Diagnosis of the quality of e-learning service provided to distance master students – A survey study of a sample of students of Algiers University 3 for the year 2018

تشخيص جودة الخدمة التعليمية الالكترونية المقدمة لطلبة الماستر عن بعد، دراسة استطلاعية لعينة من طلبة جامعة الجزائر 3 لسنة 2018

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Abstract: This study aims to know the quality of distance master e-learning service and identify shortages using Ishikawa method to diagnose the problem in order to propose ways to improve it. This study was based on a questionnaire to know the service recipient's view about the level of quality of service provided according to the new system, and the following conclusions emerged: The students' perceptions about the service are acceptable with some shortcomings. there is a statistically significant relationship at a significance level of a ≤0.05 between the system problems and the dimensions of e-service quality.thus the study hypothesis is confirmed.

Keywords: e-service quality, e-learning, distance education, Ishikawa, information and communication technology.

Résumé: Cette étude vise à connaître la réalité de la qualité du service d'enseignement électronique dispensé aux étudiants en Master à distance à l'université d'Alger3, en identifiant les lacunes du système à travers l'utilisation du système Ishikawa afin d'identifier le problème en vue de proposer des méthodes pour y remédier, l'étude s'est par ailleurs basée sur un questionnaire afin de connaitre les avis des bénéficiaires du service quant à la qualité du service dispensé selon le nouveau système, et a abouti à des résultats dont les plus importantes sont : que les perceptions des étudiants quant aux critères de la qualité du service dispensé selon le système du master à distance sont plutôt acceptables tout en notant quelque lacunes, par ailleurs la théorie a confirmé la problématique de l'étude selon laquelle il existe une relation de signification statistique de niveau d'indice de a≤0, 05 entre les problèmes du system ainsi que les dimensions de la qualité du service électronique.

Mots-clés: La qualité du service électronique, l'enseignement électronique, l'enseignement à distance, le diagramme de causes et effets Ishikawa, Technologies de l'information et de la communication.

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ملخص: تهدف هذه الدراسة إلى معرفة واقع جودة الخدمة التعليمية الالكترونية المقدمة إلى طلبة ماستر عن بعد مع تحديد جوانب النقص في النظام باستخدام أسلوب ايشكاوا لتشخيص المشكلة من أجل اقتراح أساليب تحسينها، واعتمدنا في البحث على إستبيان لمعرفة آراء متلقي الخدمة حول مستوى جودة الخدمة المقدمة وفق النظام الجديد، وتوصلنا إلى نتائج أهمها أن تصورات الطلبة حول معايير جودة الخدمة المقدمة عن بعد مقبول مع تسجيل بعض النقائص، وقد تم تأكيد فرضية الدراسة توجد علاقة ذات دلالة إحصائية عند مستوى دلالة 05, 0≥a بين مشاكل النظام و أبعاد جودة الخدمة الالكترونية.

الكلمات المفتاح : جودة الخدمة الالكترونية، التعليم الالكتروني، التعليم عن بعد، ايشكاوا، تكنولوجيا المعلومات و الاتصالات.

1- Introduction :

The Information and communication technology (ICT) has transformed the nature of services provided. The transition from traditional services to e-services has been made by using the means of this technology. Education is one of these services that has been heavily affected by this technology, where e-learning and distance education have emerged on the importance of ICT in improving the quality of service, this is by improving access to the recipient of the service and rapid response operation and accuracy in providing this service and other benefits, however, the question remains about the quality and effectiveness of the e-service itself, and the achievement of the goals for which it was developed, based on the specificity of the target group. It is not just a tradition or keeping up only with development of technological means, it must be based on e-quality standards, or it will lose its advantage which may lead to the user's refusal to receive this service and prefer traditional service. It is necessary to improve this service continuously, to identify deficiencies and then to improve them. The higher education sector in Algeria recently launched experiments in the field of e-learning. The distance master system has been introduced in some faculties pending the circulation of the project to the rest of the universities. The Faculty of Economic, Commercial and Management Sciences at the University of Algiers 3 is one of the institutions that benefited from this experience by launching a distance master system, accounting specialty. Like any new system, some shortcomings are expected.

Research problem: Based on the foregoing, we will try to diagnose the quality of the e- service provided by the distance master system, by knowing the reality of the application of e-learning quality dimensions to the studied situation in order to identify shortcomings from the point of view of the recipient of the service (students), and then identify the causes of the problem. So we raise the following problematic: **What are the factors that affect the quality of e- service provided according to the distance master system, accounting specialty, at the University of Algiers 3?** We also try to answer the following sub-questions:

- ✓ What is the extent to which the e-service quality dimensions provided at the University of Algiers 3 are applied from the point of view of the university students who benefit from the distance master system?
- ✓ What are the shortcomings that affect the application of e-service quality dimensions at the University of Algiers 3?

Research importance: It highlights the importance of research being dealt with recent experience in the higher education sector in Algeria, while most of the institutions of higher education in the world are moving towards the application of information and communication technology in the educational process, which is known as the technology of education or distance education, where the distance master project was launched in Algeria in 2016, and since the experience is still in its beginning. It is important to know the level of quality of service provided and the shortcomings in order to propose ways to improve them.

Research hypothesis: There is a statistically significant relationship between the independent variables of combined system problems and e-service quality.

Research tools:We rely on Ishikawa method, known as the fish scheme, to diagnose problems and find out the most probable causes of them, with the questionnaire to study and measure reality of e-service quality provided, identify degree of impact of factors diagnosed and analyze results of questionnaire through the statistical analysis program SPSS.

Research stages:This research is going through two stages; the first stage is to determine the problem, which is to assess the dimensions of e-service quality provided from the point of view of students, while the second stage is to identify the reasons that can affect the quality of e-service using the Ishikawa scheme.

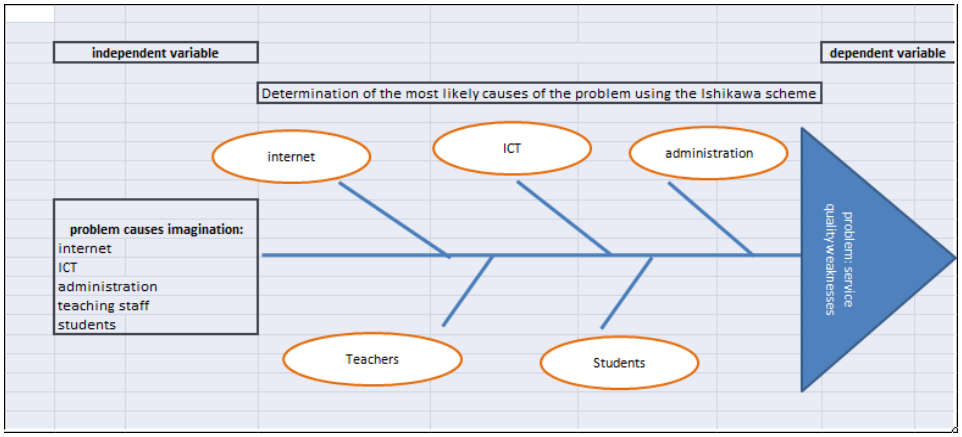
Previous studies:We started the research after reviewing the previous studies, including:

Mohamed Saghir Qassem Al Shuaibi, evaluation of the quality of educational services at King Khalid University from the point of view of students, an article published in the journal of Dhamar University for studies and research, No19, January 2014: The study aimed to identify the students' assessment of the quality of educational services at the university studied and identify strengths and weaknesses based on the HEdPERF scale through the study of dimensions: (teaching staff members, personnel, physical facilities, programs and courses, university reputation).

Noha Mohammed Hussein Abu Shaireh, degree of availability of e-service quality dimensions in general education schools in Gaza governorates and ways of developing them, Master's note, Islamic university of Gaza, 2015:The study aimed to measure the degree of availability of e- service quality dimensions in Gaza schools by measuring the following dimensions (site quality, information quality, software quality, services quality and diversity, quality of the website security system) The study also adopted workshops to analyze study results, identify shortcomings and propose solutions.

What distinguishes our study from these studies is our reliance on e-service quality dimensions by integrating them with normal service quality dimensions in assessment of service quality of distance master system from students' point of view, as well as the diagnosis of problem causes that lead to poor quality of service provided through analyzing the scheme of cause and effect.

Research model: (Ishikawa scheme)



2- E-service quality:

2- 1 Service quality concept: E- service is defined as "the use of technology, internet applications and web networks to support and enhance access and delivery of information efficiently and effectively, as well as services that can be received and interacted via electronic means (Mohamed Hussein, 2012,page 21). This definition reflects the basic element of e-service which is the process of remote communications using electronic networks as a service delivery tool to the beneficiary, as distinguished by the electronic nature of the interaction between the recipient and the service provider.

The quality of service refers to the ability of the service to respond with its characteristics to the different needs of its users or consumers (Bathelot ,2015) The characteristics that are taken into account to determine the quality of service vary according to the nature of the service provided. In the field of internet hosting, quality of service is for example the availability of servers, load times, response times and other characteristics. In hotels, the quality characteristics are for example the rooms cleanliness, reception and welcome quality, catering (Bathelot ,2015).

The e-service quality has also been defined as the ability of the electronic service to achieve the target benefit of the customer and to achieve satisfaction with the service in light of specific criteria (Al-Adayla, 2017 ,page 310).

Through the above, the quality of service refers to a set of characteristics that the beneficiary perceives in the service by responding to his expectations and needs, through which he judges the distinguished service according to his degree of satisfaction with these characteristics.

The e-service quality does not differ from the normal service quality in the concept, but the difference lies in the characteristics of this service characterized by the remote communications process (electronic communication).

2- 2 E- service quality standards: The service quality standards are represented in the characteristics of the service that are important to the customer and contribute to his expectations, awareness and evaluation of quality. Knowing these standards and their measurement can help the enterprise to produce a vision of the most effective ways to improve the quality of service (Nacer Amine,

2012). A set of criteria that determine the quality of service was provided according to the customer's awareness and identified as follows: (Tawfiq, 2005,page45)

Reliability: means the degree of consistency in the performance and delivery of the service correctly.

Degree of response: indicates the degree of suitability of service to the demands and needs of customers.

Service providers: competence and ability: means that the service providers have the capabilities that enable them to provide a distinguished service to customers.

Accessibility: refers to easy access to the service providers and contact them if necessary.

Courtesy: means good customer treatment and appreciation of their own circumstances.

Communication: means the exchange of service information between service providers and customers in an easy and simplified way.

Credibility: means the availability of a high degree of trust in the service providers by taking into account the interests and needs of customers.

Safety: means that employees are familiar with their jobs and are able to provide a service free of any kind of risk.

Care and attention: by making all efforts to notice the customer thereof.

Concrete human and material aspects: include the external appearance of the equipment, personnel, materials and means of communication.

The above mentioned standards generally characterize all services, as the e-service has characteristics that distinguish it from the traditional service, the most important characteristic is telecommunication. There are other quality standards for this type of service. The e- service quality standards are: (Bressolles & Durrieu, 2011,page39)

Quality and quantity of information provided by the site: This dimension measures the quantity and quality of information provided on the website about the service provided.

Ease of use of the site: This dimension is expressed by the term usability, it translates easy access to the site and the user interaction with the website.

Site design: refers to interactive effects that create a virtual environment for the website, such as images, icons, animations, videos, and windows.

Reliability and respect for obligations: this dimension, as in the traditional service, is related to the ability of the service provider to comply with its promises and to achieve the terms of exchange, to provide the product / service price, quantity, description and respect for deadlines.

Safety and confidentiality: This dimension refers to the protection of the user from the risks of fraud and the protection of personal information.

After addressing the traditional service quality standards and e-service quality standards, the researchers imagine that any e- service provided whatever nature must be subject to these standards taking into account the complementarities. The beneficiary of the service through the Internet looks at the

website for aspects of his satisfaction with the e-service provided, but does not neglect the main dimensions of the quality of service provided by nature. If these standards have been achieved together, the beneficiary will be completely satisfied with the service provided.

From here, the main dimensions of this research to assess the reality of e-service quality in the research topic are:

Dimensions related to e- service: Quality and quantity of information provided by the site, ease of use of the site, site design, reliability and respect for obligations, safety and confidentiality.

Dimensions related to the nature of the service (taking into consideration that it is provided electronically): Degree of response, service providers' competence and ability, courtesy and attention, reliability and communication.

3- Continuous improvement and problem diagnosis methods:

The continuous improvement is defined as "a set of processes to introduce continuous innovations on a product or service in order to reach the highest level of efficiency in production or service. Through the accumulation of these innovations, the product becomes something new, different from the original.

In order to implement the continuous improvement, statistical tools and methods can be adopted. Opportunities for continuous improvement are identified by discovering causal relationships in processes and testing relationships derived from factual data before accepting (Abdul Rahman & Adnan,page 227). Among the methods adopted in the process of continuous improvement to find out the causes of the problem, we find the **cause and effect scheme method (Ishikawa),** which aims to clarify the possible causes of the problem and devising its details. It is based on a simple idea that is similar in its stages to the consistency of the fish bones, and each share of stock reflects a source of defects or deviation from the specifications in the production processes, whether it is a major or secondary cause. This scheme is one of the most important quality control tools used at different levels of management and work sites, from workers to quality teams and maintenance teams (Allawi, 2013, page 635).

This scheme is also a document or map of the problem to be considered, arises from the engineers and managers' ideas to identify the causes of problems that are often classified as problems related to the human side, problems related to work methods, materials and devices and work environment (Allawi, 2013, page 635.)

4- E-learning and distance education:

4-1- E-learning: is defined as "an education that relies on electronic and digital technologies to provide an interactive e-learning environment used by the learner at anytime, anywhere and at any speed in learning. This environment works to achieve the desired educational objectives efficiently and effectively (Betouche & Bendiffallah, 2016, page 425)

4-2- Distance learning: is defined as "a method of teaching in which learning behavior is separate from educational behavior and includes the means by which

the teacher and learner communicate through electronic devices, printing tools and other tools" (Betouche & Bendiffallah, 2016 , page 425)

We note from the definitions that there is an overlap in the two concepts. Distance learning is a form of e-learning because it depends on electronic means of communication, but what sets it apart is the separation between the teacher and the learner in time or place, while e-learning refers to an interactive learning environment that relies on information and communication technology.

The advantage of distance learning is that it provides the right time and place for the learner to learn without being linked to deadlines in official places, and it is suitable for all ages senior, staff, children and whose circumstances do not allow them to attend universities and schools at specific times, allowing the learner to obtain and retain more information as long as he has the acceptance and willingness contrary to traditional education, in addition to being less expensive than traditional education. (Heddar, without year ,page 55).

5- Field study:

5- 1- Identification of the problem: The problem is determined by measuring the e-service quality level provided from the point of view of distance master students at the university of Algiers 3. This is by studying the dimensions of e-service quality (Distribution of the questionnaire on students and analysis to reach results that determine the e- service quality level, where 58 questionnaires were retrieved out of 65 distributed).

The quality level is determined by the responses of the persons in the sample on the first theme phrases related to the e-service quality, and the second theme related to the nature of the traditional service.

The form was subjected to the Cronbach's Alpha test of reliability and consistency before the adoption of the outcome. The value of the Cronbach's Alpha was 0.741, which means that the study has an acceptable stability coefficient and it can be adopted to achieve the purposes of the study.

In order to be able to answer the questionnaire sections, we used the questions on the Likert five scale, and the field of measuring the answers of the persons in the sample as determined in the **table(1).** We obtained the previous table from the calculation of the range that equals the maximum score of answers division according to the Likert scale adopted in the study minus the minimum score of this division (5-1 = 4) and then dividing it by the maximum division of answers (5/4=0.80), To find out the range of different categories of responses, we gradually add this result to the minimum categories.

5-1-1-Analysis of dimensions related to e-service quality: It can be said by analyzing the results of the **table (2)** that the e-service quality level which is provided to the students of distance master tends to (neutral) trend more to the approval**.** This means that the level of quality is not aware, according to the point of view of students.And by analyzing the axis related to the e-service quality at a

time, we find that students expressed satisfaction with information provided by the website with an arithmetic mean of: (3.47) in the approval trend. Students also feel safe and confidential when they enter the website of the service provided with an arithmetic mean of: (3.92) in the approval trend. Concerning the **ease of use** dimension**,** we find that the students' answers were neutral and tend more to the approval with an arithmetic mean of (3.07), while the students have problems in the e-service provided in terms of **reliability and respect for obligations**, where the arithmetic mean of responses of persons in the sample on this dimension estimated: (2.83). The responses were neutral and tended more to the disapproval. Their responses on the **site design** were neutral and tend more to the disapproval, because of the disapproval of the majority of students on the attractiveness of site designs. Some also feel bored when browsing the site.

5-1-2- Analysis of dimensions related to the nature of service :By analyzing the results of the axis related to the service quality **table (03),** we find that the students' answers on this axis tend to the disapproval with an arithmetic mean of: (2.66), which expresses neutral to disapproval trend. Therefore, we say that there is no full satisfaction with the service provided according to the distance master system. This result was due to the students' disapproval about the **service providers' competence and ability** with an arithmetic mean of (2.55), which reflects the disapproval trend. Their answers about **courtesy and attention** dimension refer to neutral to disapproval trend with an arithmetic mean of: (2.66), as in the case of the **degree of responsiveness and reliability,** where the arithmetic mean of this dimension was estimated at: (2.78) and expresses neutral to disapproval trend. By analyzing the previous results on the e-service quality provided to the distance master students and the nature of the service provided to them, the quality problem can be determined in the following points:

Difficulty in using the site, reliability and respect for obligations, lack of site design attractiveness, service providers' competence and ability (lack of e-dealing experience).

5-2- Diagnosis of factors affecting the e-service quality level: After identifying the problem (quality level), the factors affecting the problem are identified by knowing the most influential reasons about the quality of e-learning service, using the Ishikawa scheme, Ibrahim Allawi (Allawi, 2013) mentioned the causes of problems that may affect the quality level, which are the analysis of the scheme of cause and effect, including problems related to the human side, methods of work, materials and devices and work environment, From here we were able to visualize the possible causes to diagnose the quality of educational service provided to the distance master students (case studied), as shown in the **table (04).**

After identifying the possible causes of the quality problem, we use the fishbone diagram (Ishikawa) to find out the most influential causes **(Figure1)**

By reference to the responses of the persons in the sample on the factors affecting the level of quality of service provided according to the distance master system shown in the table below, some conclusions can be drawn about the causes of the

problem studied. The results of the analysis show the causes of the problem in the **table (05).**

Students face problems related to internet when dealing with the system, their answers were in the approval trend with an arithmetic mean of (3.51), as the answers to all statements of this dimension were all in the approval trend. The students also approved the problem of weak information technology and internet used with an arithmetic mean of (3.40). The responses on the axis of the problems related to the administration responsibility were in the approval trend with an mean of (3.79). For problems related to the teaching staff, we note that the answers of the persons in the sample on this axis moving toward the approval trend with an mean: (3.78), as the answers of the persons in the sample to all statements of this dimension were in the approval trend. The students also answers about the problems related to students in a neutral trend with an arithmetic mean of: (2.98), as a result of the different responses on the statements of this dimension between approval and refusal.

By using the analysis of the cause and effect scheme to identify the most probable causes of the problem, and after analyzing the previous dimensions based on students' answers, the causes of the problem related to the quality of service provided are, respectively, as follows:

Administration responsibility dimension: an imbalance in the management due to the lack of control over the students' numbers with arithmetic mean of (4.03).

Problems related to the teaching staff dimension: difficulty of communication with the professor remotely, requiring students to move in person, with arithmetic mean of: (4.02).

Problems related to internet dimension: frequent internet interruptions with arithmetic mean of: (3.64).

Problems related to ICT used dimension: non use of modern technology programs to design and present the lessons content with arithmetic mean of: (3.52).

Problems related to students dimension: problem of absorbing lessons via internet and considering them as deaf lessons for lack of communication with arithmetic mean of: (4.02).

6-Results and discussion:

We will try to test the validity of the following hypothesis: There is a statistically significant relationship between the combined problems of the system and the e-service quality, and for that we used the Pearson coefficient at a significant level (a≤0, 05), and so in order to proceed from two basic options of the hypothesis:

H0: There is no statistically significant relationship between the independent variables represented by the problems of the system and the e-service quality at a significant degree (a≤0, 05).

H1: There is a statistically significant relationship between the independent variables represented by the problems of the system and the e-service quality at a significant degree (a≤0, 05).

Based on the previous results **table (06)**, we note that the Pearson correlation coefficient was estimated at: - (0.417). This means that there is an inverse correlation relationship less than average between the studied factors affecting the distance master system and quality of service provided at a significant level (0.01), which is less than (0.05). Therefore, we accept the alternative hypothesis.

7- Conclusion:

This study aimed to diagnose the quality of educational service provided in accordance with the distance master system at the University of Algiers 3, where it reached the following results:

There is an acceptable level of e-service quality provided with some shortcomings: difficulty of using the site, reliability and respect for obligations (lack of response to queries, frequent site interruptions), lack of attractive design of the site and lack of experience in e-dealing.

Students noted problems in the distance master system reflecting the e-service quality: Lack of control over students number, difficulty of communicating with teachers and supervisors, frequent internet interruptions, non use of modern programs to design and present lessons content, problem of absorbing lessons via internet and considering them as deaf lessons for the absence of mutual communication.

Some conclusions were reached by identifying the system:

The administration staff of the distance master system in the university consists of an administratively independent team of the system charged with running the traditional education system. This is a positive point, but there is a lack of supervision compared to the large number of students.

The professors who are responsible for framing and teaching students don’t have time only to teach distance master's students, they have also obligations to teach the traditional system, which explains the students' answers about the professor's lack of time and the difficulty of communicating with him.

The distance master system (studied case) can be considered as a correspondence education system using internet and e-reading programs instead of mail and paper books, It is not an integrated e-learning system because of the lack of interactive lessons design, absence of instant communication and non use of modern programs such as interactive video, which explains the students' answers about their difficulties in absorbing lessons and considering them as deaf lessons.

In light of the above, we make the following recommendations:

Employing specialized teachers and entrusting them only with the tasks of e-learning after their formation in order to raise their skills in the field of distance education, and their dedication to this field allows to increase their experience and encourage creativity and initiative in order to provide more interactive lessons.

Developing educational content based on advanced educational technology programs and designing interactive programs and courses, taking into account the quality standards in the design of e-learning programs.

Review the iPortal design by relying on specialists and compared to the leading electronic portal in the field.

Create a quality cell that performs the functions of controlling and guaranteeing the educational service quality. In the first stage, it evaluates the experiences of the universities concerned with the distance master system, identifying and presenting the shortcomings and suggesting ways to improve them before the generalization of the experience on the rest of the universities.

8- Appendices:

Table(1): Trend determination field according to Likert five scale

Trend	Weighted average
Fully not approved	From 1 to 1.79
not approved	From 1.80 to 2.59
Neutral	From 2.60 to 3.39
Approved	From 3.40 to 4.19
Greatly approved	From 4.20 to 5

Source: prepared by researcher, depending on the calculation term.

Table(2) : Analysis results

Level	Trend	standard deviation	Arithmetic mean	Statement
3	Neutral	1.17	3.34	The site provides important information without resorting to other sources or moving to the university to get information.
1	Approved	0.88	3.69	Site information is correct and recognized.
2	Neutral	0.91	3.38	The site information is continuously updated according to the latest developments.
Approved		**0.71**	**3.47**	**General trend of dimension (information availability degree)**
1	Neutral	1.26	3.36	The site browsing process gives a positive impression.
2	Neutral	1.19	3.34	The site designs are attractive and make you feel interesting.
3	Not approved	1.12	2.52	Do not be bored while browsing the site.
Neutral		**0.95**	**3.07**	**General trend of dimension (site design)**
1	Neutral	1.26	3.36	The site is easy to use and uncomplicated.
2	Neutral	1.19	3.34	Procedures for obtaining the service from the site are easy and simple.
3	Not approved	1.12	2.52	Automatic messages are used to route the browser.
Neutral		**0.95**	**3.07**	**General trend of dimension (ease of use)**
	Approved	0.80	3.76	Your private information on the site is handled safely and confidentially.
	Greatly approved	0.78	4.34	Your identity is verified when you access your personal page at the website.
	Approved	0.94	3.67	Your account can not be easily compromised when you access the site.
Approved		**0.56**	**3.92**	**General trend of dimension (safety and confidentiality)**
3	Not approved	1.21	2.6	The site is available 24 hours a day without interruption .

2	Neutral	1.27	2.97	You do not encounter a message stating that the site is subject to maintenance or disabled.
1	Neutral	1.185	3.29	The site gives you the possibility to make a complaint or ask a concern.
4	Not approved	1.23	2.48	Your inquiries are constantly answered through the site.
Neutral		**0.77**	**2.83**	**General trend of dimension (reliability and respect for obligations)**
		0.54	**3.22**	**E-service quality**

Source: prepared by researcher, depending on SPSS results.

Table(3) :Analysis results

Level	**Trend**	**standard deviation**	**Arithmetic mean**	**Statement**
2	Neutral	1.08	2.9	The distance master system responds to your various aspirations and expectations.
1	Neutral	1.29	3.02	The distance master system makes the courses' attendance in the classroom unnecessary.
3	Neutral	1.05	2.62	The distance education system is integrated you can rely on entirely.
4	Neutral	0.95	2.62	There are no errors in the service provided compared to the traditional service.
Neutral		**0.93**	**2.78**	**General trend of dimension (degree of response and reliability)**
1	Neutral	1.13	2.79	The teachers treat you in a cooperative way and show you a positive friend.
3	Not approved	1.10	2.59	Feel reassured when you encounter a problem with the system and trust to solve it.
2	Not approved	1.04	2.60	Feel that the service providers always ready to help you.
	Neutral	**0.89**	**2.66**	**General trend of dimension (courtesy and attention)**
1	Neutral	1.04	2.71	Professors have the experience to provide distance lessons.
2	Not approved	0.93	2.40	Service providers have experience in electronic communication.
Not approved		**0.88**	**2.55**	**General trend of dimension (service providers' competence and ability)**
Neutral		**0.76**	**2.66**	**Nature of service**

Source: prepared by researcher, depending on SPSS results.

Table(4) : Possible causes of the problem of e-learning service quality

Problems	**Sub problems**
Internet	Poor internet flow, slow download process, frequent internet interruptions.
Information and communication technology used	Weak use of educational media such as video and reliance on weak methods of transmitting educational content.
Administration responsibility	Lack of control over the number of students involved, giving

	priority to the traditional system at the expense of the distance education system.
Problems related to teaching staff	Weak training in the use of technology, lack of commitment and lack of experience in the field of distance learning.
Problems related to students	Lack of assimilation, weak technological knowledge, lack of experience in e-learning.

Source: prepared by researcher, depending on the field study.

Table(5) :Results of analysis of possible causes of e - learning service quality problem

Level	Trend	standard deviation	Arithmetic mean	Statement
3	Approved	1.32	3.43	Slow internet flow.
2	Approved	1.30	3.48	Slow download process.
1	Approved	1.26	3.64	Frequent Internet interruptions.
Approved		**1.09**	**3.51**	**General trend (problems related to internet)**
2	Neutral	1.32	3.29	The technological devices used are inadequate.
1	Approved	1.14	3.52	Non use of modern technology programs to design and present the lessons content.
Approved		**1.01**	**3.40**	**General trend (problems related to information technology)**
1	Approved	1.04	4.03	There is an imbalance in the management caused by the lack of control over the number of students.
2	Approved	1.23	3.55	Priority in dealing with students by the administration in favor of students of the traditional system.
Approved		0.92	3.79	**General trend (administration responsibility)**
3	Approved	1.14	3.43	The professor (supervisor, lecturer) does not have enough experience to provide distance lessons.
1	Approved	1.00	4.02	Difficulty of communicating with the professor by e-mail and personal phone, which requires personal mobility.
2	Approved	1.02	3.90	The professor has other commitments and does not give you enough attention.
Approved		**0.88**	**3.78**	**General trend of dimension (problems related to teaching staff)**
1	Approved	1.10	4.02	Face the problem of absorbing lessons through the Internet and consider them deaf lessons to the lack of communication.
4	Fully not approved	0.86	1.76	Your technological knowledge is weak.
3	Not approved	1.20	2.05	Your experience in the field of learning via the Internet is limited.
2	Appr	1.27	3.67	You are not completely free to study and have other

oved			obligations.
Neutral	**0.53**	**2.98**	**General trend of dimension (problems related to students)**
Approved	**0.62**	**3.49**	**Problem causes**

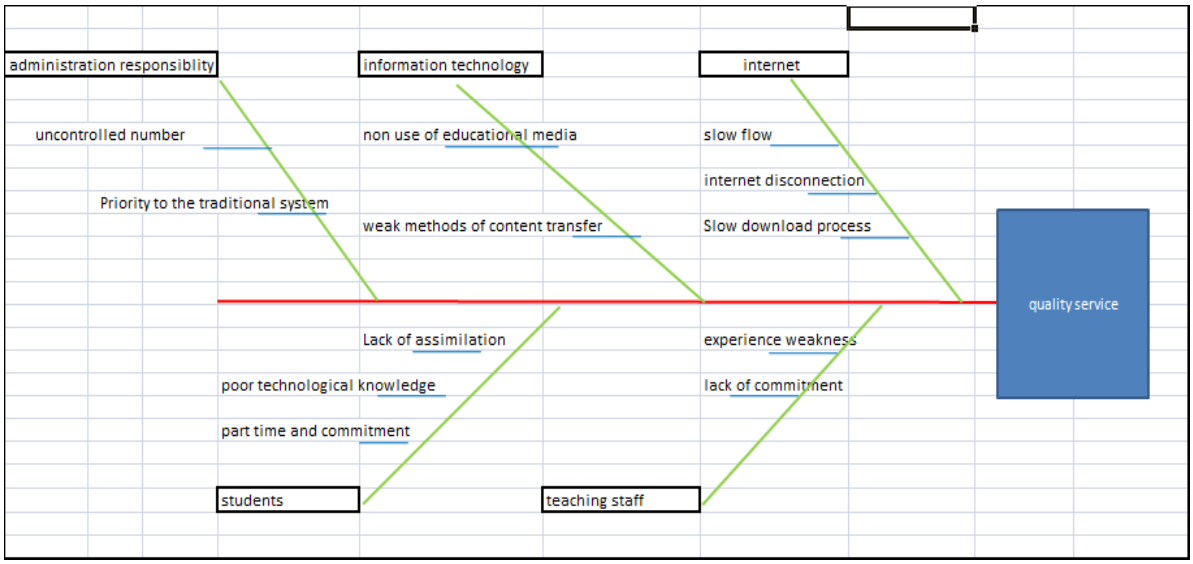
The Source: prepared by researcher, depending on SPSS results.

Table(6) :Relationship between combined influencing factors and service quality.

Variable	**Correlation coefficient**	**Significance level**
Factors affecting the distance master system (independent variable)	-0,417**	0,01
Quality of service provided according to distance master system (dependent variable)		

The Source: prepared by researcher, depending on SPSS results.

Figure1. Use the Ishikawa scheme to determine the causes of the problem.



The **Source:** prepared by researcher, depending on the field study.

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