

Evaluating the Administration of electronic university exams from the point of view of the teachers

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Abstract: This field study aims at evaluating the administration of electronic university exams from the teachers' point of view. The descriptive analytical approach was adopted in this study. The research community consisted of (1020) teachers and the research sample was composed of (205) of secondary teachers forming (20%) of the research community. This sample was chosen by the stratified random method. A questionnaire was designed and it included (40) items distributed among the five fields of study. The researcher ensured the validity and reliability of the questionnaire. The research data was analyzed using the (SPSS) program. The researcher applied the questionnaire in the academic year 2021-2022. The most important results reached in this study revealed that the level of evaluation of university electronic exams administration was very good and reflected the skill and ability of the faculty as well as the commitment of the faculty to enter information in a special record for the exam. At the end of the research, a number of recommendations were given in the light of the results obtained through the study.

Keywords: Evaluating, the Administration of electronic university exams, teachers.

تقويم إدارة الامتحانات الجامعية الإلكترونية من وجهة نظر المعلمين

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المستخلص: دراسة ميدانية استهدفت تقويم إدارة الامتحانات الجامعية الإلكترونية من وجهة نظر المعلمين، واعتمدت هذه الدراسة المنهج الوصفي التحليلي. تكوّن مجتمع البحث من (1020) معلّمًا، واختيرت عينة البحث بالطريقة الطبقيّة العشوائية بنسبة (20%) من مجتمع البحث، إذ بلغ عدد أفراد العينة (205) من مدرسي الثانوية. وصُمّمت استبانة تضمنت (40) فقرة موزعة بين خمسة مجالات دراسية، وتأكّدت الباحثة من صدقها وثباتها. حُلّلت بيانات البحث باستعمال برنامج (SPSS)، وقامت الباحثة بتطبيق الاستبانة في العام الدراسي 2021-2022، وتوصلت إلى نتائج أهمها: إن مستوى تقويم إدارة الامتحانات الإلكترونية الجامعية كان جيّدًا جدًّا ويعبّر عن مهارة الهيئة التدريسية ومقدرتها، والتزامها بتدوين المعلومات في سجل خاص للامتحان. وفي نهاية البحث عدد من التوصيات في ضوء النتائج المتحققة.

الكلمات المفتاحية: تقويم- إدارة الامتحانات الجامعية الإلكترونية- الهيئة التدريسية.

1. Introduction

The world has agreed on the importance of the implementation of electronic exams in the university community with an eye on the advancements taking place in technology and science in all fields so that disadvantages resulting from the traditional paper exams are dealt with appropriately. However, this was only in fact put into practice in the wake of COVID-19 that have had visible effects on the traditional educational institutions that lack a flexible and effective system to avert such unexpected circumstances. They also lack the ability to make use of the technological advances to the fullest extent in maintaining the educational activities leading to alternatively administering exams in an online interactive mode. With this in mind, electronic exams prove a suitable alternative to paper-based exams. They also appear to be a necessary alternative given the unprecedented state-of-affairs brought about by (COVID-19). The nature of electronic exams and what they can offer make them even more efficient to gauge the level and performance of students without any side effects.

1.1 Research problem:

Due to the importance of examinations in university life, both for teachers and students, the evaluation of the administration of examinations has become an urgent need. This is because the evaluation of this event resolves a great deal of controversy about the administration of examinations. On this basis, evaluation is a fair, equitable, scientific and objective work that all educational institutions need in order to verify the efficiency of their administration in the process of addressing responsibilities.

The goal of administering electronic exams is to assess the performance of students remotely employing the internet in this regard. This type of electronic exam evaluation enables students to identify the real level reached by the students after the period of study and education to determine the strengths and weaknesses of the educational process. This can be achieved by administering the exams in a simple manner that students would find no difficulty in performing them as well as constantly correcting the answer through an electronic means without delay. This would make sure that the marking process is transparent and rigorous.

Some have pointed out that this type of internet-based exams is one of the technological means used to practically eliminate obstacles arising from paper exams. These difficulties include health-related concerns such as infections as well as educational misbehaving such as mass cheating. This is in addition to the high costs. Electronic exams can also be employed to open more doors that help raise the results of students. This can be achieved through the development of self-learning skills without the need for a teacher in several areas. Hence, the problem of the study lies within the framework of the need to determine the evaluation of the administration of electronic university exams from the teachers' point of view.

1.2 Research importance:

The importance of the research can be presented as follows:

- 1) The importance of electronic exams for university students in determining the extent of their comprehension of the academic courses and the extent of their academic excellence .
- 2) The importance of the university professor's role of establishing how much benefit students can take from the educational content, and measuring, and evaluating their academic as well as scientific performance.
- 3) The importance of verifying the implementation of the universities' stated aims while

ensuring the necessary steps are taken in terms of social distancing and eliminating COVID-19 cases.

- 4) The importance of electronic exams in improving teaching and learning quality in further advancing the technological realm and to face current challenges.
- 5) Enriching the educational library with more studies related to the subject of the study.
- 6) Evaluating the administration of electronic exams contributes to diagnosing the nature of the administrative process and identifying its strengths and weaknesses in order to pass a judgment on it.

1.3 Research Aims:

The research aims to evaluate the administration of electronic university exams from the viewpoint of the teaching staff.

This can be formulated in the form of the following two questions:

1. What is the evaluation level of university electronic exams administration?
2. Are there statistically significant differences at the level of significance (0.05) related to the results of the research according to the variables of the research sample: (gender, experience, and specialization?)

1.4 Research limits:

The research is determined by the following:

- Spatial boundary: Colleges of Education, University of Baghdad.
- The human limit: male and female teachers in the colleges of education, University of Baghdad.
- Time limit: the first semester of the academic year 2021/2022.

2. Theoretical background:

2.1 Evaluation:

Evaluation is a systematic process that requires collecting objective and truthful data from multiple sources using various tools in the light of specific objectives. This is in order to arrive at quantitative estimates and descriptive evidence on which to base judgments, or make appropriate decisions related to individuals. Undoubtedly, these decisions have a significant impact on the learner's level of performance and efficiency in carrying out certain tasks (Obari, 2018). The traditional assessment adopts an educational philosophy that emphasizes highlighting individual differences and encourages competition. This enables the individual to obtain a superior relative position among his/her peers without trying to determine what the individual possesses of functional skills, ethics and positive constructive behaviors or taking the common interests of the group as a team that should work together for the good of society and raised it (Salem, 2004).

Zaher (2009) notes that there are four forms of evaluation that the teacher can use to evaluate the effectiveness of e-learning. These namely run as follows :

- 1) The pre-evaluation, which aims to determine the first level of students .
- 2) The formative evaluation. This aims to improve the educational process, as it continues throughout the learning process with electronic educational situations .

- 3) The diagnostic evaluation. This aims to discover the strengths and weaknesses in the student's achievement electronically .
- 4) The final evaluation. This takes place at the end of the e-learning program, which aims to determine the degree to which students achieve the main learning outcomes. (Zaher, 2009).

Among the most important electronic evaluation tools used are:

- Electronic tests, where the teacher can use multiple questions to test his/her students, such as true and false, pairing, multiple choice, essay questions, and others. The teacher can create a question bank and use it in his/her decisions. One of the advantages of these tests is that they are corrected electronically and their results are published electronically and immediately (Hamdi, 2008).
- Resident forums are one of the asynchronous communication tools that allow students enrolled in the course to hold discussions on the topics of the course, and the teacher can evaluate students' participation according to specific criteria and students receive feedback. (Abdel-Atti, 2015).
- Electronic assignments are activities that students carry out in a specific time and with specific specifications and are corrected after allocating marks for them, and students give comments on them. (Al-Abbasi, 2011).
- Emphasizing the importance of the teacher's role in harnessing electronic assessment tools and overcoming obstacles, there is, for example, the (Safe Assign) tool and other tools that measure the percentage of similarities and citations in assignments and research submitted between students in one division and the other divisions (Al-Othman, 2020).

In light of this, the evaluation process is a vital part of the learning process. It needs careful planning, design and implementation that requires an understanding of not only the education administration or the teacher, but also that of parents and students in order to create an appropriate environment for electronic evaluation in distance education.

2.2 Benefits of an electronic evaluation:

- There is a diversity of evaluation methods such as objective tests, tasks, projects, questionnaires and forums.
- It saves time and effort for teachers in correction.
- It is characterized by flexibility, as students can perform assignments and send them to the teacher electronically from anywhere.
- The possibility of implementing the evaluation in an organized and integrated manner and allowing the teacher to prepare the vocabulary of the electronic evaluation and to set its controls, conditions and timings.
- It provides a database of electronic evaluation items, student responses, and the degree obtained, and then grade reports can be printed and announced electronically (Sally, 2005, p. 219).

2.3 Administration of Electronic Exam

The administration of electronic examinations is the continuous and regular educational process aimed at gauging the performance student remotely through online means, which proved easy to carry out. This is because, this method enables professors to determine the students' level upon the conclusion of their study and thereby pinpointing strengths and weaknesses. This can be

achieved by administering exams in such a way that students can comfortably handle. Also, marking is done constantly using electronic technique and thus the process is transparent and rigorous (Kabli, 2011). These computer-based exams are practically administered to eliminate some of the obstacles that may stand on the way of implementing these exams such as medical issues, mass fraud or expenses. They can also be used to open more doors that help raise the results of students.

2.3.1 Importance and aims of Electronic Exam Administration

At present, the importance of administering electronic exams for university students lies in determining the extent to which they comprehend the academic courses with success and academic excellence without causing harm to them as a result of mixing in the traditional exam rooms and touching the answer sheets and others. It is also important to the university professor in determining the extent to which students benefit from the content of education and its measurement and evaluation of their performance. While for the university community, it lies in achieving the educational goals of universities while maintaining social distancing and reducing COVID-19 infections.

The goal of electronic exams is to improve quality in terms of teaching and learning and thereby tackling any current challenges. These include health-related concerns such as consequences of pandemics. Moreover, they aim at determining the students' level of performance pinpointing in the process their strengths and weaknesses. These are categorized using statistical analyses, which ensure obtaining accurate results quickly (Tariq, 2015).

2.4 Advantages of electronic exams:

- A high degree in some aspects of the validity and reliability of the test.
- Less need for printing and photocopying.
- Speed and ease of taking the test.
- The time taken to perform the test is shorter.
- Maximal accuracy in assessment and grade monitoring.
- Objectivity and fairness of evaluation.
- Speed of getting results.
- Fewer employees.
- Provides multiple types of question levels.
- A higher reliability coefficient (Hamdi, 2008).

2.5 Disadvantages of electronic exams:

1. It requires the teacher and all the parties concerned with the tests to have skills, extensive training, particularly in the use of software that helps to design, build, manage and apply the tests electronically.
2. Students need skill and experience in using the computer to perform the test.
3. Students cannot see the attached questions completely.
4. The difference between the method of reading the screen and the method of reading the traditional test paper, and the variance of adaptation to them.
5. Computers, software and sites used for electronic testing must be carefully monitored and maintained to avoid malfunctions during the tests.
6. Mismanagement and application of the tests through hacking, or the entry and

performance of another student for the test other than the student him/herself, in addition to the presence of technical problems while performing the test via the web (Nouha, 2015).

2.6 Obstacles to implementing electronic exams and how to overcome them:

There are many obstacles in the implementation of electronic exams. These are :

1. Lack of training in the skills of planning, implementing and administering electronic exams.
2. Dealing with the programming languages of the exams among some faculty members.
3. The poor skills of some students in using computers in electronic exams as a modern technology for them. The skills of students' use of remote electronic devices and software are part of the mark that students obtain in electronic exams for university courses.
4. The difficulty of providing and maintaining personal computers as well as network for each student at the university.
5. The difficulty of measuring practical and applied abilities and skills with such type of objective questions in exams.

These obstacles can be overcome in light of contemporary challenges, including the coronavirus pandemic, through the following:

- Providing training courses for faculty members in Iraqi universities on planning, implementing and administering electronic exams remotely.
- Running training courses for students through digital platforms, including (Zoom, google meet,) and others on the skills of dealing and responding to electronic exams on their own.
- Providing some digital platforms that allow running electronic exams or using free digital platforms, including (Google forms, Microsoft forms) or using ready-made software that can provide remote publishing and responding including Course Lab and others.
- Availability of electronic exams via a personal computer, a tablet, or a personal mobile, in addition to the state's support for students with free internet services.
- The possibility of preparing the University Software for electronic laboratories, as well as interactive virtual simulation software for the students of scientific and applied examinations.
- Providing each student with a user name and a password to login to the exam as a security system for use, while informing the student that the exam is monitored by cameras (Tariq, 2015).

2.7 Criteria for designing and producing electronic exams:

The process of designing electronic exams runs as follows:

1. Analysis stage: in this stage, a) the overall goal of the test is determined, b) the characteristics of the test takers are determined, c) the educational material to formulate the content of the test is analyzed, d) the technological reality of the educational institution is analyzed and e) the design requirements of devices and communication programs are also determined.
2. The design stage: In this stage, a) test questions are written, b) the test instructions and time

- are set, c) the question forms are tested, d) response patterns are chosen, e) the types of multimedia in the test are chosen f) the methods of feedback for each question are determined, and g) the method for correcting questions are also determined.
3. Test production stage: in this stage, a) the test software authoring programs are selected, b) the first trial of the test software is conducted, d) presenting the test software to specialized arbitrators is also conducted, e) the test software is also developed in light of the arbitrators' opinions, and f) the test software is documented.
 4. The stage of electronic distribution and publication in which the test is published on the Internet or on CDs and CDs and tests for students to use in their places of residence are distributed.
 5. Application stage in which a) the test is trialed on a sample of students, b) the data of the test application is collected and c) the results of the students are announced electronically.
 6. Evaluation stage in which a) the validity of the electronic environment of the test and the transfer and connection is determined and b) the confidentiality of the test is ensured (Hanan, 2017).

3. Previous studies

Study of (Iman, 2015):

This research entitled (Is the trend towards electronic evaluation different among students and faculty members at Fayoum University?) aims to identify whether the trend towards electronic assessment differs among students and faculty members at Fayoum University according to the variables of previous experience (experienced - not experienced electronic assessment). The target group (students - faculty members) and the interaction between them. It seeks to determine if the trend also differs according to the gender variable (male / Female). A questionnaire was prepared to measure the attitude of students and faculty members towards electronic evaluation. The research sample consisted of 200 students and 50 faculty members, and the results showed that: Faculty members were more supportive than students of electronic evaluation.

A study by (Al-Ganzouri, 2017):

This study entitled (Attitudes of faculty members towards employing electronic assessment using the BlackBerry system in the educational process) aimed to identify the faculty members' attitudes towards employing electronic evaluation using the Blackboard system in the educational process. The research sample consisted of 86 members of the faculty. It showed their desire and need for more training on the use and employment of electronic assessment tools. The results indicated that there are no differences in trends towards employing electronic assessment using the Blackboard system in the educational process among faculty members in the variables (gender - degree – specialization).

4. Research Methodology and Procedures:

4.1 Research Methodology:

The research adopted the descriptive analytical approach to achieve its objectives. This approach

adopts the field study method that goes beyond the limits of describing the phenomenon to analysis, interpretation and conclusion.

4.2 Research community and sample:

The research community consists of the teaching staff / University of Baghdad / Colleges of Education totaling (1020) teaching members. The sample of this research was randomly selected forming (20%) of the research community. The sample totaled (205) teaching members.

4.3 Research tool:

To collect the data required for this study, a questionnaire was adopted as a main source for this purpose and for reaching the results of the study. The questionnaire was constructed in a way that serves the research goal and its requirements.

The researcher relied on many sources to collect information. These run as follows:

- Secondary sources, which are the relevant Arab and foreign books and references, periodicals, articles and reports, previous research and studies in addition to various internet sites that dealt with the subject of the study.
- Primary sources: these included the collection of primary data by means of a questionnaire as a main tool for research and the use of previous studies. It consisted of (40) items distributed among five areas (controls and instructions, preparation and arrangement, organization and follow-up, correction and documentation, auditing and advertising), as can be seen in Table (1).

Table (1): The distribution of items per each field incorporated in the questionnaire.

No.	Fields	Number of items	Percentage
1	Controls and instructions	8	20
2	Configuration and setup	8	20
3	Organizing and following up	8	20
4	Correction and documentation	8	20
5	Auditing and advertising	8	20
	Total	40	100%

After completing the formulation of the tool's items in its initial form, a three-tiered scale was developed (high degree, medium degree, weak degree) for each item with corresponding values of (1,2,3) for each weight respectively.

4.4 Validity of the tool:

The apparent validity of the questionnaire was ensured by presenting it to a number of arbitrators specialized in educational sciences, educational administration and teaching methods, totaling (12) experts. The final number of items was (40).

4.5 Tool reliability:

To ensure the reliability of the questionnaire, a separate reliability sample other than the main research sample was chosen for this study. This amounted to (54) individuals. The tool

was tested and re-testing was with a two-week interval. Then, we calculated the Pearson correlation coefficient for the answers in both attempts, as it reached (0.82). The Cronbach's alpha equation for consistency was also used. The alpha coefficient for the electronic examination administration questionnaire had a value of (0.90).

Regarding the differences between the variables (gender, experience, and educational attainment), the T-test was adopted for two unequal independent samples.

4.6 The application of the questionnaire:

The tool was applied to the research sample of the teaching staff in the academic year 2021/2022. A total of (250) forms were distributed to the teachers of the Colleges of Education / University of Baghdad of which (205) valid forms were retrieved for analysis, interpretation and discussion.

4.7 Statistical processing methods:

The Statistical package for Social Sciences (SPSS) was adopted in this study.

- Agreement percentage: to extract the percentage of arbitrators for each item in the research tool, according to the equation:

$$\text{Agreement percentage} = \frac{\text{number of those agreed}}{\text{total number}} \times 100$$

- Pearson correlation equation: to measure the reliability coefficient with the concept of reliability:

$$R = \frac{n \sum xy - \sum x \sum y}{\sqrt{[n \sum x^2 - (\sum x)^2][n \sum y^2 - (\sum y)^2]}}$$

The Cronbach Alpha equation: to measure the reliability coefficient in the concept of consistency:

$$\text{Stability coefficient} = (n/n - 1) \times (1 - mg t^2) \times v^2$$

Fisher's equation: this equation is to determine each item of the questionnaire and its value and the order in which they came in relation to other items within the same field to display the results according to the following formula:

$$\text{Weighted mean} = \frac{T1 \times 3 + T2 \times 2 + T3 \times 1}{\sum T}$$

$$\text{Weight percentile} = \frac{\text{Weighted mean}}{\text{Max value}} \times 100$$

A hypothetical mean was measured in proportion to the weights and the alternatives taken in the research tool and as follows:

$$\text{Hypothetical mean} = \frac{3 + 2 + 1}{3} = \frac{6}{3} = 2$$

Thus, the hypothetical mean of the items is (2), and what exceeds that value is considered an acceptable degree while less than that is considered an unacceptable degree for the item.

Regarding the differences between the variables (gender, experience, and educational attainment), a test was adopted. (T-test) for two unequal independent samples.

5. Presentation and discussion of the results

This section deals with presentation and interpretation of research results. It also gives an account on the conclusions reached in this study as well as the recommendations and suggestions given.

5.1 The first aim of the research

To identify the evaluation of university electronic exams administration from the viewpoint of the teaching staff.

It can be expressed into two questions:

First: What is the level of evaluation of university electronic exams administration?

5.1.1 The results at the level of the fields

Table (2): Weighted mean and percentile weight for electronic exam administration domains.

Rank	order	Field	Number of items	Weighted mean	Weight percent
1	4	Correction and documentation	8	2,686	89,554
2	2	Configuration and setup	8	2.489	82.966
3	5	Auditing and advertising	8	2.428	80.95
4	1	Controls and instructions	8	2,408	80.266
5	3	Organizing and following up	8	2.293	76,441
Average			40	2.460	82

Table (2) indicates that the general result obtained by the faculty in evaluating the administration of university electronic exams was at a very good level, with a weighted arithmetic average (2.460) and a weight per cent (82%). This value may be attributed to the fact that the faculty attaches great importance to this aspect due to the consequent organization, follow-up and control and warned against falling into default, errors, firmness and accountability in the event of any default or negativity. The field of correction and documentation came first with a weighted arithmetic average (2.686) and a weight per cent (89.554%), and the field of preparation and arrangement came second with a weighted arithmetic average (2.489) and a weight per cent (82.966%). The field of auditing and advertising came third with a weighted arithmetic average (2.428) and weight per cent

(80.95%), and the field of controls and instructions came fourth with a weighted arithmetic average (2.408) and weight per cent (80.266%). The field of organization and follow-up came last with a weighted arithmetic average (2.293) and weight per cent (76.441%).

5.1.2 The results at the item level for each field.

1) Controls and instructions:

Table (3): The weighted mean and the percentile weight for the items of the controls and instructions field.

Rank	Order	Item	Weight percent	Weighted mean
1	5	Obligating the teachers to record the information in a special record for the examination.	90.243	2.707
2	1	Developing a specific program to invest the time of exams.	88.617	2,658
3	8	Preparing the examination committee for the requirements of the entire next day before leaving.	88.617	2,658
4	4	Preventing teachers from entering electronic classes for exams or interfering in their affairs.	87.804	2,634
5	3	Confirmation of students' commitment to the electronic examination controls in a firm manner.	84.227	2.526
6	6	Ensuring that the scores are distributed between the questions in a fair and clear manner.	81.300	2.439
7	2	Educating students to abide by honesty during the exam and to stay away from suspicious behaviors.	80.487	2.414
8	7	Continuous maintenance of all equipment.	41.138	1.234
Total marks			80.266	2,408

Table (3) indicates that Item (5): (the commitment of the teaching staff to record information in a special record for the examination) came first producing a weighted arithmetic mean of (2.707) and a weight per cent of (90.243%). This result shows that the commitment of the faculty to record information in an examination record is the core of the examination process being conducted. As for Item (1): (Developing a specific program for investing exam time), it came second producing a weighted arithmetic mean (2.658) and a weight per cent (88.617%). This result shows the great importance of investing exam time.

As for Item (7): (Working on maintaining all devices on an ongoing basis), it came last producing a weighted arithmetic mean (1.234) and a weight per cent of (41.138%). This result may have to do with the specialized authorities not achieving continuous and permanent maintenance of examination equipment.

2) Preparation and arrangement

Table (4): The weighted mean and the percentile weight for the items of the field of preparation and arrangement.

Rank	Order	Item	Weight percent	Weighted mean
1	1	Inviting the competent authorities to provide them with equipment and stationery.	90.243	2.707
2	6	Creating electronic classes with the names of students, schedules, and the time allotted for each subject.	89.268	2,678
3	7	Teachers and students are required to come half an hour before the exam date.	88.130	2,643
4	4	Preparing the examination halls well.	84.552	2.536
5	3	Urging teachers and students to fully prepare for the exam.	82.926	2.487

Rank	Order	Item	Weight percent	Weighted mean
6	8	Confirmation of confidentiality of computers and their accessories in sealed lockers.	82.926	2.487
7	5	Ensuring that teachers and students are highly efficient when using examination equipment.	77.777	2.333
8	2	Ensuring the selection of teaching elements that are efficient and reliable.	68.292	2,048
Total marks			82.966	2.489

Table (4) indicates that Item (1): (The approach of the competent authorities to provide them with equipment and stationery) came first producing a weighted arithmetic mean of (2.707) and a weight percentage of (90.243%). This result emphasizes the importance of obtaining equipment, stationery, and examination requirements before performing the exams.

Item (6): (Creating the electronic classes with the names of students, schedules and the time allotted for each subject), it came second producing a weighted arithmetic mean (2.678) and a weight per cent (89.268%). This item emphasizes the importance of preparing electronic classes with student names, schedules and time allocated for each subject.

Item (2): (Care to choose efficient and reliable teaching elements) came last with a weighted average (2,048) and a weight per cent (68,292%). This result explains the criticism of the study sample, because this aspect in the selection of reliable teaching elements does not place within the interests of the examination management in the college.

3) Organization and follow-up

Table (5): Weighted arithmetic mean and weight per cent of the items of the field of organization and follow-up.

Rank	Order	Item	Weight percent	Weighted mean
1	8	Verification of attendance, absence, and exam record at the end of exams.	95,284	2.858
2	6	Treating students well before, during and after the electronic exam.	90,731	2.721
3	4	Programming the electronic exam plan with precise timing and work mechanisms.	85,365	2.560
4	1	Adopting quick means of communication with the committees supervising the exams.	73.17	2.195
5	7	Appreciating the efforts of the examination committees for their contribution to the success of electronic exams.	69.756	2.092
6	5	Adopting modern formulas and methods in administering electronic exams.	65,691	1.970
7	2	Distributing tasks fairly among the members of the examination committees.	65.853	1.975
8	3	Sending a detailed copy of the electronic examination plan to the deanship of the college and university.	65.853	1.975
Total marks			76,441	2.293

Table (5) indicates that Item (8): (Confirmation of attendance, absence, and exam situation at the end of the exams) came first producing a weighted arithmetic mean of (2.858) and weight percentage (95.284%). This result shows the confirmation of attendance and absence in electronic exams as a basis is very important, because losing one student is enough to confuse the whole committee.

As for Item (6): (Treating students well before, during and after the electronic exam), it came second producing a weighted arithmetic mean of (2.721) and a weight per cent of (90.731%). This item emphasizes the importance and sensitivity of dealing with students in

order to avoid any problems or tensions during the exam.

As for Item (3): (Sending a detailed picture of the electronic examination plan to the Deanship of the College and University), it came last producing a weighted arithmetic mean of (1.975) and a weight percentile of (65.853%). The result explains that the faculty is not interested in these images because it is purely administrative work.

4) Correction and Documentation

Table (6): Weighted mean and weight per cent of the items of the correction and documentation field.

Rank	Order	Item	Weight percent	Weighted mean
1	1	Adoption of complete confidentiality of students' names when correcting.	93.983	2.819
2	7	Commitment to the confidentiality of computers and their accessories in the administration of exams.	92.233	2.767
3	3	Granting the student the right to object to his/her grade or exam result to be reviewed again.	91.466	2.744
4	5	Keeping questions and results in sealed lockers.	91.056	2.731
5	2	Confirming the accuracy of the correction and transfer the grades and documenting them immediately.	90.243	2.707
6	8	Adopting the best types of computer software in managing and documenting electronic exams.	88.780	2.663
7	6	Using the best software to document exam results.	84.390	2.531
8	4	Obligating the teachers to correct the exam sheets inside the college exclusively.	80.487	2.414
Total marks			89,554	2,686

Table (6) indicates that Item (1): (Adopting complete confidentiality in the names of students when correcting) came first with a weighted arithmetic mean of (2.819) and a weight per cent of (93.983%). This finding illustrates the great importance of confidentiality when correcting because this secrecy is a key pillar of the success and justice of the examinations without discrimination.

As for Item (7): (Commitment to the confidentiality of computers and their accessories in the administration of exams), it came second with a weighted arithmetic mean of (2.767) and a weight per cent of (92.233%). This item confirms in its content and work the work of the paragraph that preceded it to confirm the full integration of its exam effect towards justice in correction.

Item (4): (Requiring teaching staff to correct the exam sheets within the college exclusively) came last producing a weighted arithmetic mean (2,414) and a weight per cent (80,487%). This result is ascribed to the fact that the faculty be required to correct within the college exclusively, as it is impractical, especially if the number of sheets was large and difficult to stay in college for late hours.

5) Auditing and advertising

Table (7): the weighted arithmetic mean and the weight per cent of the items of the field of auditing and advertising.

Rank	Order	Item	Weight percent	Weighted mean
1	6	Submitting the results to the examination committee at the university before they are announced.	90,569	2.717
2	5	Documenting the results in certified records and special-ink pens to prevent fraud and forgery.	89.105	2.673
3	1	Refusing any form of mediation when the results are announced.	88.943	2,668
4	2	Documenting and confirming the results for validity before announcing them.	86.504	2.595
5	4	Cleaning students' electronic devices from any cheating, theft or exchange.	83.739	2.512
6	8	Following up the implementation of the exam plan without errors and negatives.	74.146	2.224
7	3	Allocating drawers and lockers to save the results as soon as they are announced in order to avoid pressure and embarrassment.	67.967	2.039
8	7	Interacting with other universities to benefit from their experience in the field of exam preparation.	66.666	2
Total marks			80.266	2,408

Table (7) indicates that Item (6): (delivering the results to the examination committee at the university before they are announced) came in the first place with a weighted arithmetic mean (2.717) and a weight per cent (90.569%). This shows the emphasis on handing over the results to the competent authorities at the university before they are announced. There are entities that have an impact on the results for the benefit of their children, without right. So, in order to prevent any tampering with the results, the results are delivered and adopted quickly and confidentially. As for item (5): (documenting the results in certified records and special-ink pens to prevent fraud and forgery), it came second producing a weighted arithmetic mean (2.673) and a weight per cent (89.105%). This item is complementary to the previous item and shows the importance of documenting the results in certified records and special ink pens to prevent manipulation, forgery and manipulation of results. Item (7): (Interacting with other universities to benefit from their experience in the field of exam preparation) it came last producing a weighted arithmetic mean (2) and a weight percentage (66.666%). The result shows that the sample of the study is not convinced that our university entities are really interacting with the experiences of other universities to benefit from their experiences in developing exam preparation.

5.2 The second objective

To determine the differences in the average estimates of the study sample members in the administration of electronic examinations in the Colleges of Education / University of Baghdad according to the variables (gender, experience, and specialization).

5.2.1 Gender variable

Table (8): Discrepancies in the fields of the questionnaire pertaining to the variable of gender.

Gender	Number	SMA	Standard deviation	Degree of freedom	T test		Statistical significance
					Tabular at significance level 0.05	Calculated	
Male	130	44.805	2.277	203	1.980	1.338	Non Significant
Female	75	45.419	2.292				

Table (8) indicates that there are no statistically significant differences between the sample of the study with regard to the gender variable between the faculty in relation to their view of the university electronic examinations administration. This result may be due to the fact that all males and women view the administration of university electronic examinations in the faculties of education in a futuristic way and that they take a deserved responsibility to promote the educational process in all fields.

5.2.2 Experience Variable

Table (9): Discrepancies in the fields of the questionnaire related to the experience variable.

Experience	Number	SMA	Standard deviation	Degree of freedom	T test		Statistical significance
					Tabular at significance level 0.05	Calculated	
1-10 years	167	44.770	2.154	203	1.980	1.102	No Significant
+11	38	45,335	2.321				

It can noticed in Table (9) that the differences between the experienced faculty of (1-10) years and the experienced (+11) were not found to be significant in statistical terms. This the result may have to do with the fact that the experience was not influential on the difference in their unified view in responding to the items of the administration tool of university electronic examinations in the faculties of education.

5.2.3 Variable of specialization

Table (10): Differences in the areas of questionnaire related to the variable of specialization.

Specialization	Number	SMA	Standard deviation	Degree of freedom	T test		Statistical significance
					Tabular at significance level 0.05	Calculated	
Humanities	62	45,382	2.280	203	1.980	1.366	Non Significant
Scientific	143	44.729	2.300				

Table (10) the differences in the fields of the questionnaire pertaining to variable of the specialization.

As can be seen in Table (10), the differences between the research sample who specialize in humanities and science were not found to be significant in statistical analysis. The result may be attributed to the fact that the specialization does not represent a reason for the difference of views on a matter related to the administration of university electronic exams in all administrative operations in the faculties of the University of Baghdad. The reason is that both disciplines are interested in the process of evaluating the administration of electronic examinations in the areas of administrative work. It demonstrates the awareness and understanding of the faculty in both disciplines of the importance and role of administrative aspects in supporting the work process within the departments.

6. Conclusions

In view of research results, the following conclusions can be reached:

- The evaluation level of university electronic exams administration was very good and reflects the skill and ability of the faculty.
- Obliging the faculty to record the information in a special record for the examination.
- Attention to approach the competent authorities to provide them with equipment and stationery.
- Treating students well before, during and after the electronic exam.
- The administration of electronic examinations confirms the commitment of students to implement the examination instructions within the electronic classes.
- There are no statistically significant differences at the level of significance ($\alpha=0.05$) for the variables (gender, experience, and specialization).

6.1 Recommendations

Based on the research findings, the researcher recommends the following:

- Despite achieving a high level of management of university electronic examinations from the faculty, this does not exempt them from further upgrading through training courses, seminars, conferences, brochures, books and sources to ensure progress in this vital area.
- Focusing on the development of innovative and modern methods, models and mechanisms for administering and diversifying electronic exams.
- Achieving a degree of communication and interaction with local and foreign expertise to benefit from them with advanced efficiency and quality.

6.2 Suggestions

- 1) Studying the administration of electronic examinations at levels of study without a sample in this research.
- 2) Studying the preparation and design of electronic examinations in various subjects and stages of study.
- 3) A study to monitor the most frequent errors and disadvantages in the administration of electronic examinations and ways to treat them.
- 4) A study on the difficulties facing the management of electronic examinations at various stages and ways to overcome them.

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