Journal of Elementary Education
Volume 31, No. 2, pp.83-106

Evaluation of the Performance Quality of the Educational Process at Islamic University of Madinah

Tarek M. Omara[*] and Abdul Ghani I. Oyarekhua [**]

Abstract

In this study, the quality of the educational process at Islamic University of Madinah, KSA was discussed. The study focused on evidence the quality of the performance of the student and teacher as one of the main tributaries of the quality of the educational process and at the same time, it proposed the framework for statistical methods to ensure the quality of evaluation of the educational process. The study used two surveys to investigate the quality of education at Islamic University of Madinah, KSA, one of which was directed at faculty members and consists of two main perspectives: Quality of faculty member's evaluation (teaching activity - research activity) – Quality of student's evaluation, and the other was meant for the students and consists of two perspectives: Quality of faculty member's evaluation (teaching activity) - Quality of student's evaluation. A sample of 55 faculty members and 137 students was drawn, the extent of the existence of significant differences between the views of faculty members and students was tested regarding the quality of student evaluation, and a framework for statistical methods that can be used to measure the quality of the educational process was developed.

Keywords: Evaluation, statistical evaluation of performance, statistical methods measurement, quality

*Lecturer, Department of Statistics, Mathematics and Insurance, Faculty of Commerce- Kafr al-Sheikh University.
**Assistant Professor, Department of Mathematics, Faculty of Science, Islamic University of Madinah

Introduction

Measuring the quality of the educational process is considered one of the basic matters through which the quality of this process can be determined, as this serves as a guide for the development and improvement of this process. In fact, the quality of the educational system performance scale is affected by a wide range of factors related to the nature of knowledge and skills related to the course and experience of the person administering the educational process, the means and methods of teaching followed, and the employed administrative system. Many studies dealt with the quality of the educational process, we find a study carried out by Abu Zain 2001, which presented the reality of school tests set by teachers to measure the achievement and learning of their students in Mathematics by analyzing a sample of these tests and examining the procedures and means used in preparing them. Mona El-Khouly (2004) studied how to develop education in Egypt in order to achieve total quality. The study of Al-Othman (2004) focused on setting a general framework for raising total quality rates in the educational process, including student evaluation. Al-Zahrani, Muhammad (2009) clarified the indicators that can be adopted in developing tools to measure student achievement according to total quality standards. Omar, Amal (2015) identified the evaluation systems applied to evaluate the level of student performance in the Khartoum colleges of education, Tito et al (2019) conducted a review and set the context of the current definitions of educational quality from the administration's point of view.

It is noted that in many times the performance of the educational process system is evaluated in a manner that is not based on sound scientific foundations, which may lead to lack of credibility of the evaluation process. The study aims to achieve the highest accuracy in the process of measuring the performance of the educational process system and at the same time provide an integrated system for quality control in performance evaluation at Islamic University of Madinah. We hereby present the current research aiming to clarify how to use sound statistical methods to measure and control the quality of performance in evaluating the educational process at Islamic University, and this is expected to be achieved by identifying appropriate evaluation factors for the educational process system, then defining reliable statistical frameworks and controls, as well as enabling it to identify strengths and weaknesses in the measurement tools used, and thus contribute to improving and developing these tools. The current research is also interested in developing a perception of a statistical method for displaying and analyzing the result of measuring the performance of the student, which reflects the credibility of performance evaluation in a way that serves the educational process at Islamic University. On the other hand, this study will use statistical methods to assess teacher performance and quality of the teaching tools and aids in the university, which could positively influence the direction of the educational environment in the university

towards development and quality. The aim of the current study is to demonstrate the evaluation quality of faculty members' performance (teaching activity - research activity) and the quality of student evaluation at Islamic University of Madinah, to check if there are significant differences between the opinions of faculty members and students about it. It also intends to illustrate sound statistical methods to measure and control performance quality in evaluating the educational process at the University. We expect to achieve this by determining evaluation factors suitable for the educational process system, then identifying the evaluation indicators and tools and statistical methods for measuring them. Then, we will design reliable statistical frameworks and controls for the measurement process.

Evaluating the Educational Process

Higher education institutions are affected by a set of variables that may fundamentally affect the quality of the educational process. In addition to internal factors, there are external factors also involved in the formation of the quality system of these institutions. In order to achieve a significant improvement in the quality of educational processes in general, and in higher education institutions in particular, clear and specific methods and means must be adopted (Barakat, 2019). Determining performance measurement standards is a prerequisite for achieving the desired quality, and performance measurement is the appropriate way to determine the level of quality that different processes reach, especially the educational process. During performance measurement, we can explore the strengths and weaknesses and thus address the areas of imbalance. By evaluating the performance of the educational process, a positive change can be made in the outcomes of the educational process and thus achieve the desired objectives of the educational process and community service. Hence, it can be said that the evaluation of the educational process is not limited to determining the levels of performance but extends to a wider scope, which is to bring about improvement and development to performance of the educational process. Moreover, what is certain is that quality in performance evaluation will lead to credible and reliable indicators to improve performance, and if we consider quality in evaluating the educational process, we find that we are in urgent need of indicators to measure the quality of performance scales with all its components (student - teacher - teaching methods). Statistical methods are one of the methods that can be used to measure the extent of quality in evaluating the performance of the educational process, and in this direction, a statistical framework can be established to achieve development and quality in measuring the performance of the educational process. If we look at the evaluation process in general and the educational process in particular, we find that it should have a set of characteristics, including: **Inclusivity:** It is intended to include all aspects of the processes that are evaluated, in order to reach a complete picture of them. **Continuity:** Evaluation of the educational

process must be continuous, not temporary, and therefore it is a dynamic process that begins with evaluation of the inputs, then evaluation of the processes, then the outputs, and the feedback of the inputs. **Multiplicity:** Evaluation of the educational process must take multiple forms and does not depend on one method. **Development:** Continuous development of methods of evaluating the educational process is a necessary requirement to attain the best means of evaluation. **Planning:** Planning to evaluate the educational process is a basic requirement, as the unplanned evaluation will not give an opportunity to indicate the extent to which the required educational outcomes have been achieved. Unplanned skills may be measured leading to deviations from the primary objective of the evaluation process.

Through the previous characteristics, it can be said that the methods of evaluating the educational process, which aim to determine the amount of skills that the student acquires during the learning process, must be planned, developed, inclusive, continuous and multiple, in order to attain quality in evaluating the educational process**.**

Student Evaluation Methods

Student evaluation is one of the most important processes that must be done for the success of the educational process. In fact, there is a wide range of student evaluation methods, which mainly depend on developing methods to measure student's acquisition of the skills necessary for the course.

Methods of Evaluation the Performance of Teaching Staff

The performance of the teaching staff is the second most important aspect in the quality of the educational process, and the evaluation process of the faculty member is a complex and diverse process, as it needs multiple and accurate criteria for evaluation. (Haskell, 1997) sees an urgent need to use multiple methods to evaluate a teaching staff, and that the use of student evaluation for teaching staff is insufficient and tinged with many reservations. (Al-Ghamdi, 2010) considers that in order to reach objectivity in evaluating the performance of teaching staff, evaluation methods should vary to include students and the higher management of colleges (Head of Department - Dean of College) extending to fellow teaching staff and the external community among parties related to the educational process and the faculty member himself. One of the important things when evaluating a faculty member is defining the academic scope of the evaluation, which must include three main aspects (the teaching aspect and course development - research aspect - community service).

Students Evaluation of the Teaching Staff

This method is one of the most used methods for evaluating teaching staff, and it depends on taking students' opinions through a questionnaire prepared in the future by the higher management of the college on a set of themes that affect the performance of the faculty member of the course. (Nada, 1434 AH) views that this method has credibility, because the student has a direct relationship with the faculty member, and he is the most capable of evaluating his strengths and weaknesses.

Evaluation of the Teaching Staff by the College's Senior Management

The college's senior management, represented by the head of the department and dean of the college, plays an important role in the process of evaluating the performance of the faculty member. It is noted that the head of the department is closest to the faculty member from the academic aspect, because he is his direct boss who is familiar with the progress of the educational process. The dean of the college is the highest administrative authority in the college and thus represents the common link between all departments of the college, and from here, he is directly related to the evaluation of the teaching staff.

Evaluation of the Teaching Staff by his Colleagues

The evaluation of the faculty member by his colleagues takes a form of advice, guidance and feedback, different from being an evaluation of the merit of the performance of the faculty member. (Rasmi, 2020) is of the view that the factor of coexistence and scientific participation with the faculty member makes his colleagues more credible in evaluating his performance. (Malhan, Ali, 1993) believes that this method of evaluation will yield more fruits if it is in the form of an initiative by a faculty member himself in inviting colleagues to give advice and guidance. Practically, evaluation through the opinions of the faculty member's colleagues may be accompanied by some reservations. Therefore, it is preferred that old teaching staff, who possess a sufficient degree of academic and administrative experience that makes them have the ability and impartiality to judge performance participate in this evaluation. Moreover, this method of evaluation may have a set of defects, including: It is a method that may lead to a low level of cooperation and participation among the teaching staff, as it may be tainted by the suspicion of courtesy. (Whitman and Weis, 2008) argue that this evaluation can be more of a faculty member's personal evaluation than an academic evaluation, and it may also cause disappointment to the faculty member, thus leading to a low ability for creativity. When using this method, it is better to set fixed standards that are supported by proven facts of evaluation.

Self- Evaluation

This method relies on the principle of self-censorship by the faculty member himself because he is more aware of his mistakes, weaknesses and strengths. Although, this method is not sufficient, as identifying weaknesses does not necessarily mean finding solutions. Hence, it is a method that lacks objectivity, and it often lacks neutrality and justice with oneself. One of the disadvantages of this method of evaluation is that it does not depend on fixed criteria, but it can be enriched by designing templates for self-evaluation, and its results are compared with the results of students' evaluation of the performance of teaching staff.

Evaluation the Educational Process System and Total Quality Methods

With the complexity of total quality methods and the desire to improve learning outcomes to reach the desired levels of the learner to keep pace with the rapid development in growth and meet the needs of the labor market, attention turned to the application of total quality methods in the educational process. Although this application is considered recent, and it was not used as appropriate, but it can be said that there are several tributaries in the educational process that did not receive sufficient attention to achieve the desired overall quality, and this may be due to a set of factors, including: lack of desired potentials in order to accommodate more distinguished students or absorb more competent teachers, or not linking the curriculum to the needs of the external community (Mahyawi, 2007). In light of these challenges, it was necessary to harness the potential available to achieve maximum total quality. In order to delve deeper into the fields of total quality in education, the concept of quality education must be explored. (Ashiba, 2000) views that quality reflects a set of characteristics and good standards that must be available in the aspects of the educational process system with all its components (inputs - the educational process itself – outputs. On the other hand, (Khamisi, 2007) believes that the quality of education is linked to the fulfillment of the educational system of the planned efficiency and competency standards, in accordance with the needs of the society. In fact, there are other trends to define quality in terms of satisfying the desires and goals of the consumer, which is in the educational process, the labor market. Given the changing needs of the labor market, the quality standards in the educational process must change according to the change of these needs (Al-Rubaie, 2007).

The Role of Statistical Methods in Achieving the Achieving the Evaluation Quality of the Education Process

Evaluating the educational process is one of the most important processes on which the extent of its success depends. Thus, we find that the quality of evaluating the educational process is a necessary and vital requirement for all institutions of higher

education. The evaluation process may commit a set of errors that affect its credibility, and in order to reach the quality of the process it must rely on fixed evaluation standards and principles. Statistical methods are among the methods that rely on fixed standards to achieve quality in the educational process. (Deming, 1997) believes that statistical control for achieving quality is the process of applying statistical principles and techniques in everything starting from the design and production stages to maintenance and services directed towards achieving the lowest possible cost. Moreover, from a statistical perspective, quality must achieve certain features in the educational process such as (Continuity - Integration - Planning - Organization - Diversity - Specificity - Credibility and Consistency - Objectivity - Ease of Application and Low Cost).

Using Statistical Methods to Develop a General Framework for Evaluating the Educational Process System

Through the identification of the Deming Quality Cycle, we find that statistical methods play a vital role in achieving the requirements of its stages. If we look at the Deming Quality Cycle, we find that evaluation forms an essential aspect of its stages because the process of improvement and development depends on it. Moreover, by applying the cycle to the educational process system, it can be said that the use of statistical methods to develop a general framework for evaluating the educational process system (student - course - faculty member) is a basic requirement to verify the extent of conducting the evaluation process for the components of the education system as planned within the stages of total quality, since the quality of evaluation leads to quality development of the educational process system.

In order to achieve this, the critical points that are the criterion for achieving quality evaluation process must be identified to design statistical tools to test the extent of their achievement, then design a complete statistical framework to know how well the educational system is evaluated. This framework will focus on the quality aspects of the student and faculty member's evaluation of the current study's interest.

Surveying the Opinions of Students and Teaching Staff about the Quality of the Educational Process System in Islamic University

In order to survey the views of relevant students and faculty at Islamic University about the quality of the student and faculty member evaluation process, two questionnaires were designed. The first for teaching staff and the second for students. Both questionnaires consisted of two main aspects. The first aspects includes a survey of views on the quality of faculty member evaluation while the second includes a survey of opinions about the quality of student evaluation, though there are two sub-aspects for the first main aspect (teaching activity - research activity) in the first questionnaire, as well as

one sub-aspect of the first main aspect (teaching activity) in the second questionnaire. In order to achieve the validity of the peer-reviewers, the study questionnaire was presented to (5) peer-reviewers in the fields of quality, statistics and educational administration. All remarks and instructions related to the questionnaire were compiled, and their entirety relates to some of the terms that were somewhat ambiguous, as well as the existence of some statements that should have been combined with other statements. Furthermore, there was suggestion to amend the titles of some aspects, and we have responded to these observations and made the necessary adjustments. However, it is noted that all the peer-reviewers have agreed on the validity of the questionnaire for the purpose for which it was prepared. The respondents' community has been determined to include all students and teaching staff of Islamic University. A random sample of 250 divided into two layers (teaching staff - students) was drawn and divided according to the relative weight, where the number of teaching staff reached 60 teaching staff, while that of students was 190 students. The number of respondents was 55 and 137 respectively, with a response rate of 91% and 72% respectively, and with a total response rate of 77%. Analysis of the results of the opinions of students and teaching staff are shown in tables (1-5).

From the table (1) we note that:

1) The statement "leadership evaluation of teaching activity is good" achieved the highest number of strongly agree and agree, as it numbered 50 respondents and 91% of those surveyed.
2) The statement "students' evaluation of the teaching activity is good" achieved the highest number of disagree and strongly disagree, as it numbered 13 respondents, at a rate of 24% of those surveyed.
3) Average opinions about all statements ranged between strongly agree and agree, except for the statement "students' evaluation of the teaching activity is of good quality", whose average ranged between agree and agree and neutral.
4) The overall average of the extent of quality in evaluating the teaching activity aspect according to the opinions of teaching staff was 4.38 out of 5 points, which indicates the extent of quality in evaluating the teaching activity.

From the table (2) we note that:

1) The statement "there are specific criteria for evaluating research activities" achieved the highest number of strongly agree and agree, as it numbered 52 respondents, or 95% of those surveyed.

2) The statement "research activity evaluation teams are appropriately supported" achieved the highest number of strongly disagree and disagree, as it numbered 11 respondents and 20% of those surveyed.
3) The averages of opinions on all statements ranged from agree to strongly agree.
4) The overall average of the extent of quality in evaluating research activity according to the opinions of teaching staff was 4.41 out of 5, which indicates the extent of quality in evaluating research activity.

From the table (3), we note that:

1) The statement "The student is informed in advance of the skills in which he is being evaluated" and the statement "more than one faculty member participates in the student's evaluation" achieved the highest number of strongly agree and agree, as they reached 49 respondents and 89% of those surveyed. The statement "the student's measured skills correspond to the acquired skills" achieved the highest number of disagree and strongly disagree, as it has 8 respondents and 14% of those surveyed.
2) The averages of opinions on all statements ranged from agree to strongly agree.
3) The overall average of the extent of quality in evaluating research activity according to the opinions of teaching staff reached 4.46 out of 5 degrees, which indicates the extent of quality in evaluating research activity.

From tables (1-2-3), we can conclude that faculty members are highly satisfied about the evaluation process of teaching and research process and evaluation of students, which indicates the quality of the teaching process at Islamic University. We observe that there are specific and good criteria for evaluating educational activities. Peer evaluation of faculty members is characterized by quality and fairness. According to faculty members, students ’evaluation of faculty members is not satisfactory enough. Despite that there are specific criteria for evaluating research activities, support for scientific research teams needs to be increased. We also observe that there is a good system for evaluating students, whereby students are informed of the evaluation criteria at the commencement of courses. More than one faculty member participates in student’s evaluation process, but that notwithstanding, the means of evaluating students should be diversified.

From the table (4), we note that:

1) The statement "There are specific criteria for evaluating teaching activities" achieved the highest number of strongly agree and agree with 134 respondents, or 98% of those surveyed.
2) The statement "The use of technology in teaching is evaluated" achieved the highest number of disagree and strongly disagree, as it numbered 11 respondents and 8% of those surveyed.
3) The averages of opinions on all statements ranged from agree to strongly agree.
4) The overall average of the extent of quality in evaluating the teaching activity according to the opinions of teaching staff was 4.65 out of 5, which indicates the extent of quality in the evaluation of the teaching activity.

From the table (5), we note that:

1) The statement "Evaluation grades are distributed over different evaluation methods" achieved the highest number of strongly agree and agree with 120 respondents and 88% of those surveyed.
2) The statement “The student's score is justified during evaluation” achieved the highest number of disagree and strongly disagree, as it had 33 respondents and 24% of those surveyed.
3) Average opinions about all statements ranged between agree and strongly agree, except for the statement "The student's score is justified during evaluation" which ranged from agree to neutral.
4) The overall average of the extent of quality in evaluating research activity aspect according to the opinions of teaching staff was 4.27 out of 5 points, which indicates the extent of quality in the evaluation of research activity.

From tables (4-5), we can conclude that students are highly satisfied about the process of evaluating teaching and students. According to them, there are specific rules for evaluating educational activities, courses are developed periodically, their assessment process is diversified, and there is consistency between the skills of the student being measured and the skills acquired. However, students argue that they should be given opportunities to justify the grades awarded in the assessment process.

By performing hypothesis tests for two independent populations (faculty - students) about the existence of significant differences in opinions about the quality of the educational process at Islamic University, only 12 common statements were identified about the evaluation quality of the teaching process as well as 10 common statements about student evaluation. However, evaluation of the research process of

teaching staff is excluded, as the students 'opinions were not surveyed. Then the average opinions of each individual is calculated, which will be confined between (1-5) on the Likert scale. Thus, there are 55 values that represent the opinions of teaching staff and 137 values that represent students' opinions for both evaluation of the teaching process and evaluation of students. Thereafter, hypotheses tests were conducted for two independent populations together about the existence of significant difference between the average views of teaching staff and average views of students. The table (6-7) findings have been reached from the hypothesis tests. From the results in table (6-7), we can be said that there was no significant difference at $\alpha = 0.05$ between the opinions of teaching staff and students about the quality of the evaluation of teaching staff at Islamic University, while there is a significant difference at $\alpha = 0.05$ between the views of teaching staff and students about how well students are evaluated at Islamic University.

Proposed Statistical Framework for Achieving Development and Quality in Measuring the Performance of the Educational Process at Islamic University

In order to achieve development and quality in measuring the performance of the educational process at Islamic University, a set of statistical methods will be used to support decision-maker to be certain that the evaluation methods used have adequate quality and credibility, and that they are carried out according to reliable statistical evidence and models. In this regard, an initial conception of a proposed statistical framework for statistical methods and evidence that can be relied upon in order to attain the quality of the educational process evaluation process at Islamic University has been designed. Then it was presented to 6 peer-reviewers (2 in the field of measurement - 2 in the field of statistics - 2 in the field of education) in order to ascertain the extent of validity and reliability for peer reviewing. Most of the required modifications were made, then it was finally presented to the peer-reviewers again and it won their approval. In table (8), the framework in its final form.

Table 1

Results of the statistical description of the opinions of teaching staff on the quality of evaluation of teaching staff at islamic university on part of the teaching activity

Scale	SA		A		N		DA		SDA		M
	f	*%*	*f*	*%*	*f*	*%*	*f*	*%*	*f*	*%*	
There is a good evaluation of the teaching methods at the university.	40	73	6	11	3	5%	5	9%	1	2%	4.4
The latest methods of evaluation are used for evaluating teaching methods.	43	78	2	4%	1	2%	8	15	1	2%	4.4
There are specific criteria for evaluating teaching activities.	40	73	5	9%	8	15	2	4%	0	0%	4.5
There is cooperation with colleagues to achieve the required quality.	42	76	2	4%	6	11	3	5%	2	4%	4.4
Courses are developed periodically to achieve the quality of the educational process.	44	80%	1	2%	3	5%	2	4%	5	9%	4.40
Students' evaluation of the teaching activity is of good quality.	32	58	5	9%	5	9%	5	9%	8	15	3.8
Peer evaluation of quality teaching activity is of good quality.	41	75	4	7%	6	11	4	7%	0	0%	4.4
Leadership evaluation of the teaching activity is of good quality.	45	82	5	9%	3	5%	2	4%	0	0%	4.6
Aspects of evaluation of the teaching activity are comprehensive.	39	71	4	7%	9	16	3	5%	0	0%	4.4
Teaching evaluation methods are being developed.	38	69	8	15	6	11	2	4%	1	2%	4.4
The use of technology in teaching is evaluated.	37	67	5	9%	10	18	2	4%	1	2%	4.3
Evaluation of the use of cooperative learning methods is taken into account.	35	64%	2	4%	9	16%	7	13%	2	4%	4.11
Adherence to educational objectives is evaluated.	40	73	4	7%	5	9%	2	4%	4	7%	4.3
When evaluating, the student-teacher interaction is considered.	39	71	5	9%	6	11	3	5%	2	4%	4.3

Table (2)

S/No.	Scale	Strongly agree		Agree		Neutral		Disagree		Strongly		Mean	Average Mean
		Fr	%	Fr	%	Fr	%	Fr	%	Fr	%		
1.	There are multiple	45	82%	2	4%	5	9%	2	4%	1	2%	4.60	4.41

2.	The research activities	42	76 %	4	7%	6	11 %	2	4%	1	2 %	4.53	
3.	Neutrality and fairness	38	69 %	7	13 %	8	15 %	1	2%	1	2 %	4.45	
4.	There are specific	46	84 %	6	11 %	0	0%	1	2%	2	4 %	4.69	
5.	When evaluating	43	78 %	1	2%	8	15 %	3	5%	0	0 %	4.53	
6.	Research activity	40	73 %	3	5%	5	9%	4	7%	3	5 %	4.33	
7.	Research activity	35	64 %	2	4%	7	13 %	8	15 %	3	5 %	4.05	
8.	Research activity is	38	69 %	2	4%	8	15 %	2	4%	5	9 %	4.20	
9.	It is taken into account that research	38	69 %	3	5%	8	15 %	5	9%	1	2 %	4.31	

S/No.	Scale	Stronly agree		Agree		Neutral		Disagree		Strongly disagree		Mean	Average Mean
		Fr.	%	Fr.	%	Fr.	%	Fr.	%	Fr.	%		
1.	All student skills are	43	78%	4	7%	5	9%	0	0%	3	5%	4.53	4.46
2.	The student's measured skills	41	75%	2	4%	4	7%	5	9%	3	5%	4.33	
3.	The student is informed in advance of the	44	80%	5	9%	5	9%	1	2%	0	0%	4.67	
4.	The student's score is	38	69%	4	7%	6	11%	3	5%	4	7%	4.25	
5.	There are many methods	41	75%	5	9%	5	9%	3	5%	1	2%	4.49	
6.	The tests take into account individual differences	42	76%	4	7%	5	9%	2	4%	2	4%	4.49	
7.	The achievement	43	78%	3	5%	5	9%	3	5%	1	2%	4.53	
8.	Evaluation grades are distributed over different	39	71%	4	7%	5	9%	4	7%	3	5%	4.31	
9.	More than one faculty member participates in	44	80%	5	9%	2	4%	3	5%	1	2%	4.60	
10.	There are specific criteria for	41	75%	3	5%	6	11%	3	5%	2	4%	4.42	

Results of the statistical description of the opinions of teaching staff on the quality of evaluation of teaching staff in Islamic University for research activity

From the previous table, we note that:

Table (3)
Results of the statistical description of the opinions of teaching staff on the quality of student evaluation at Islamic University

Table (4)
Results of the statistical description of students' opinions on the quality of evaluation of the teaching activity

S/No.	Scale	Stronly agree		Agree		Neutral		Disagree		Strongly disagree		Mean	Average Mean
		Fr.	%	Fr.	%	Fr	%	Fr	%	Fr	%		
1.	There is a good evaluation of the teaching methods at the university.	108	79%	5	4%	16	12%	5	4%	3	2%	4.53	4.65
2.	There are specific criteria for evaluating teaching activities.	122	89%	12	9%	2	1%	1	1%	0	0%	4.86	
3.	There is cooperation with colleagues to achieve the required quality.	113	82%	9	7%	8	6%	5	4%	2	1%	4.65	
4.	Courses are developed periodically to achieve the quality of the educational process.	119	87%	6	4%	5	4%	2	1%	5	4%	4.69	
5.	Student evaluation of the teaching activity is transparent.	115	84%	8	6%	8	6%	4	3%	2	1%	4.68	
6.	Aspects of evaluation of the teaching activity are comprehensive.	110	80%	13	9%	8	6%	4	3%	2	1%	4.64	
7.	Teaching evaluation methods are being developed.	119	87%	5	4%	4	3%	4	3%	5	4%	4.67	
8.	The use of technology in teaching is evaluated.	112	82%	6	4%	8	6%	5	4%	6	4%	4.55	

9.	The use of cooperative learning methods is evaluated.	115	84%	7	5%	8	6%	3	2%	4	3%	4.65	
10.	Aspects of evaluation of the teaching activity are comprehensive.	112	82%	10	7%	9	7%	4	3%	2	1%	4.65	
11.	Adherence to educational objectives is evaluated.	108	79%	6	4%	10	7%	9	7%	4	3%	4.50	
12.	When evaluating, the student-teacher interaction is considered.	108	79%	5	4%	16	12%	5	4%	3	2%	4.53	

Table (5)

S/No.	Scale	Stronly		Agree		Neutral		Disagree		Strongly		Mean	Average Mean
		Fr.	%	Fr.	%	Fr.	%	Fr.	%	Fr.	%		
1.	All student skills are measured during evaluation.	100	73%	3	5%	5	9%	8	15 %	21	38%	4.12	4.27
2.	The student's measured skills correspond to the acquired skills.	108	79%	4	3%	10	7%	8	6%	7	5%	4.45	
3.	The student is informed in advance of the skills in which he	105	77%	5	4%	6	4%	13	9%	8	6%	4.36	
4.	The student's score is justified during evaluation.	90	66%	2	1%	12	9%	15	11 %	18	13%	3.96	
5.	There are many methods of student evaluation.	95	69%	1	1%	15	11 %	12	9%	14	10%	4.10	
6.	The tests take into account individual differences among	101	74%	2	1%	9	7%	7	5%	18	13%	4.18	
7.	The achievement file helps in student evaluation.	93	68%	10	7%	14	10 %	15	11 %	5	4%	4.25	
8.	Evaluation grades are distributed over different evaluation methods.	115	84%	5	4%	7	5%	4	3%	6	4%	4.60	
9.	More than one faculty member participates in the student's	102	74%	2	1%	11	8%	14	10 %	8	6%	4.28	

10.	There are specific criteria for student evaluation.	106	77%	5	4%	8	6%	9	7%	9	7%	4.39	

The results of the statistical description of students' opinions about the quality of students' evaluation at Islamic University

Table (6)
Results of hypothesis tests about the average opinions of teaching staff and students on the quality of evaluation of teaching staff (the teaching process) at Islamic University

Aspect	Sample statements	Sample size	T-value	Significance level (P. Value)
Evaluation of teaching staff (teaching process)	Teaching staff	55	1.1245	0.208
	Students	137		

*

Statistically significant at (α = 0.05)

Table (7)
Results of the hypothesis tests about the average opinions of teaching staff and students about the quality of students' evaluation at Islamic University

Aspect	Sample statements	Sample size	T-value	Significance level (P. Value)
Evaluation of students	Teaching staff	55	2.921	0.011
	Students	137		

***Statistically significant at (α = 0.05)**

Table (8)

Proposed framework of statistical methods and evidence to ensure the quality of evaluation of the educational process at Islamic University

The teaching process				
S/No.	Indicator	Tool	Statistical	Purpose

			method	
1.	Ability to deliver lectures	Degree of student satisfaction with the delivery method.	1. Descriptive statistics metrics 2. Statistical hypothesis tests for two or more unconnected populations.	1. Description of the number of times approvals are repeated by students about questions related to degree of satisfaction with the delivery method. 2. Average student opinions on the delivery method. 3. Testing the average consensus of students about the delivery method of more than one faculty member.
2.	Communication with students during the teaching process.	Students' opinion on communication with them during the teaching process	Descriptive statistics methods	Analysis of student opinions on the compatibility between course requirements and what is being taught.
3.		Distribution of evaluation grades by teaching staff	1. Normal distribution of the teaching staff' evaluation grades variable. 2. Charts and anomalies analysis.	1. Distribution of evaluation grades by teaching staff to their colleague must follow the normal distribution. 2. Using charts to discover the anomalous values of the evaluation.
4.	Fairness of the students in the evaluation of the faculty member	Distribution of evaluation grades by students	1. Normal distribution of the students' evaluation grades variable 2. Charts and anomalies analysis Hypothesis tests.	1. Distribution of evaluation grades by teaching staff to their colleague must follow the normal distribution. 2. Using charts to discover the anomalous values of the evaluation. 3. Examination of the existence of statistical difference between the opinions of students in two or more courses taught by the faculty member.
5.	Compatibility between the	Student opinions on the	Descriptive statistics	Analysis of student opinions on the compatibility between

	course requirements and what is being taught.	compatibility between the course requirements and what is being taught.	methods	the course requirements and what is being taught.
6.	Adherence to the lecture schedules	List of attendance dates for all courses taught by the faculty member throughout the year.	Descriptive statistics methods	1. Frequency tables for the number of absences at the level of courses. 2. Average number of times lecture schedules were adhered to.
7.	Multiplicity of teaching methods and techniques	Student opinions on the multiplicity of teaching methods and techniques	Descriptive statistics methods	Analysis of student opinions on the multiplicity of teaching methods and techniques
8.	Ability to provide students with the skills required for the course.	Student opinions on the ability to provide students with the skills required for the course	1. Descriptive statistics methods 2. Hypothesis tests.	Analysis of student opinions on the ability to provide students with the skills required for the course and thus determining the number of approvals and how their opinions differ.
9.	It stimulates students to think creatively and collaboratively	Student opinions on the ability to stimulate students to think creatively and collaboratively	Descriptive statistics methods	Analysis of student opinions on the ability to stimulate students to think creatively and collaboratively
10.	Use of technological methods in teaching	student opinions on the ability to provide students with the skills required for the course	Descriptive statistics methods	Analysis of student opinions on the ability to provide students with the skills required for the course
11.	Following up the development of the evaluation of teaching staff' teaching activity over the years	Analysis of databases for evaluation of teaching staff.	Time series analysis method	Analysis of the evolution in the indicators of evaluation of the teaching activity of teaching staff during their careers.
12.	The factors that led to the quality of the evaluation of the faculty	Factors that affect the quality of the evaluation of	Multiple regression method	Analysis of the relationship between the variables affecting the faculty member's evaluation and the

	member.	the faculty member		quality of the faculty member's evaluation.
			The research process	
S/No.	Indicator	Tool	Statistical method	Purpose
1.	The extent of ramification in publishing research annually.	Description of scientific journals and the number of times publication is made	Descriptive statistics metrics.	Frequency tables of the number of times publication is made in each scientific journal throughout the year.
2.	Annual participation in conferences	Description of annual conference attendance	Descriptive statistics metrics.	Frequency tables of the number of participations in conferences according to a time series.
3.	Annaul books publication	Description of the annual books' publication	Descriptive statistics metrics.	Frequency tables of the number of books written according to a time series.
4.	Periodic participations in the research committees	Description of the participations in the research committees	Descriptive statistics metrics.	Frequency tables of the number of participations in research committees according to a time series.
5.	Participation in research peer-reviewing	The number of annual peer-reviewing for research.	Descriptive statistics metrics.	Frequency tables of the number of participations in research peer-reviewing according to a time series.
6.	Participations in the discussion of scientific theses.	The number of annual participations in the discussion of scientific theses.	Descriptive statistics metrics.	Frequency tables of the number of participations in the discussion of scientific theses according to a time series.
7.	Supervising scientific theses	The number of annual participations in the supervision of scientific theses.	Descriptive statistics metrics.	Frequency tables of the number of participations in supervising scientific theses according to a time series.
8.	Annual research initiatives to serve the university	The number of annual research initiatives to serve the university annually.	Descriptive statistics metrics.	Frequency tables of the number of participations in supervising scientific theses according to a time series.
9.	Awards and patents obtained	The number of awards and patents obtained	Descriptive statistics metrics.	Frequency tables of the number of awards and patents obtained according to a time

		annually.		series.
10.	Course development	The number of annual participations in course development.	Descriptive statistics metrics.	Frequency tables for the number of participations in developing courses according to a time series representing the time period of his career.
11.	Annual participation in developing research plans for the department	The number of research plans he partook in its development in the the department annually.	Descriptive statistics metrics.	Frequency tables of the number of research plans that he participated in developing for the department according to a time series.
12.	Follow up of the evolution of the research activity evaluation for teaching staff over the years	Analysis of the databases of teaching staff evaluation	Time series analysis method	Analysis of the development in the indicators of evaluation of the research activity of teaching staff during their careers.

Student Evaluation

S/No.	Indicator	Tool	Statistical method	Purpose
1	1. The degree of assimilation of the course content 2. Consideration of individual differences between students	Distribution of student grades for the course	Descriptive statistics metric for students' grades	Comparison of the frequency distribution of students 'grades with the normal distribution of students' grades, which is an indication of the degree of assimilation of the course.
2	Fairness in evaluation	1. Distribution of student grades for the course. 2. Distribution of student grades for other courses 3. Distribution of student grades in other groups for the same course.	Frequency distribution of students' grades	Comparison of the frequency distribution of student grades at the level of the course in other groups and courses.
3	Commitment of the student to	Number of attendances at	Descriptive statistics	The average number of times a student attends the course

	attending lectures.	the level of courses studied by students	metrics	and comparing it with his colleagues and other courses.
4	Student's understanding of the skills required to pass the course.	Distribution of student grades according to questions that include specific skills that must be acquired.	Descriptive statistics metrics	Establishing frequency schedules for students' grades according to questions related to specific skills that must be acquired.
5	Analysis of the factors that lead to the quality of students' evaluation	Factors that affect the quality of students' evaluation	Multiple regression method	Analysis of the relationship between the variables affecting the student's evaluation and the quality of evaluation.
6	Analysis of the development of the student's evaluation during the school years	Student evaluations during the school years	Time series analysis method	Evolution of the range of timescales of student evaluations in all courses during the school years.

Conclusion and Discussion

In attempt to study the extent of quality in evaluating the educational process at Islamic University of Madinah, the present study focused on the evaluation of student and faculty member and did not address courses or community service; because they are outside the research boundaries. Two questionnaires were designed, one for students and the other for teaching staff due to the difference in the nature of students' knowledge of evaluation methods from the teaching staff and their different expected response to the questionnaire. The faculty member questionnaire consisted of the quality control aspect in the evaluation of teaching staff (teaching process - research process) and the aspect of quality in the evaluation of students, while the questionnaire of students consisted of the aspect of quality in the evaluation of teaching staff (teaching process) and the aspect of quality in the evaluation of students. Morover, the questionnaires were analyzed, and the results showed that there are high level of satisfaction from teaching staff on the quality of leadership evaluation of the teaching activity of teaching staff, while students' opinions showed high level of satisfaction about the existence of specific criteria for evaluating the teaching activities of teaching staff. Yet, there is a high level of dissatisfaction with the existence of evaluation of the extent to which teaching staff use technology. If we look at the teaching staff evaluation of research activity, their opinions indicate that there are high levels of satisfaction with the existence of specific criteria for evaluating their research activity, while there is a high level of dissatisfaction with the existence of support for the teams to evaluate the research activities appropriately. However, for the evaluation of students, findings of the survey of the teaching staff showed that there is a

high level of satisfaction with the student's knowledge of the skills in which he is being evaluated, and the participation of more than one faculty member in the student's evaluation. Also, there is a high level of dissatisfaction with the compatibility of the measured skills with the acquired skills, while the students 'opinions about their evaluation came out high about the distribution of the evaluation grades to different evaluation methods. There is high level of dissatisfaction with the existence of justification for the grades students acquire. The results also showed that there is a significant agreement between the views of teaching staff and students on the quality of the evaluation of teaching staff according to the teaching activity, while opinions differed on the extent of the quality of students' evaluation. However, based on the previous results, it appears that there is a difference in the attitudes of students and teaching staff about the quality of evaluation of the educational process at Islamic University of Madinah. Hence, there is a need for statistical indicators and evidence that can be developed in the form of a framework to be used to achieve quality in the educational process evaluation, and then develop a statistical framework in the form of statistical evidence and methods that can be relied upon to ensure the quality of the evaluation of educational process at Islamic University of Madinah.

References

1. **Abdul-Ati, Ahmad Hussein, (2019), "Al-I'timad al-Academi wa al-Mihani Li al-Mu'assasat al-Ta'limiyyah (Contemporary Reading in the Light of the Experiences of Some Leading Countries)", Dar Al-Sahab, Cairo.**

2. **Abu 'Audah, Fawzi Harb & Abu Mallouh, Muhammad, (2020), "Mu'asshiraat al-Ada Fi al- Ta'lim al-Jami'ie", The First Educational Conference – Education, in Palestine and the Changings of Time, Palestine, Islamic University, Gaza, Part One."**

3. **Abu al-Rabb, Emad. Qaddada, Isa, (2018), "Taqwim Jaudat Ada A'dwa Hay'at al-Tadrees Fi Mu'assasat al-Ta'lim al-'Aali ", The Arab Journal for Quality Assurance of Higher Education. Issue No. 2, Volume I.**

4. **Al-Bahwashi, Mr. Abdul-Aziz & Al-Rubaie, Saeed Hamad, (2019), "Dwaman al-Jaudah Fi al-Ta'lim al- 'Aali Mafhumuha, Mabadi'uha, Tajarib 'Alamiyyah," Alam al-Kutub, Cairo.**

5. **Al-Huwaidi, Nada, (1443 AH), "Musahamat Taqweem Ada A'dwa Hayat al-Tadrees Fi Raf' Jaudati al-Ta'lim al-Jami'ei (field study from the viewpoint of female teaching staff and female students at Umm Al-Qura University)",**

unpublished Master Thesis, Umm Al-Qura University, Kingdom of Saudi Arabia.

6. **Al-Janabi, Abdul-Razzaq Shaneen, (2019), "Taqweem al-Ada al-Tadreesi Li A'dwa Hayat al-Tadrees Fi al-Jami'ah Wa In'ekasatuhu Fi Jaudat al-Ta'lim al-Aali." Research presented to the Quality Conference at the University of Kufa, November.**

7. **Al-Khalili, Khalil, (1405 AH), "Ba'dh al-Asasiyyat Fi al-Taqweem wa Tatbiqaatuha Fi al-Sufuf al-Ibtidaeyyah al-Thalaath al-Ula", Resala al-Mu'allim Magazine, Amman: Ministry of Education, Issue No. 5, Volume 26.**

8. **Al-Mahyawi, Qasim Nayif, (2017), "Idarat al-Jami'aat Fi Dwau'ie ma'aayeer al-Jaudah al-Shamilah", Journal of the Arab Federation of Universities, Special Issue No. 4.**

9. **Al-Mazroui, Hafeez Hafiz, (2010), "Taqyeem al-Ada al-Tadreesi Li A'dwa Hay'at al-Tadrees Fi Aqsaam Kulliyyati al-Tarbiyah Bi Jami'at Umm Al-Qura Min Wijhati Nadwar Tullab Wa Taalibaat Marhalati al-Dukturah", Journal of Studies in Curricula and Educational Supervision, Issue No. 1, Umm Al-Qura University.**

10. **Al-Rubaie, Saeed Muhammad, (2020), "Al-Ta'lim al-Aa'li Fi Asr al-Ma'rifah al-Taghayyuraat wa al-Tahaddiyaat wa Aafaq al-Mustaqbal", Amman, Dar Al-Shorouq.**

11. **Al-Sarayirah, Khalid Ahmad, (2011), "Al- Ada Al-Wadwifi Lada A'dwa al-Hay'aat al-Tadreesiyyah Fi al-Jami'aat al-Urduniyyah al-Rasmiyyah Min Wijhat Nadwar Ru'asa Al-Aqsam Fiha," Damascus University Journal, Volume 27, Issue No. 2.**

12. **Al-Thabti, Milhan & Al-Qarni, Ali, (2018), "Turuq wa Asalib Taqweem A'dwa Hayat al-Tadrees Bi al-Jami'aat al-Sa'udiyyah Min wijhati Nadwar Umada al-Kulliyyaat wa Ru'asa al-Aqsam", King Saud Journal of Educational Sciences and Islamic Studies.**

13. **Al-Yamidi, Wafa Ahmad, (1426 AH), "Taqwim 'Udwi Hay'at al-Tadrees Fi Jami'at Umm Al-Qura Wa Jami'at Wilayat Flourida," (unpublished) Master Thesis, Department of Islamic Education, College of Education, Umm Al-Qura University. Makkah Al-Mukarramah.**

14. **Barakat, Khalid Mustafa, (2019), "Athar istikhdam teknologia al-Ma'lumat ala tahsin al-Ada al-Mu'assasi li al-Hai'at al-Ammah fi Majal al-Muwasalaat wa al-Naql". PhD thesis, Faculty of Economics and Political Science", Cairo University.**

15. **Blackmur D., (2004)," Issues in Higher Education Quality Assurance", Australian, Journal of Public Administration, No.63, Vo.2.**

16. **Corak.N, (1993)," Organization for Quality. Planning for Higher education", Vol 21. No3, U.S.A.**

17. **Haskell, R.E. (1997)," Academic Freedom, Tenure, and Student Evaluation of Faculty", Galloping Polls in the 21st Century, Education Polcy Analysis Archives, 5 (6), retrieved from http;//olam.ed.asu.edu/epaa/.**

18. **Kelso S. (2008) Measuring Undergraduate Student Perceptions of Service Quality in Higher Education. University of South Florida. ProQuest LLC.**

19. **Rasmi, Muhammad Hassan, (2020), "Taqeem Ada A'dwa Hayat al-Tadrees Bi al-Jami'ah," Journal of the Faculty of Education, Benha. Zagazig University.**

20. **Salim, Mahdi Mahmoud & Abdul-Latif, Al-Halabi, (1419 AH), "Al-Tarbiyah al-Maidaniyyah Wa Asasiyyat al-Tadris", second edition, Riyadh: Obeikan Library.**

21. **Tamam, Shadiyah Abdul Halim, (2009), "Taqwim al-Ada al-Tadreesi Li Mu'allim al- Ta'lim al-'Aali", Al-Asriyyah Library, Egypt.**

22. **Touqan, Areej Awni, (2002), "Taqwim Ada A'dwa al-Hay'at al-Tadreesiyyah Min Qibal al-Talabah Wa bayan Ta'thir al-Mutaghayyiraat al-Demoghrafiyyah Fiha Fi Jami'ah al-Najah al-Wataniyyah Fi Muhafadwat Nablus," Master Thesis, An-Najah National University, Nablus, Palestine.**

23. **http://www.tarbyatona.net/include/plugins/article/article.php?action=s&id=182**

24. http://www.s-man.net/avb/showthread.php?t=334945

25. http://vb.arabsgate.com/showthread.php?t=556806.