Postgraduate students' attitudes towards the quality of e-learning: Students of the Great College of Imam Al-Adham (may Allah bless him) University – As a model

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Abstract:
The aim of the current research is to know the attitudes of graduate students towards the quality of e-learning from the point of view of the students of the College of Imam Al-Adham (may Allah bless him) University. For the purpose of achieving the research goal, the researchers chose graduate students at the College of Imam Al-Adham (may Allah bless him) University, for the departments (Quranic readings, Islamic studies in English, Arabic language, advocacy and public speaking, Fiqh and its Foundations, Religion basics), which numbered (145) male and female students, as the researchers adopted the descriptive approach and considered the questionnaire a measuring tool consisting of two parts. The first part includes the general information of the study members represented in their personal and occupational variables such as (gender, academic qualification, and academicspecialty). As for the second part of the questionnaire, it included fifteen questions about e-learning and about the nature of students' interaction with it in light of the nature of the research and the goals it seeks to achieve.Each paragraph was met with an answer that follows a five-point scale (R language scale): Strongly agree - Agree - Undecided - Disagree - Strongly disagree. Each response was given certain degrees to be processed statistically and distributed to a group of experts and judges specialized in educational and psychological studies and teaching methods to ensure the apparent honesty. The researchers also adopted the (R language) program to process the data statistically to extract the arithmetic mean, standard deviation and variance for all paragraphs.
Keywords: e-learning, quality of e-learning, postgraduate students, College of Imam Al-Adham (may Allah bless him) University.

Introduction:
Due to the rapid development of information technology, the use of information technologies, and the emergence of the COVID-19 pandemic, all these data have led to the emergence and emergence of the e-learning method in a very noticeable way. With the increasing use of the Internet by the Ministry of Higher Education and Scientific Research, it has become necessary to find the best formulas and methods for this use, to increase the quality of the educational process

in the face of these global changes. Therefore, the interest of educational institutions in general and university institutions in particular has increased in the issue of ensuring the quality of e-learning, in order to improve the educational process through the employment of e-learning.Hence, the problem of the study appears, as it is necessary to select certain criteria to ensure the quality of e-learning and to ensure its success at the level of higher education.

Research problem:

In light of the many obstacles that Iraqi universities in general suffer in the application of e-learning, and the College of Imam Al-Adham (may Allah bless him) University, in particular. The e-learning system was applied in the education process and according to the directives of the Iraqi Ministry of Higher Education and Scientific Research. To determine the research problem, the researchers prepared an electronic questionnaire containing a number of questions related to the quality of e-learning.

Research Questions: The study attempts to answer the following questions:

1. Feel confident in using computers because they keep pace with modern development?

2. Do I enjoy using ICT in my studies?

3. I think that e-learning gives me the opportunity to acquire new knowledge and keep pace with modern technology?

4. I think e-learning enhances my learning experience?

5. E-learning increases the quality of learning because it integrates all forms of media?

6. Does the adoption of ICTs and e-learning increase student satisfaction?

7. The e-learning environment enables us to access information and learn when we want?

8. Is it difficult for me to become skilled in using the integrated e-learning platform?

9. Is e-learning only recommended for people who have a great deal of computer knowledge?

10. Compared to traditional learning, does e-learning make me productive in my studies?

11. Can the environment enhance exchange and communication between professors and students?

12. Feel confident that the e-learning environment can increase the interest of learners?

13. E-learning is a waste of time and makes me feel very stressful?

14. Optimistic in the future those sufficient resources will be improved in the e-learning environment?

15. Do I have a positive belief in the efficiency of e-learning in my studies?

Research Objectives: The study aims to:

1- Recognizing the concept of quality of e-learning and the concept of e-learning.

2- Identifying the degree of application of e-learning quality standards at College of Imam Al-Adham (may Allah bless him) University, from the point of view of the study sample members.

3- Measuring the differences between the average responses of the study sample members about the application of e-learning quality standards at the College of Imam Al-Adham (may Allah bless him) University.

Research importance:

The importance of this study lies in addressing an important and widespread topic in light of this emergency circumstance, and it can be benefited from at the long level in expanding the quality of e-learning. This paves the way for the benefit of the target groups represented in the colleges and departments of the scientific departments therein.In addition to the faculty members and students at the College of Imam Al-Adham (may Allah bless him) University.

Research limits:

Objective limits: Postgraduate students' attitudes towards the quality of e-learning - students of the College of Imam Al-Adham (may Allah bless him) University / Iraq –as a model

Human Limits: This study was limited to a sample of male and female graduate students at the College of Imam Al-Adham (may Allah bless him) University.

Time limits: The study was implemented in the second semester of the academic year (2020/2021).

Place limits: The study was applied to the postgraduate departments of the College of Imam Al-Adham (may Allah bless him) University in Baghdad.

Research terms:

Procedural definition of e-learning: It is education using modern means and methods of communication, whether it is remotely or in the classroom.

Procedural definition of e-learning obstacles: Every difficulty or obstacle that hinders the use of e-learning in education.

Theoretical framework:

Defining the quality of education:

Defined (Al-Raouf, 2014) Quality in education can be defined as that process that aims to improve the educational process and achieve a qualitative leap through the application of a package of educational procedures and systems and documentation of the various educational programs. It is worth noting that this upgrading in the educational process consists of raising the different levels of students, whether these levels are at the physical, psychological, or even social and mental levels, which leads to improving the educational levels of these students and their ability to carry out various educational processes. The quality of education is not limited to students only, but also includes different aspects such as the teacher, text books, the school community and the surrounding environment. If the quality of education can be defined as a set of fixed foundations and rules that contribute to building a solid educational environment with stable and strong standards.

Definition of e-learning:

(Al-Mousa 2002) defined it as "a method of education using modern communication mechanisms such as computers, networks, and its multimedia, such as sound, image, graphics, search mechanisms, electronic libraries, as well as Internet portals, whether remotely or in the classroom. What is important is the use of technology of all kinds to deliver information to the learner in the shortest time, least effort and greatest benefit.

And (Salem 2004) defined it as "an educational system to provide educational or training programs to learners or trainees at anytime and anywhere, using interactive information and communication technologies, to provide a multi-source interactive learning learning environment."

Defining the quality of e-learning:

There are multiple definitions of e-learning quality, as (Omair 2016) defined it as "the co-production process between the e-learning environment, the learner and the educational institution. This will ensure that the outputs of the educational process are not affected by the institution's production processes." In other words, the quality of e-learning means the graduation of a student capable of dealing with modern technology, and not only providing the student with knowledge or information about technology, but also the way to deal with it, benefit from it and interact with its data.

E-Learning Objectives:

The objectives of e-learning varied in line with the objectives of the educational system with all its elements, and identified (Radi and Shaheen 2010) with the interaction of the learner with the rest of the elements of the educational process, to develop the various aspects of his personality, create an interactive learning environment with new electronic technologies, and diversity in sources of information and experience.(Al-Rifi and Abu Shaaban 2009) also added, by supporting the process of interaction between students and teachers; By exchanging educational experiences, meaningful dialogues, and professional development for teachers by providing them with modern educational technical skills, and by acquiring students with the necessary skills or competencies; To use communication and information technologies, and to expand the circle of students' communication through global and local communication networks, and not be limited to the teacher.

Method and procedure:

a) Research Methodology:

The descriptive approach was followed in this study, as it facilitates and helps to access the facts under these current circumstances, to elicit and know the quality of e-learning from the point of view of the students of College of Imam Al-Adham (may Allah bless him) University. The descriptive approach used in this study is consistent with the method in which the data was collected, which is the electronic questionnaire, which is one of the most used methods in such studies.

b) The study population and its sample:

The study population consists of graduate students of the College of Imam Al-Adham (may Allah bless him) University, a government college affiliated to the Sunni Endowment and recognized by the Ministry of Higher Education and Scientific Research, and their number is 145 students for the academic year (2020/2021), distributed as follows: (102) master's students and (43) doctoral students, according to the electronic questionnaire that was conducted.

Table (1): Number of students participating in the study by gender and level of education

Education Level	Male	Female	Total Male and Female	Percentage
Postgraduate Masters	52	50	102	70.3%
Postgraduate PhD	29	14	43	29.7%
Total	81	64	145	100%

It is noticed from Table (1) that male students occupied the largest number in the sample (81) males with a percentage of (55.86%), and master's students occupied the largest number (102) male and female students in the sample with a percentage of (70.3%).

Table (2): Number of students participating in the study by scientific department

Department	Number of students	Percentage
Advocacy and public speaking	23	%15.9
Fiqh and its foundations	39	%26.9
Religion basics	33	%22.8
Arabic language	30	%20.7
Quranic readings	8	%5.5
Islamic Studies in English	12	%8.3
the total number	145	%100

c) Study tool:

The researchers used an electronic questionnaire to collect information. The questionnaire was directed to college students, and it is related to the quality of e-learning, and it consisted of general information such as (gender, academic qualification, academic specialty), in addition to (15) paragraphs in the form of questions, and in front of each paragraph there are five alternatives to answer: (strongly agree - agree - somewhat agree - disagree - strongly disagree).

Data Analysis:

The R Language was used in the data analysis process, where the analysis process is divided into several stages that will be discussed and explained. The researchers also used private libraries in the approved language to extract better results. At each stage, the necessary steps in the process were clarified. Realistic results of the analysis. This will be applied to all data in each scientific

section with graphs that show the ratios of relationships between the approved data. The work was divided into four steps.
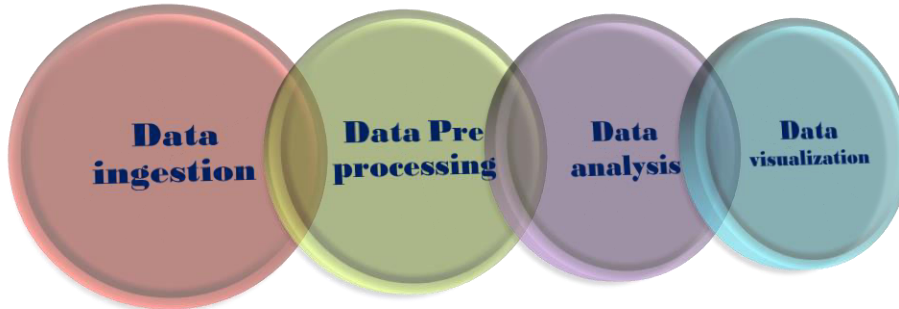

Figure1: Explain the four stages in the data analysis process

First Step (Data ingestion): Data integration is bringing together data from many sources and giving consumers a single picture of it (Lenzerini et al. 2002)This procedure is important in a number of contexts, including commercial (such as, when two comparable firms need to combine their databases) and scientific (for example, when integrating research findings from various bioinformatics repositories). As the amount (that is, big data) and the necessity to exchange existing data grows, data integration becomes more common. (James Grimmelmann 2013)integration promotes internal and external users to work together. The data to be integrated must come from a variety of sources and be converted into a single coherent data store that can offer synchronous data across a network of files for clients. (Chung et al. 2013)When evaluating and extracting information from existing databases that might be helpful for business information, data integration is frequently used.

So that we may define Data integration is the process of moving data from one or more sources to a location where it may be kept and processed further. The data might be in a variety of forms and come from a variety of sources, such as RDBMS, other types of databases, S3 buckets, CSVs, or streams. Because the data originates from a variety of sources, it must be cleaned and converted so that it can be analyzed alongside data from other sources. Otherwise, your data will seem like a jumble of mismatched jigsaw pieces.

Second Step (Data preparation) is a crucial part of the data mining process. In data mining and machine learning initiatives, the term "garbage in, trash out" is especially apt. Data collection methods are frequently uncontrolled, resulting in out-of-range numbers (for example, Income: 100), impossible data combinations (for example, Sex: Male, Pregnant: Yes), and missing information, among other things. Analyzing data that hasn't been thoroughly vetted for such issues might lead to false conclusions. As a result, before conducting any analysisz, the representation and quality of data must come first. (Pyle 1999)In many cases, especially in

computational biology, data preparation is the most critical aspect of a machine learning project (Oliveri et al. 2019)

Knowledge discovery during the training phase is more challenging if there is a lot of irrelevant and duplicated information or noisy and inaccurate data available. The procedures of data preparation and filtering might take a long time. Cleaning, instance selection, normalization, transformation, feature extraction and selection, and other data preparation operations are all part of the data preprocessing process. The final training set is the result of data preparation. Preprocessing data can have an impact on how the results of the final data processing are viewed (Chicco 2017)When the interpretation of the results is critical, such as in multivariate chemical data processing, this issue should be carefully examined (chemometrics). We explain the concept Data preprocessing is a step in the data mining and data analysis process that takes raw data and transforms it into a format that can be understood and analyzed by computers and machine learning.

Raw, real-world data in the form of text, images, video, etc., is messy. Not only may it contain errors and inconsistencies, but it is often incomplete, and doesn't have a regular, uniform design. Machines like to process nice and tidy information – they read data as 1s and 0s. So calculating structured data, like whole numbers and percentages is easy. However, unstructured data, in the form of text and images must first be cleaned and formatted before analysis.

The third phase (data analysis) entails examining, cleaning, converting, and modeling data in order to uncover relevant information, draw conclusions, and aid decision-making. (Nesi and Rauch, Feb. 2014)Data analysis has several features and methodologies, spanning a wide range of techniques under many titles and being utilized in a number of business, scientific, and social science fields. (Claude A. Pruneau.October 2017)In today's corporate environment, data analysis is used to assist organizations make more scientific choices and run more efficiently (N. Leech, K. Barrett, Mar. 2021)As a result, data analysis is described as the process of cleansing, manipulating, and modeling data in order to uncover valuable data for corporate decision-making. Data analysis' goal is to extract meaningful information from data and make decisions based on that knowledge. A basic example of data analysis is when we make a decision in our daily lives, we consider what occurred the last time we made that decision or what would happen if we make that decision.This is nothing more than looking backwards or forwards in time and making judgments depending on our findings. We do this by gathering memories from the past or fantasizing about the future. So that's all there is to data analysis. Data analysis is what an analyst performs now for commercial objectives.

The fourth step (commonly shortened data visualization) is a multidisciplinary subject concerned with the display of data graphically. When the data is large, such as in a time series, it is a very effective means of communicating(Gershon, Aug. 2001)This representation may be thought of as a mapping between the original data (typically numerical) and visual components from the academic perspective (for example, lines or points in a chart). The mapping establishes how these components' properties change in response to the data.In this sense, a bar chart is a representation of the length of a bar as a variable's magnitude. Mapping is a key competence of

Data visualization(Dur 2012)since the graphic design of the mapping can impact the reading of a chart.

Data visualization is a subfield of descriptive statistics that has its roots in the discipline of statistics. Some writers believe that visualization is both an art and a science (Dur 2012)since it requires both design skills and statistical and computer abilities to be effective. Resulting in Information and data are represented graphically in data visualization. Data visualization tools make it simple to view and comprehend trends, outliers, and patterns in data by including visual components like as charts, graphs, and maps. To evaluate enormous volumes of data and make data-driven choices in the age of Big Data, data visualization tools and technologies are needed.

Validity and stability of the tool:

The questionnaire, in its initial form, consisting of (15) paragraphs, was presented to a group of academics in the college, who agreed to adopt the paragraphs of the questionnaire after making minor modifications to its paragraphs without deleting. As well as verifying the validity and reliability of the tool that was applied to the sample of the students of College of Imam Al-Adham (may Allah bless him) University, who numbered 145 male and female students. Using Cronbach's Alpha internal consistency test, which is one of the most important tests widely used to measure the correlations between the paragraphs of the questionnaire. Cronbach's Alpha coefficient reached 0.84, which means that the questionnaire has a high correlation factor. The following table shows the ratios in general, which include the mean, standard deviation, and confidence in the established questionnaire and its vocabulary. Where the work was done according to the ratios of the five paragraphs in the questionnaire for each department:

Std.Alpha	G6(Smc)	Average	S/N	Mean	Sd	Median_R	Lower	Upper	Alpha
0.88	0.93	0.6	7.6	72	37	0.66	0.71	0.96	0.84

As for the confidence limits in the questionnaire, it was: 95%.

D) Statistical Analysis:

The researchers used the statistical package for social studies program R program to analyze the data and calculate the repetitions. And the percentages to know the attitudes of the study students of the six departments on which the questionnaire was taken towards e-learning. Sophisticated libraries were used in the mentioned language to reach high results in the research. Where the two researchers worked on taking each of the sections and conducting the analysis of the data belonging to it and clarified them in interactive graphics after conducting data processing after they were collected. We will discuss the results of each section later.

Standard used to judge students' responses:

The researchers relied on relevant previous studies to determine three levels of assessment of students' answers and judge them, as follows:
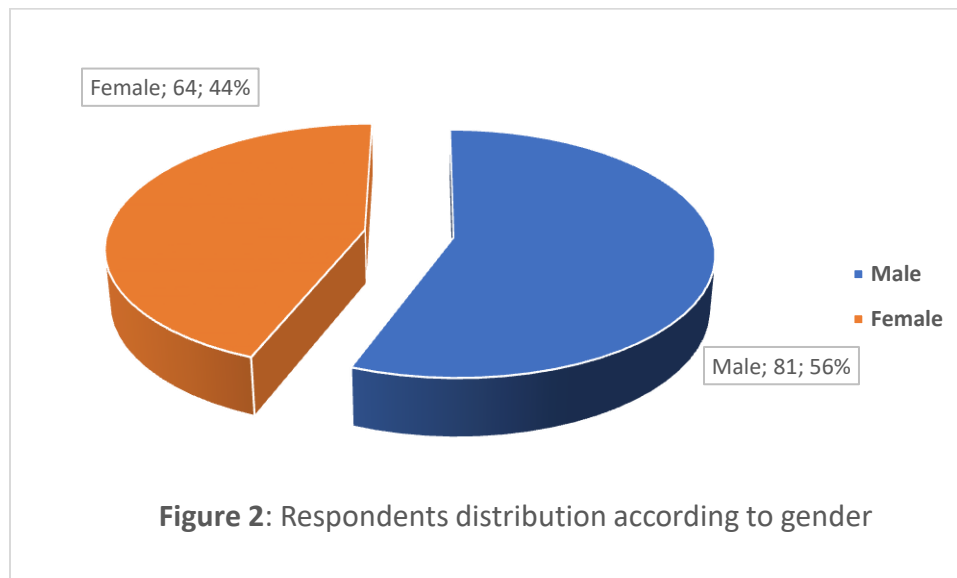
- The first level: is high and falls between the arithmetic mean (3,5 - 8).
- The second level: medium and located between the arithmetic mean (2.5 - 3.49).
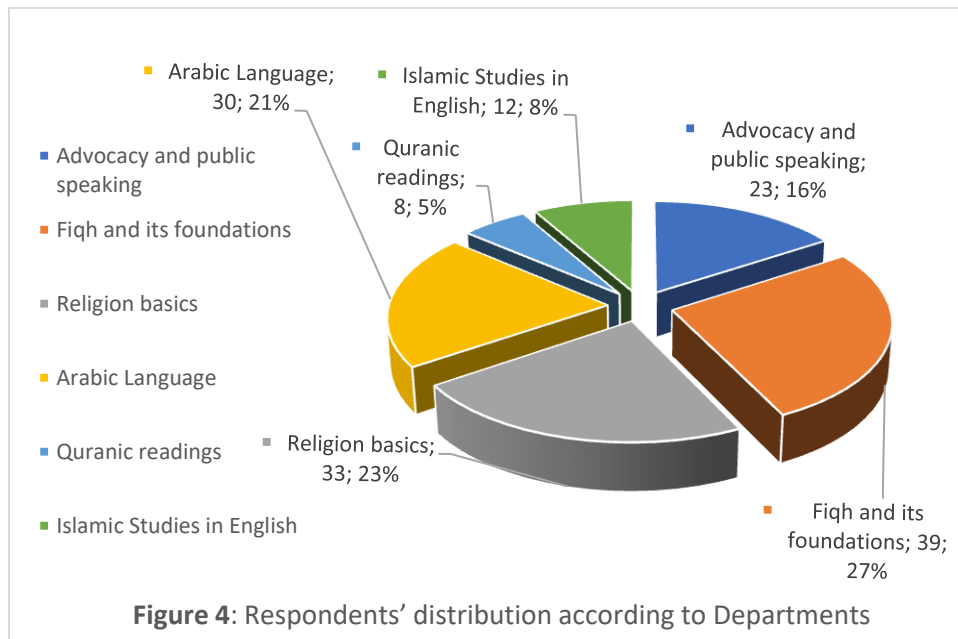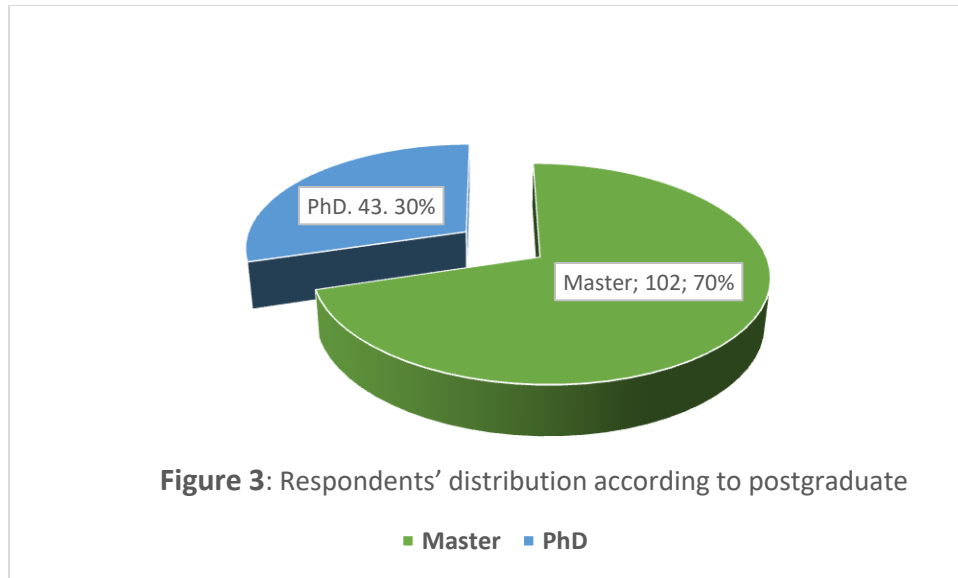
- The third level: weak and falls below the arithmetic mean of 2.49.

Study results and discussion:

Sample Characteristics:

This section will discuss the demographic characteristics of the participants (gender, Current education level, and Department).Data indicates that (55.9%) are male, and (44.1%) are female, Figure 2.It shows the number of participants, male and female , as a percentage of the total number of participants, which 145. Figure 3 indicates the number of postgraduate students (Masters and PhD) in the questionnaire where they participated (% 70.3). From master's students and (29.3) from PhD students Figure 4 indicates The number of participants from postgraduate students shows the six departments on which the questionnaire was conducted Where he was Department of Advocacy and Public Speaking The number of participants in the questionnaire(16%), and the Department of Jurisprudence and its Fundamentals (27%), the Department of Fundamentals of Religion(23%), the Department of Arabic Language (21%), the Department of Qur'anic Readings (5%), and the Department of Islamic Studies in the English Language (%8).

Figure 2: Respondents distribution according to gender

Figure 3: Respondents' distribution according to postgraduate

■ **Master** ■ **PhD**

Figure 4: Respondents' distribution according to Departments

As for the questionnaire in general, the researchers made a summary for each department and addressed the clarification of the paragraphs of the questionnaire in each section and summarized them in a table so that the reader could understand the strategy adopted by the researchers**:**

Table (3): showing the percentage of the number of participants in general and their vote on the questionnaire items for each Departments

Department	Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
Religion basics	12	141	111	164	62

Advocacy and public speaking	8	54	113	136	30
Fiqh and its foundations	23	147	199	161	55
Islamic Studies in English	1	19	27	63	67
Arabic Language	21	114	78	153	84
Quranic readings	10	38	32	34	5
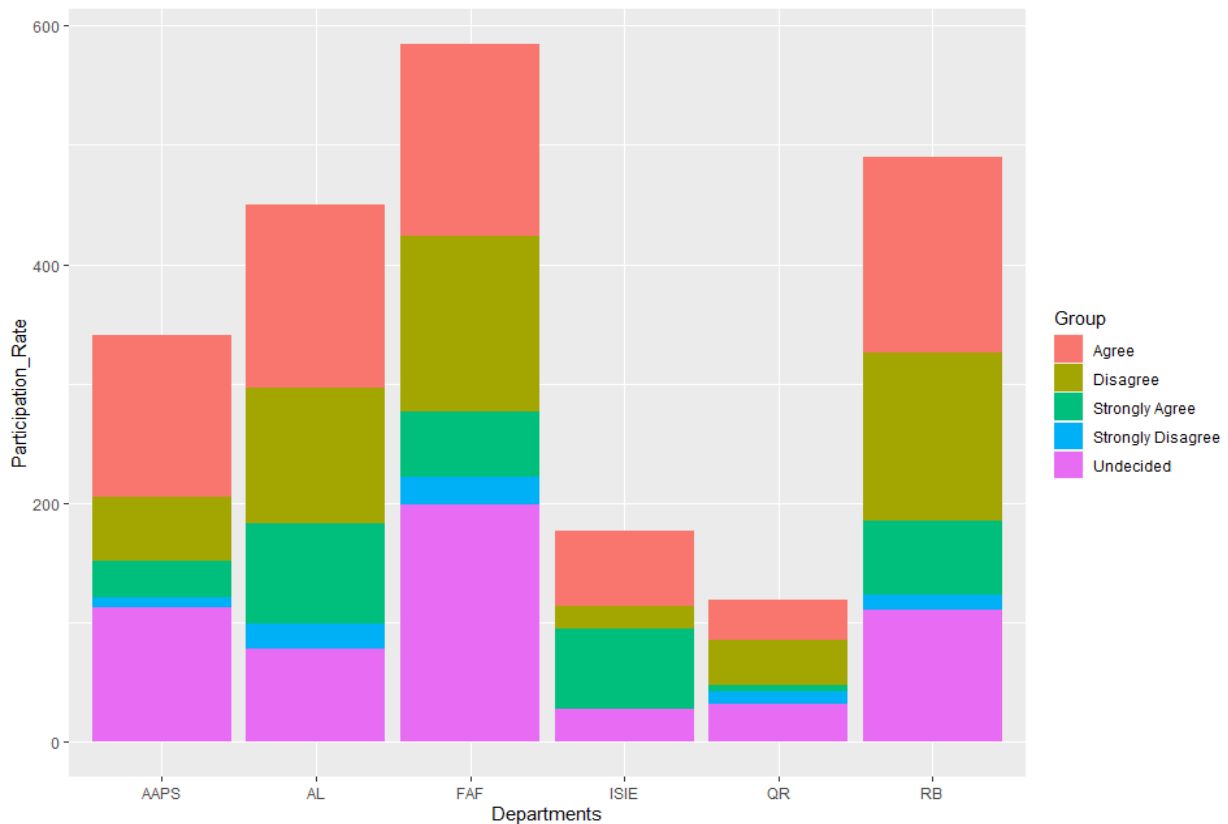
Figure 5: Respondents' distribution according to Questionnaire paragraph

The researchers adopted the abbreviations for the scientific Departments in In the chart above The (AAPS) acronym refers to the Department (Advocacy and public speaking) and the (AL) indicate to department (Arabic Language) and the (FAF) to department (Fiqh and its foundations) and (ISIE) refer to department (Islamic Studies in English) and the (QR) indicate to department (Quranic readings) and (RB) to department (Religion basics).

1. **Discussing questionnaire questions for the Department of Advocacy and Public Speaking:**

1.1. Demographic Characteristics Test (gender – Postgraduate):

The researchers found the arithmetic mean and standard deviation of the individuals who participated in the questionnaire relative to the total number of participants, the number of males and females in the Department and according to the gender of the Department above where the number of participants in the advocacy and public speaking was for females (1) and for the number of males (22):.

Table (4): The mean and standard deviation of Department of Advocacy and Public Speaking For (gender):

Gender	Mean	ST.D
Male	51.5	41.72
Female	32.5	44.55

We note from the above results that the mean for males and females is high, meaning that there is a rush towards e-learning and a good orientation. Also, the standard deviation rate is high, noting that "males have a very high average rate" compared to females. As for postgraduate students, it was found that the mean ratio, as in the table below, also indicates that males have a better orientation to e-learning than women. The average rate is good, meaning that there is a demand for e-learning, noting that the percentage taken is relative to the total number of participants in the questionnaire, as shown in Table (5).

Table (5): The mean and standard deviation of Department of Advocacy and Public Speaking For (Postgraduate):

Postgraduate	Mean	St.D
Master	58.0	62.23
PhD	26.0	24.04

1.2 Discussing the questionnaire questions:

The (15) questions will be discussed during the questionnaire, which were answered by the male and female students of the Department of Call and Rhetoric from the Master's and Ph.D. students. We will find the arithmetic mean and standard deviation according to the answer paragraphs of the five questionnaires.

Table (6): The mean and standard deviation of Department of Advocacy and Public Speaking For (questionnaire questions):

	Questions	Mean	ST.D
Q1	Feel confident in using computers because they keep pace with modern development?	**4.6**	**5.03**

Q2	Do I enjoy using ICT in my studies?	**3.8**	**3.03**
Q3	I think that e-learning gives me the opportunity to acquire new knowledge and keep pace with modern technology?	**4.6**	**5.46**
Q4	I think e-learning enhances my learning experience?	**4.6**	**5.68**
Q5	E-learning increases the quality of learning because it integrates all forms of media?	**4.6**	**4.56**
Q6	Does the adoption of ICTs and e-learning increase student satisfaction?	**4.6**	**5.94**
Q7	The e-learning environment enables us to access information and learn when we want?	**4.6**	**4.39**
Q8	Is it difficult for me to become skilled in using the integrated e-learning platform?	**4.6**	**3.85**
Q9	Is e-learning only recommended for people who have a great deal of computer knowledge?	**4.6**	**3.05**
Q10	Compared to traditional learning, does e-learning make me productive in my studies?	**4.6**	**3.21**
Q11	Can the environment enhance exchange and communication between professors and students?	**4.6**	**4.51**
Q12	Feel confident that the e-learning environment can increase the interest of learners?	**4.6**	**3.21**
Q13	E-learning is a waste of time and makes me feel very stressful?	**4.6**	**4.56**
Q14	Optimistic in the future those sufficient resources will be improved in the e-learning environment?	**4.6**	**4.56**
Q15	Do I have a positive belief in the efficiency of e-learning in my studies?	**4.6**	**4.10**
	Total	**4.5**	**4.3436**

The mean for each question was found relative to the number of five paragraphs according to the five-point the Likert Scale, where the above ratios show that the mean is high and is within the first level, and this is evidence of students' orientation towards e-learning. Hence we note the difference in the proportions and also "the similarity of most of them on the positive side."
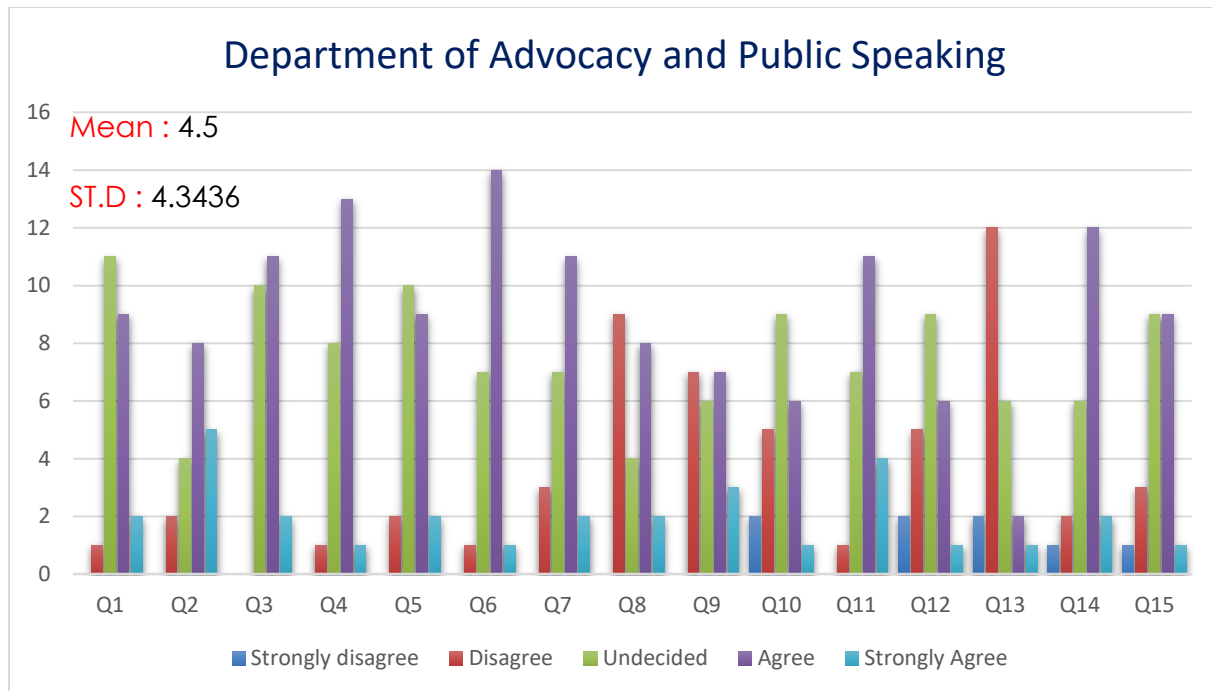
Figure 6: Respondents' distribution according to the Likert Scales for each question in the questionnaire

The above chart shows the percentages for the questions to the Record Scale for each question in the questionnaire, where we note that the percentage of approval of the paragraphs is very high compared to the others.

2. Discussing questionnaire questions for the Department of Fiqh and its foundations:

2.1. Demographic Characteristics Test (gender–Postgraduate):

The researchers found the arithmetic mean and standard deviation of the individuals who participated in the questionnaire relative to

The total number of participants, the number of males and females in the Department and according to the gender of the Department above where the number of participants in the Fiqh and its foundations was for females (12) and for the number of males (28):

Table (7): The mean and standard deviation of Department of Fiqh and its foundations (gender):

Gender	Mean	St.D
Male	54.5	37.48
Female	38.0	36.77

As for the Department of Figh and its Foundations, we find that the percentage of participation in the questionnaire is very good, according to the mean rates above. Thus the ratio of males and females in the department was adopted to the total percentage of male and female participants. The mean and standard deviation were also found. We note that the proportion of males is higher than that of females, but there is female attendance, unlike the Advocacy department, attendance is very limited. As for the academic level, we also note that master's students have a high

participation in relation to doctoral students in relation to the total number of participants in the questionnaire and the number for the current department. This is a good percentage indicating an excellent orientation of graduate students towards e-learning, as shown in Table (8).

Table (8): The mean and standard deviation of Department of Fiqh and its foundations (Postgraduate):

Postgraduate	Mean	St.D
Master	63.0	55.15
PhD	29.0	19.80

2.2 Discussing the questionnaire questions:

The (15) questions will be discussed during the questionnaire, which were answered by the male and female students of the Department of Jurisprudence and its Principles, from the master's and doctoral students. And we will find the arithmetic mean and standard deviation according to the answer paragraphs of the questionnaire for the Rickerd scale, and we will find below for each question that was asked in the questionnaire.

Table (9): The mean and standard deviation of Department of Fiqh and its foundations for (questionnaire questions):

	Questions	Mean	ST.D
Q1	Feel confident in using computers because they keep pace with modern development?	7.8	8.14
Q2	Do I enjoy using ICT in my studies?	7.8	6.14
Q3	I think that e-learning gives me the opportunity to acquire new knowledge and keep pace with modern technology?	7.8	4.32
Q4	I think e-learning enhances my learning experience?	7.8	5.81
Q5	E-learning increases the quality of learning because it integrates all forms of media?	7.8	4.44
Q6	Does the adoption of ICTs and e-learning increase student satisfaction?	7.8	5.36
Q7	The e-learning environment enables us to access information and learn when we want?	7.8	6.46
Q8	Is it difficult for me to become skilled in using the integrated e-learning platform?	7.8	6.06
Q9	Is e-learning only recommended for people who have a great deal of computer knowledge?	7.8	6.61
Q10	Compared to traditional learning, does e-learning make me productive in my studies?	7.8	6.76
Q11	Can the environment enhance exchange and communication between professors and students?	7.8	5.93
Q12	Feel confident that the e-learning environment can increase the	7.8	4.44

	interest of learners?		
Q13	E-learning is a waste of time and makes me feel very stressful?	7.8	5.50
Q14	Optimistic in the future those sufficient resources will be improved in the e-learning environment?	7.8	6.69
Q15	Do I have a positive belief in the efficiency of e-learning in my studies?	7.8	4.60
	Total	7.8	5.98

The arithmetic mean of each question was found relative to the number of five paragraphs according to the five-point Likert Scale. Hence the above ratios show that the mean is high and is within the first level. This is evidence of students' orientation towards e-learning for the aforementioned department, and (7.8) is considered within the advanced level in the classification of levels for the mean.
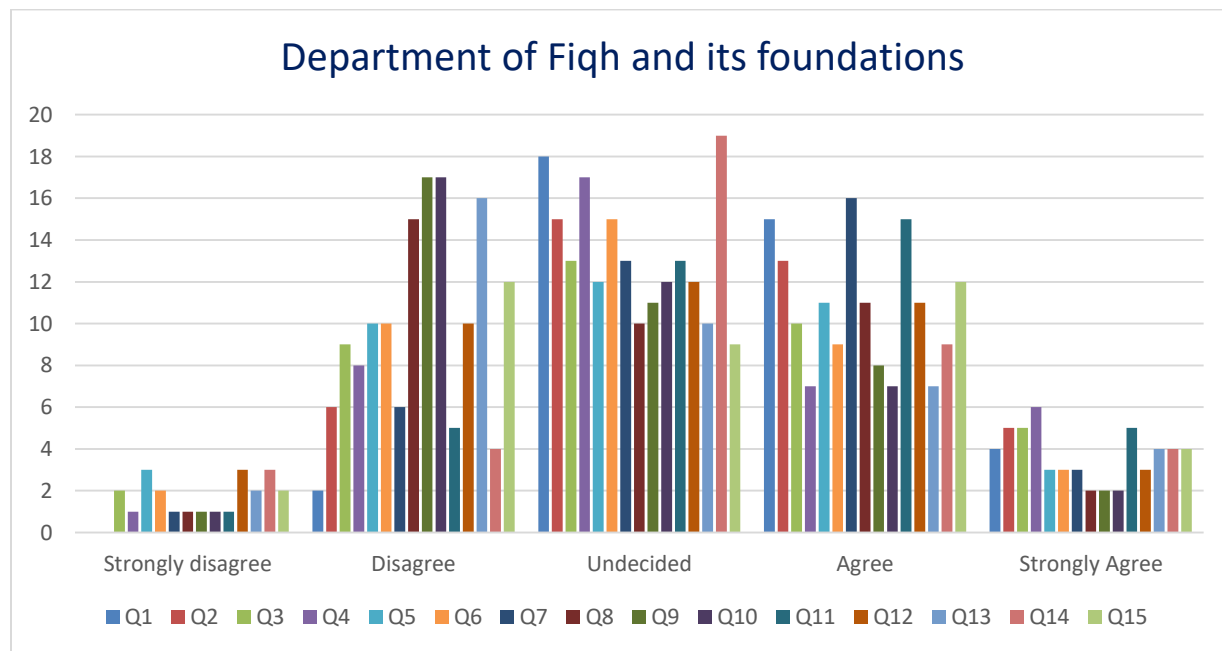

Figure 7: Respondents' distribution according to the Likert Scales for each question in the questionnaire

3.Discussing questionnaire questions for the Department of Religion basics:

3.1. Demographic Characteristics Test (gender – Postgraduate):

The researchers found the arithmetic mean and standard deviation of the individuals who participated in the questionnaire relative to

The total number of participants, the number of males and females in the Department and according to the gender of the Department above where the number of participants in the Religion basics was for females (22) and for the number of males (11):

Table (10): The mean and standard deviation of Department Religion basics (gender):

Gender	Mean	St.D
Male	46.0	49.50
Female	43.0	29.70

Department of Religion basics has also high ratio of arithmetic mean to the total ratio. Where we note that the mean is within the excellent level, and the percentage of male participants is high compared to females, which is almost "almost double". The number of students accepted in this year is limited in our college, so this ratio and the above ratios are ideal, as well as for the participation of graduate students, it is ideal for masters and doctorate, as in Table (10) and Table (11).

Table (11): The mean and standard deviation of Department Religion basics (Postgraduate):

Postgraduate	Mean	St.D
Master	61.5	57.28
PhD	27.5	21.92

3.2 Discussing the questionnaire questions:

The (15) questions will be discussed during the questionnaire, which were answered by the male and female students of the Department of Religion basics, from the master's and doctoral students. And we will find the arithmetic mean and standard deviation according to the answer paragraphs of the questionnaire for the Rickerd Scale, and we will find below for each question that was asked in the questionnaire

Table (9): The mean and standard deviation of Department Religion basics for (questionnaire questions):

	Questions	Mean	ST.D
Q1	Feel confident in using computers because they keep pace with modern development?	6.4	4.62
Q2	Do I enjoy using ICT in my studies?	6.4	4.22
Q3	I think that e-learning gives me the opportunity to acquire new knowledge and keep pace with modern technology?	6.2	3.77
Q4	I think e-learning enhances my learning experience?	6.4	4.93
Q5	E-learning increases the quality of learning because it integrates all forms of media?	6.4	4.16
Q6	Does the adoption of ICTs and e-learning increase student satisfaction?	6.6	5.73
Q7	The e-learning environment enables us to access information and learn when we want?	6.6	5.98
Q8	Is it difficult for me to become skilled in using the integrated e-learning platform?	6.6	6.95

Q9	Is e-learning only recommended for people who have a great deal of computer knowledge?	**6.6**	**7.44**
Q10	Compared to traditional learning, does e-learning make me productive in my studies?	**6.6**	**5.18**
Q11	Can the environment enhance exchange and communication between professors and students?	**6.8**	**6.53**
Q12	Feel confident that the e-learning environment can increase the interest of learners?	**6.6**	**3.58**
Q13	E-learning is a waste of time and makes me feel very stressful?	**6.6**	**5.86**
Q14	Optimistic in the future those sufficient resources will be improved in the e-learning environment?	**6.6**	**4.39**
Q15	Do I have a positive belief in the efficiency of e-learning in my studies?	**6.6**	**3.85**
	Total	**6.5**	**5.146**

The arithmetic mean of each question was found relative to the number of five paragraphs according to the five-point Likert Scale. Hence the above ratios show that the mean is high and is within the first level. This is evidence of the students' orientation towards e-learning for the aforementioned department, and the ratio (6.5) is considered within the advanced level in the classification of levels for the mean.
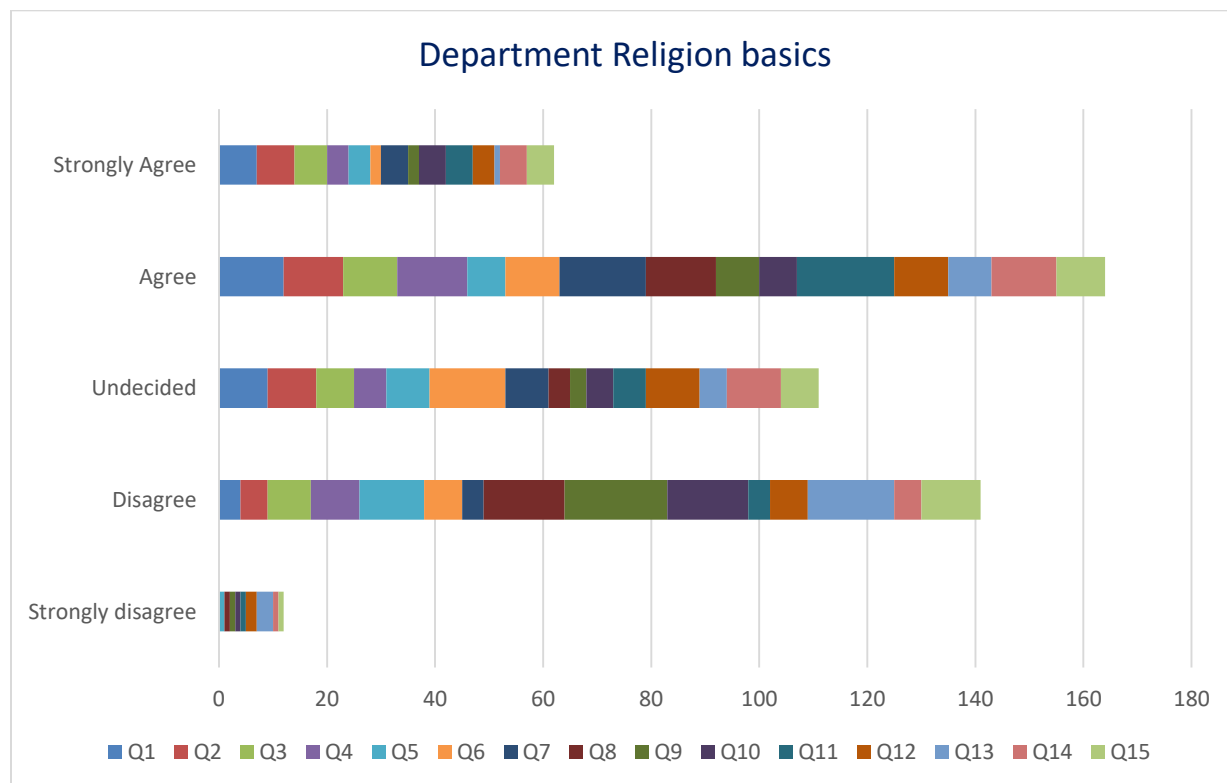

Figure 8: Respondents' distribution according to the Likert Scales for each question in the questionnaire

4.Discussing questionnaire questions for the Department Islamic Studies in English:

4.1. Demographic Characteristics Test (gender – Postgraduate):

The researchers found the arithmetic mean and standard deviation of the individuals who participated in the questionnaire relative to

The total number of participants, the number of males and females in the Department and according to the gender of the Department above where the number of participants in the Islamic Studies in English was for females (10) and for the number of males (2):

Table (12): The mean and standard deviation of Department Islamic Studies in English (gender):

Gender	Mean	St.D
Male	41.5	55.86
Female	37.0	38.18

In the Department of Islamic Studies in English, the participation of females was higher than that of males, unlike the other departments. And the arithmetic mean for it was at the good level due to its calculation to the total percentage of participation. As for postgraduate students, only masters participated in the questionnaire, and there are no doctoral students because there are no postgraduate doctoral studies in the department, as in Table (12) and Table (13)

Table (13): The mean and standard deviation of Department Islamic Studies in English (Postgraduate):

Postgraduate	Mean	St.D
Master	61.5	57.28
PhD	NAN	NAN

4.2 Discussing the questionnaire questions:

The (15) questions will be discussed during the questionnaire, which were answered by the male and female students of the Department of Islamic Studies in the English language from the master's students. And we will find the arithmetic mean and standard deviation according to the answer paragraphs of the questionnaire for the Rickerd scale, and we will find below for each question that was asked in the questionnaire

Table (14): The mean and standard deviation of Department Islamic Studies in English for (questionnaire questions):

	Questions	Mean	ST.D
Q1	Feel confident in using computers because they keep pace with modern development?	3.0	1.58
Q2	Do I enjoy using ICT in my studies?	2.4	3.36
Q3	I think that e-learning gives me the opportunity to acquire new	2.2	2.59

	knowledge and keep pace with modern technology?		
Q4	I think e-learning enhances my learning experience?	**2.2**	**2.86**
Q5	E-learning increases the quality of learning because it integrates all forms of media?	**2.4**	**2.88**
Q6	Does the adoption of ICTs and e-learning increase student satisfaction?	**2.4**	**3.29**
Q7	The e-learning environment enables us to access information and learn when we want?	**2.4**	**2.19**
Q8	Is it difficult for me to become skilled in using the integrated e-learning platform?	**2.4**	**3.36**
Q9	Is e-learning only recommended for people who have a great deal of computer knowledge?	**2.4**	**3.78**
Q10	Compared to traditional learning, does e-learning make me productive in my studies?	**2.4**	**3.29**
Q11	Can the environment enhance exchange and communication between professors and students?	**2.4**	**2.88**
Q12	Feel confident that the e-learning environment can increase the interest of learners?	**2.2**	**2.68**
Q13	E-learning is a waste of time and makes me feel very stressful?	**2.4**	**2.88**
Q14	Optimistic in the future those sufficient resources will be improved in the e-learning environment?	**2.4**	**4.28**
Q15	Do I have a positive belief in the efficiency of e-learning in my studies?	**2.4**	**2.88**
	Total	**2.4**	**2.985**

The arithmetic mean of each question was found relative to the number of five paragraphs according to the five-point Likert Scale. The above ratios show that the arithmetic mean (2.4) is weak, as is the standard deviation. It is within the third level and the reason for this is the weak participation of the department's students in the questionnaire and the absence of PhD students in the above department. Below is the graph that represents the students' participation in the questionnaire.
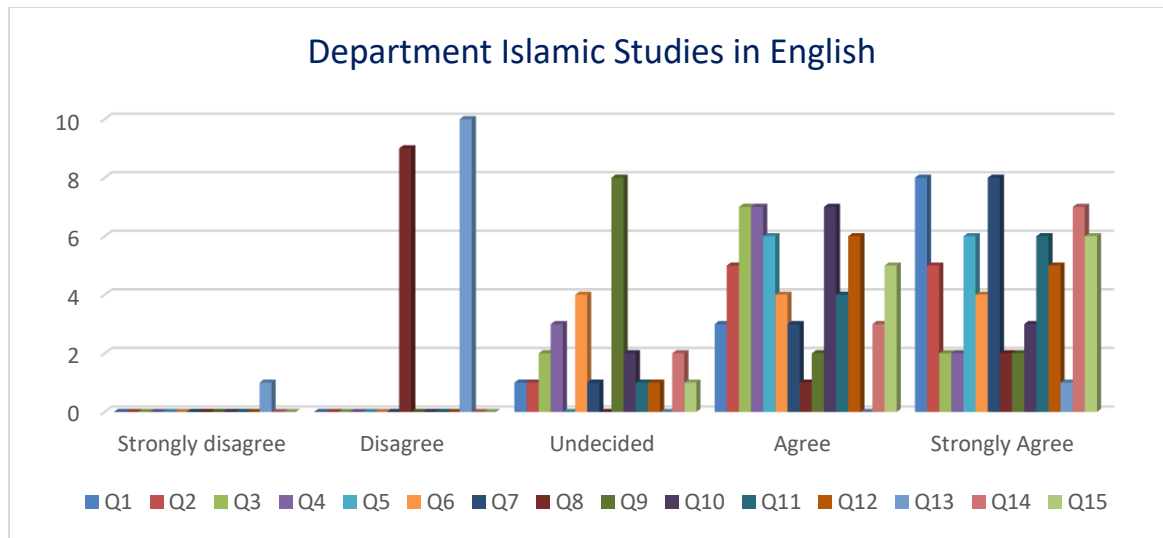
Figure 9: Respondents' distribution according to the Likert Scales for each question in the questionnaire

5. Discussing questionnaire questions for the Department Quranic readings:

5.1. Demographic Characteristics Test (gender – Postgraduate):

The researchers found the arithmetic mean and standard deviation of the individuals who participated in the questionnaire relative to the total number of participants, the number of males and females in the Department and according to the gender of the Department above where the number of participants in the Quranic readings was for females (5) and for the number of males (3):

Table (15): The mean and standard deviation of Department Quranic readings (gender):

Gender	Mean	St.D
Male	42.0	55.15
Female	34.5	41.72

In the Quranic readings department, the participation of females was higher than that of males, unlike the other departments. And the arithmetic mean for it was at the good level due to its calculation to the total percentage of participation. As for postgraduate students, only the masters participated in the questionnaire, and there are no doctoral students, as in Table (15) and Table (16)

Table (16): The mean and standard deviation of Department Quranic readings (Postgraduate):

Postgraduate	Mean	St.D
Master	55.0	57.28
PhD	NAN	NAN

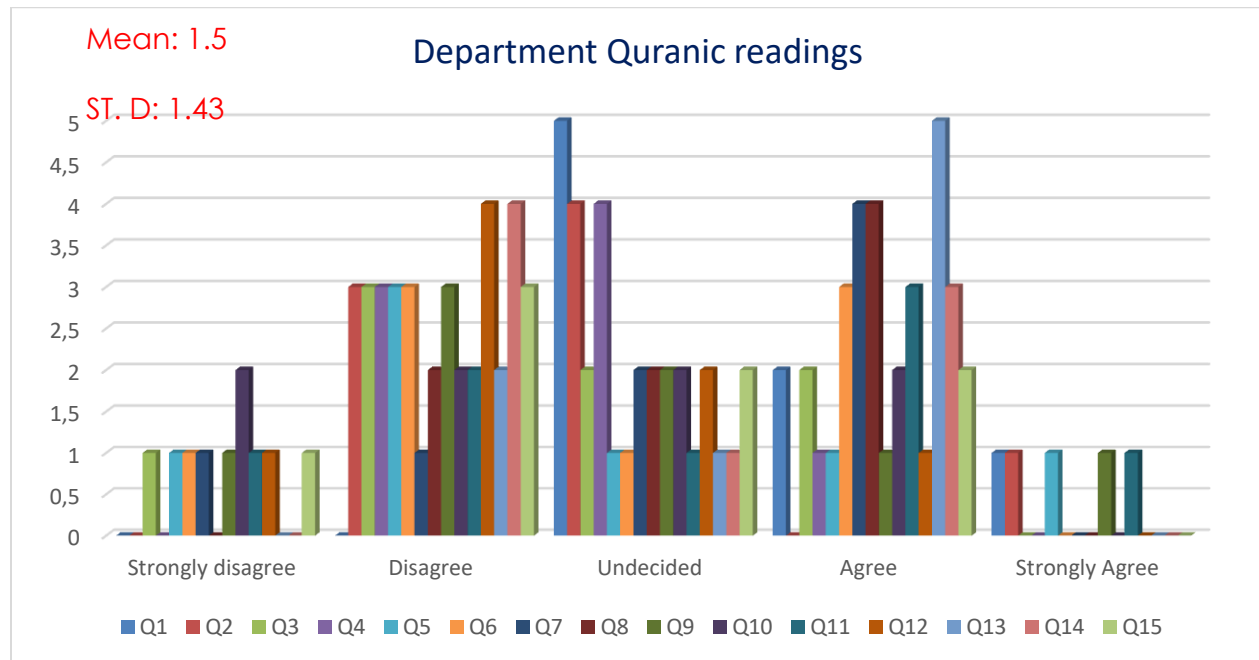**5.2 Discussing the questionnaire questions:**

The (15) questions will be discussed during the questionnaire, which were answered by the male and female students of the Quranic reading Department from the master's students. We will find the arithmetic mean and standard deviation according to the answer paragraphs of the questionnaire for the Rickerd Scale. We will find below for each question that was asked in the questionnaire.

Table (17): The mean and standard deviation of Department Quranic readings for (questionnaire questions):

	Questions	Mean	ST.D
Q1	Feel confident in using computers because they keep pace with modern development?	**1.6**	**2.07**
Q2	Do I enjoy using ICT in my studies?	**1.6**	**1.82**
Q3	I think that e-learning gives me the opportunity to acquire new knowledge and keep pace with modern technology?	**1.6**	**1.14**
Q4	I think e-learning enhances my learning experience?	**1.6**	**1.82**
Q5	E-learning increases the quality of learning because it integrates all forms of media?	**1.4**	**0.89**
Q6	Does the adoption of ICTs and e-learning increase student satisfaction?	**1.6**	**1.34**
Q7	The e-learning environment enables us to access information and learn when we want?	**1.6**	**1.52**
Q8	Is it difficult for me to become skilled in using the integrated e-learning platform?	**1.6**	**1.67**
Q9	Is e-learning only recommended for people who have a great deal of computer knowledge?	**1.6**	**0.89**
Q10	Compared to traditional learning, does e-learning make me productive in my studies?	**1.6**	**0.89**
Q11	Can the environment enhance exchange and communication between professors and students?	**1.6**	**0.89**
Q12	Feel confident that the e-learning environment can increase the interest of learners?	**1.6**	**1.52**
Q13	E-learning is a waste of time and makes me feel very stressful?	**1.6**	**2.07**
Q14	Optimistic in the future those sufficient resources will be improved in the e-learning environment?	**1.6**	**1.82**
Q15	Do I have a positive belief in the efficiency of e-learning in my studies?	**1.6**	**1.14**
	Total	**1.5**	**1.43**

We find here that the arithmetic mean and standard deviation are within the third level. That is, it is below the mean and is weak, and we count the reason for this, the lack of participation of

students in the questionnaire. As well as the non-participation of doctoral students in the questionnaire within the five-year Record scale. And below is the graph that shows the lack of participation by students on the positive side of the questionnaire.

6.Discussing questionnaire questions for the Department Arabic Language:

6.1. Demographic Characteristics Test (gender – Postgraduate):

The researchers found the arithmetic mean and standard deviation of the individuals who participated in the questionnaire relative to

The total number of participants, the number of males and females in the Department and according to the gender of the Department above where the number of participants in the Arabic Languages was for females (14) and for the number of males (16):

Table (17): The mean and standard deviation of Department Arabic Language (gender):

Gender	Mean	St.D
Male	48.5	45.96
Female	39.0	35.36

The Arabic language department, the participation rate was good. The arithmetic mean and standard deviation were within the good level because the participation was made by males and females in graduate studies. Note that the participation rate of master's students was high compared to doctoral students. The arithmetic mean was found for both studies and also for both sexes, as in Table (17) and Table (18).

Table (18): The mean and standard deviation of Department Arabic Language (Postgraduate):

Postgraduate	Mean	St.D
Master	62.5	55.86
PhD	25.0	25.46

5.2 Discussing the questionnaire questions:

The (15) questions will be discussed during the questionnaire, which were answered by the male and female students of the Department of Arabic Language, from the master's and doctoral students. And we will find the arithmetic mean and standard deviation according to the answer paragraphs of the questionnaire for the Rickerd Scale. We will find below for each question that was asked in the questionnaire.

Table (17): The mean and standard deviation of Department Arabic Language for (questionnaire questions):

	Questions	Mean	ST.D
Q1	Feel confident in using computers because they keep pace with modern development?	6	4.24
Q2	Do I enjoy using ICT in my studies?	6	4.00
Q3	I think that e-learning gives me the opportunity to acquire new knowledge and keep pace with modern technology?	6	2.83
Q4	I think e-learning enhances my learning experience?	6	4.00
Q5	E-learning increases the quality of learning because it integrates all forms of media?	6	3.00
Q6	Does the adoption of ICTs and e-learning increase student satisfaction?	6	5.29
Q7	The e-learning environment enables us to access information and learn when we want?	6	5.00
Q8	Is it difficult for me to become skilled in using the integrated e-learning platform?	6	6.63
Q9	Is e-learning only recommended for people who have a great deal of computer knowledge?	6	5.20
Q10	Compared to traditional learning, does e-learning make me productive in my studies?	6	2.55
Q11	Can the environment enhance exchange and communication between professors and students?	6	5.48
Q12	Feel confident that the e-learning environment can increase the interest of learners?	6	4.69
Q13	E-learning is a waste of time and makes me feel very stressful?	6	7.38
Q14	Optimistic in the future those sufficient resources will be improved in the e-learning environment?	6	4.85
Q15	Do I have a positive belief in the efficiency of e-learning in my	6	3.81

studies?			
Total		**6**	**4.59**

The Arabic language section had the arithmetic mean and standard deviation high, and it is within the first level. Due to the positive answers and the participation of postgraduate master's and doctoral studies in the established questionnaire. Where the arithmetic mean rate for section (6) below was a graph representing the ratios according to the Rickerd Scale and the fifteen answers to the scale.
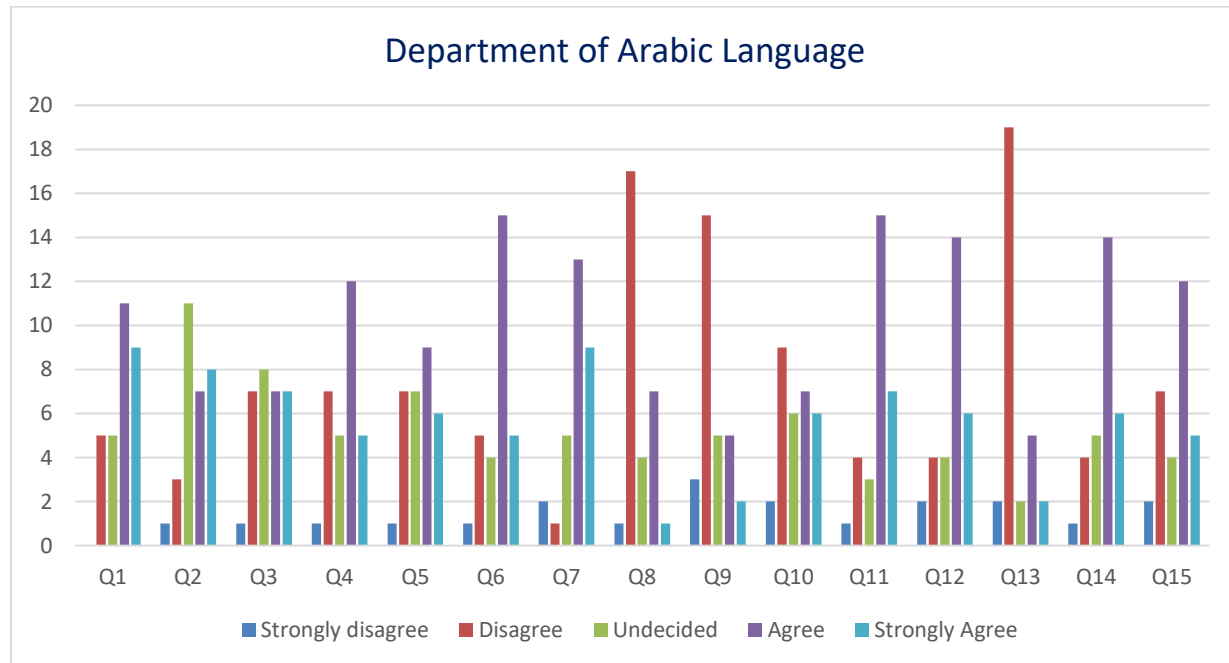

Figure 10: Respondents distribution according to the Likert Scales for each question in the questionnaire

We conclude from the above-mentioned questionnaire that the questionnaire is valid for adoption according to the Kornbach Scale. And also "the mean for each department, as the Islamic Studies and Readings departments had a weak average. As for the other departments, the average was high, and this indicates our students' orientation to e-learning and the success of the research according to the Five Rickert Scale.

Recommendations and suggestions:

Based on the results of the current study, the researchers would like to suggest the following recommendations.

1. Extensive and appropriate use of the Internet and new technologies can make up for the lack of on-campus activities and the dearth of student-teacher interaction.

2. Conducting similar studies to further investigate teachers' attitudes towards e-learning.

3. Where there is no other research that is considered a variable of the academic level of the first university degree. It is useful to outline for further research.

4. Further research is recommended to identify other variables such as (class level, learning method, and type of motivation) that may influence students' attitudes toward e-learning.

5. In addition, it will be useful to see that the results presented in this study can be expanded to include trainers and institutions to ensure the success of e-learning. This will be useful for the continuous development of this important research field.

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