



Quality of Academic Life for Students who are Deaf and Hard of Hearing at Northern Border University

Khalaf Alfadeed^{1*}

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ABSTRACT

Background Students with hearing disabilities need more support in a university environment to achieve quality of academic life (QAL), as it is widely recognized that hearing is one of the most important keys to academic success. Although the enrollment of students who are deaf and hard-of-hearing (SDHH) in the Saudi universities has increased due to generous laws and technological development, these students still face academic and social problems, and difficulties in facilities and services at the university. **Purpose:** This study aimed to identify the level of QAL for SDHH at Northern border university (NBU), Arar, Saudi Arabia. Despite several good studies on students with disabilities, there is a dearth of studies on the state of QAI in NBU.

Method: The descriptive approach was adopted, where the QAL scale, consisting of (4) dimensions, was used with (25) SDHH at NBU. **Findings:** The results showed that the QAL for SDHH at NBU was within an above-average range. These findings and the limitations and implications of the current research are discussed. **Implications for research and practice:** The study is expected to contribute to empowerment of SDHH and students with disabilities and providing them fundamental rights including the rights of higher education.

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Introduction

The Saudi Arabian law allows the right to education to students with disabilities at all levels, including students who are deaf and hard of hearing (SDHH). Kingdom of Saudi Arabia is a signatory country since 2008, in adopting the philosophy of inclusive education within the Convention on the Rights of Persons with Disabilities (CRPD), which grants access to SDHH to higher education institutions (Cheng & Sin, 2022). In 2018, the Kingdom also launched the Quality-of-Life Program as a part of Saudi Vision 2030, which is concerned with improving the quality of life for the individual and the family, with the participation of the Ministry of Education (Quality of Life Program Delivery Plan, 2022). However, studies confirm that students with hearing disabilities need more support in the university

¹ Northern Borders University, KSA.

ORCID iD: <https://orcid.org/0000-0002-6247-184X>, Email: kalshammari@nbu.edu.sa

*Correspondence: kalshammari@nbu.edu.sa

environment to achieve the quality of academic life (QAL), as it is widely recognized that hearing is one of the most important keys to academic success, as studies indicate that 75% of deaf and students who are hard-of-hearing, fail to complete their university studies (Abu Saad, 2019; Algholeh, 2019; Burlingame, 2018; Cheng & Sin, 2022; Chute, 2012; Hanafy & Al-Aydy, 2016; Kutscher & Tuckwiller, 2019; Turkestani & Alanazi, 2019).

The QAL in higher education institutions is indispensable for all students, as it shapes the role they would be playing in future. It is also one of the sources for evaluating the level of academic life quality experienced by a student at any level (Abdulmutalleb, 2014). There are a few critical indicators of QAL integral to the academic life of university students, namely academic self-efficacy, academic support services, academic satisfaction, and extra-curricular activities (Al-Anzi, 2021; Mustafa & Almutairi, 2021). The current study attempts to measure these four dimensions to determine the QAL for SDHH at Northern Border University (NBU), Kingdom of Saudi Arabia. Although the NBU accepts a number of SDHH, no study has so far been conducted to evaluate their QAL. This study thus is a pioneer study to examine the services provided to SDHH to ensure that they have fair and appropriate opportunities in the higher education.

To streamline this study, two main goals were set up namely, (i) to investigate the Quality of Academic Life for Students who are Deaf and Hard of Hearing at Northern Border University by focusing on four dimensions: Academic Self-efficacy, Academic Support Services, Academic Satisfaction, and Extra-curricular Activities; (ii) to identify the significant difference in these dimensions for SDHH based on the factors like type of disability, gender, and years of study. To achieve these goals, the research question was framed thus: What is the level of the Quality of Academic Life for Students who are Deaf and Hard of Hearing at Northern Border University?

The study confined its investigation of the QAL to the SDHH who had joined NBU during the period between 2015-2022. It is hoped that the results of this study would provide useful insights into the QAL for SDHH at NBU, which will help decision makers, faculty, staff, and students at the university to address deficiencies and promote positive aspects. This study also supports the empowerment of people with disabilities, and sheds light on their rights, including the right to higher education.

Literature Review and Theoretical Framework

QAL is defined as a general feeling of satisfaction with the university life experience, including cognitive, psychological and social aspects, academic and administrative services, and equipment during the university study period (Pedro, Alves, & Leitão, 2014). The QAL at the university level has become an urgent goal, and an indispensable necessity for all students, because of the essential role of the university stage in shaping the identity and future of the student, but rather it is an integral part of the quality of life in general (Al-Anzi, 2021; Al-Makhdhab, 2017; Alhoseinan, 2015; Authority of People with Disability, 2021; Carman, 2022; De Filippo, 2004; de Reizábal, 2022; Sirgy, Grzeskowiak, & Rahtz, 2007). Despite the importance of the topic, Cheng and Sin (2018) point out that studies often address the quality of healthy life for SDHH rather than the QAL, with a focus on general education stages rather than higher education, so it is important to explore the QAL for these students. Alhoseinan (2015) stresses that measuring the quality of university life is one of the most important aspects of the quality of life for university students, which is

supposed to be measured by the university in order to enable the student to perform well, which is reflected in his productivity and achievement.

Past studies have varied opinions in their measurement of the quality of academic life of university students. These studies have focused on four areas, in general, namely academic self-efficacy, academic support services, academic satisfaction, and extra-curricular activities (Al-Anzi, 2021; Al-Makhdhab, 2017; Al-Otaibi, 2018; Al-Zahrani, 2020; Bassiouni, 2017; Mustafa & Almutairi, 2021; Rajpal, 2022; Salem, 2017a). Academic self-efficacy is defined as a person's confidence in their ability to organize and carry out tasks to achieve certain types of academic performance (Sharma & Nasa, 2014). Chute (2012) stresses that the ability to manage time, organize priorities, work independently, set appropriate goals, and self-motivate are all factors that contribute to a student's success in college. Second, academic support services refer to a variety of educational services and institutional resources provided to students, to help them learn and complete their coursework (Halbedel, 2022). Abu Saad (2019) stresses that there are a lot of pressures facing persons with disabilities within university education, because they lose support means within university life, which may affect their level of satisfaction and acceptance of university education and university life. Hanafy and Al-Aydy (2016) also confirmed the existence of a strong positive relationship between the support services provided to SDHH, and the quality of their academic lives.

Third, study satisfaction refers to an enjoyable or positive emotional state resulting from an evaluation of an individual's educational experience, including the academic and pedagogical quality of teaching, the social climate, the aesthetic aspects of physical infrastructure, and the quality of services provided by administrative personnel (Sánchez-Cardona et al., 2021). Al-Makhdhab (2017) points out the need to reduce obstacles and difficulties, reduce anxiety levels, and reduce contradictions between the individual and his environment. Finally, the extra-curricular activities include all academic, artistic, and sports activities that are organized at the level of educational institutions or outside them with the follow-up of the educational institution. These voluntary activities may be participated collectively or individually, but these activities do not become a part of academic degrees (Ahmad et al., 2015; Bran et al., 2019; Hussein et al., 2022). De Filippo (2004) emphasize the role of learning communities, increasing the degree of academic engagement, and non-academic programs that focus on life on campus and outside the classroom.

The QAL of university students with disabilities has often been addressed, but to a lesser extent than that of SDHH. For instance, Hamama (2019) asserts that the quality of higher education outputs can be predicted by studying the levels of students' academic life quality. In this direction, Salem (2017a) emphasizes the link between levels of QAL and academic procrastination for university students. Al-Anzi (2021) concludes that there is an effect of the QAL on the psychological empowerment of university students. By providing good levels of quality of university academic life, this will be reflected on the students' psychological security (Alenezi, 2018). Ayachi and Bakara (2020) link the QAL and emotional intelligence among university students. The matter is no different about emotional innovation, as it is linked closely related to the QAL (Jalaawi et al., 2024; Mustafa & Almutairi, 2021). Pedro, Alves and Leitão (2018) state that student satisfaction with university services provided closely influences the QAL.

In the Kingdom of Saudi Arabia, [Al-Zahrani \(2020\)](#) tried to study the level of QAL among students of the Faculty of Arts and Humanities at King Abdulaziz University, who concluded that students had high levels of QAL. Likewise, [Alhoseinan \(2015\)](#) mentioned that students' levels at Majmaah University were higher than average in all dimensions of the quality of university life, including the QAL. The results showed that the QAL was more evident among students at scientific colleges. However, the two studies did not address SDHH or students with disabilities. In the field of disability, [Al-Wedyan \(2014\)](#) states that students with disabilities at the undergraduate level have a medium to high quality of life. However, [Skinner, Rawlins and Hughes \(2010\)](#) confirm that students with disabilities show lower levels of quality of their undergraduate academic life. The Low QAL for students with disabilities can be attributed to some of the obstacles they face in managing the challenges they face during the learning process, such as spending extra time and effort for learning ([Kim, 2024](#); [Lambert & Dryer, 2018](#); [Singh & Singh, 2022](#)).

There is also a consensus in the field of higher education for SDHH on the importance of quality academic life and its role in supporting the students in their university studies ([Biggeri, Di Masi, & Bellacicco, 2020](#); [Cheng & Sin, 2022](#); [Kendall, 2016](#); [Vargas-Uricoechea, Frias, & Vargas-Sierra, 2023](#)). [Algholeh \(2019\)](#) conducted a comparative study aimed at identifying the level of quality of life among students with disabilities at King Abdulaziz University in Saudi Arabia and the University of Jordan, in Jordan. The sample comprised (160) male and female students with disabilities, of whom (46) were deaf and hard of hearing. The results indicated that King Abdulaziz University students obtained medium scores on the quality-of-life scale, while students at the University of Jordan obtained higher scores. [De Filippo \(2004\)](#) also found that SDHH in universities did not show high levels of satisfaction with the academic, social, psychological, and physical quality of university life. [Hanafy and Al-Aydy \(2016\)](#) believe that universities should provide support services for their SDHH, to reach a good level of QAL.

On the other hand, [Cheng and Sin \(2018\)](#) state that the quality of university life for SDHH can be predicted through the learning concepts used with them at the university, as the researchers noted that the deep concepts of learning (learning as a duty) predicted positively and significantly the quality of university life, while the concepts of the surface level of learning (learning as gaining information) negatively predicted the quality of university life for SDHH. [Al-Makhdhab \(2017\)](#) noted in her study, which aimed to identify the QAL among SDHH at King Saud University in Saudi Arabia, that there are differences between the performance of male and female students on the QAL scale in favor of males, especially in the lower levels of the university, while there are no differences between the performance of the deaf and hard of hearing.

Given the above theoretical background, this study aimed to explore the level of QAL for SDHH at NBU. As is evident in extant literature, the level of QAL affects and is affected by many factors and aspects, including the difference in the academic environment or facility, which requires a deeper study, especially with the experience of NBU as a new university, which does not have long experience in providing services to SDHH. The current study benefited from theoretical literature to form an idea about the dimensions of QAL, its levels, and methods for measuring it. However, the current study examines a special case of a new university that does not have a legacy of providing services to people with disabilities in general. Therefore, having a clear picture of the level of quality will contribute to building more quality services at a university in its first steps.

Research Methods

Research Design

Descriptive approaches and quantitative methods were adopted in this study. In order to achieve a deeper understanding of the aim of the study, participants were divided into categories according to type of disability, gender, and year of study. Participants were identified through contact with the Center for Students with Disabilities at the university. The questionnaires were sent electronically to the participants in coordination with the Center for Students with Disabilities. Permission to apply the study was obtained from the Scientific Research Ethics Committee of NBU (No. 441010469). After that, the Center for Persons with Disabilities at the university was contacted to send the questionnaire to the targeted sample. It was confirmed that the participation was voluntary, and that the data would remain confidential and for scientific research purposes only.

Sampling

Statistics of the Authority of People with Disability (APD) report that there are 3,956 students with disabilities in Saudi universities, of whom only 29 are in NBU. There are no accurate statistics about the number of students who are deaf or hard of hearing. This may be because there is no clear mechanism for accepting these students in most Saudi universities (Al-khashrami, 2008).

Twenty-five students from the target group were reached, who answered the questionnaire of this study. Table 1 summarizes their gender and years of study.

Table 1

Participants' Data

Type of disability	Deaf	10
	Hard of Hearing	15
Gender	Male	10
	Female	15
Years of study	1	4
	2	4
	3	6
	4	4
	Graduate	7

Instruments of the Study

This study benefited from many measures used in previous studies dealing with the QAL for deaf and hard-of-hearing students in universities (Abdeen & Al Sharqawi, 2016; Al-Anzi, 2021; Al-Makhdhab, 2017; Al-Zahrani, 2020; Alenezi, 2018; Ayachi & Bakara, 2020; Cheng & Sin, 2022; Hanafy & Al-Aydy, 2016; Mustafa & Almutairi, 2021; Salem, 2017b). Accordingly, the QAL scale for SDHH in higher education programs

was designed for this study, consisting of (60) items distributed over four main parts: first, academic self-efficacy 18 items; second, academic support services, 16 items; third, academic satisfaction, 16 items; and fourth, extra-curricular activities 10 items. The total score for the scale was 240, with 4 points awarded to each item in the scale, distributed as shown in [Table 2](#).

Table 2

Number of Items and Grades in the SDHH Scale

Scale Section	No of Items	Points
Academic Self-efficacy	18	72
Academic Support Services	16	64
Academic Satisfaction	16	64
Extra-curricular Activities	10	40
Total	60	240

The score of the scale was classified in f levels, high, above average, middle, mediocre, and weak, as shown in [Table 3](#).

Table 3

Grading Classification

Level	The Percentage
High	85-100
Above Average	70-84
Middle	50-69
Mediocre	35-49
Weak	35 <

The scale was translated into Arabic by the researcher and reviewed by two professors from the English Department at the university. The reliabilities and validities of the scale was confirmed by presenting it to a group of independent arbitrators, and the alpha coefficients was $>.980$ as shown in [Table 4](#).

Table 4

Cronbach's Alpha

Cronbach's Alpha	N of Items
.983	60

Data Analysis

To identify the level of QAL and its arrangement, and to identify the most important obstacles; arithmetic means, frequencies, and standard deviations were measured. Mann Whitney U and One Way Anova were used to detect any statistically significant differences between the participants' response according to the study variables.

Results

Table 5 exhibits the demographics of students with disabilities in Saudi universities.

Table 5

Statistics of Students With Disabilities in Saudi Universities (Source: Authority of People with Disability (2020))

Description	Number
No of students with disabilities in Saudi universities	3.956
– Male	52.1%.
– Female	49.9%.
Most popular majors	1- Islamic Sharia. 2- Law. 3- Economy.
Disabilities with highest enrollment in universities	1- Visual disability 31%. 2- Mobility disability 26.2%.
Universities accepting most students with disabilities	1- King Abdulaziz University (1067). 2- King Faisal University (414). 3- King Saud University (326).

On the other hand, a few Saudi universities are characterized by providing a clear mechanism for accepting and educating SDHH, through specialized programs for these students, such as Higher Education Program for SDHH at King Saud University. Based on the statistics of the Authority of People with Disability with Disabilities (2020), and given the short experience of NBU, we do not expect large numbers of SDHH on the NBU campus. According to the Center for Persons with Disabilities at the NBU, there is no accurate statistics about the number of SDHH who joined NBU during the period 2015-2022.

The results showed that the level of QAL for students who are deaf and hard hearing at NBU is 81.08%, which is within the above-average range. The academic satisfaction was the highest at 84.25%, followed by the academic self-efficacy at 84.16%, followed by extra-curricular activities at 82.20%, while the lowest was the academic support services at 73.75%. Table 6 summarizes the score and percentage for each section of the scale.

Table 6

Score and Percentage for Each Section of the Scale

Section of the scale	Total Score	Percentage	Level
Academic Self-efficacy	1515	84.16	Above Average
Academic Support Services	1180	73.75	Above Average
Academic Satisfaction	1348	84.25	Above Average
Extra-curricular Activities	822	82.20	Above Average
Total	4865	81.08	Above Average

On the other hand, the results did not show any statistically significant differences for the variables of type of disability, gender or years of study, as shown in Table 7, Table 8 and Table 9.

Table 7

Statistical Differences Based on Type of Disability

No	Type	N	Mean Rank	Sum of Ranks	Mann-Whitney U	Sig.
1	Deaf	10	6.25	25.00	9.000	.521
2	Hard of hearing	15	5.00	30.00		

Table 8

Statistical Differences Based on Gender

No	Type	N	Mean Rank	Sum of Ranks	Mann-Whitney U	Sig.
1	Male	10	5.88	23.50	10.500	.748
2	Female	15	5.25	31.50		

Table 9

Statistical Differences Based on Year of Study

Years of study	Total ANOVA	Sum of Squares	df	Mean Square	F	Sig.
All years	Between Groups	8595.733	4	2148.933	2.092	.219
	Within Groups	5136.667	5	1027.333		
	Total	13732.400	9			

Discussion

This study aimed at identifying the QAL for SDHH at NBU, Saudi Arabia, which the results revealed that it fell within the above-average range. These results support the study of Abu Saad (2019), which found levels of satisfaction with university life among deaf students of 80.02%. In contrast, the results of this study were more optimistic than the studies of Algholeh (2019) and De Filippo (2004), which concluded that SDHH had average levels of quality of university life. While this study agreed with the study of Al-Makhdhab (2017) in that there were no statistically significant differences in the responses of the participants according to the variable of type of disability: deaf or hard of hearing, it differed with the study itself with regard to the variables of gender and years of study.

The results of the study are consistent with other studies, which gives greater credibility to the results of this study, and at the same time gives a preliminary idea that the level of QAL in Saudi universities is similar. The result of this study can be attributed to many factors that positively affect QAL, such as the teaching methods used and the university environment (Al-Maliki, 2019). It also appears that there is an improvement in the services provided to persons with disabilities in universities in general, based on the government's interest in this group, which is represented by adopting the philosophy of comprehensive education for persons with disabilities, quality of life programs, and related laws.

Academic support services were the least satisfied among participants' responses, which was expected and is consistent with the literature on higher education for SDHH. The literature still indicates that there are real problems in the field of teaching to SDHH in higher education institutions. This was confirmed by Turkestani and Alanazi's study (2019) as well that 75% of SDHH fail to complete their university studies, due to many obstacles that prevent providing an academic life, that guarantees the success and continuity of SDHH in Saudi universities, including the lack of technical aids, devices, and weak of training and counseling to work with these students. Al-Shamsan (2013) also adds that the academic problems of this group of students are formed as a result of the lack of aids and tools, and the university faculty members' failure to obtain training courses in dealing with SDHH. Al-Rayes and Al-Khurajjim (2010), too, argued that the weakness of the faculty and administrative staff at the university to work with SDHH is one of the most important problems of these students in universities, and accordingly they recommend offering training courses and workshops that could raise the levels of faculty and staff to deal with SDHH, especially in the field of communication and knowledge of their needs.

Despite the promising results of this study, it is important to work to raise quality to achieve high levels and free of discrimination. One of the great keys to achieving this is updating regulations for SDHH in universities, recognizing that their material requirements are more than hearing students, and focusing on technology in teaching these students (Al-Jasser, 2019; Salem, 2017b). Universities must also build real plans to accept these students in most Saudi universities (Al-khashrami, 2008). In general, university education in all its academic, social, psychological and behavioral aspects represents a fertile ground for stress for students in general, especially SDHH (Al-Salem & Al-Ghamdi, 2019). Accordingly, universities must play their role in providing students with disabilities with the opportunity to enroll in higher education without discrimination, and to create support services centers and facilities based on a clear scientific vision, in order to enhance the chances of success for students with disabilities in their university career (Alwabli & Binomran, 2018).

Reaching a high level of QAL for students with disabilities in general, and SDHH in particular, was, still is, and will continue to be a challenge that requires more efforts in various fields. There is a need to enhance satisfaction and self-confidence among these groups, by preparing them for university life and providing them with extracurricular activities that support their social and academic skills. All of this must be within a plan that includes academic support provided by specialists in the field, and a nurturing university environment that facilitates their integration and success at the university.

Conclusion

The results of the study hold significant importance for NBU and Saudi universities, especially emerging universities, to review and develop the QAL for their SDHH. When planning SDHH admissions, universities should set strict standards for the QAL and include this in their internal regulations. the QAL is an integrated process that includes regulations, administration, faculty, students, staff and buildings, and requires a high level of awareness and practice. This study explains aspects of the QAL, and their relationship

to some variables. Therefore, this will help in understanding it more deeply, and reaching acceptable levels of it. This study supports the rights of persons with disabilities in education, work, and life. Providing a good the QAL will contribute to increasing their chances of obtaining job and a decent life.

This research faced two main limitations. First, the researcher was unable to count all the SDHH at NBU, due to the lack of accurate statistics for the numbers of these students, and due to the absence of a clear mechanism for accepting these students into the university. However, the researcher believed that the collected data is significant, because it was obtained from the authority supervising students with disabilities at the university, and it is also believed that this number is reasonable, given the available statistics. Second, SDHH showed higher than average levels of quality of university life, and this led us to the importance of studying the association of levels of quality of university life with many variables, including the number of students with disabilities in the university, when their numbers were less, more resources were focused on these students, which could give better results.

In order that a high level of QAL for SDHH supports their continuation and success at the university level, this study makes a few recommendations. First, it is necessary to strengthen and support the role of centers for persons with disabilities in universities, focusing on the aspects of QAL, identifying key performance indicators (KPIs), and measuring them annually. Second, appropriate academic support must be provided to SDHH through specialists, sign language translators, and technological devices, ensuring their full access to the curriculum and academic services. Third, courses and workshops for SDHH, hearing students, faculty, and staff on rights and duties, must be conducted to enhance the culture of inclusive education in the university environment. Last, but not the least, it is important to emphasize the participation of SDHH in extracurricular activities at the university, considering designing activities that suit their abilities and identities.

These results cannot give a complete picture of the QAL for SDHH at NBU, and they can be not generalized to other Saudi universities, due to the large discrepancy between the numbers of SDHH in Saudi universities, as well as the different capabilities and experiences of universities. Accordingly, future studies should be carried out in other Saudi universities, using different data collection tools, such as interviews, observations, in order to draw an accurate picture that enables us to make fundamental decisions at the national level. It would be useful if a future study is conducted about determining QAL among normal hearing students and the results be compared with this study's results. This would reveal whether there are obstacles or discrimination against students with disabilities. It is also suggested to conduct correlational studies on the future career and professions of students with disabilities and SDHH based on the QAL.

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References

- Abdeen, H. S., & Al Sharqawi, F. M. (2016). Self-Regulation skills & Psychological resilience and their relationship with the Quality of Academic Life of Faculty of Education Alexandria University Students. *Faculty of Education Journal Alexandria University*, 26(6), 153-234. <https://doi.org/10.21608/jealex.2016.203102>
- Abdulmutaleb, A. (2014). The quality of university academic life in the light of both goal orientation and academic achievement among students of the College of Education. *Educational and Psychological Studies, Zagazig University*, 1(83), 71-126. <http://demo.mandumah.com/Record/665796>
- Abu Saad, M. (2019). *Satisfaction on University Life and its Relationship with Personal Competence among Deaf Students in the Islamic University of Gaza* [Master's thesis, The Islamic University of Gaza]. <https://search.mandumah.com/Record/1355193>
- Ahmad, M., Rahman, M. F., Ali, M., Rahman, F. N., & Al Azad, M. A. S. (2015). Effect of extra curricular activity on student's academic performance. *Journal of Armed Forces Medical College, Bangladesh*, 11(2), 41-46. <https://doi.org/10.3329/jafmc.v11i2.39822>
- Al-Anzi, F. (2021). Psychological Empowerment and its Relationship to the Quality of Academic Life among a Sample of Imam Muhammad ben Saud Islamic University Students. *Journal of Educational Sciencess*, 28(2), 90-192. <https://imamjournals.org/index.php/joes/article/view/1643>
- Al-Jasser, A. (2019). Qualification Problems Facing Deaf Students at King Saud University. *Journal of Social Work*, 61(5), 135-178. <https://doi.org/10.21608/egjsw.2019.175469>
- Al-khashrami, S. (2008). Educational Rehabilitation Services for Students with Special Needs at King Saud University. *Institute of Educational Studies*, 1, 175-190. <https://search.shamaa.org/FullRecord?ID=43944>
- Al-Makhdhab, N. (2017). The Quality of the Academic Life of Deaf and Hard of Hearing Students at KSU in Light of some Variables. *Journal of Special Education and Rehabilitation*, 6(4), 43-87. <https://doi.org/10.21608/sero.2017.91731>
- Al-Maliki, Y. (2019). Attitudes of Deaf and With Impaired Hearing Male and Female Students at King Saud University Towards University Education. *Journal of Culture and Development*, 135(19), 392-432. <https://search.mandumah.com/Record/958128>
- Al-Otaibi, M. (2018). The Nature of the Attitudes of Third Year of Secondary Stage Deaf Students towards Higher Education in Riyadh City. *Journal of Scientific Research in Education*, 19(1), 477-521. <https://doi.org/10.21608/jsre.2018.7944>
- Al-Rayes, T., & Al-Khurajim, M. (2010). The reality and obstacles of higher education programs for deaf and hard-of-hearing students in Riyadh. *Journal of the College of Education, Ain Shams University*, 34(4), 619-683. <https://search.mandumah-com.sdl.idm.oclc.org/Record/106707>
- Al-Salem, M., & Al-Ghamdi, A. (2019). The Level of Stress and its Relation to Self - Concept in Deaf Students in the Preparatory Year at King Saud University. *Educational Journal*, 33(132), 201-238. <https://doi.org/10.34120/0085-033-132-015>
- Al-Shamsan, A. (2013). *Problems of the program for teaching deaf students in the College of Education for Home Economics and Art Education at Princess Noura bint Abdul Rahman University in Riyadh* [Master's thesis, Naif Arab University for Security Sciences]. <https://repository.nauss.edu.sa/handle/123456789/53526>

- Al-Wedyan, A. (2014). *The Relationship between Self- Determination and Quality of Life among Students with Disabilities at Jordanian Universities* [Master's thesis, Yarmouk University]. <https://search.mandumah.com/Record/724135>
- Al-Zahrani, A. (2020). Quality of academic life: An applied study on a sample of students from the Faculty of Arts and Humanities at King Abdulaziz University in Jeddah, who are expected to graduate this year 1440/1441 AH. *Arab Humanities Journal*, 1(2), 1-25.
- Alenezi, A. (2018). *Quality of Academic Life and Its Relationship to Psychological Security Among Undergraduate Students* [Master's thesis, Naif Arab University for Security Sciences].
- Algholeh, S. (2019). The Level of Quality of Life among Students with Disabilities at King Abdul - Aziz University and the University of Jordan in the Light of Some Variables. *Journal of Al-Quds Open University for Educational & Psychological Research & Studies*, 28(10), 72-83. <https://journals.qou.edu/index.php/nafsia/article/view/2234>
- Alhoseinan, E. (2015). The Quality of University Students' Life in Relation to Demographic Variables (An Investigation Based on Students' Samples at Majmaah University). *Educational Journal of the Faculty of Education, Sohag*, 41(41), 185-238. <https://doi.org/10.21608/edusohag.2015.127638>
- Alwabli, A., & Binomran, N. (2018). Nature of supporting services and facilities provided to female students with disabilities at King Saud University and their obstacles from their perspectives. *Journal of Special Education and Rehabilitation*, 6(22), 1-26. <https://doi.org/10.21608/sero.2018.91688>
- Authority of People with Disability. (2020). *The reality of people with disabilities in Saudi universities*. https://twitter.com/APD_ksa/status/1339611279854583812?s=20
- Authority of People with Disability. (2021). *Indicators of Quality of Life for Individuals with Disabilities in the Kingdom Saudi Arabia*. <https://apd.gov.sa/web/content/4531?unique=56116ec0dbbdb010afcd46bb71f9877e0bed166e>
- Ayachi, E., & Bakara, D. (2020). *Quality of Life and Its Relationship to the Counseling Needs of University Students* [Master's thesis, University of Eloued].
- Bassiouni, M. (2017). *The Effect of a Training Program Based on Some Dimensions of Emotional Innovation on the Quality of Academic Life Among University Students* [Master's thesis, Al-Azhar University].
- Biggeri, M., Di Masi, D., & Bellacicco, R. (2020). Disability and Higher Education: Assessing Students' Capabilities in Two Italian Universities Using Structured Focus Group Discussions. *Studies in Higher Education*, 45(4), 909-924. <https://doi.org/10.1080/03075079.2019.1654448>
- Bran, F., Sârbu, R., Alpopi, C., & Lazăr, V. (2019). Approaches on Sustainable Development Between Education and Innovation. *Proceedings of the International Management Conference*, 13(1), 1117-1124. https://conference.management.ase.ro/archives/2019/pdf/5_13.pdf
- Burlingame, E. P. (2018). *Classroom Acoustics in the Postsecondary Setting A Case for Universal Design* [Master's thesis, State University of New York at Buffalo]. <https://www.proquest.com/openview/ef4242ea542739dee6535af001f5c114>
- Carman, C. (2022). The Challenge of Scientific Realism to Intelligent Design. *European Journal for Philosophy of Religion*, 14(4), 42-69. <https://doi.org/10.24204/ejpr.2022.3685>
- Cheng, S., & Sin, K.-F. (2022). University Self-efficacy and Quality of University Life among Students with and without Hearing Impairment and Hearing Students. *International Journal of Disability, Development and Education*, 69(5), 1537-1549. <https://doi.org/10.1080/1034912X.2020.1801989>

- Cheng, S., & Sin, K. F. (2018). Conceptions of learning and quality of university life among deaf, hard of hearing, and hearing university students. *International Journal of Inclusive Education*, 22(12), 1333-1344. <https://doi.org/10.1080/13603116.2018.1427154>
- Chute, P. M. (2012). College Experience for Young Adults with Hearing Loss. *Deafness & Education International*, 14(1), 60-65. <https://doi.org/10.1179/1557069X12Y.0000000002>
- De Filippo, C. L. (2004). Reflections on Quality of Life as a College Concern to Facilitate Success of Students Who Are Deaf. *TCT Education of Disabilities*, 3, 11-22. <https://tsukuba-tech.repo.nii.ac.jp/records/1229>
- de Reizábal, A. L. (2022). Contributions of improvisation practice to the development of performance skills: a study of classical music performers' perceptions. *Electronic Journal of Music in Education*, (49), 67-82. <https://doi.org/10.7203/LEEME.49.24242>
- Halbedel, S. A. (2022). *Impact of Supplemental Instruction on Student Performance in High-Enrollment Social Sciences Courses: An Exploratory Case Study Northcentral University*. <https://www.proquest.com/openview/c9d359235a76d7b256764f68b6d0647a>
- Hamama, A. (2019). Quality of Academic Life and Its Relationship to the Quality of Higher Education Outcomes. *Journal of Psychological & Educational Sciences*, 6(1), 108-133. <https://www.asjp.cerist.dz/en/article/113838>
- Hanafy, A., & Al-Aydy, G. (2016). Supportive services provided for deaf and hard of hearing students and their role in the quality of academic life in higher education programs in Riyadh. *Journal of Special Education and Rehabilitation*, 4(13), 1-41. <https://doi.org/10.21608/sero.2016.92029>
- Hussein, A. H. A., Hasan, A. A., Taha, A., Hasan, S. Y., Mustafa, A. N., Sahib, A. A., et al. (2022). Meta-Analysis of Efficiency of Medicines Prescribed in Metastatic Cancer: Focusing on Quality of Life and Life Span. *Journal of Carcinogenesis*, 21(1), 9-19. <https://submissions.carcinogenesis.com/index.php/Carcinog/article/view/27>
- Jalaawi, W., Selmi, J., Bouguezzi, A., & Farhan, H. (2024). Prevalence of Xerostomia and Associated Risks Factors Among Medically Compromised Persons. *Journal of Natural Science, Biology and Medicine*, 15(1), 16. <https://jnsbm.org/menuscript/index.php/submissions/article/view/283>
- Kendall, L. (2016). Higher Education and Disability: Exploring Student Experiences. *Cogent Education*, 3(1), 1256142. <https://doi.org/10.1080/2331186X.2016.1256142>
- Kim, C. (2024). Awareness of Healthy Life and Mental Health of Nursing College Students Before and After the COVID-19 Outbreak with the Involvement in Sports Activities. *Revista de Psicología del Deporte (Journal of Sport Psychology)*, 33(1), 95-104. <https://rpd-online.com/index.php/rpd/article/view/1531>
- Kutscher, E. L., & Tuckwiller, E. D. (2019). Persistence in Higher Education for Students With Disabilities: A Mixed Systematic Review. *Journal of Diversity in Higher Education*, 12(2), 136-155. <https://doi.org/10.1037/dhe0000088>
- Lambert, D. C., & Dryer, R. (2018). Quality of Life of Higher Education Students with Learning Disability Studying Online. *International Journal of Disability, Development and Education*, 65(4), 393-407. <https://doi.org/10.1080/1034912X.2017.1410876>
- Mustafa, M., & Almutairi, T. (2021). Emotional Creativity and its Relationship to Academic Life Quality among Qassim University Female Students. *Journal of Educational and Psychological Sciences, Qassim University*, 14(3), 1354-1397. <https://jep.s.qu.edu.sa/index.php/jep/article/view/2457>

- Pedro, E., Alves, H., & Leitão, J. (2014). Evaluating Students' Quality of Academic Life. In M. E. Menon, D. G. Terkla, & P. Gibbs (Eds.), *Using Data to Improve Higher Education: Research, Policy and Practice* (pp. 93-118). SensePublishers. https://doi.org/10.1007/978-94-6209-794-0_7
- Pedro, E. d. M., Alves, H., & Leitão, J. (2018). Does the quality of academic life mediate the satisfaction, loyalty and recommendation of HEI students? *International Journal of Educational Management*, 32(5), 881-900. <https://doi.org/10.1108/IJEM-04-2017-0086>
- Quality of Life Program Delivery Plan. (2022). *Saudi Vision 2030*. <https://www.vision2030.gov.sa/v2030/vrps/qol/>
- Rajpal, H. (2022). K's Kitchen: To Expand or Not? *International Journal of Instructional Cases*, 6(1). <https://ijicases.com/menuscrypt/index.php/ijicases/article/view/31>
- Salem, S. (2017a). The Quality of Academic Life and Its Relationship to Academic Procrastination Among Students of the Department of Special Education at King Saud University. *Journal of the College of Education, University of Khartoum*, 9(10), 1-54. <https://search.emarefa.net/ar/detail/BIM-879517>
- Salem, S. (2017b). The Reality of the Use of the Deaf and Hard of Hearing Students of Instructional Technology in Light of Some of the Variables in Higher Education. *Journal of Special Education and Rehabilitation*, 5(20), 67-113. <https://doi.org/10.21608/sero.2017.91750>
- Sánchez-Cardona, I., Ortega-Maldonado, A., Salanova, M., & Martínez, I. M. (2021). Learning Goal Orientation and Psychological Capital Among Students: A Pathway to Academic Satisfaction and Performance. *Psychology in the Schools*, 58(7), 1432-1445. <https://doi.org/10.1002/pits.22505>
- Sharma, H. L., & Nasa, G. (2014). Academic Self-Efficacy: A Reliable Predictor of Educational Performances Prof. Hemant Lata Sharma. *British Journal of Education*, 2(3), 57-64. <https://doi.org/10.37745/bje.2013>
- Singh, B., & Singh, D. (2022). On μ -Proximity Spaces. *Math. Appl*, 11, 181-190. <https://mathsapplication.com/wp-content/uploads/2023/07/10.13164-ma-2022-14.pdf>
- Sirgy, M. J., Grzeskowiak, S., & Rahtz, D. (2007). Quality of College Life (QCL) of Students: Developing and Validating a Measure of Well-Being. *Social Indicators Research*, 80(2), 343-360. <https://doi.org/10.1007/s11205-005-5921-9>
- Skinner, A. L., Rawlins, L. A. R., & Hughes, C. (2010). A Preliminary Investigation Comparing Academic Locus of Control and Perceived Quality of Academic Life across College Students with and without Disabilities. *Inquiry: Critical Thinking Across the Disciplines*, 25(1), 9-16. <https://doi.org/10.5840/inquiryctnews.20102519>
- Turkestani, M., & Alanazi, W. (2019). The Perceptions of Faculty Members and Deaf and Hard of Hearing Students about the Obstacles to their Inclusion in a Saudi University. *The International Interdisciplinary Journal of Education*, 10(8), 22-41. <https://doi.org/10.36752/1764-008-010-002>
- Vargas-Uricoechea, H., Frias, J. P., & Vargas-Sierra, H. D. (2023). Fixed-Ratio combinations (Basal Insulin Plus GLP-1RA) in Type 2 diabetes. An analytical review of pivotal clinical trials. *The Review of Diabetic Studies*, 19(1), 14-27. <https://doi.org/10.1900/rds.2023.19.14>