

# Challenges encounter students with physical disabilities at the Hashemite University in Jordan

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## Abstract

*Although higher education for students with disabilities has become more and more accessible, the environments of some universities and colleges still limit students' potentials. This research was aimed to explore the most relevant challenges that students with physical disability have to face at The Hashemite University in Jordan. A quantitative design was employed wherein a questionnaire was developed to collect the data. The study sample consisted of sixty-three (63) students with physical disability, who were recruited from both humanities and scientific faculties at the Hashemite University. Results revealed that students with physical disabilities faced moderate levels of challenges. The way they perceived challenges differed on the basis of the study variables, namely gender, academic year, and faculty type. Significant statistical differences were found in students' perception of challenges within some domains of the study tool. These results are consistent with the existing literature. Based on research outcomes, some recommendations are finally provided for policy-making and practice.*

**Keywords:** Challenges; Students with physical disability; Higher education; Accommodation; Jordan.

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## 1. Introduction and background

Undoubtedly, every individual with disability is entitled to access appropriate education that suits his/her characteristics and abilities, and this is true for any school levels, from primary to higher education. Article 24 of the United Nations (UN) Convention on the Rights of Persons with Disabilities (CRPD) has endorsed their right to have inclusive and equitable higher education (UN, 2006). This notion was adopted by the American Individuals with Disabilities Education Act (IDEA, 2004). This law insisted the right for people with disabilities to receive free inclusive education services. According to IDEA, students with disabilities should access higher education in the least restrictive environment. Therefore, higher educational institutions should work to achieve reasonable accommodation for students with disabilities (Agarwal, Calvo, & Kumar, 2014; Thompson-Ebanks, 2014; Abdella, 2018).

The legislative initiatives for students with disabilities in higher education have contributed to increase the number of students with disabilities in the universities worldwide (Squelch, 2010; Melero, Moraña, & López-Aguilar, 2018). Within the Jordanian context, higher education policy framework has a strong equity agenda as well, for example, the Law on the Rights of Persons with Disabilities No. 20 for the Year 2017. Article 21 of this law states that “No person may be excluded from higher education institutions or be denied the right to study any specializations available therein on the basis of, or because of, disability” [Higher Council for the Affairs of Persons with Disabilities (HCAPD), 2017]. This new law clearly emphasizes the role of the Ministry of Higher Education, who has to ensure easy and free access to inclusive higher educational institutions, reasonable accommodation, and adjustable admission requirements for students with disabilities.

## 2. Literature review

Although the university enrollment rate of students with disabilities in postsecondary education has dramatically increased, their graduation rates are still low compared to those of their non-disabled peers (Barnar-Brak, Lectenberger, & Lan, 2010; Marshak, Van Wieren, Ferrell, Swiss, & Dugan, 2010; Black, Weinberg, & Brodwin, 2015). This lower performance in higher education institutions may result from challenges that students with disabilities have to face during their study (Webster, 2004; Agarwal *et al.*,

2014). Accordingly, some studies have shown that the persistence and retention rates in universities and colleges among students with disabilities are lower than those of their peers (Getzel, 2008; Thompson-Ebanks, 2014; Fleming, Plotner, & Oertle, 2017).

Most of the research studies have dealt with students with disabilities in higher education (colleges and universities). While part of the research focused on the willingness of college and university staff to provide reasonable accommodation, other studies were more concerned with the barriers that students with disabilities encounter in higher education institutions.

### *2.1. Accommodation for students with disabilities*

Researchers reported that most lecturers and workers in higher education institutions were willing to offer accommodation for students with disabilities (Sweener, Kundert, May, & Quinn, 2002; Phillippe, 2012; Alhossein, 2014; Kusek, 2017; Abdella, 2018). The existing literature reported various forms of accommodation that could facilitate higher education for students with disabilities and increase their attendance and graduation likelihood. These accommodation services could be, for example, adjusting entrances, modifying course materials and assessment tools, and offering certain devices or equipment (Squelch, 2010; Kilpatrick, Johns, Barnes, Fischer, McLennan, & Magnussen, 2017), giving deadline extensions to fulfill assignments (Hewett, Douglas, McClinden, & Keil, 2017), and residential and recreational facilities (Barnar-Brak *et al.*, 2010). In contrast, in a qualitative study by Ginsberg and Schulte (2008), some participants perceived the provision of university special accommodation to students with disabilities as an unfair practice. The lecturers believed they couldn't account for being responsible of students' disabilities; consequently, they were unwilling to make any adjustment either in their teaching methods or in testing system for students with disabilities (Ginsberg & Schulte, 2008). These findings were reflected in many studies, in which lecturers turned out to be unwilling to provide accommodation and dissatisfied with making changes for students with disabilities (Skinner, 2007; Baker, Bolland, & Nowik, 2012; Sniatecki, Perry, & Snell, 2015).

Although students with disabilities who had the opportunity to access available accommodations seemed to achieve better academic results, research demonstrated how they were sometimes reluctant to use these services or tended to differ the seeking for this kind of support (Barnar-Brak

*et al.*, 2010; Lightner, Kipps-Vaughan, Schulte, & Trice, 2012; Herridge, 2017). Marshak *et al.* (2010) interviewed 16 students with different types of disabilities who were studying at colleges in USA. According to researchers, some factors seemed to keep students with disabilities from requesting disability support services, for example “a desire to redefine personal identity, to avoid social stigma and negative peer and faculty reactions, difficulty explaining their disability-related needs, and being disappointed with the utility of accommodations received” (p.160). Further, the fact of having no knowledge about disability services available in educational settings was another factor that hindered students with disabilities from using these services (Álvarez Pérez, Alegre de la Rosa, & López Aguilar, 2012; Herridge, 2017).

## 2.2. Challenges faced by students with disabilities in higher education

Álvarez Pérez *et al.* (2012) estimated that only 3% of students with disabilities who accessed higher education achieved their university degrees. This low graduation rate might originate from the challenges that those students encountered during their university or college lives. The transition of students with disabilities from secondary school to higher education involves many hindrances, as they will experience new challenging environments that students without disabilities may not have to face (Webster, 2004; Eckes & Ochoa, 2005; Cawthon & Cole, 2010; Lowen & Pollard, 2010).

Several studies have investigated challenges that students with disabilities encounter. Such studies have used different methodological approaches, often recruiting students with varying disabilities. For example, Stallman (2011) screened the psychological distress among students who enrolled in two large Australian universities. She found that students with disabilities showed higher levels of psychological distress than those without disabilities. Agarwal, Moya, Yasui and Seymour (2015) conducted a participatory action research with six students with a variety of disabilities at American universities. Researchers reported feelings of isolation and peers negative attitudes as being the most important barriers experienced by participants (Agarwal *et al.*, 2015). Soorenian (2017) explored the higher education lives of 30 international students with disabilities studying at 11 UK universities. Participants experienced two main challenges: poor information about available accommodation, and unavailable physical accessibility. Fleming *et al.* (2017) carried out a survey on 325 students with

a wide range of disabilities enrolled in three large American universities, focusing on how they perceived the university environments. The analysis of data collected suggests that although participants perceived many services as being helpful, on the other hand, they felt that the university staff were not trained enough to deal with them and lacked specific knowledge about disabilities (Fleming *et al.*, 2017). The negative interaction between faculties and students with disabilities as well as attitudinal barriers were highlighted in many studies (Holloway, 2001; Shevlin, Kenny, & McNeela, 2004; Tagayuna, Stodden, Chang, Zeleznik, & Whelley, 2005; Haller, 2006; Barnard, Stevens, Siwatu, & Lan, 2008; Erten, 2011; Banks, 2014; Gelbar, Madaus, Lombardi, Faggella-Luby, & Dukes, 2015; Yssel, Pak, & Beilke, 2016). These findings were also reported in case of students with invisible disabilities (Kridler, Bendixen, & Lutz, 2015).

Researchers from non-Western settings have shown similar outcomes. For example in China, Hong (2015) collected qualitative data from 16 students with disabilities who had enrolled in postsecondary education; participants reported to have experienced daily challenges such as faculty belief, unprofessional support services, ableism, and low expectations from the counselors. In Kenya, similar findings were found in a study with 20 female students with disabilities from two public universities (Opini, 2012). The female students reported further hindrances, such as the lack of transport, paucity of financial resources and sexual abuse (Opini, 2012). Women with disabilities in Dar es Salaam University in Tanzania experienced inaccessible learning and physical distress, due to, for example, inappropriate teaching methods and materials, and unorganized classrooms (Matonya, 2016). Mutanga (2017) reviewed some studies regarding students with disabilities in South African higher education institutions. Among the common challenges typically reported in the literature, in this study researchers have described poor physical access and lacking of disability policy as being the most significant challenges (Mutanga, 2017). In Saudi Arabia, Al-khashrami (2011) explored the views of students with disabilities enrolled at King Saud University. Although students felt that the instructors had positive attitudes toward them, the accommodation services did not meet their needs and teaching methods were rather inappropriate (Al-khashrami, 2011). Moreover, students with disabilities at Kuwait University reported other challenges such as not being accepted by their peers, unavailable facilities, unsuitable library resources, and structural barriers (Al-Shammeri, 2008).

Overall, the existing studies in the literature seem to indicate that students with disabilities in higher education institutions continue to experience various challenges, including attitudinal, architectural, personal, and institutional barriers. However, although the vast majority of research in the last two decades has tended to concentrate on the population with disability as a whole, rather than considering groups of students with specific impairments separately, the samples included in these studies were rather small (Gelbar *et al.*, 2015). Moreover, most of the research studies have been conducted in Western countries, therefore there is a limited amount of research investigating the status of postsecondary education for students with disabilities in the Arab world; more specifically, there appear to be no studies on challenges encountered by students with physical disabilities at Jordanian Universities. This study aims to contribute to the existing literature on identifying the barriers that restrict inclusive higher education services for students with physical disabilities. Results are expected to also help policymakers and service providers in overcoming such difficulties and eventually improve the experiences of students with disabilities in colleges and universities. Specifically, this study aims to answer the following research questions: (a) What level of challenges are students with physical disabilities encountering at the Hashemite University? (b) Are there differences in the type of challenges reported depending on students' gender, faculty, and year of study?

### 3. Setting

This research took place at The Hashemite University, one of the high-ranking universities among Jordanian public higher educational institutions. The university offers various types of services for students who were identified as having a disability. In the academic year 2015/2016, there were 126 students with disabilities enrolled in the university faculties, 25 of them presenting with hearing impairment, 31 with visual impairment, and 80 with physical disabilities. Services provided for those students by the university consisted in sign language translation, note taking, a reader and a scribe during exams, recorded courses, as well as discounted fees.

### 4. Method

This study was based on a quantitative approach, with the use of a questionnaire design to identify the challenges faced by students with

physical disabilities at The Hashemite University. Results were expected to be helpful for students in enjoying their higher education experience, developing their potentials and attaining their goals. A quantitative design was also used to measure challenges as perceived by students and to establish whether and which variables might influence such challenges. Perceived challenges have been obtained by collecting quantitative data which have been subsequently analyzed with statistical methods.

#### *4.1. Research population*

The study population consisted of all students who were identified as having physical disabilities and enrolled at the Hashemite University in Jordan during the academic year 2017/2018. According to the university enrollment office, there were 41 males and 39 females, enrolled in scientific as well as human faculties.

#### *4.2. Sample and recruitment*

After obtaining ethics approval, the research coordinator, starting from a list provided by the Deanship of Students Affairs that included detailed information about the students with physical disabilities enrolled in the university, contacted those students by phone to see whether they would give their consent to participate in the research.

*Table 1 - Description of the participants*

Gender	Male	33
	Female	30
	Total	63
Faculty type	Scientific	38
	Humanities	25
	Total	63
Year of studies	First	20
	Second	21
	Third	11
	Fourth	11
	Total	63

Twelve students apologized that they were not in a position to take part in this research, and eight students could not be contacted as the phone

numbers provided were wrong or unreachable. Finally, 63 students accepted to participate and answered the questionnaire administered. Table 1 provides information for each student according to gender, faculty type, and year of study.

### 4.3. Instruments

A questionnaire was purposefully designed to identify challenges that students with physical disabilities were encountering. In the process of developing the questionnaire items, two methods were applied: (1) reviewing the related literature published in the international databases; and (2) asking six students with physical disabilities who had completed their bachelor degrees the following question: “*What challenges have you faced during your studies at the university?*”. This process resulted in a list of items which were grouped by the researcher and collated under six domains.

In order to ensure its validity, the questionnaire was sent to five professors specialized in education of disabled students, who were asked to rate the questionnaire items and domains. The final version of the questionnaire, which included professors’ revisions and comments, was made of 89 items covering six domains. Definition and number of items in each domain were the following: (I) Learning (24 items): this domain refers to any changes or rearrangements by the lecturers in order to ensure students with physical disabilities equal access to full lecture experiences. New teaching strategies, assignments, testing systems, and seating arrangements, use of special devices and classroom adaptations were among the most important changes introduced. (II) Architecture (16 items): this domain measures the appropriateness of university buildings, utilities, and spaces for students with physical disabilities. (III) Mobility (11 items): this domain taps on the challenges encountered by students with physical disabilities, limiting their mobility and movement to reach the university and access classes. (IV) Accessibility and availability of related information (9 items): this domain refers to whether students with physical disabilities find the relevant information as being available and accessible, for example having equitable access to the library services. (V) Administration (12 items): this domain investigates the availability of professional employees at the university to advice and guide students with physical disabilities whenever it is the case. (VI) Psychological and social self-adjustment (17 items): this domain assesses the challenges that prevent students with physical disabilities from



being psychologically and socially adapted at the university, for example, interaction with others, negative attitudes, and communication difficulties.

*Cronbach's* alpha was used as a measure of internal consistency of the instrument. 20 students with disabilities, who were studying in other universities, completed the questionnaire and their results were statistically analyzed. We correlated the score from each domain with the total score of the questionnaire. Table 2 shows that the reliability coefficients for all the domains ranged between .76 and .89, which was deemed satisfactory for the reliability of the questionnaire domains.

Table 2 - *Reliability score for the questionnaire domains*

Domain	Reliability score
1. Learning	.80
2. Architecture	.76
3. Mobility	.84
4. Accessibility and availability of related information	.89
5. Administration	.83
6. Psychological and social self-adjustment	.85
Total	.92

The questionnaire consisted of two parts: Part A included demographic data of respondents (gender, year of study, and college type); Part B included 89 self-report items. Potential students were required to rate their perceived levels of challenges using a four-point Likert scale. The questionnaire items had two kinds of action statements; the first type of items were positive action statements (always = 4, often = 3, sometimes = 2, and never = 1), while the other type of items were negative action statements (always = 1, often = 2, sometimes = 3, and never = 4).

## 5. Results

The software Statistical Packages for Social Sciences (SPSS), version 22.0, was used to make statistical analyses. Means (*M*) and Standard Deviations (*SD*) were calculated to identify the level of challenges that the participants encounter at the university (Tab. 3).

Table 3 - Means (*M*) and Standard Deviations (*SD*) for the questionnaire domains ranked in a descending order according to their means

Rank	Domain	<i>M</i>	<i>SD</i>	Level
1	Administration	2.62	.52	Moderate
2	Architecture	2.54	.58	Moderate
3	Mobility	2.49	.48	Moderate
4	Information Accessibility and availability	2.29	.72	Moderate
5	Learning	2.12	.42	Moderate
6	Psychological and Social Self-adjustment	1.42	.28	Low
Total		2.19	.32	Moderate

The table shows that, overall, students with physical disabilities at Hashemite University face moderate level of challenges in the Administration domain, scoring the highest mean (2.62). However, it is also worth noting that the Psychological and Social Self-adjustment domain had the lowest mean (1.42), thus indicating that students encountered low level of challenges with regard to psychological and social self-adjustment.

Two-independent sample t-test and One-way ANOVA were used with the purpose of detecting any differences in the challenge levels according to the study variables.

Table 4 - Levels of challenge encountered according to participants' gender

Domain	Gender	<i>N</i>	<i>M</i>	<i>SD</i>	<i>T</i>	<i>DF</i>	<i>Sig</i>
Learning	Male	33	2.09	.37	-2.068	61	.645
	Female	30	2.14	.47			
Architecture	Male	33	2.40	.62	* -2.068	61	.043
	Female	30	2.70	.50			
Mobility	Male	33	2.47	.53	-2.228	61	.820
	Female	30	2.50	.43			
Accessibility and availability of related information	Male	33	2.25	.71	-2.440	61	.661
	Female	30	2.33	.74			
Administration	Male	33	2.70	.50	1.385	61	.171
	Female	30	2.52	.53			
Psychological and social self-adjustment	Male	33	1.38	.20	-1.168	61	.248
	Female	30	1.46	.35			
Total	Male	33	2.16	.30	-2.848	61	.400
	Female	30	2.22	.33			

\* the correlation is significant at the .05 level.

Having gender and college type as the study variables across the six domains of the questionnaire, a two-independent sample t-test was applied. Results revealed that there were significant statistical differences in the Architecture domain in favor of female students (Tab. 4).

There were also significant statistical differences in the Learning and Information Accessibility and Availability domains in favor of scientific faculties (Tab. 5).

*Table 5 - Levels of challenge encountered according to participants' faculty*

Domain	Faculty	N	M	SD	T	DF	Sig
Learning	Scientific	38	2.21	.43	*2.250	61	.028
	Humanities	25	1.98	.36			
Architecture	Scientific	38	2.64	.58	1.588	61	.118
	Humanities	25	2.40	.56			
Mobility	Scientific	38	2.48	.53	-.113	61	.910
	Humanities	25	2.50	.42			
Accessibility and availability of related information	Scientific	38	2.45	.68	*2.276	61	.026
	Humanities	25	2.04	.72			
Administration	Scientific	38	2.63	.59	.202	61	.841
	Humanities	25	2.60	.41			
Psychological and social self-adjustment	Scientific	38	1.45	.32	1.206	61	.233
	Humanities	25	1.36	.21			
Total	Scientific	38	2.25	.35	1.956	61	.055
	Humanities	25	2.09	.24			

\* the correlation is significant at the .05 level.

Having the year of study as the study variable, the One-way ANOVA test was applied. The analysis showed that there were significant statistical differences in the Administration domain (Tab. 6).

To determine the source of differences between the four years of study, Scheffe' Test was used. The analysis showed that fourth-year students encountered greater challenges (Tab. 7).

Table 6 - *One-Way ANOVA analysis on the effect of the year of study on challenges encountered*

Domain	Source of Variance	Sum of Square	DF	Means of Square	F	Sig
Learning	Between Groups	.341	3	.114	.642	.591
	Within Groups	10.449	59	.177		
	Total	10.790	62			
Architecture	Between Groups	.134	3	.045	.128	.943
	Within Groups	20.675	59	.350		
	Total	20.810	62			
Mobility	Between Groups	.081	3	.027	.111	.953
	Within Groups	14.375	59	.244		
	Total	14.456	62			
Accessibility and availability of related information	Between Groups	3.829	3	1.276	2.676	.055
	Within Groups	28.139	59	.477		
	Total	31.968	62			
Administration	Between Groups	2.484	3	.828	*3.442	.022
	Within Groups	14.190	59	.241		
	Total	16.674	62			
Psychological and social self-adjustment	Between Groups	.468	3	.156	2.060	.115
	Within Groups	4.471	59	.076		
	Total	4.939	62			
Total	Between Groups	.334	3	.111	1.112	.352
	Within Groups	5.914	59	.100	.642	
	Total	6.248	62			

\* the correlation is significant at the .05 level.

Table 7 - *Results from Scheffe' Test revealing differences in challenges encountered based on the year of study*

Domain	Year of study	M	Mean difference		
			Second	Third	Fourth
Administration	First	2.46	.09	.16	*.57
	Second	2.55			*.48
	Third	2.62			*.41
	Fourth	3.03			

\* the correlation is significant at the 0.05 level.

## 6. Discussion

This study aimed to explore challenges faced by students with physical disabilities enrolled at Hashemite University. However, despite Jordan initiatives to enact local legislation and ratify international conventions related to the right of persons with disabilities to access inclusive higher education settings, results of this study still highlight several difficulties at university. As an example, the item “The number of toilets near the lecture halls is appropriate”, included in the Architecture domain, was frequently rated as being a challenge. This might be explained by the fact that the higher education institutions in Jordan have not taken serious steps to implement the local Law on the rights of persons with disabilities (HCAPD, 2017). Thompson (2018) reviewed the current situation of individuals with disabilities in Jordan; he reported that most persons with disabilities experience difficulties in public places, such as accessibility barriers in schools and universities, therefore, he recommended that “existing schools and universities must be refurbished to facilitate access to students with disabilities” (p.40). This is urging the application of universal designs for the new buildings in order to make them accessible to all people without requiring further adaptations. Moreover, negative attitudes toward disabilities from the local communities continue to hinder promoting equal and inclusive education in Jordan (Hyassat, 2013; 2016).

Although Gelbar *et al.* (2015) contended that students with physical disabilities were among the first students who accessed accommodation services in higher education institutions, research participants declared they were still struggling to find accessible means of transport (Opini, 2012). To ensure equal access to higher education for students with physical disabilities, colleges and universities are required to offer reasonable accommodation in their facilities and classrooms (Abes & Wallace, 2018). Unfortunately, students seem to experience mobility constraints, as lectures are usually kept in different blocks of the same university campus, thus forcing them to move from one class to another. Indeed, the item “I can move inside the university easily and smoothly” was rarely rated positively. Classes and labs were unadjusted to suit students’ characteristics and meet their needs. Further, like most of Soorenian's (2017) participants, students with physical disabilities recruited in this study faced difficulties in obtaining accessible and relevant information.

Specifically, the fifth domain of the questionnaire, Administration, ranked on top of the challenges encountered by students, probably due to the

university staff that are not adequately trained to deal with students with disabilities. This was clear in the participants' responses to the item "I find it difficult to communicate with the university employees". This finding is consistent with those of other studies conducted worldwide (Holloway, 2001; Shevline *et al.*, 2004; Tagayuna *et al.*, 2005; Haller, 2006; Barnard *et al.*, 2008; Opini, 2012; Banks, 2014; Gelbar *et al.*, 2015; Yssel *et al.*, 2016; Fleming *et al.*, 2017). In reviewing the literature on teaching students with disabilities at post-secondary school, Dyer (2018) concluded that "the college or university and its faculty must be knowledgeable regarding disability law and accommodations" (p.78). This can be definitely applicable to higher education institutions in Jordan, since it would help alleviate difficulties that students with disabilities encounter in their university life because of several barriers.

However, the barriers reported by participants as being less challenging fell into the "Psychological and Social Self-adjustment" domain. It seems that students with physical disabilities feel happy with being included in the university with other students; this may give them a sense of equity, opportunities to socially interact and being accepted by others. The majority of students with physical disabilities in this research rated the item "I have many non-disabled friends in the university" as "always". Ultimately, this could also positively affect their general level of social and psychological adjustment. Al-Shammeri (2018) found that including students with disabilities in a university setting improved their skills to challenge their disabilities and lessen their life stress. This result is also consistent with Al-khashrami's (2011) study, which concluded that, offering chances for interaction between students with disabilities and their peers created, in turn, positive attitudes toward students with disabilities.

In the evaluation of how gender affects the perceived level of challenges, female students turned out to encounter higher levels of difficulties, specifically in terms of architectural barriers. This may be a reflection of Arab cultural aspects and at times religious principles, where male students can freely ask others for help when in need, while female students are restricted in doing so. In similar social contexts, e.g. in Saudi Arabia, Al-khashrami (2011) found that female students had more negative attitudes toward suitability of university places and facilities.

## 7. Limitations

Like in the majority of quantitative studies, this study presented some limitations. The first limitation was that all participants were recruited from the same university; students with physical disabilities in other Jordanian universities may have different experiences. Another limitation was that no information were obtained from students with other types of disabilities; additional data on challenge perceptions would certainly contribute to enlarge knowledge on students' experiences. However, information collected from the study sample were rather significant in terms of understanding the experience of students with physical disabilities, which would help develop more inclusive environments.

## 8. Conclusion and Future Research

Although this research study involved participants with only one type of disability and enrolled at one public university, it addressed attitudinal, architectural, personal, and institutional challenges that students with physical impairment encounter in Jordanian universities and colleges. To overcome these challenges, higher educational institutions should provide appropriate support to students with disabilities that suites their individual characteristics (Van, Moyson, & Roeyers, 2015).

To the best of my knowledge, this study is an initial step to pave the way for understanding the challenges faced by university students with disabilities. Results from this study might be helpful to policy makers in planning future inclusive and equitable higher education settings. This can be achieved with the contribute of policies that focus on increased campus accessibility, appropriate accommodation, and improved faculty attitudes and academic culture. Furthermore, it is extremely important to place greater emphasis on transition programs from high school to higher education, in order to prepare students with disabilities for post-secondary education.

Based on these results, I recommend that future research include students with different types of impairments, such as hearing and visual impairment and learning difficulties; it would seem also appropriate to add more research variables, such as social and economical background of students. Moreover, qualitative studies would provide a deeper understanding of research results. Finally, colleges and academic staff perspectives are important factor that account for successful planning of higher education

environments and activities aimed at facilitating the life of students with disabilities.

## References

Abdella, A. S. (2018). Instructors' willingness to provide instructional accommodations for students with disabilities in selected universities of Ethiopia. *International Journal of Inclusive Education*, 22 (6), 671-682.

Abes, E. S., & Wallace, M. M. (2018). "People See Me, But They Don't See Me": An Intersectional Study of College Students With Physical Disabilities. *Journal of College Student Development*, 59 (5), 545-562.

Agarwal, N., Calvo, B., & Kumar, V. (2014). Paving the Road to Success: Students with Disabilities Organization in a University Setting. *College Student Journal*, 48 (1), 34-44.

Agarwal, N., Moya, E. M., Yasui, N. Y., & Seymour, C. (2015). Participatory Action Research with College Students with Disabilities: Photo voice for an Inclusive Campus. *Journal of Postsecondary Education and Disability*, 28 (2), 243-250.

Alhossein, A. (2014). *Perspectives of King Saud University faculty members toward accommodations for students with Attention Deficit-Hyperactivity Disorder (ADHD)* (Unpublished doctoral dissertation). Kent State University, USA.

Al-khashrami, S. (2011). Evaluation of the related support services at King Saud University for students with special needs. *Journal of King Saud University/ Educational Sciences and Islamic Studies*, 33 (1), 99-134.

Al-Shammeri, H. (2008). *Attitudes of disabled students toward their integration in the student community of Kuwait University* (Unpublished master's dissertation). University of Jordan, Jordan.

Álvarez Pérez, P., Alegre de la Rosa, O. M., & López Aguilar, D. (2012). The difficulties of adapting university teaching for students with disabilities: an analysis focused on inclusive guidance. *Relieve*, 18 (2), 1-17.



- Baker, K., Bolland, K., & Nowik, C. (2012). A campus survey of faculty and student perceptions of persons with disabilities. *Journal of Postsecondary Education and Disability*, 25 (4), 309-329.
- Banks, J. (2014). Barriers and supports to postsecondary transition: Case studies of African American students with disabilities. *Remedial and Special Education*, 35 (1), 28-39.
- Barnar-Brak, L., Lectenberger, D., & Lan, W. Y. (2010). Accommodation strategies of college students with disabilities. *The Qualitative Report*, 15 (2), 411-429.
- Barnard, L., Stevens, T., Siwatu, K., & Lan, W. (2008). Diversity beliefs as a mediator to faculty attitudes toward students with disabilities. *Journal of Diversity in Higher Education*, 1 (3), 169-175.
- Black, R. D., Weinberg, L. A., & Brodwin, M. G. (2015). Universal design for learning and instruction: Perspectives of students with disabilities in higher education. *Exceptionality Education International*, 25 (2), 1-16.
- Cawthon, S. W., & Cole, E. V. (2010). Postsecondary students who have a learning disability: Student perspectives on accommodations access and obstacles. *Journal of Postsecondary Education and Disability*, 23 (2), 112-128.
- Dyer, R. (2018). Teaching Students with Disabilities at the College Level. *Journal of Instructional Research*, 7, 75-79.
- Eckes, S. E., & Ochoa, T. A. (2005). Students with disabilities: Transitioning from high school to higher education. *American Secondary Education*, 33 (3), 6-20.
- Erten, O. (2011). Facing Challenges: Experiences of Young Women with Disabilities Attending a Canadian University. *Journal of Postsecondary Education and Disability*, 24 (2), 101-114.

Fleming, A. R., Plotner, A. J., & Oertle, K. M. (2017). College Students with Disabilities: The Relationship between Student Characteristics, the Academic Environment, and Performance. *Journal of Postsecondary Education and Disability*, 30 (3), 209-221.

Gelbar, N. W., Madaus, J. W., Lombardi, A., Faggella-Luby, M., & Dukes, L. (2015). College students with physical disabilities: Common on campus, uncommon in the literature. *Physical Disabilities: Education and Related Services*, 34 (2), 14-31.

Getzel, E. E. (2008). Addressing the persistence and retention of students with disabilities in higher education: Incorporating key strategies and supports on campus. *Exceptionality*, 16 (4), 207-219.

Ginsberg, S. M., & Schulte, K. (2008). Instructional accommodations: Impact of conventional vs. social constructivist view of disability. *Journal of the Scholarship of Teaching and Learning*, 8 (2), 84-91.

Haller, B. A. (2006). Promoting disability-friendly campuses to prospective students: An analysis of university recruitment materials. *Disability Studies Quarterly*, 26, 14-31.

Herridge, A. S. (2017). First-Year Performance: Students with Disabilities Transitioning to College from High School. *College Student Affairs Leadership*, 4 (1): 4. Retrieved from <https://scholarworks.gvsu.edu/csall/vol4/iss1/4>.

Hewett, R., Douglas, G., McLinden, M., & Keil, S. (2017). Developing an inclusive learning environment for students with visual impairment in higher education: progressive mutual accommodation and learner experiences in the United Kingdom. *European Journal of Special Needs Education*, 32 (1), 89-109.

Higher Council for the Affairs of Persons with Disabilities – HCAPD (2017). *Law on the Rights of Persons with Disabilities*. Law Number 20 for the year 2017. Amman, Jordan.

Holloway, S. (2001). The experience of higher education from the perspective of disabled students. *Disability & Society*, 16 (4), 597-615.

Hong, B. S. (2015). Qualitative analysis of the barriers college students with disabilities experience in higher education. *Journal of College Student Development, 56* (3), 209-226.

Hyassat, M. (2013). *Jordanian Parents of Young Children with Disabilities Perspectives on Care, Coping and Service Provision*. Scholars' Press.

Hyassat, M. A. (2016). The Voice of Jordanian Parents of Young Children with Disabilities on Involvement in Their Children's Educational Services. *International Journal of Special Education, 31* (3), 1-25.

Individuals with Disabilities Education Act - IDEA (2004). Retrieved from <https://sites.ed.gov/idea/about-idea/>.

Kilpatrick, S., Johns, S., Barnes, R., Fischer, S., McLennan, D., & Magnussen, K. (2017). Exploring the retention and success of students with disability in Australian higher education. *International Journal of Inclusive Education, 21* (7), 747-762.

Krider, C., Bendixen, R., & Lutz, B. (2015). Holistic needs of university students with invisible disabilities: A qualitative study. *Physical Occupational Therapy in Pediatrics, 35* (4), 426-441.

Kusek, T. A. (2017). *A Qualitative Examination of Community College Instructors' Strategies for Engaging Students with Physical Disabilities* (Doctoral dissertation). Capella University.

Lightner, K. L., Kipps-Vaughan, D., Schulte, T., & Trice, A. D. (2012). Reasons university students with a learning disability wait to seek disability services. *Journal of Postsecondary Education and Disability, 25* (2), 145-159.

Lowen, G., & Pollard, W. (2010). The social justice perspective. *Journal of Postsecondary Education and Disability, 23* (1), 5-18.

Marshak, L., Van Wieren, T., Ferrell, D. R., Swiss, L., & Dugan, C. (2010). Exploring barriers to college student use of disability services and accommodations. *Journal of Postsecondary Education and Disability, 22* (3), 151-165.

- Matonya, M. (2016). Accessibility and participation in Tanzanian higher education from the perspectives of women with disabilities. *Jyväskylä Studies in Education, Psychology and Social Research*, 568, 1-262.
- Melero, N., Morriña, A., & López-Aguilar, R. (2018). Life-Lines of Spanish Students with Disabilities during their University Trajectory. *The Qualitative Report*, 23 (5), 1127-1145.
- Mutanga, O. (2017). Students with disabilities' experience in South African higher education – a synthesis of literature. *South African Journal of Higher Education*, 31 (1), 135-154.
- Opini, B. (2012). Barriers to Participation of Women Students with Disabilities in University Education in Kenya. *Journal of Postsecondary Education and Disability*, 25 (1), 65-79.
- Phillippe, L. K. (2012). *Faculty perceptions of college students with Attention Deficit Hyperactivity Disorder* (Unpublished doctoral dissertation). Texas Tech University, USA.
- Shevlin, M., Kenny, M., & McNeela, E. (2004). Participation in higher education for students with disabilities: an Irish perspective. *Disability & Society*, 19 (1), 15-30.
- Skinner, M. E. (2007). Faculty willingness to provide accommodations and course alternatives to postsecondary students with learning disabilities. *International Journal of Special Education*, 22 (2), 32-45.
- Sniatecki, J., Perry, H., & Snell, L. (2015). Faculty attitudes and knowledge regarding college students with disabilities. *Journal of Postsecondary Education and Disability*, 28 (3), 259-275.
- Soorenian, A. (2017). Inclusive Education and Disabled Students' Genuine Right to British Higher Education. *Malta review of educational research*, 11 (2), 243-259.
- Squelch, J. (2010). Reasonable accommodation of university students with disabilities. *Journal of Applied Law and Policy (JALAP)*, 2010, 51-67.

Stallman, H. M. (2011). Psychological distress in university students: A comparison with general population data. *Australian Psychologist, 45* (4), 249-257.

Sweener, K., Kundert, D., May, K., & Quinn, K. (2002). Comfort with accommodations at the community college level. *Journal of Developmental Education, 25* (3), 12-42.

Tagayuna, A., Stodden, R. A., Chang, C., Zeleznik, M. E., & Whelley, T. A. (2005). A two-year comparison of support provision for persons with disabilities in postsecondary education. *Journal of Vocational Rehabilitation, 22* (1), 13-21.

Thompson S. (2018). *The current situation of persons with disabilities in Jordan*. K4D Helpdesk Report. Brighton, UK: Institute of Development Studies. Retrieved from [https://assets.publishing.service.gov.uk/media/5bb22804ed915d258ed26e2c/Persons\\_with\\_disabilities\\_in\\_Jordan.pdf](https://assets.publishing.service.gov.uk/media/5bb22804ed915d258ed26e2c/Persons_with_disabilities_in_Jordan.pdf).

Thompson-Ebanks, V. (2014). Personal Factors That Influence the Voluntary Withdrawal of Undergraduates with Disabilities. *Journal of Postsecondary Education and Disability, 27* (2), 195-207.

United Nations - UN (2006). *Convention for the rights of persons with disabilities*. Geneva, Switzerland: UN.

Van Hees, V., Moyson, T., & Roeyers, H. (2015). Higher education experiences of students with autism spectrum disorder: Challenges, benefits and support needs. *Journal of Autism and Developmental Disorders, 45* (6), 1673-1688.

Webster, D. D. (2004). Giving voice to students with disabilities who have successfully transitioned to college. *Career Development for Exceptional Individuals, 27* (2), 151-175.

Webster, D. D. (2004). Giving voice to students with disabilities who have successfully transitioned to college. *Career Development for Exceptional Individuals, 27* (2), 151-175.

Yssel, N., Pak, N., & Beilke, J. (2016). A door must be opened: Perceptions of students with disabilities in higher education. *International Journal of Disability, Development and Education*, 63 (3), 384-394.