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Sarab Kareem Abbas

Faculty of Agriculture -
Horticulture and Landscape
Architecture, Al-Qasim Green
University, Al Qasim, Iraq

Effects of garden and academic level of Babylon university student on their evaluation, opinions, and desires of its garden

Sarab Kareem Abbas

Abstract

This study was conducted during the 2023-2024 academic year to determine the effect of gender and academic level on the evaluation, opinions, and desires of University of Babylon students regarding the university gardens. The study was conducted in two phases: the first was a theoretical study and the second was a field study. The most important results of the field study were that the university gardens were in poor condition, a view agreed upon by most students of both genders. Most students of both genders and all levels also agreed that amenities such as benches, kiosks, and sanitary services were unavailable due to the university administration's lack of interest and failure to listen to students' needs and desires. The researcher concluded that first-year students have less experience and knowledge of university gardens than advanced-year students. The University of Babylon gardens do not meet the required standards and lack amenities for students. Furthermore, the lack of recreational and leisure facilities and the students' lack of access to the gardens have led them to flee to other places, such as the club, walking around the university, or gathering near classrooms. The researcher recommended the need to educate new students about the importance of gardens and their care through lectures, seminars, and tours of the university's gardens, as well as organizing volunteer campaigns. He also recommended providing amenities to attract students, such as fountains and benches, and planting flowers in abundance, given their psychological impact. He also recommended making a portion of the gardens open to male students for sports, and providing adequate financial and human resources to develop existing gardens.

Keywords: Effects, student activities, garden design, babylon university

Introduction

Universities are considered effective societal institutions, playing an influential role in preparing young men and women scientifically, socially, and culturally to fulfill their roles in society in various fields. Therefore, it is essential to provide a suitable university environment for them to perform their academic duties and engage in various extracurricular activities. Gardens are among the most important elements that help create a comfortable and suitable university environment for students (Al-Hasnawi, 2009) ^[4].

Huan Yang (2003) ^[13] stated that gardens are an important component of academic institutions, not merely a complementary component, whether schools or universities. This is due to their role in enhancing the academic progress of the institution through their importance in providing students with psychological and mental stability, which enhances their ability to comprehend academic curricula. This is in addition to their social, environmental, recreational, and aesthetic importance. Universities are an important cultural center for their city, and they play a significant role in developing society scientifically, culturally, literarily, and morally through holding seminars, workshops, theatrical, artistic, and scientific performances. Therefore, universities are an important link between society and scientific institutions, and they influence the social, moral, cultural, and artistic development of the city's residents (Alnusairat, 2021) ^[9].

The world has been paying attention to university green spaces for several years. Turner (1984) ^[18] stated that universities developed with the issuance of laws promoting education in various scientific and cultural fields, providing education for all social classes, and the right to choose a field of study. University gardens are the first area that catches the eye of both current and new students, as well as visitors. The beauty of the green spaces (gardens) and the extent of their care leave a significant impact on their psyches. Therefore, they are considered a factor that encourages a sense of belonging to the university, in addition to other factors such as the availability of classrooms, scientific laboratories, and competent

Correspondence Author:

Sarab Kareem Abbas

Faculty of Agriculture -
Horticulture and Landscape
Architecture, Al-Qasim Green
University, Al Qasim, Iraq

academic and administrative staff. The University of Babylon gardens were chosen as the subject of this study because they are among the leading universities in Iraq and enjoy a solid academic standing among Iraqi universities. They are the first and only public university in the city of Hillah, and include various colleges and scientific departments. They also have large areas that are used as gardens, which students use in their free time to engage in their various activities.

Importance of the Study:

- Gardens have a significant impact on creating a suitable university environment for students, providing them with a comfortable psychological atmosphere for performing their academic duties and engaging in extracurricular activities.
- Listening to students' opinions and desires helps develop a detailed program for developing the gardens, in which students participate, to meet their personal needs and aspirations.
- Understanding the impact of gender on students' desires and opinions helps us meet the necessary requirements for both genders. This is due to the differences in their needs, desires, hobbies, activities, and thinking. This is a result of the differences in social traditions and customs prevalent in Iraqi cities, which impact the behavior, thinking, and lifestyle of both genders.
- Students' needs vary according to their academic levels due to the influence of time and socialization on university life. Therefore, understanding the impact of the academic level variable in detail helps us meet the needs of students at various levels.

Study Problem

- a) Various universities strive to provide basic academic requirements, such as halls, laboratories, and workshops, without paying attention to gardens, where students spend most of their time. These gardens are an important part of providing a suitable university environment for students and enhancing their academic comprehension by providing a suitable atmosphere for their hobbies and extracurricular activities.
- b) Failure to involve students in decision-making that affects their university life, especially in the field of garden planning and design.
- c) Failure to adopt design standards for extracurricular activities undertaken by students in garden design.
- d) Lack of comfort requirements, including natural and structural elements, in paved gardens.
- e) Failure to take into account the worsening climate problems in Iraq and the world when designing gardens.
- f) Lack of sufficient attention by the university administration to gardens and their requirements.

Study Objectives

1. To evaluate the current status of the University of Babylon gardens by students of both genders and at various levels.
2. To give students a role in expressing their opinions in decision-making that affects their lives within the university.
3. Identifying the impact of students' gender on their opinions and desires for garden development.
4. Identifying the impact of the academic stage on students' needs and orientations.

The methodology includes

- **The first stage (theoretical study):** Includes a summary of the research and studies related to the research topic, including (the questionnaire and its types, advantages, and disadvantages; the university, its definition and classifications; the university campus, its definition and components; the university environment, its definition; the history of garden design and green spaces in American universities; the importance of gardens; and the components of gardens).
- **The second stage (field study):** Includes the questionnaire: The questionnaire was conducted to determine students' opinions and desires. The questionnaires were distributed equally to students at the four stages, including males and females.

Literature Review

Questionnaire: A collection of diverse and interconnected questions related to a specific problem or phenomenon that constitutes a research problem the researcher seeks to study to obtain the desired results and conclusions. As Al-Najjar et al. (2008)^[7] pointed out, a questionnaire: A questionnaire is a diverse and interconnected set of questions through which the researcher aims to obtain specific information related to the research problem.

Advantages of the questionnaire:

1. It is an inexpensive method for collecting information.
2. The researcher can collect a wide variety of information from different individuals, and in a timely manner.
3. Ease of collecting information and arriving at conclusions.

Disadvantages

1. Both groups may feel bored and tired with the numerous and lengthy questions.
2. Both groups may be intentionally or inadvertently neglecting to provide the correct answers.

Types of Questionnaires

1. Closed: Contains a number of yes and no answers.
2. Open-closed: Some answers are specified as yes and no, while others are open-ended.
3. Illustrated: Provided for illiterate individuals (Kandilji, 2008)^[8].

Definition of university: A scientific and educational institution where students receive various sciences for the purpose of obtaining a university degree in a specific field of science. It is also a place for conducting studies and research in various scientific fields (Al-Fahham, 2018)^[6].

Hanan (2013)^[12] defined it as an important place for developing students' ideas, forming new ideas, and establishing relationships with each other and with the teaching staff.

Classification of Some Universities

1. **London:** Consists of independent colleges with a specialized nature, their own services, and are self-sufficient.
2. **Oxbridge:** These colleges provide services such as food and accommodations for users and are semi-independent.
3. **The district:** It includes several colleges with different central service methods (Ismail, 2021)^[1].

Universities were also classified according to their location in relation to the city into:

1. **The university category:** This is called the modern university, meaning it is a miniature city, as it meets all the requirements of university users. It is characterized by a knowledge-based design unit, and the suburbs of cities are suitable locations for it.
2. **The integrated category:** The university's location is intertwined with the green components of the city, and it relies on providing the services university users need (Schemertz, 1972) ^[16].

Neuman (2013) ^[15] indicated that the university campus is more than just spaces between buildings. It is a place that reflects the diverse needs of the users through the recreational and cultural processes, developing a sense of belonging to the place among users and bringing together all social interactions.

Campus Components

1. Buildings
 - Academic (educational) buildings
 - Service buildings
 - Administrative buildings
 2. Playgrounds
 3. Roads, walkways, and sidewalks
 4. Green spaces
 5. Parking areas
 6. Entrances... etc. (Alnusairat, 2021) ^[9].
- **Definition of the social environment:** It is a set of social and environmental factors and conditions that surround the learning process and directly affect social relations among users and the academic development of the university (Al-Harathi, 2022) ^[2].

History of the design of gardens and green spaces in American universities:

Gardens and green spaces are important components of the university campus and play a significant role in developing social relations and intellectual comprehension for students. Francis & Marcus (1998) ^[14] stated that gardens and green spaces in various universities were the spaces between buildings. While Gisolfi (2004) ^[11] stated that campuses have existed in American universities for more than 200 years, landscape architects have played a significant role in laying the foundation for highlighting and emphasizing landscapes in universities, HuanYang (2003) ^[13] indicated that Price and Richard created a new approach to incorporating the surrounding natural landscapes of forests, hills, and slopes into campuses. Dober (1963) ^[10] is considered the first to establish the correct scientific basis for campus design, which is considered a departure from the norm because of its focus on campus planning rather than the architectural style of buildings. He recommended that campus planning be transferred from architects to landscape designers.

The Importance of University Gardens:

1. The psychological impact that the sight of gardens has on students and visitors.
2. Enhancing the social and academic environment by providing an appropriate atmosphere for various student

activities (Al-Sharifat, 2024) ^[5].

Garden Components: Garden components are divided into:

First: Natural Components, including:

a) Plants

- 1- Trees
- 2- Shrubs
- 3- Plant hedges
- 4- Flowering herbaceous plants
- 5- Flowering herbaceous plants
- 6- Bordering plants
- 7- Green spaces
- 8- Soil covers

b) Water

Second: Structural Components, including:

- 1- Entrances
- 2- Walkways
- 3- Enclosure elements, divided into: A- Fences B- Short barriers
- 4- Arches and canopies
- 5- Benches
- 6- Vases and plant pots
- 7- Monuments and statues
- 8- Fountains
- 9- Water basins
- 10- Lighting
- 11- Kiosks
- 12- Arbours
- 13- Other supporting buildings (Reservations, 2011)

Requirements for University Gardens

1. Ease of access from various university locations
2. Safety and security requirements must be met
3. Accessibility for all members
4. Provision of designated spaces for various activities
5. Design must be consistent with community customs and traditions
6. Aesthetic elements must be present, whether natural or structural
7. Proper maintenance must be ensured (Torina Wilson, 2018) ^[17].

Student Activities and Appropriate Spaces

Spaces designated for individual study: These are spaces designated for students to read and complete their academic requirements. The following conditions must be met.

- Tables and chairs must be provided.
- Visual comfort that soothes the soul and calms the nerves, such as natural landscapes and calming, distinctive colors that help the student focus and feel energetic.
- These spaces should preferably be isolated from noisy gatherings. Suitable isolation should be provided by choosing spaces surrounded by trees or buildings.
- Spaces that accommodate different types of study habits must be provided.
- Individual furniture and small tables must be provided that are easy to move from one place to another.
- Shady and sunny areas must be provided.

Spaces designated for group reading (less than 4 students): These must meet the following conditions

- Appropriate space must be provided, along with comfortable furniture.
- Use movable furniture that can be moved from one place to another.
- The presence of attractive spaces with high aesthetic value.
- A sense of security.
- A variety of floors, including hardwood and grassy areas.
- A variety of sunny and shady areas.

Student Extracurricular Activities and the Requirements for Their Designated Spaces: Through studies, research, and surveys conducted by many researchers in this field, the most important extracurricular activities practiced by students in their free time were identified, along with the necessary requirements for their functional effectiveness. The most important of these are:

First: Designated Reading Spaces: These are spaces designated for students to read individually or in groups and to complete some of their academic requirements. These spaces must meet the following conditions:

- The spaces must be isolated and away from noise.
- Tables and individual chairs must be provided that can be moved from one place to another.
- The presence of beautiful natural scenery that soothes the soul and helps students focus and feel energetic.
- The use of calming colors for visual comfort.
- Providing sunny and shaded seating areas.
- The space must accommodate a sufficient number of students.
- Providing various services, including bathroom facilities and drink kiosks.

Second: Spaces designated for group sessions (less than 4 people):

Appropriate spaces must be provided for students to sit in groups of less than 4 people for the purpose of reading, conversing, having fun, playing games, and enjoying drinks and food. These spaces must meet the following conditions:

- Providing adequate space for these activities, along with the necessary supplies.
- Using shared furniture to facilitate movement, changing seating positions, and assigning students as needed.
- Providing safety.
- Providing attractive views with significant aesthetic value.
- Variety of flooring, including hardwood and grassy surfaces.
- Providing shaded and sunny areas.
- Paying attention to student privacy and comfort.
- Providing all types of services

Third: Spaces designated for group sessions (more than 4 people)

These are designated spaces for more than four students to engage in various activities, such as discussion, entertainment, sports, and group parties. The following conditions must be met:

- The furniture and equipment required for the space are among the most important requirements for these spaces, such as providing large tables, movable chairs, and other necessary sports and recreational activities.
- Providing sufficient space for students to engage in various activities.
- Paying attention to the aesthetic and environmental values surrounding the space.
- Providing a variety of seating areas.

- Providing the required services.

Fourth: Relaxation Areas

Relaxation areas are characterized by a great deal of design flexibility, given the diverse needs of students when searching for a place to relax. These areas must meet several requirements, the most important of which are:

- Providing ample green space, as this allows students to engage in various forms of relaxation, such as reading, lying down, meditating, or sitting in the shade.
- Providing attractive and relaxing views to reduce stress and psychological pressure resulting from being in classrooms.
- Providing services.
- Providing appropriate seating for various types of seating, such as lying down (Torina, 2018) ^[17].

Al-Fahham (2018) ^[6] divided the spaces for students' extracurricular activities into:

First: Spaces designated for quiet activities, including studying, reading, contemplation, and choosing friends, where movement is limited. The conditions for these spaces are:

- They must provide a sense of tranquility, with secluded spaces chosen, away from noise and activity.
- They must provide a sense of calm and visual enjoyment.
- They must offer a variety of seating options, from shaded to sunny.
- They must provide appropriate services and furniture.

Second: Spaces designated for active activities

These spaces are designated for active activities where noisy movement is a major factor, including various group and individual games. These spaces are of great importance in increasing social interaction among students, and the following conditions must be met:

1. The presence of large, open green spaces.
2. The provision of necessary services.
3. The provision of the required sports equipment and tools.
4. Surrounding the area with several rows of trees and shrubs to reduce the impact of noise on nearby areas.
5. Selecting locations far from academic and administrative buildings.

Field Study

University of Babylon: The University of Babylon was established in 1987 on its current site, formerly occupied by the Babylon Technical Institute. The total area of the university currently amounts to 2,500 dunams, comprising 20 colleges and 20,000 students in morning and evening studies. The area of the gardens amounts to 14,400 dunams. **Questionnaire:** 120 questionnaires were prepared, including personal questions and questions related to gardens. These questionnaires were distributed equally to male and female students (60 questionnaires for each). These questionnaires were filled out equally across the four stages (30 questionnaires for each stage (15 for males and 15 for females)). The results of the questionnaire were as follows:

Results and Discussion

Table 1A: What is your opinion of the university gardens? 1-A Evaluation by Gender

Gender	Stage	Good	Middle	Poor	Total
Males	1	2	4	9	15
	2	1	6	8	15
	3	-	3	12	15
	4	-	1	14	15
	Total	3	14	43	60
	Percentage	5%	23,3%	71,6%	
Gender	Stage	Good	Middle	Poor	Total
Female	1	3	5	3	15
	2	2	10	3	15
	3	1	5	9	15
	4	-	-	15	15
	total	6	20	34	60
	Percentage	10%	33,3%	56,6%	

Table 1B: Evaluation according to stage

Stage	Good	Percentage	Middle	Percentage	Poor	Percentage	Total
1	5	16.6	16	53.3%	9	30%	30
2	3	10%	16	53.3%	11	36.6%	30
3	1	3.3%	8	26.6%	21	70%	30
4	-	-	1	3.3%	29	96.6%	30
Total	9		34		77		120

The results of Table (1) show that most male and female students across all levels agree that the university gardens are of poor quality. This is due to the university administration's lack of interest in the gardens and the lack of financial resources and qualified technical personnel to maintain existing gardens and create new ones in

accordance with scientific principles and design standards for university gardens.

Table Two: Do you consider it necessary to develop the current state of the gardens?

Table 2A: Evaluation by Gender

Gender	Stage	Yes	No	Total
Males	1	5	10	15
	2	11	4	15
	3	13	2	15
	4	15	-	15
	Total	44	16	60
	Percentage	73%	26,6%	
Gender	Stage	Yes	No	Total
Female	1	7	8	15
	2	12	3	15
	3	14	1	15
	4	15	-	15
	Total	48	12	60
	Percentage	80%	20%	

Table 2B: Evaluation according to Stage

Stage	Yes	Percentage	No	Percentage	Total
1	12	40	18	60%	30
2	23	76.6	7	23.3	30
3	27	90	3	10	30
4	30	100	-	-	30
total	92		28		120

The results of Tables 2-A and 2-B show that both genders, across all levels, agree on the need to develop university gardens in a thoughtful manner, using a modern, practical approach, and in line with the development and interest of

other universities, especially private ones, in this area.

Table 3: Where do you spend most of your free time at university?

Table 3A: Evaluation by Gender

Gender	Stage	Near the classroom	Gardens	Walk-around	Club	All	total
Males	1	8	3	1	2	1	15
	2	3	2	1	4	5	15
	3	-	2	1	5	7	15
	4	-	1	2	7	5	15
	total	11	8	5	18	18	60
	Percentage	18,3%	13,3%	8,3%	30%	30%	
Gender	Stage	Near the classroom	Gardens	Walk-around	Club	All	total
Female	1	8	5	-	2	-	15
	2	7	5	-	3	-	15
	3	6	6	-	3	-	15
	4	3	7	-	5	-	15
	Total	24	23	-	13	-	60
	Percentage	40%	38,3%	0%	21,6%	0%	

The results, broken down by gender, showed that 30% of males spent most of their time at the club, while 8.3% of males spent their time walking around. Females, on the

other hand, spent most of their time near classrooms due to the city's social traditions. Most female students also preferred arriving to class on time.

Table 3b: Evaluation by Stage

Stage	Near the classroom	Percentage	Gardens	Percentage	Walk-around	Percentage	Club	Percentage	All	Percentage	Total
1	19	63.3%	6	20%	1	3.3	3	10%	1	3.3	30
2	10	33.3%	7	23.3%	1	3.3	7	3.3%	5	16.6%	30
3	6	20%	8	26.6%	1	3.3	8	26.6%	7	23.3	30
4	3	10%	8	26.6%	2	6.6%	12	6.6%	5	16.6%	30
Total	38		29		5		30		18		120

The reason first-year students chose to spend most of their time near classrooms was their lack of familiarity with the university's campus and the intensity of the lectures. This was because they began university late compared to other

students, who chose to spend most of their time in the club due to the lack of amenities and entertainment in the parks. Table Four: What is your favorite activity to do in university parks?

Table 4A: Evaluation by Gender

Total	All	Playing games	Sitting	Reading	Stage	Gender
15	2	6	4	3	1	Males
15	4	6	3	2	2	
15	4	10	2	1	3	
15	2	12	1	-	4	
60	10	34	10	6	total	
	16,6%	56,6%	16,6%	10%	percentage	
Total	All	Playing games	Sitting	Reading	Stage	Gender
15	3	-	7	5	1	Female
15	2	-	10	3	2	
15	4	1	9	1	3	
15	5	2	7	1	4	
60	14	3	33	10	total	
	23,3%	5%	55%	16,6%	percentage	

The results, by gender, showed that 56.6% of males prefer going to parks to play sports, while 5% of males prefer reading.

As for females, 55% prefer going to parks to sit, while 5% of females prefer going to parks to play sports. The reason male students choose parks to play sports is because they

can play various games comfortably without any restrictions, unlike females who find it difficult to exercise due to religious and societal restrictions imposed on women. Therefore, most female students prefer going to parks to sit, read, and converse.

Table 4B: Evaluation by Stage

Stage	Reading	Percentage	Sitting	Percentage	Playing games	Percentage	All	Percentage	total
1	8	26.6%	11	36.6	6	20%	5	16.6%	30
2	5	% 16.6	13	43.3%	6	20%	6	20%	30
3	2	6.6%	11	36.6%	11	36.6%	6	20%	30
4	1	3.3%	8	26.6%	14	46.6%	7	23.3%	30
total	16		43		37		24		120

From Table 4-b, we find that most students, across all levels, prefer to sit in the gardens, chat with each other, and take a break from the atmosphere of lectures and study.

Table 5: Do you think amenities, such as seating, booths, and health services, are available?

Table 5A: Evaluation by Gender

Gender	Stage	Yes	No	Total
Males	1	1	14	15
	2	-	15	15
	3	-	15	15
	4	-	15	15
	total	1	59	60
	Percentage	1,6%	98,3%	
Gender	Stage	Yes	No	Total
Female	1	2	13	15
	2	-	15	15
	3	-	15	15
	4	-	15	15
	total	2	58	60
	percentage	3,3%	96,6%	

Table 5B: Evaluation according to Stage

Stage	Yes	Percentage	No	Percentage	Total
1	3	10%	27	90	30
2	-	-	30	100%	30
3	-	-	30	100%	30
4	-	-	30	100%	30
total	3		117		120

Most students, both male and female, across all levels, agreed that the university's gardens are in poor condition, including seating, kiosks, and sanitary services. This is attributed to the university administration's lack of interest in addressing students' needs and desires. This is in addition to the lack of attention to providing various amenities that would encourage students to visit the gardens and spend their free time there.

Conclusion

- The university gardens are in poor condition. This was agreed upon by most students across all levels, both male and female. This is due to several reasons:
 - The university administration focuses primarily on providing academic supplies, such as halls and laboratory equipment, without paying attention to the gardens and their needs, due to their lack of awareness of their importance.
 - The lack of funding for garden development and maintenance.
 - The lack of reliance on specialists in this field, who provide the necessary designs and studies to develop the gardens according to modern scientific methods.
- The lack of various amenities in the gardens has forced most students to spend their time away from the gardens.
- The lack of suitable spaces for various activities has forced most students, both male and female, across all levels, to simply sit and chat.

Recommendations

- Prepare a scientific study to develop gardens according to a scientific method consistent with developments in the field, by specialists in this field.

- Provide the necessary capital for garden development, as well as labor and experienced personnel.
- Provide amenities and facilities for students.
- Involve students at various levels in preparing designs by listening to their desires and needs and supervising them.
- Provide maintenance supplies and a sufficient number of technical workers, preferably graduates of secondary schools and agricultural institutes.

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