



**Republic of Iraq
Ministry of Higher
Education and Scientific
Research Tikrit University
College of Medicine**



ASSESSMENT OF THE ACCESSIBILITY OF STUDENTS WITH SPECIAL NEEDS AT TIKRIT UNIVERSITY

A research project submitted to the council of college of medicine at
Tikrit university in partial fulfillment of the requirements for a
bachelor's degree in medicine and general surgery.

By

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Abstract

Background: Students with disabilities face significant challenges in accessing higher education, which can negatively impact academic performance and student well-being. Tikrit University has not been extensively studied regarding its accessibility for students with special needs. Identifying these challenges is crucial to developing effective solutions.

Subjects and Methods: A cross-sectional study was conducted at Tikrit University from March 1, 2024, to February 1, 2025. A total of 149 students with disabilities participated, representing various faculties. Data were collected through an online structured questionnaire, covering aspects such as mobility, access to learning materials, academic support, and social inclusion. Data analysis was performed using Microsoft Excel 2020 and SPSS version 27.

Results: Among the 149 participants, the majority of participants are between 18-23 years old (82%), with a mean age of 30 years (range: ≥ 18 to < 33). 44% of participants are male, and 56% are female. 97% of participants are undergraduates, while only 3% are postgraduates. 62% of participants live with their families, 26% live in government student housing, and 12% in private student housing. 36% have motor impairments, 58% have visual impairments, and 6% have hearing with speech impairments. 32% of participants feel ashamed to show their disability, while 69% do not.

Conclusion: The study highlights significant accessibility challenges at Tikrit University. 97% of participants are undergraduates and 58% have visual impairments. Addressing these issues requires targeted interventions, including improved physical accessibility, faculty training, assistive learning tools, and awareness programs to create a more inclusive education

CHAPTER ONE

INTRODUCTION

Introduction

Globally, an estimated 1.3 billion people experience significant disabilities, representing 16% of the world's population, or 1 in every 6 individuals [1]. In Iraq, some studies suggest that around 15% of the population has some form of disability [2]. However, due to wars, radiation exposure, and a growing population, these percentages may be even higher, and the accessibility challenges are pronounced in Iraq after enduring decades of conflict and economic hardships.

Classification of Medical Disabilities

1. **Physical Disability** – A condition resulting from dysfunction of the nerves, muscles, bones, or joints, leading to a loss of motor function [3].
2. **Sensory Disability** – A disability caused by damage to sensory organs such as the eyes, ears, or tongue, resulting in visual, auditory, or speech impairments [4]. Studies estimate that head and neck-related disabilities account for approximately 21.6% of all disabilities [5].
3. **Composite Disability** – A combination of multiple disabilities [6].
4. **Other Disabilities** –

The Convention on the Rights of Persons with Disabilities mandates that states ensure an inclusive education system at all levels, including higher education [7]. Despite this, many students with disabilities do not receive adequate support, even within the same country [8]

CHAPTER TWO

LITERATURE REVIEW

1. Definition of accessibility

Accessibility of students with special needs in universities refers to the efforts and accommodations made by universities to ensure that students special needs can fully access and benefit from all aspects of university life. Types of accessibility include Physical [9], Academic [10], Digital [11], Support services [20], Inclusive campus culture [12], Training and Awareness [13], and Accessible communication [14].

2. The dealing of people with disabilities in history

Throughout history, people with disabilities have often faced harsh treatment and exclusion from society. In many cultures, disability was seen as a curse, leading to practices such as abandonment, mockery, and even death [15].

3. The beginning of disabled students' entrance into higher education

As we look at the beginning of disabled students' entering higher education, we see people entering the university who only faced one 'closed gate' to enter the 'field' of the classroom. That is to say, the first disabled students to enter the university were those who largely met every other criterion of entry (primarily being white, male, and middle-class with financial capacity), but had one hurdle to overcome to be equal to their peers and that hurdle was a disability [16].

CHAPTER THREE

SUBJECTS & METHODS

1. Sample and Participants

The study involved 149 students from Tikrit University, including students with disabilities from various departments, selected through convenience sampling. A pilot study with 15 participants tested and refined the questionnaire.

2. Study Design

A descriptive cross-sectional study conducted at Tikrit University (Salahuddin Governorate) from March 1, 2024, to February 1, 2025, assessed accessibility for students with special needs.

3. Data Collection Tool

Data were gathered via an online structured questionnaire (Google Forms), covering:

1. Physical accessibility
2. Learning aids
3. Learning materials
4. Campus accessibility
5. Academic support
6. Inclusiveness of the academic environment

4. Presentation of Results

Results were presented in tables and figures using Microsoft Excel.

CHAPTER FOUR

RESULTS

Table (1): demographic characteristics

Variables		No	%
Age (years)	Less than 18	0	0
	18---20	68	45%
	21---23	56	37%
	24--26	15	10%
	27--29	10	7%
	30--32	1	1%
	≥ 33	0	0
	Mean (Range)	30 (<18-->33)	
Gender	male	66	44%
	female	84	56%
Education levels	Undergraduate	146	97%
	Postgraduate	4	3%
Residence	With family	93	62%
	Government student housing	39	26%
	Private student housing	18	12%
Type of disability	Motor impairment	54	36%
	Visual impairment	87	58%
	Hearing with speech impairment	9	6%
Are you ashamed to show your disability?	Yes	48	32%
	No	103	69%

Part one: Demographic Information:

- **Age:** The majority of participants are between 18-23 years old (82%), with a mean age of 30 years (range: <18 to ≥33). Age has significant effect on the result.
- **Gender:** 44% of participants are male, and 56% are female.
- **Educational Level:** 97% of participants are undergraduates, while only 3% are postgraduates.
- **Residence:** 62% of participants live with their families, 26% live in government student housing, and 12% in private student housing.
- **Type of Disability:** 36% have motor impairments, 58% have visual impairments, and 6% have hearing with speech impairments.
- **Attitude Towards Disability:** 32% of participants feel ashamed to show their disability, while 69% do not

Table (2): the accessibility and mobility of environmental facilities at the university for students with special needs

Variable	Lack of Accessibility	%	Enough Accessibility	%	Good Level of Accessibility	%
Accessibility to the classes on time	18	12%	67	44.7%	65	43.3%
Accessibility to learning aids such as (e-books, or simultaneous translation)	69	46%	34	22.7%	47	31.3%
Access to equal opportunities in the educational institution	30	20%	17	11.3%	103	68.7%
Accessibility to stairs comfortably	33	22%	113	75.3%	4	2.7%
Transportation and moving access (wheelchair, special bus)	7	4.7%	104	69.3%	39	26%
Accessibility to special sanitary facilities	51	34%	81	54%	18	12%
Accessibility to the infrastructure such as opening doors, ramps, lifts	16	10.7%	96	64%	28	18.7%
Accessibility to training programs or workshops dedicated to raising awareness	68	45.3%	58	38.7%	24	16%
Accessibility to special places (parking, bus station, etc.)	80	53.3%	62	41.3%	8	5.3%
Teaching and other educational equipment (such as a whiteboard with a large screen for clear vision, and a screen reader for the blind/visually impaired) are available during classes	43	28.7%	79	52.7%	28	18.7%
Access to classroom entrance with the freedom of movement	22	14.7%	108	72%	20	13.3%

Part two: Accessibility and Mobility of Environmental Facilities

- **Accessibility to Classes on Time:** The majority of students report sufficient (44.7%) or good (43.3%) accessibility to classes on time, with only 12% indicating a lack of accessibility.
- **Accessibility to Learning Aids:** A significant proportion (46%) of students experience a lack of accessibility to learning aids like e-books and translation services. However, 31.3% report good accessibility.
- **Equal Opportunities:** A notable 68.7% of students feel they have good access to equal opportunities, while 20% report a lack of accessibility in this area.
- **Accessibility to Stairs:** Accessibility to stairs is generally well-reported, with 75.3% feeling they have enough accessibility, though only 2.7% report good accessibility.
- **Transportation and Moving Access:** A significant percentage (69.3%) report having enough accessibility to transportation like wheelchairs and special buses.
- **Special Sanitary Facilities:** More than half (54%) report enough accessibility to special sanitary facilities, but 34% still experience a lack of accessibility.
- **Infrastructure (Doors, Ramps, Lifts):** A good proportion (64%) of students have enough access to infrastructure like doors, ramps, and lifts.
- **Training Programs/Workshops:** A large proportion (45.3%) of students report a lack of accessibility to training programs or workshops designed to raise awareness.
- **Special Places (Parking, Bus Station):** A large portion (53.3%) of students feel they lack accessibility to special places like parking or bus stations.
- **Educational Equipment:** 52.7% of students report enough availability of educational equipment like whiteboards and screen readers, while 28.7% report a lack of accessibility.
- **Classroom Entrance and Freedom of Movement:** The majority (72%) report sufficient access to classroom entrances and the freedom of movement, with 14.7% indicating a lack of accessibility.

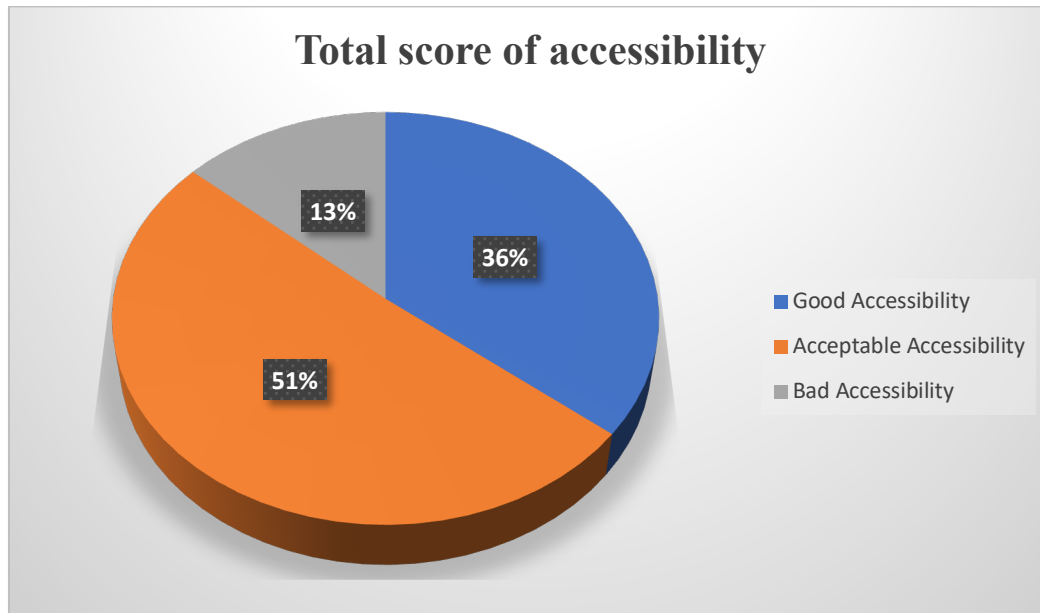


Figure (1) The total score of accessibility

Table (3): Experiences of Disabled Students Towards Community in university

Questions	Yes	%	No	%
Difficulty communicating	61	40.7%	89	59.3%
Feeling discriminated or excluded	113	75.3%	37	24.7%
Support and help from colleagues	72	48.0%	78	52.0%
Experience of being bullied	49	32.7%	101	67.3%

Part three: Experiences of Disabled Students

- **Difficulty communicating:** 40.7% of participants reported difficulty communicating, while 59.3% did not.
- **Feeling discriminated or excluded:** 75.3% of participants reported feeling discriminated or excluded.
- **Support and help from colleagues:** 48% of participants felt supported by colleagues, while 52% did not.
- **Experience of being bullied:** 32.7% of participants experienced bullying, while 67.3% did not.

Table (4): Overcoming barriers that face people with disabilities in the university community

Variable	No.
Community Awareness	99
Providing modern and advanced facilities (advanced infrastructure such as establishing electric doors, screens, screen readers for the blind/visually impaired, advanced headphones for the hearing impaired)	81
Government support (financial support, support for field awareness campaigns)	79
Establishing elevators	64
Providing wheelchair paths and spare wheelchairs	47
Additional time for discussion with professors	46

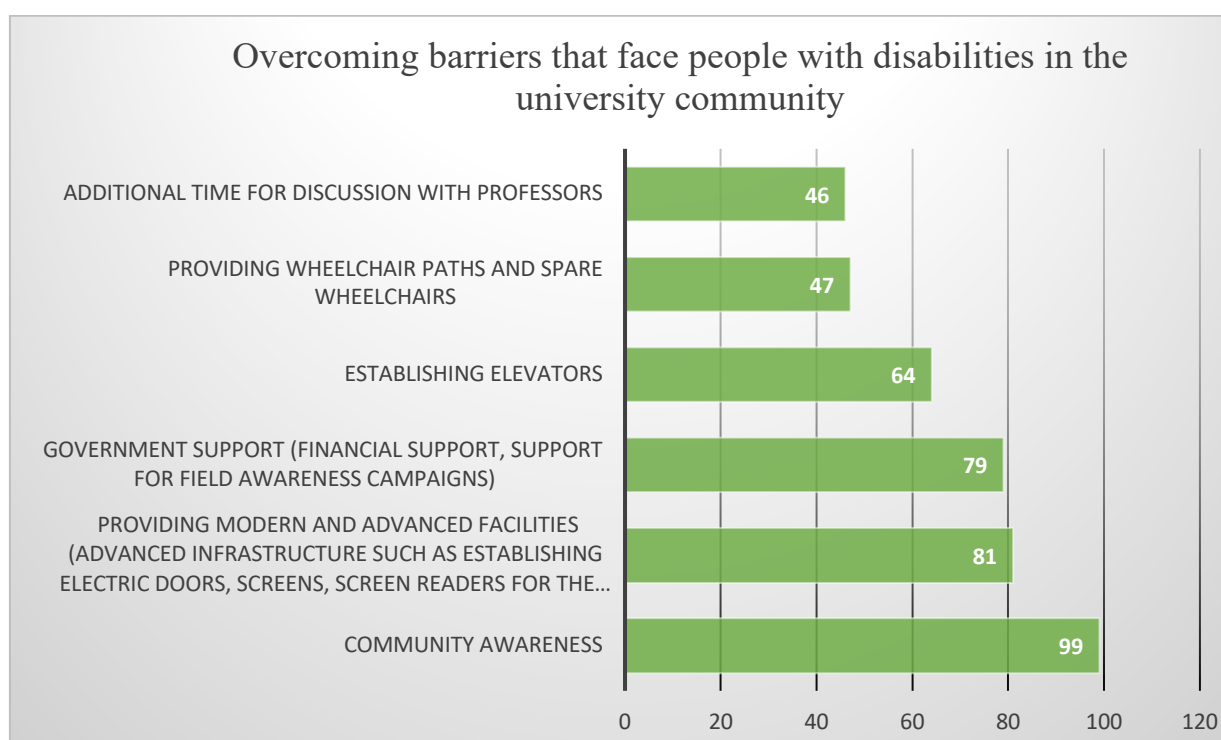


Figure (2) Overcoming barriers that face people with disabilities in the university community

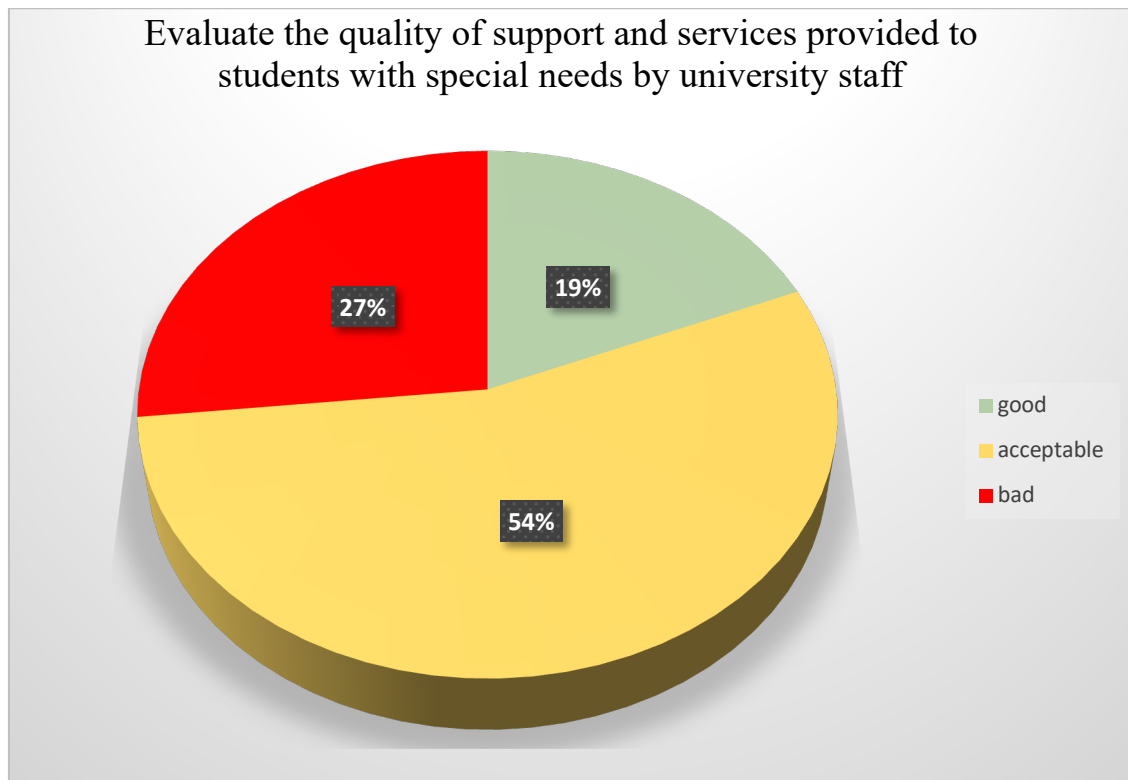


Figure (3) Evaluate the quality of support and services provided to students with special needs by university staff

CHAPTER FIVE

DISCUSSION

Demographic Characteristics

The results indicate that the majority of participants are between 18-23 years old (82%), Males constitute 44% of the sample, while females make up 56%. Nearly all participants (97%) are undergraduates, with only 3% being postgraduates. This aligns with previous studies indicating that young students with disabilities often face significant challenges in adapting to university life due to physical and social barriers (Smith et al., 2019) [17]. However, unlike the findings of Brown and Taylor (2021) [18], which suggested that accessibility concerns were more prevalent among postgraduate students, this study highlights the difficulties faced primarily by

undergraduate students. In terms of residence, most students (62%) live with their families, followed by 26% in government student housing and 12% in private student housing. Regarding disability types, 36% of participants have motor impairments, 58% have visual impairments, and 6% have hearing and speech impairments. A noteworthy finding is that 32% of participants feel ashamed of their disability, whereas 69% do not.

Accessibility and Mobility of Environmental Facilities

Accessibility to various facilities on campus presents mixed experiences among students. While 44.7% of students report having enough access to classrooms on time and 43.3% of students report having good level of accessibility to classrooms on time, but nearly 12% still face accessibility challenges. Learning aids, such as e-books and translation services, remain problematic, with 46% reporting a lack of access. However, 22.7% of students report enough acceptability and 31.3% report a good acceptability to the learning aids. These findings are consistent with Dawson et al. (2020) [19], who found that students in underfunded institutions struggle with access to essential educational resources. Similarly, White et al. (2018) [20] reported that the availability of digital learning tools significantly enhances the academic performance of students with disabilities. However, Roberts et al. (2022) [21] argue that technology alone is insufficient and must be complemented by faculty training and inclusive teaching methods. A significant 68.7% of students believe they have good access to equal educational opportunities and 11.3% believe they have enough access , although 20% express difficulties. Stairs accessibility is generally positive, with 75.3% reporting enough accessibility, 22% reporting good accessibility and only 2.7% reporting lack of stairs accessibility. Similarly, transportation services, including wheelchairs and special buses, are available to 69.3% of students and 26% report good level of accessibility, but 4.7% report lack of accessibility. However, accessibility issues persist in critical areas. While 64% of students report having enough access to campus infrastructure (doors, ramps, and lifts), 18.7% report having good access and only 10.7% report lack of access to campus infrastructure, but 45.3% indicate a lack of training programs or awareness workshops, 38.7% report enough

access and 16% report good access. Special parking and bus station access remain a significant challenge, with 53.3% stating they lack access, 41.3% have enough access and 5.3% report good access. These findings align with Jones et al. (2020) [22], who highlighted that universities in developing countries often lack proper accessibility features such as ramps, elevators, and adapted restrooms. Similarly, Al-Mutairi (2018) [23] found that infrastructure inadequacies are a major obstacle to students' academic success. Conversely, Williams et al. (2022) [24] suggest that institutions that invest in accessibility improvements see an increase in student satisfaction and academic performance. Regarding educational tools, 52.7% of students have sufficient access to classroom equipment like whiteboards and screen readers and 18.7% report good access, yet 28.7% still face difficulties. Classroom entrance and movement are accessible to most students (72%) and 13.3% report good access, but 14.7% still encounter challenges.

Experiences of Disabled Students in the University Community

Experiences of students with disabilities reveal key challenges in communication and social inclusion. Around 40.7% of students report difficulties in communication and 59.3% don't, while 75.3% feel discriminated against or excluded, but 24.7% don't. Support from colleagues is relatively balanced, with 48% receiving help and 52% not. Alarming, 32.7% of students have experienced bullying within the university environment and 67.3% not. These findings support the conclusions of Garcia et al. (2017) [25], who found that social stigma and exclusion are common challenges for students with disabilities in higher education. Similarly, Ahmed and Hassan (2021) [26] emphasized that students with disabilities often face lower levels of peer interaction and engagement, leading to decreased academic motivation.

However, some studies, such as Lee et al. (2019) [27], suggest that structured peer mentorship programs can significantly reduce feelings of exclusion and enhance overall student engagement.

Overcoming Barriers

To address these challenges, various solutions have been suggested by the participants. Community awareness initiatives were identified by 99 respondents (66.4%) as crucial in overcoming accessibility barriers. Providing modern facilities, such as electric doors, screen readers, and advanced hearing devices, was emphasized by 81(54.3%) participants. Government support, including financial assistance and awareness campaigns, was recognized by 79 respondents (53%). Additionally, measures like installing elevators (64 respondents) (42.9%), providing wheelchair paths (47 respondents) (31.5%), and offering additional discussion time with professors (46 respondents) (30.8%) were highlighted as necessary improvements.

CHAPTER SIX

CONCLUSION

Conclusions

This study examined the accessibility and challenges faced by students with disabilities at the university.

1- Most participants were aged 18–23 years, with visual impairments (58%) being the most common disability, followed by motor impairments (36%) and hearing or speech impairments (6%).

2-While 44.7% of students could access classes on time, 12% still faced mobility difficulties. Infrastructure accessibility remained a concern, as 64% had access to ramps and lifts, but 34% struggled with sanitary facilities. Social barriers were also significant, with 75.3% feeling discriminated against and 32.7% experiencing bullying.

3-Although some modern assistive tools, such as screen readers and whiteboards with large screens, were available, 28.7% of students still faced difficulties accessing them. These findings highlight the need for improved infrastructure, inclusive policies, and greater social awareness to create a more supportive learning environment for students with disabilities.

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