The   faculty members' viewpoint about distance Exams during the Covid-19 Pandemic at Universities

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Abstract

This paper presents a field study on the scientific examinations integrity that conducted remotely for university students from teaching staff perspectives at Iraqi universities to identify the challenges and obstacles facing the E-exams for undergraduates and graduates education institutions. The paper aims supporting universities administrative to develop scientific and tractable solutions for conducting E-exams according to the available capabilities. For this purpose, a questionnaire was conducted, in which 805 instructors in public universities, most of them in scientific disciplines, participated in it. The questionnaire included (11) questions, the answer depends on multiple options. The questions were concerned on the extent of the scientific integrity of the E-exams that were carried out Covid-19.

The prominent results of our questionnaire were: 80% agreed that cheating occurred during on-line exams, and 74% agreed that on-line exams did not distinguish between the non-glorified and the glorified student, 77% that the procedures of monitoring for electronic exams have no effect on cheating, 78% indicate that students have Groups in which questions are solved and distributed to the group during the exam, 91% have indications that   electronic exams scores were higher than the exams of on-sit.

Keywords: E-learning exam, COVID-19 pandemic, distance assessment, higher education, electronic exam.

وجهة نظر أعضاء هيئة التدريس حول الامتحانات عن بعد أثناء جائحة كوفيد –19 بالجامعات

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الخلاصة

يقدم هذا البحث دراسة ميدانية حول نزاهة الامتحانات العلمية الالكترونية التي أجريت عن بعد لطلبة الجامعات العراقية من وجهة نظر أعضاء هيئة التدريس ، لتشخيص التحديات والعقبات التي تواجه الامتحانات الإلكترونية لطلبة الدراسات الاولية والعليا في المؤسسات التعليمية. يهدف البحث الى حث القيادات الادارية في المؤسسات التعليمية لتطوي حلول علمية قابلة للتطبيق لاجراء الامتحانات الالكترونية حسب الامكانات المتاحة. تم عمل استبيان لهذا الغرض ، شارك فيه (805) تدريسي من الجامعات العراقية معظمهم من الجامعات الحكومية. تضمن الاستبيان (11) سؤال ذات اختيارات تت متعددة تتعلق بنزاهة الامتحانات الالكترونية التي اجريت عن بعد خلال جائحة كوفيد –19.

ابرز نتائج الاستبيان: 80% اتفقوا على حدوث غش في الامتحانات الالكترونية ، 74٪ وافقوا على أن الامتحانات عن بعد لم تميز بين الطالب المهمل والمجد ، و 77٪ وافقوا على ان إجراءات مراقبة الطلبة خلال الامتحان عن بعد ليس لها

أي تأثير على الحد من الغش ، وأشار 78٪ إلى أن الطلاب لديهم مجموعات يتم فيها حل الأسئلة وتوزيعها على المجموعة اثناء الامتحانات ، و 91٪ لديهم مؤشرات على أن درجات الامتحانات الإلكترونية كانت أعلى من امتحانات الحضورية التي تتم في الصف.

الكلمات المفتاحية : التعلم الإلكتروني ، جائحة كوفيد –19 ، الامتحانات عن بعد ، التعليم العالي ، الامتحان الالكتروني

1. **Introduction**

During the Covid-19 pandemic, Faculty members shifted their teaching to distance on-line teaching in order to ensure the continuity of the educational process [1]. The E-learning is a form of distance learning that use various types of technologies to convey knowledge with efficient interaction between learners and teachers to achieve maximum benefit with less effort and short time in comparable, with face to face learning [2]. E-learning Assessment requires effort in order to achieve effective and efficient processes on the part of the educational community to propose procedures, methods and strategies [3].

Despite of the advantages of e-learning in overcoming covid-19 crisis, there are questions about the effectiveness of this education as a complete alternative to traditional educational methods, especially the output honesty of this learning [4]. The pandemic enforced the institutional education to use alternative assessments that replace face-to-face exam, written examinations holds in examination centers, with E-exam, distance exam held on online timed assessments, to ensure the safety and legal status of students' progress. This assessment allows instructors to evaluate the knowledge, competencies, skills of students. The students' exams are the main mechanism for measuring the efficiency of the educational process, assessing the level of students' knowledge acquisition and their achievement percentage of learning outcomes, as well as discovering their scientific individual differences.

After completing the successful performance of E-exams in Iraqi universities, an assessment must be made of the accuracy and reliability of conducting student examinations remotely without direct supervision of faculty members, as in the traditional exams, which were conducted in normal circumstances. In this paper, a questionnaire was conducted, which its questions related to the scientific aspects and honesty of electronic exams to assess the reliability and sobriety of remote exams.

2. **Related work**

[5] Presented a study on cheating in exams at the School of Engineering with the sample-size of 95-subjects. The obtained results revealed that 65% of respondents declared that cheating is a common-phenomenon; 60% of student's affirmed, and 70% that they use mobile-phones during examinations to Google or to access notes. According to the obtained results, the cheating is a very-real-issue of massive-concern. Therefore, there is a need to adapt procedures that limit these phenomena.

In [6] introduced merging research method of data analysis to investigate the spread of cheating E-exam in Spain. They collected and analyzed for period between 2016 and 2020 about cheating ways in e-exams. The results showed that a significant increase cheating on online exams during the COVID-19. They recommended academic institutions to wary about the opportunities that their students have to commit fraud of E-exam.

In introduced a study that compared the academic achievement of two groups; the first performed classroom assessment whereas the second group use synchronous online evaluation [7]. They

tried to understand how it affected their perception of the process using three different indicators: fairness, stress and difficulty. In this study, students participated are 919. The assessment results showed that desktop exams provide the same guarantees an online evaluation, when proctored.

3. E-learning and E-Examination challenges

The e-learning needs to utilize new forms of data and technology to face the affected of Covid-19. E-learning is a method of education using modern means of communication from the computer and its networks and multimedia such as sound, image, graphics, research methods, digital libraries, as well as the Internet, whether that is remotely or in the classroom [8]. In e-learning, many steps are needed many such as: preparing lecturing plan and academic content, student assessment, learning process management, report and statistics assessment of the learning process. E-learning changes the education to a new form instead of the classical learning that uses school and class. The importance of e-learning lies in several benefits such as; low costs which is not need building new classes to conduct courses as well as reducing costs of transportation, paper and pens . Also, all individuals and all ages can benefit from this education and gain skills useful to them without the constraints. In addition to the flexibility to increase the learning at any time and reduce time wasted. As well as, students have the same educational content, accurate tracking of each student's achievement and online activity log [4, 9] and [10].

Covid-19 forced educational institutions to shift to e-learning to that depends on distance exam, that held on online timed assessments to ensure the legal status of students' progress, in spite of lacked to time and experience, they needed to conceive new ways to deliver assignments , instruction, as well as Examinations were affected. It is an integrated system in the educational process that includes all the pillars of the educational process, which are the inputs, processes and outputs (which include instructions, administration, education, evaluation and certification).

Many challenges in e- exams related areas such as self-assessment and remote supervision [7]. Distance examination may help to increase the appeal to cheat compared to on-class exams, and elevated rate of dishonest behavior such as more plagiarism to get better marks. This is because e-exam environments do not adequately allow the formation and direct control of the physical test of them as in the cases of class exams. Students in online learning often take exams by using established rooms and offices, which is monitored, on campus or external locations to prevent them from cheating [11].

They investigated whether students did indeed cheat in online than in on-site exams from the higher education institutions by questioned 1,608German students. The students admitted that they cheated more frequently in online than in on-site exams during 2020 semester. They concluded that ad-hoc online exams has led to negative consequences for integrity of academic [12]

Many factors may deter teachers from taking strategies to reduce cheating such as: a lack of knowledge about these procedures and implementation them, as well, as may lack to technical issues and lack training. Some of higher education institutions still lack both the technical expertise and legal foundation methods like proctoring. [13]. In addition to the surrounding environment, such as (traditions, political influence and personal relationships, infers to prevent the implementation of sanction or to renounce

cheating. Also, the increased cheating rates because students increased fear of failure due to unfamiliar modes of teaching and testing [14]

In particular, the closure of educational institutions,, which is unexpected, prompted the authorities to suggest remote teaching to ensure the continuity of education process during the pandemic. Therefore, the conventional methods (traditional face to face teaching) have been replaced by online (e-learning) for the time being. The shifts to online testing suddenly makes its procedure less secure ad-hoc solutions, which reduced the detect cheating by instructor during on line examination, besides cheating is easier in this type of examination. This leads to higher rates of cheating in online compared to on-site exams in times of higher uncertainty during the pandemic [12].

Before Covid -19, Educational institutions in Iraq are based only on traditional methods of learning, that is, they follow the traditional set up of face-to-face lectures in a classroom until the emergence of the COVID-19. Online Learning is considered as Panacea of teaching in the Time of COVID-19 Crisis.

4.   Electronic test

In e-exams, a set of questions designed by the instructor electronically; to measure and evaluate the level of students' performance in a subject or course, and after applying it to the students, it is corrected and monitored, which ensures credibility and transparency in the correction while saving time, effort and money. The exam includes a set of various questions (multiple choice, true and false, matching, arranging, filling in the blank, and others) designed using a software, which measures the individual's performance level in the various areas for which it was developed. **The importance features of the e-exams** reduce significantly the costs of organizing and administering exams, such as the cost of paper, inks, and observers' dues, especially in universities that pay observers for the task of monitoring.

For the teacher aspect, the importance of this test lies in the formation of a bank of questions specific to the course, which helps to develop and facilitate the design of the test. For the student aspect, the importance of the electronic test lies in the ease of taking the test. E-Exam requirements require preparation such as:

1)   Spreading awareness among workers in educational institutions about the feasibility of using technology in preparing and managing electronic tests
2)   Training learners to use the electronic test
3)   Training employees on the skills of electronic testing
4)   Providing the infrastructure of computer laboratories, Internet service, supporting programs and specialized teachers.

5.   Methodology

A questionnaire was conducted in which 805 instructor from various Iraqi universities participated, most of them in scientific disciplines, especially computer and engineering, to take a knowledge about the opinion of the instructors on the extent of the scientific sobriety of electronic exams, and the reliability that was carried out through them. The questionnaire included (11) questions that focused on th, and the answer depends on multiple options. Each question is answered with one of the answers: Strongly Agree, Agree, Neither Agree or Disagree, disagree, strongly disagree.

6.   Results and Analysis

The responses of instructors of analyzing the scientific sobriety questionnaire for electronic exams in Iraqi universities are shown in table (1).

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Table (1) The results of questionnaire

No.	Questions	Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree
1	The scores of electronic exams were higher than traditional exams	2%	2%	5%	12%	79%
2	The electronic exam control procedures were ineffective in preventing cheating	4%	7%	12%	13%	64%
3	I think that the electronic exams were aimed at the success of all students with a legitimate cover	2%	6%	7%	12%	73%
4	Giving the student a grade of no less than half of the quest and granting 30% on the report encouraged the applicant not to be serious about preparing for the final exams	2%	8%	9%	14%	67%
5	These exams gave the opportunity to distinguish the outstanding student from others	30%	43%	15%	7%	5%
6	Large-scale cheating occurred	0%	11%	9%	15%	65%
7	The electronic exams achieved the scientific objective of evaluating the scientific level of students	30%	22%	28%	15%	5%
8	The scientific level of the hypothetical exam questions was at the level of the traditional exams each year	13%	20%	26%	22%	19%
9	The electronic exams revealed the extent to which students understood the subject	25%	24%	31%	14%	6%
10	I have indications that some students attended the exam, but they are not the ones who answered the questions	10%	12%	23%	20%	35%
11	I have indications that the students have groups in which the questions are solved and distributed to the group	2%	7%	11%	14%	65%
	Grand Total	9%	17%	16%	14%	44%

The graphical representation of the questionair as shown below figure 1.

Q1

- Strongly Agree
- Agree
- Neither Agree Nor Disagree
- Disagree
- Strongly Disagree

Q2

- Strongly Agree
- Agree
- Neither Agree Nor Disagree
- Disagree
- Strongly Disagree

Q3

- Strongly Agree
- Agree
- Neither Agree Nor Disagree
- Disagree
- Strongly Disagree

Q4

- Strongly Agree
- Agree
- Neither Agree Nor Disagree
- Disagree
- Strongly Disagree

Q5

- Strongly Agree
- Agree
- Neither Agree Nor Disagree
- Disagree
- Strongly Disagree

Q6

- Strongly Agree
- Agree
- Neither Agree Nor Disagree
- Disagree
- Strongly Disagree

Figure (1) The graphical representation of questionnaire (Q1…Q11)

7.   Conclusion

Some of challenges and drawbacks are observed. The use of electronic exams was an ill-considered practice, since conducting the e- exam lacked to preparation and organized approach that takes into account the reliability of the assessment of the student's learning and focused on the student's success in the first place. This field study gave practical evidence that the conducted e- exams accompanied by great cheating, and did not express the extent of the student's scientific benefit. cheating is difficult to detectand easy to do. The online students require a more organized framework and more support . The results proved that the e- exams did not achieve the intended scientific goal.

8.   Recommendations

According to the questionnaire results some recommendations and suggestions are proposed to the authorities responsible for education in order to improve the learning quality. There are many solutions can be used to reduced

cheating in online exams to increase the scientific outcome and reduced cheating in online exams that can contribute an areas for further-research were conducted and improving the polices of academic-integrity.

1) Using live observation via webcam or delayed checks for fraudulent behavior through recording this infractions.

2) using the blended learning in education is the most effective way by merge e-learning and classroom learning.

3) Design of e- exams must change in the overall by using different approaches such as open-book exams, open-ended questions over multiple-choice. these exams changes make cheating either less feasible or even encourage behaviors that are not accept cheating

4) Reduce cheating, institutional educations must alert student about the consequences of cheating and warn of penalties

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