institutions and community organizations, as well as the need to reinforce the concept of collaboration among the community sectors as a whole.

Universally, the university is deemed as a community institution and a cultural center. It prepares the cultural programs that address the most important social and cultural issues. It also plays a prominent educational role in meeting the societal needs in addition to minimizing the differences between the various groups (Amer, 2012).

Several previous studies have addressed some of the variables of the present study. The study of Al-Miqdad and Al-Qatawneh (2017) aimed to discover the reality of services provided by the administration of Mu'tah University to its disabled students from their point of view. The study used a questionnaire, which was composed of (34) paragraphs were divided into (3) main areas, including the academic and administrative services, the infrastructure facilities, and mobility. The questionnaire was distributed among a sample of 57 disabled students from Mu'tah University. The results of the study showed that the overall mean and the means of the administrative services, the infrastructure facilities, and mobility were very high, while the mean of academic services was average. The study also indicated that there were no statistically significant differences in terms of the variable of administrative and academic services and the total overall score due to the variable of gender. There were also no statistically significant differences in terms of the variables of the academic level and type of disability. However, there were significant differences in the areas of infrastructure facilities and mobility. The study reached a set of recommendations.

The study of Al-A'dra (2016) aimed to identify the difficulties faced the disabled students from the administrative, academic, environmental and social aspects at the University of Jordan during the academic year 2014/2015. The researcher used a questionnaire to collect data filled during personal interviews with a sample of 81 students who represented 19% of the total number of the students who were registered at the Student Counseling Department. The results of the study showed that students with disabilities faced many administrative difficulties in procedures of registration such as the lack of academic guidance and inadequate procedures. In addition, there were other learning difficulties such as competition with ordinary students, low performance during examinations, and lack of understanding of educational material. Furthermore, there were environmental difficulties, such as lack of adequate halls for reading in the libraries, difficulties in participating in the activities and celebrations, and lack of adequate sidewalks. There were also social difficulties, including lack of teachers' consideration of their circumstances, the negative attitudes of their non-disabled peers and inability to make friendships. The study proposed several recommendations including the need to reorganize the university settings to accommodate students with disabilities, to provide proper halls for them, and to change certain laws and regulations.

Al-Fawaer's study (2014) aimed to identify the problems incurred by students with special needs at the University

of Nizwa in Oman and to identify the relationship between the counseling needs of disabled students and some variables such as gender, academic level, faculty, and type of disability. The study sample consisted of (32) male and female students with disabilities at the University of Nizwa. The questionnaire was used as a data collection instrument. The results of the study showed that students with special needs faced academic problems more than psychological problems. There were statistically significant differences between male and female students in favor of the females and between undergraduate and graduate students in favor of the graduates. There were also significant differences due to the type of disability.

Girgin (2013) examined the history of the students with hearing impairment in Turkey, the problems that they faced during their educational life, especially the university education; and the educational characteristics of the students with hearing impairment and university entrance requirements. The study explained the Anadolu University experience regarding the admission of the deaf students. The results of the study showed that the university showed interest in the disabled students through education and research in the Center for Hearing-Impaired Children along with Integrated College for the Disabled, which offered education from preschool to secondary school. The center aimed to enable students to acquire natural language skills in the aural/oral environment and to help prepare them to the university entrance examinations. Founded in 1993, the Integrated College for the Disabled offered two-year pre-degree programs in Computing and building construction as well as four-year degree programs in ceramic arts and graphic arts.

The study of Al-Zboon and Al-Hadidi (2013) assessed the reality of the library services provided to people with sensory impairment in Jordan in 2012 and compared them with international practices and standards. The study sample consisted of 32 public and private libraries in public and private universities. The researchers developed and used a scale of international standards for the library services provided to people with visual impairment. The results of the study showed that the availability of international standards of services for people with visual disability was very low as a total score. The availability was also very low in five domains including library patron services, library building, human resources, and public relations, sources of information, equipment and new technology. In the area of the library building, the level of availability was low. In light of the study findings, the researchers suggested a set of recommendations.

Hill's study (2012) aimed to assess the programs and services offered at school libraries for students with a range of physical and cognitive abilities. The study assessed the school librarians' adequacy to address the information-seeking needs of all patrons, including those with special needs, library resources and availability of appropriate accommodations and adjustments to accommodate the needs of patrons with physical limitations. The study sample consisted of 157 school librarians. Study results indicated that the majority of respondents ranked themselves as having average knowledge about how best to serve students with special needs. 25 percent of them indicated that they had a moderate level of knowledge. Six respondents (almost 14 percent) indicated that they had a moderately low level of knowledge and only 4 librarians (about 9 percent) reported having a high level of knowledge. The results showed that (93%) of available information sources were not suitable for students with special needs. Concerning physical library space, 74 percent of the responding librarians indicated that their school libraries had wide aisles so that students with wheelchairs could easily navigate the environment.

The study of Shehade (2011) aimed at identifying the reality of services provided by the institutions of the blind people to the visually impaired people in the Gaza Strip. The sample consisted of 214 blind persons and 87 employees in the care institutions. The researcher used personal interviews and questionnaires to collect data. The results of the study showed that the quality and level of services provided by the specialized institutions in the Gaza Strip to the blind and visually impaired people were not adequate.

The study of Saeed (2011) aimed to identify the problems of the students with visual impairment at the University of Jordan. The study sample consisted of 68 blind students or students with poor vision at the university. Study results indicated that the number of visually impaired students who faced problems at the university was average. There were statistically significant differences in terms of reading and conducting exams due to the variable of the severity of the disability. However, there were no statistically significant differences in other aspects of the problems due to the severity of the visual disability. Additionally, there were no statistically significant differences in the problems that the blind students faced in the Jordanian universities due to other variables including scientific level, specialization and gender.

Martin's study (2010) aimed to provide equal opportunities and acceptable accommodation for students with disabilities. Many students with disabilities did not fully benefit from university facilities and, therefore, stakeholders needed to understand the causes. Interviews were conducted to 16 university students with disabilities. The study

results revealed five major categories of obstacles that hindered students' access to university services including identity, cognitive inadequacy, negative experiences with faculty, and other issues.

Haugann (2009) examined visually handicapped students in higher educational institutions in Norway. The results indicated blind students faced many different problems at the universities including the absence of counseling services, lack of Braille printed books, lack of visual readers, the difficulty of adjustment to the university life, teachers' neglect of blind students' special needs, the problem of taking exams and transport.

The Chadsey & Gilson, Dymond (2007) conducted a national survey to evaluate the library services from the perspective of university students with visual impairment and how they gained access to textbooks. The study sample consisted of 119 students with visual impairment. Very successful access to textbooks was reported by 27% of respondents and 44% of the students rated their access as somewhat successful. Average success was selected by 20% of students, while only 8% of respondents reported that their attempts to gain access to textbooks were not so successful. A mere 1% rated their access to textbooks as very unsuccessful. The results also indicated that barriers to gaining access to textbooks included time-related barriers, difficulty procuring up-to-date textbooks, lack of well-trained employees, and lack of sources of information that met their needs.

From the above literature review, we note that many studies have addressed the subject of the present study. However, this study thoroughly examined the essence of the problems incurred by students with disabilities during their university education. Besides, the present study used the quantitative approach based on an appropriately designed questionnaire.

## 2. The Problem of the Study

The world now faces many problems; disability is one of the most important problems because it has huge impacts on individual's wellbeing, psychology, and social interaction. Thus, inopportune treatment of disabilities with appropriate methods might well lead to the estrangement of the disabled persons from their families and community environment. It is, therefore, necessary to involve pertinent bodies and universities to work out appropriate rational solutions. In addition, this category of people must be provided with all the necessary needs and requirements. Several studies, such as Al-Miqdad and Al-Qatawneh (2017), Al-A'dra (2016), Al-Fawaer (2014) and Haugann (2009), explored the problems facing university students with disabilities and the facilities offered by the universities. Being a university lecturer and a disabled person himself, the researcher observed the facilities of Palestine Technical University and Al-Quds Open University and examined the views of their students with disabilities. Accordingly, this study aims to identify the reality of the services supplied by the administrations of Palestine Technical University and Al-Quds Open University for students with disabilities from their perspectives.

## 3. The Questions of the Study

The present study attempts to answer the following questions:

*What is the reality of the services provided by the administrations of Palestine Technical University- Kadoori and Al-Quds Open University for students with disabilities from their perspectives?*

*Are there any statistically significant differences at the significance level of ( $\alpha \leq 0.05$ ) in the attitudes of students with disabilities towards the services offered by the Palestine Technical University and Al-Quds Open University due to the variables of gender, university, academic level, and type of disability?*

## 4. The Objectives of the Study

*Identify the reality of the services provided by the administrations of Palestine Technical University and Al-Quds Open University for the students with disabilities from their perspectives*

*Identify the differences in the respondents' attitudes towards the reality of the services provided by the administrations of the Palestine Technical University and Al-Quds Open University due to the variables of the study.*

## 5. The Significance of the Study

The present study is very significant because it explores the reality of the services offered by Palestine Technical University- Kadoorie and the Al-Quds Open University to their disabled students. Additionally, there are not enough studies about the challenges and difficulties incurred by disabled students in both universities. These problems, of course, have several implications on local development, progress and prosperity if they are not addressed properly.

This study also displays a clear picture on the reality of the complexities, challenges, and difficulties faced by the students with disabilities for the people who are engaged in the domains of school and university education as well as community organizations and institutions. It also attempts to provide more effective and objective methods of positive interaction with these students so that they can communicate and acquire skills and experience, establishing happier lives with decent entities.

## 6. The Limitations of the Study

The present study is limited to the group of students with disabilities at Palestine Technical University and Al-Quds Open University in Palestine during the academic year (2018-2019).

## 7. The Terms of the Study

University Administration: As reported by Ismail, Riyad Setrak (2007) defines the university administration as 'the way a university education system is run based on the economic, social, political and cultural conditions of the surrounding society to achieve the societal objectives of this type of higher education. Besides, this higher education should take place in an environment with sound human relations along with the state-of-the-art direction and methods that increase the effectiveness and adequacy of the university administration.' (Ismail, 2007, p. 19)

Ismail (2007) defines the university administration as 'All the deeds carried out by university leaders including university heads, vice-deans, deans of faculties, and department heads' (Ismail, 2007, p. 20).

The researcher defines it as 'A combination of humans, systems, capacities and powers that govern administrative work at different levels within the framework of the university system'.

People with disabilities: Those individuals who deviate from an ordinary and/or average level of a characteristic to the extent that they require special services, which are different from those, offered to their ordinary peers and may help them achieve the utmost growth and compatibility. (Al-Qrait, 2005, 25).

Procedurally, the researcher defines them as 'the persons (students) with physical, sensory, hearing or mental disability whereby they need special care, yet they may be able to interact with non-disabled people or students at the university'.

Disability: The World Health Organization defines disability or impairment as: "A state of inability that limits or prevents the fulfillment of one or several roles regarded as normal, depending on age, gender, and social and cultural factors as a result of impairment or disability in the physiological or psychological functions" (Abu El-Nasr, 2005).

According to the United Nations Declaration on the Rights of Disabled Persons, a person with disabilities is defined as "any person unable to ensure by himself or herself, wholly or partly, the necessities of a normal individual and/or social life, as a result of deficiency, either congenital or not, in his or her physical or mental capabilities" (Al-Zari', 2011).

## 8. Methodology and Procedures

The researcher used the descriptive-analytical method because it is suitable for the study. This approach is very suitable for giving a quantitative and accurate description of the investigated phenomenon. The researcher collected data on the subject of the study (the services provided by the administrations of Palestine Technical University and Al-Quds Open University for their disabled students).

### 8.1 The Research Population

The research sample consisted of 110 disabled students from the Palestine Technical University and Al-Quds Open University. Five branches were chosen (Tulkarm, Jenin, Salfit, Qalqilya, and Nablus). The number of distributed questionnaires was 103. Three of them were excluded because they did not meet the requirements of statistical analysis. The rest of the questionnaires (100) were analyzed and processed.

### 8.2 The Research Instrument

The researcher developed a questionnaire as a research instrument by referring to educational research, which was related to the subject of the study. The final form of the questionnaire consisted of two sections. The first section comprised personal information about the respondents, including their gender, university, the level of educational, and type of disability. The second section included three domains on academic services, administrative services, infrastructure facilities, and mobility. The total number of the items in the questionnaire was 34.

**Table 1.** Characteristics of Study Sample

Variable	Level	Number	Percentage	Variable	Level	Number	Percentage
Gender	Male	48	48	Education	Diploma	14	14
	Female	52	52		BA	52	52
	Total	100	100		Total	100	100
University	PTUK	29	29	Disability	Mobility	35	53
	AOU	71	71		Visual	31	31
	Total	100	100		Aural	16	16
				Total			
				Total			

### 8.3 Validity and internal Consistency of the Instrument

The researcher assessed the reliability of the study tool through content reliability. He submitted the questionnaire to five experienced arbitrators. These arbitrators lectured educational sciences in the Palestinian universities and held the positions of Assistant Professors. The researcher then modified some items in the study tool. After that, the arbitrators verified the validity of the instrument. Initially, it was made up of 38 items, and then four of them were removed at the request of the arbitrators. The final form of the questionnaire included 34 items. More than 70% of the arbitrators agreed to remove 4 items. The researcher verified the reliability of the questionnaire through the calculation of the internal consistency based on the Cronbach Alpha coefficient formula (Table 2).

**Table 2.** Coefficient Alpha Coefficient of Reliability (internal consistency)

Number Coefficient	Area	Number of items	Coefficient	Alpha
1	Academic services	15	91%	
2	Administrative services	9	79%	
3	Facilities and mobility	10	88%	
	Total	34	94%	

Table (2) shows that the Cronbach Alpha coefficient of the total score and all items ranged between (0.79-0.94), and was considered a high value.

### 8.4 Research Procedures

The researcher contacted the administrations of both universities and secured permission to conduct this study. After verifying the validity and internal consistency (reliability) of the instrument and identified the study population, the researcher conducted the study in the second semester of the academic year (2018/2019). The researcher used the SPSS program to analyze the data.

### 8.5 Statistical Processing

The researcher used the descriptive, statistical and analytical methods to analyze the questionnaire. The methods included the arithmetic means, percentages, and recurrences of the variables of the study. The analytical methods included the T-test, one-way ANOVA, and the LSD test.

## 9. The Research Results

This study aimed to identify the reality of the services provided by the administrations of the Palestine Technical University-Kadoori and Al-Quds Open University for students with disabilities. The collected data were processed statistically using the SPSS program.

The statistical analysis showed these important results:

#### First: Results related to the first Question:

What is the reality of the services provided by the administrations of Palestine Technical University-Kadoori and Al-Quds Open University for their students with disabilities?

To answer this question, the researcher calculated means and percentages for each item and variable along with the total score of the questionnaire (Tables 3, 4, 5, 6).

Instrument Correction: In order to elaborate the results, the use of the Palestinian educational counselors of the

professional standards and their development was defined through the means of the respondents. The five-score scale was used to measure the range (4 = 1-5). The range was divided by the number of the group to define the length of the group ( $4/5 = 0.80$ ). Thus, the first group was ( $1 + 0.80 = 1.80$ ); (0.80) was then added to each group as follows (Abu Dalal, 2010):

1. The average mean (1 - 1.80) or the percentage (less than %36) indicated a very low score.
2. The average mean (1.81 - 2.60) or the percentage (percentage36.1 - percentage52) indicated a low score.
3. The average mean (2.61 - 3.40) or the percentage (percentage52.1 - percentage68) indicated a moderate score.
4. The average mean (3.41 – 4.20) or the percentage (68.1- %84) indicated a high score.
5. The average mean (4.21 – 5) or the percentage (more than percentage84) indicated a high score.

**Table 3.** Average Means and Percentages of Academic Services

Number	Item	Avg.	%	Score
14	University pays attention to academic counseling for students with disabilities	3.95	79.00	High
2	University facilitates various academic course registration for disabled students.	3.81	76.20	High
11	Library employees provide everything required by students with disabilities.	3.77	75.40	High
15	University exam system considers disabled students' needs of place, time and quantity	3.75	75.00	High
10	University provides e-learning services that consider the disabled students' needs	3.60	72.00	High
3	The study plan considers the disabled students' requirements.	3.59	71.80	High
13	University provides assistive tools, equipment, and devices in laboratories In addition, workshops needed by disabled students.	3.50	70.00	High
1	University offers special admission opportunities for disabled students.	3.45	69.00	High
6	University provides educational curricula that suit the needs of the disabled students.	3.43	68.60	High
4	University provides a qualified and trained teaching staff in special education.	3.43	68.60	High
5	Faculty members possess the necessary skills to deal with disabled students.	3.41	68.20	High
7	The teaching methods consider the disabled students' requirements.	3.35	67.00	Average
12	Library indexing considers disabled students' requirements.	3.30	66.00	Average
8	University provides classroom teaching aids and techniques for disabled students.	3.28	65.60	Average
9	University provides necessary reports and scientific references for research.	3.16	63.20	Average
	Total score	3.52	70.37	Average

Table 3 shows that the score of the academic services was high in items number 14, 2, 11, 15, 10, 3, 13, 13, 1, 6, 4, and 5. The average means of the responses ranged between 3.41 - 4.20 of the items regarding the academic counselling for students with disabilities, admissions and course enrollment procedures, support in the university library, adequacy of the exam system for disabled students in terms of place, quantity and time, availability of electronic services, applications from disabled students, curricula designed for students with disabilities, and qualified staff in special education. The researcher believed that this was due to the new laws and regulations regarding people with disabilities which contributed to their improved participation in the education and learning process through their increased integration and interaction at all levels. The score was average in the items 7, 12, 8, 9. The average means of the responses ranged between 2.61 - 3.40 in the items regarding the suitability of the teaching methods and library indexing for people with disabilities, and the availability of necessary reports and scientific references for research. The researcher believed that this was due to the financial crisis in Palestinian universities because of the severe crisis in the Palestinian economy.

**Table 4.** Average Means and Percentages of Administrative Services

Number	Item	Avg.	%	Score
18	The collaboration of the administrative employees with the disabled students.	4.24	84.80	Very High
16	University facilitates admissions and enrollment procedures for disabled students.	3.66	73.20	High
24	University administration holds regular meetings with students with disabilities to find out their problems.	3.55	71.00	High
22	University offers scholarships and financial incentives to disabled students.	3.42	68.40	High
19	The Special Needs Division provides adequate care for students with disabilities.	3.36	67.20	Average
21	There are adequate (general, guidance, recreational) services the disabled students.	3.30	66.00	Average
23	University regulations clearly state the rights and duties of persons with disabilities.	3.28	65.60	Average
17	University provides admission criteria for students with disabilities.	2.94	58.80	Average
20	University provides activities and facilities for students with disabilities.	2.84	56.80	Average
	Total score	3.40	67.98	Average

Table 4 shows that the score of the administrative services was very high in item number 18 (Collaboration of the administrative employees with the students with disabilities). The average mean of the responses was 4.24. The researcher believed that this was due to ongoing instructions of the senior staff to exert greater attention to the students with disabilities to facilitate their integration and compatibility. The score was high in the items 16, 22, and 24. The average means of the responses ranged between 3.41 - 4.20 of the items regarding facilitating admission and registration procedures for students with disabilities, holding regular meetings with them to identify their problems, and offering them scholarships and financial incentives. The researcher believed that this was due to the continuing student and guidance meetings with non-disabled students in general, and disabled students in particular, to identify their problems and deal with them. The score was low in the items 19, 21, 23, 17, and 20. The average means of the responses ranged between 2.61-3.40 in the items regarding the provision of the Special Needs Division of adequate care for the university students with disabilities, the adequacy of the services offered to the disabled students, the university regulation which clearly states the rights and duties of persons with disabilities, the provision of admissions and enrolment procedures, and the availability of activities and facilities. The researcher supposed that lack of induction, handbooks, conferences, and seminars on the admissions policies and procedures to inform disabled students and advise them on their rights and duties could be the reason of this low score.

**Table 5.** Average Means and Percentages of Infrastructure Facilities and Mobility

Number	Item	Avg.	%	Score
26	Special passageways are provided for students with disabilities.	3.45	69.00	High
25	Mobility aids are provided for students with mobility impairments.	3.32	66.40	Average
28	Special lifts are supplied for people with disabilities to smooth their mobility between various departments and floors.	3.28	65.60	Average
31	Laboratories and workshops are adequately equipped for the participation of students with mobility impairments in various experiments and activities.	3.06	61.20	Average
29	Adequate signboards are provided to students with disabilities.	3.00	60.00	Average
34	Companions are provided to assist students with special needs.	2.90	58.00	Average
30	Education and reading rooms are equipped to accommodate students with disabilities.	2.90	58.00	Average
32	Cafeterias and restaurants are equipped to accommodate students with disabilities.	2.89	57.80	Average
27	Disabled parking spaces are allocated for students with disabilities.	2.85	57.00	Average
33	Considerations and specifications of disabled toilet facilities are met.	2.45	49.20	Low
	Total score	3.01	60.22	Average



Table 5 shows that the score of the Infrastructure Facilities and Mobility was high in item number 26 (special passageways are provided for students with disabilities). The average mean of the responses was 3.45. However, the score was average in the items 25, 28, 31, 29, 34, 30, 32, and 27. Their average means of the responses ranged between 2.61-3.40. These items included areas like mobility aids are provided for students with mobility impairments, special lifts are supplied for people with disabilities to smooth their mobility between various departments and floors, laboratories and workshops are adequately equipped for participation of students with mobility impairments in various experiments and activities, adequate signboards are provided to students with disabilities, adequate signboards are provided to students with disabilities, companions are provided to assist students with special needs, education and reading rooms are equipped to accommodate students with disabilities, cafeterias, and restaurants are equipped to accommodate students with disabilities and disabled parking spaces are allocated for students with disabilities. Besides, the score was high in item number 33 (considerations and specifications of the disabled toilet facilities are met). The average mean of the responses was only 2.46. The researcher believed that this result was because the Palestinian Authority issued the Palestinian Disability Law in 1993 to promote and protect the rights of persons with disabilities. Thus, Palestinian universities renovated existing buildings and/or constructed new ones in line with this act. However, it was difficult to improve the old facilities, which did not consider the needs of persons with disabilities.

**Table 6.** Average Means and Percentages of Questionnaire Areas

Number	Area	Avg.	%	Score
1	Academic services	3.52	70.37	High
2	Administrative services	3.40	67.98	Average
3	Infrastructure facilities and mobility	3.01	60.22	Average
	Total score	3.31	66.20	Average

Table 6 shows that the score of the Academic Services was high with an average mean of 3.52. The researcher believed that this was due to the greater interest in the academic aspects along with a high priority in the special needs of persons with disabilities since they did not require huge costs. The score of the second domain (Administrative Services) was average with an average mean of 3.02. The researcher believed that this result was due to the lack of appropriate training for administrative staff to offer as much effective administrative support and guidance as necessary to the students with special needs. On the other hand, the score of the third area (Infrastructure facilities and mobility) was average. The average mean of the responses was 3.01. The researcher believed that this was because the accessibility improvements for old buildings did not meet the required optimum specifications and standards. Finally, the total overall score was moderate with an average mean of 3.31. The researcher believed that the accessibility modifications carried out by public and private institutions were not satisfactorily sufficient because the Palestinian Authority issued the Palestinian Disability Law only two decades ago.

These results were consistent with the study of Ibrahim Said (2011), which concluded that the score of the problems faced by blind students at the University of Jordan was moderate. Besides, the present study was partially consistent with the study of Al-A'dra (2016) which found out that students with disabilities at the University of Jordan faced many administrative challenges. It also partially agreed with the Girgin's study (2013), which found out that the Anadolu University supported the students with disabilities through Education and Research Center for Hearing-Impaired Children and Integrated College for the Disabled.

On the other hand, the results of the present study were not consistent with the study of Al-Miqdad and Al-Qatawneh (2017) in which the overall score of the services offered to students with disabilities was high, the score of both administrative services and structural facilities and mobility was high, whereas the score of the academic services was average. The results were also not consistent with the study of Al-Fawaer (2013), which found out that academic problems were the most common among the students with disabilities. Additionally, the present study disagreed with the study of Shehade (2011) which found out that the quality and level of services provided by the specialized institutions in the Gaza Strip to the blind and visually impaired people were not adequate. Finally, it also disagreed with the Haugann's study (2009) which concluded that university blind students faced many academic, administrative and mobility problems.

## **Second: Results Related to the Research Hypothesis**

There are no statistically significant differences at the level of ( $\alpha=0.05$ ) in the reality of the services offered to students with disabilities by PTUK and AOU due to the variables of gender, university, educational level, and type of disability.

### 9.1 Results Related to the Variable of Gender

To examine this hypothesis, the researcher used an independent samples t-test to detect the significant differences at the level of ( $\alpha = 0.05$ ) in the reality of the services provided by the Palestine Technical University and Al-Quds Open University for students with disabilities attributable to the variable of gender (Table 7).

**Table 7.** Results of Independent Samples t-test of Services by Gender

Area	Male: N=48		Female N=52		t-value	significance
	Mean	SD	Mean	SD		
Academic Services	3.55	0.90	3.48	0.65	0.50	0.00
Administrative Services	3.36	0.85	3.42	0.56	0.41-	0.00
Structural facilities & mobility	2.86	0.89	3.15	0.80	1.69-	0.18
Total Score	3.26	0.78	3.35	0.59	0.46-	0.00

Table 7 indicates that the significance levels for academic services, administrative services, and the total overall score were less than the significance level ( $\alpha=0.05$ ). There were significant differences in the reality of the services offered by the PTUK and AOU to their students with disabilities in the academic services, administrative services and the overall score due to the variable of gender. The academic differences were in favor of male students. The researcher proposed that this result was attributed to the fact that male students interacted with university academic services and facilities more than female students did. In this regard, the results of the current study were inconsistent with the findings of the study of Al-Miqdad and Al-Qatawneh (2017), which found no significant differences in the academic services due to variable of gender. Similarly, Al-Fawaeer (2013) exposed no differences in academic services in favor of females. The researcher believed that this finding (differences in favor of female students) was because female students, unlike male students, tried to meet their own administrative needs without official support. The results of the present study also showed that there were no statistically significant differences in the areas of structural facilities and mobility. This finding did not agree with the results of the study of Al-Miqdad and Al-Qatawneh (2017) which showed that there were significant differences in the area of structural facilities and mobility due to the variable of gender.

### 9.2 Results Related to the Variable of University

To examine this hypothesis, an independent (unpaired) samples t-test was used to find out the significant differences at the level of ( $\alpha = 0.05$ ) in the reality of the services provided by PTUK and AOU for students with disabilities because of the variable of the university (Table 8).

**Table 8.** Results of Independent Samples t-test of Services by University

Area	PTUK: N = 29		AOU N = 71		Area	Mean
	Mean	SD	Mean	SD		
Academic Services	3.32	0.82	3.59	0.75	1.62	0.32
Administrative Services	3.22	0.76	3.47	0.69	1.58-	0.40
Structural facilities & mobility	2.76	0.81	3.11	0.86	1.87	0.06
Total Score	3.10	0.72	3.39	0.66	1.94-	0.19

Table 8 shows that the significance levels of all domains and the total overall score were less than the significance level ( $\alpha=0.05$ ). There were thus no statistically significant differences in the reality of the services provided by the administrations of the PTUK and AOU to their disabled students due to the variable of the university because private and public universities operated the same policies and regulations regarding persons with disabilities.

### 9.3 Results Related to the Variable of Academic Level

To test this hypothesis, an independent (unpaired) samples t-test was used to determine whether there were significant differences at ( $\alpha=0.05$ ) in the reality of the services provided by the PTUK and AOU for students with disabilities due to the variable of academic level (Table 9).

**Table 9.** Results of Independent Samples t-test of Services by Academic Level

Area	PTUK: N = 14		AOU N = 66		Area	Mean
	Mean	SD	Mean	SD		
Academic Services	3.09	0.68	3.58	0.77	2.25-	0.75
Administrative Services	3.17	0.65	3.43	0.72	1.26	0.41
Structural facilities & mobility	2.73	0.76	3.05	0.86	1.29-	0.75
Total Score	3.00	0.60	3.35	0.69	1.82-	0.42

Table 9 shows that the significance levels of all areas and the total overall score were less than the significance level ( $\alpha=0.05$ ). There were thus no statistically significant differences in the reality of the services provided by the administrations of PTUK and AOU to their disabled students due to the variable of academic level. The researcher attributed this to the fact that the Diploma and BA students studied on the same campuses. In this regard, the present study was consistent with the studies of Al-Miqdad and Al-Qatawneh (2017) and Ibrahim Said (2011) which showed that there were no significant differences due to the variable of the academic level. However, the findings of this study disagreed with the study of Al-Fawaer (2014) which showed that there were statistically significant differences in the problems faced by the between undergraduate students and master students in favor of master students (i.e. Master students faced problems more than undergraduates).

#### 9.4 Results Related to the Variable of the Type of Disability

The researcher used the t-test of the independent samples to find out if there were any significant differences in the reality of the services provided by PTUK and AOU for students with disabilities due to the variable of the type of disability (Tables 10 & 11).

**Table 10.** Average Means of the Services Provided by the PTUK and AOU

Area	Physical N=53	Sensory N=31	Hearing N=16
Academic Services	3.68	3.42	3.13
Administrative Services	3.42	3.35	3.38
Infrastructure facilities and mobility	3.09	2.74	2.25
Total Score	3.40	3.17	3.25

**Table 11.** ANOVA (Analysis of Variance) Summary by Type of Disability

Area	Source	SS	DF	MS	T-value	Significance
Academic Services	Between groups	4.18	2	2.09	3.59	0.03
	Within groups	56.49	97	0.58		
	Total	60.68	99			
Administrative Services	Between groups	0.09	2	0.04	0.08	0.91
	Within groups	51.04	97	0.52		
	Total	51.13	99			
Facilities and Mobility	Between groups	3.40	2	1.70	2.36	0.09
	Within groups	69.77	97	0.71		
	Total	73.17	99			
Overall Score	Between groups	1.01	2	0.52	1.09	0.34
	Within groups	46.33	97	0.47		
	Total	47.37	99			

Table 11 shows that the significance levels of for the administrative services, infrastructure facilities and mobility and the overall score were less than the significance level ( $\alpha=0.05$ ) (0.91, 0.09, 0.34 respectively). There were no statistically significant differences in the reality of services offered by PTUK and AOU for students with disabilities due to the variable of the type of disability in the administrative services, facilities and mobility, and total overall score. However, the statistical significance level of the academic services was less the significant level (0.03). This showed that there were statistically significant differences in the reality of the services in the academic services due to the variable of the type of disability. Finally, the Least Significant Difference (LSD) test was used to define the

levels with apparent differences (Table 12).

**Table 12.** Results of the LSD Test by Type of Disability

Type of Disability	Physical	Sensory	Hearing
Physical		0.26	0.55
Sensory			0.29
Hearing			

Table 12 shows that there were differences between the scores of physical impairment and sensory impairment in favor of physical impairment. The researcher believed that this was because physical impairment required a larger number of aids such as halls, elevators, libraries, and laboratories. The results of the present study were consistent with the study of Al-Miqdad and Al-Qatawneh (2017) which found out that there were no statistically significant differences due to the type of disability. However, Al-Fawaer's study (2014) found that there were statistically significant differences due to the type of disability.

## 10. Conclusions

Based on what has been mentioned, it can be concluded that the services that are offered to the persons of special needs in both Palestine Technical University and Al-Quds Open University are medium in level, and the availability of those services, in accordance with the international specifications, came medium- high in level. As a result, it is very essential to think about varieties of methods to make it simple for those persons of special needs to access different services. This can be achieved through modifying buildings and both of the public academic and administrative environments; or constructing specific buildings, with facilities and specifications, where persons of special needs can follow-up their affairs with access easiness, in addition to providing the advanced technology which is suitable to those academic environments. The results of this study revealed that there are no significant statistical differences for "structural facilities and Movement" that are linked to the variable of (sex). The results of this study also revealed that there are significant statistical differences in the domains of academic services, administrative services, and the questionnaire as a whole that related to the variable of (sex), while there are no significant statistical differences that are related to the variable of (university), the year of study, and the type of retardation.

## 11. Recommendations

Based on the findings of the study, the researcher proposed the following recommendations to improve the services at both universities including PTUK and AOU.

Palestine Technical University and Al-Quds Open University should embrace a well-defined philosophy to support their students with disabilities.

Both universities should form follow-up groups from faculty members, administrators, and students to address the needs of their students with disabilities.

Both universities should carry out a periodic evaluation and assessment of the disabled facilities in the campuses such as classrooms, laboratories, equipment, and assistive devices to accommodate students with disabilities.

Both universities should regularly maintain elevators, passageways, ramps, toilets and other equipment for students with disabilities.

Both universities should organize employee administration training programs via their members of the faculty on appropriate strategies with the disabled students.

The administrations of both universities should liaise with disabled people's organizations to deliver and maximize support for students with disabilities in all lifestyles.

The administrations of both universities should always communicate with students with disabilities to identify their needs.

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