

The Effect of E- Learning on Work Teams: An Exploratory Study of a Sample of Employees in the Technical Institutes of Mosul

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This research aims to identify the impact of e-learning in the work teams at the Technical Institute of Mosul. To get to methods that help the researched organisation in enhancing the performance of the work teams, each is chosen and taught new methods of work, such as e-learning, instead of traditional education that has lasted for a long time; people have understood this and they are still applied in many organisations, so that the researched organisation can confront and solve the problems encountered. The hypothetical model of the research was developed that reflects the nature of the relationship of influence between the two dimensions of the research (e-learning and work teams) and resulted in the research hypotheses, which were tested using a number of statistical methods for data collected using the questionnaire. After analysing the data, the two researchers reached a number of conclusions, the most important of which were: - There is a significant correlation and moral impact of e-learning in the work teams according to the correlation coefficient at the level of the research organisation.

Key words: *E-learning, simultaneous interaction, asynchronous interaction, work teams, the performance.*

Introduction

E-learning is one of the most important modern ideas in the current era, which is called the digital age, which has an impact on various aspects of life, and education has become a requirement to search for new educational methods and models, as well as to take advantage of technical developments in the field of work to help the learner to teach in the appropriate



place and time for him/her. Thus, e-learning is one of the patterns of education imposed by the scientific changes and technology that the world is witnessing to this day.

On the other hand, the adoption of the method of working teams is one of the modern methods in the administrative thought used by contemporary organisations, as the work teams are a strategy for many organisations that can invest their resources successfully to face a turbulent environment full of obstacles; therefore the use of a work team within a team is aimed at improving organisational performance using one of the methods of development, which is e-learning. To cover the above, the research included four axes as follows:-

The first axis: research methodology

The second axis: theoretical side

The third axis: the field side

The fourth axis: conclusions and proposals

The First Axis

Research Methodology

First: The Research Problem

The great development that occurred in the field of information and communication technology in all aspects of life forced the technical institute of Mosul to adopt the means and strategies that enable it to deal with its various issues in line with the spirit of the times, to improve its activities and develop its effectiveness to reach the highest levels of performance; hence the following questions arise:

1. Is there an electronic education for the technical institute of Mosul teachers?
2. Is there a working difference between the teaching staff of the Technical Institute of Mosul?
3. Is there a relationship between e-learning and work teams between the teaching staff of the Technical Institute of Mosul?
4. Is there an effect between the e-learning and the work teams between the teachers of the Technical Institute of Mosul?

Second: The Importance of Research

The importance of the research is framed in its attempt to enrich a subject that lacks application in the Iraqi environment, as well as being the decisive factor in the work teams in the organisations, starting from the fact that knowledge is the safety valve for all organisational activities, so taking note of it has meaning and content that may contribute to

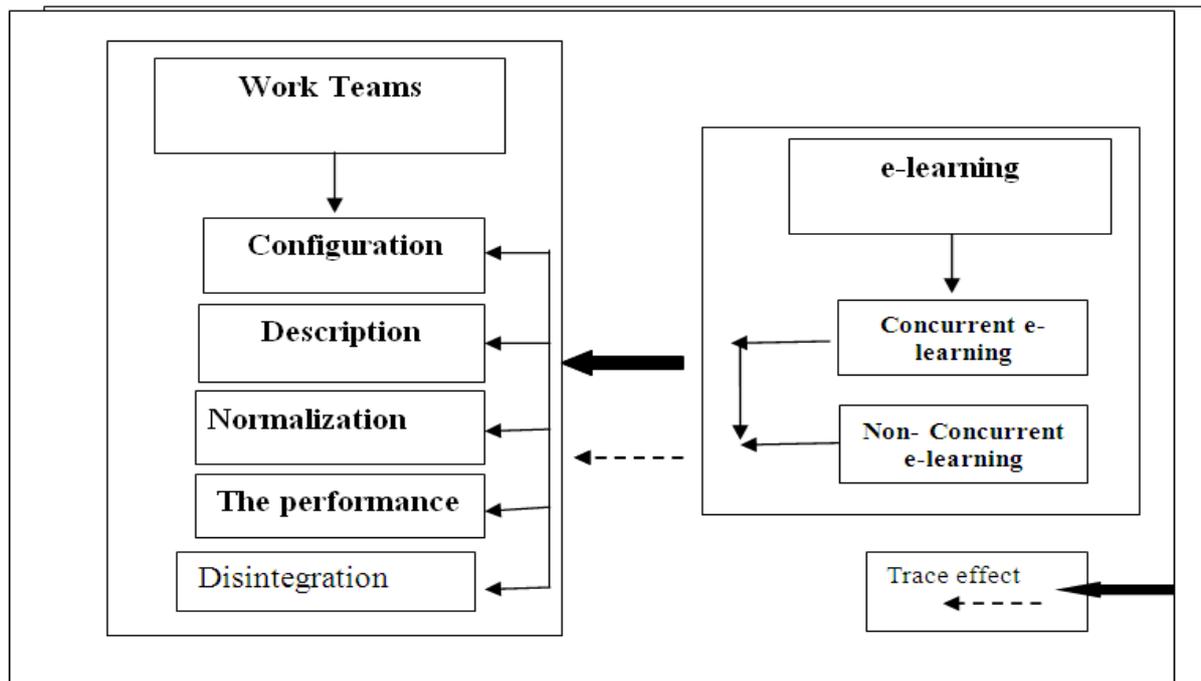
finding and creating perceptions that enrich the administrative leaders at the same time. It represents an accumulation that promotes the mobilisation of efforts and supports energies to the extent that it contributes to improving and developing the work teams in that organisation.

Third: Research Objectives

1. Knowing the extent of applying the e-learning to the researched organisation.
2. Diagnosing the work teams in the research sample organisation
3. Determine the nature of the impact of e-learning on the work teams of the respondent organisation

Fourth: Research Form

Figure 1. Highlight the elements of research aims.



Fifth: Research hypotheses:

1. The research was based on the following two main hypotheses:

There is a significant correlation between e-learning and work teams, and the following sub-assumptions emerge from it.

A- There is a correlation between simultaneous e-learning and composition, description, typing, performance, and dislocation.

B- There is a correlation between asynchronous e-learning and composition, description, typing, performance, and dislocation.



There is a significant effect of e-learning on the work teams:.2

A- There is a significant effect of simultaneous e-learning in composition, description, printing, performance, and dislocation.

B- There is a moral effect of asynchronous e-learning in composition, description, typing, performance, and dislocation.

Sixth: The limits of the research, its society and its sample

Spatial limits: The Technical Institute of Mosul

Timelines: from 1/9/2018 to 15/10/2019

Research community: Represented the teaching staff of the Technical Institute of Mosul with 80 teachers; the questionnaire was distributed to them, and the number of retrieved and valid forms for analysis reached 53 forms.

Seventh: Data Collection Methods

1.Theoretical framework: The two researchers relied on the Internet, and on many Arab and foreign references at the University of Mosul.

2.The field framework: The form was designed to include two types of information, the first was for identification information and the second was for the e-learning and work teams.

Eighth: The Statistical Measures and Methods Used

The Likert pentagon scale has been adopted (agree strongly, agree, neutral, disagree, disagree strongly) and weights (5, 4,3,2,1), respectively, with repetitions and percentages, and an arithmetic mean of (3), and a standard deviation in addition to the correlation coefficient and impact according to the SPSS statistical analysis program

The Second Axis

Theoretical Framework

First: E-Learning

1.The concept of e-learning

The researchers differed in determining this concept, so we thought it necessary to present some of these concepts, which refer to different points of view and the most important aspects that each of them are emphasised.



Hortopn & Horton (2003,13) believe that e-learning is one of the educational methods that rely on electronic communication and self-service techniques to provide knowledge to those who spread outside the classroom. Al-Alaq, (2004, 7) stresses that it is the use of network or internet technologies to create experiences and that different types of e-learning require different tools and techniques.

According to the foregoing, the researchers believe that it can be defined as: It is one of the educational methods that use the internet, applications and processes to provide knowledge to those who spread outside the classroom.

2. History of e-learning

Salem mentioned that e-learning went through four stages, as follows:

First stage: (1963), i.e. automatic education.

The second stage: - from 1984 to 1993, which is the stage of multimedia.

The third stage: - From 1993 to 2000, and then began to emerge e-mail and more humane electronic programs to display video films, which added a tremendous development to the media environment.

The fourth stage (from 2001 to the present day), which is the second generation stage of the World Wide Web, where the design of programs on the network has become more advanced in terms of the speed of receiving information and data. (Salem, 2004, pp. 292-281)

3. The Importance of E-Learning

E-learning is nothing but a method of education using information and communication technologies "a computer, its networks and multimedia, including sound, image, graphics, research mechanisms and electronic libraries" to design, provide, choose, manage, encourage and increase educational services with the support of educational models and channels for submission and delivery

The exchange information with the shortest time, less effort and the greatest benefit.

The importance of e-learning is to be provided with:

A- A democracy of education, which means providing equal educational opportunities for everyone and for everyone who is prepared and able to do it regardless of age, nationality,

belief and place of residence, and therefore it means opportunities for everyone who misses the opportunity (Al-Mubairik 2002,10).

B- The ability of the learner electronically to choose the appropriate time and place to enter the world of multimedia and navigate a wide range of information that interacts with his own speed in learning, and then be free from all restrictions imposed by traditional systems (Benjamin, 1994,49).

C- The rapid and tremendous development in information and communication technologies helps in the rapid transfer of data, ensuring the transfer of scientific content and communication between students and professors and the possibility of achieving effective communication, thus increasing the importance of modern educational systems and their efficiency and the ability of students to reach a high degree of knowledge through them (Taylor, 1995 , 2).

4

.Types of e-learning

Zaitoun, (2005, 132) and Khazraji, (2008, 255) mentioned that it is based on the availability of a system of interactive tools that enable both the teacher and the student to control the educational process or work to activate education and increase the level of its production, as well as improving its outputs and there are two types for it.

A- (simultaneous) Direct E-Learning

This is the interaction between the teacher and the learner that exists at the same time and communicates directly, or between the learner and his peers, but this presence does not necessarily have to be physical, through the use of live interactive tools such as video conferencing and immediate and audio, visual, and written conversations, using the interactive whiteboard, as it is presented. Live lectures to students through the method of simultaneous two-way interaction via the Internet. The student enters the lecture according to the preset schedule using his/her own password, so that he/she can interact live with the course of the lecture, where he/she can ask questions, obtain data, view pictures, and other requirements, while the questions that students ask during the lecture appear immediately on the screen for all members of the group to see in the electronic chapter; this organises the lecture by preventing overlapping and repetition of questions that the lecturer answers at the end of the lecture.

In order for the lectures to be effective, the necessary audio-visual software, textual data and information related to the lecture, and the various educational methods needed for the educational material are needed, which are accessed through a set of hyperlinks on the main page of the site for each course, so that students can see the information. Many related to the subject of the lecture, which increased their knowledge. The concurrent education pattern is

characterised by the pre-requisite obtaining the requirements for the lecture so that he/she can prepare his/herself for the lecture (Al-Musa and Mubarak 2005, 114).

B- Indirect e- learning method (asynchronous).

It is not necessary for the teacher, the learner and the pairing to exist at the same time or the same place where the learner gets intensive lessons or classes according to a planned study program in which there is no time limit, and it is related to students who are not able to participate in the live lectures, where the student enters the site of the targeted subject and sees the lectures previously stored in a special site (electronic library); so there is a time lapse between the message, whether text, audio or video that the teacher or the learner sends, and the response he receives, so the student can ask questions, store them, and the lecturer answers them at a later time. from Lal He/she can use interactive asynchronous tools such as e-mail, discussion forums, and mailing lists and these techniques enable the faculty member to deal with learners of different abilities, knowledge and experience, and then their different production, which gives greater independence in education and achieves the principle of singularity, so that the learner learns according to his/her speed (Zarzis, 1999, 145).

As for the examination systems in e-learning, he/she designed special systems that are recognised in electronic studies based on the answer to the time specified, and thus approached the system of exams followed in the programmed education, and the student gets the result in Ra only after the expiry of the exam where the correct answers are displayed electronically.

5. Advantages of e-learning

Ibrahim, (2001, 122) and Sharaf, (2006, 5) see that the advantages of e-learning are:

A- Ease of use by the teacher and the learner, as the teacher and the learner can interact with the computer through touch.

C- Low costs compared to traditional education.

D- Provides a variety of media to display information, record answers and evaluate learning.

C- It is characterised by accuracy and speed, and storing and diversifying information and exchanging it with others.

H- E-learning saves time and effort.

G- Helps to develop scientific thinking and develop the skills of learners.

D- This type provides the learner with a lot of information and knowledge compared to the traditional means of education that provides multiple and different sources of information as well as the possibility of exchanging experiences.



6.E-learning techniques

The advanced technology of modern communication systems is considered the mainstay of e-learning. Without the qualitative revolution in communications' devices, this type of education would not have existed. The exciting and continuous development in the field of communications and its varied communication channels has had a great impact on bringing the parts of this vast world within reach. E-learning includes the use of many technical tools to facilitate the learning process. Technical means and tools vary between simple means such as a computer and its accessories: the printer and headphones microphone, internet connection, and other more sophisticated ways and tools (Al-Saleh, 2006, 19).

Here are some of the information and communication technologies that contribute to building this type of education.

A. Computer

The computer is considered one of the greatest technical contributions used today in all sectors of life; it has become an important and effective part in modern life and its applications have entered into all aspects of life and its technologies have become widespread in all its facilities. The computer possesses educational capabilities, which makes it able to raise the motivation of the learner, and helps him to interact positively with the educational material, to stimulate his cognitive abilities, and to develop his thinking and skills. From this standpoint, most contemporary educational trends call for a further trend towards attention to the introduction of computer-based teaching aids in education and the use of modern interactive technologies, such as multimedia and electronic reality. (Chauhan, 1979,96).

B- Virtual Reality:

Virtual reality expresses a state of mind evoking the truth without the need to use physical equipment and to build this reality through virtual reality technologies. Things are embodied and transferred instantly from one place to another in non-real media. Materialism is imaginative, creating an environment very similar to the real environment, which allows the individual to acquire types of experiences that he may not be able to learn or deal with on land.



C-Networks and the Internet in e-learning

Among the greatest scientific advances in the World Wide Web, the internet has been the greatest field of communications since the invention of the telephone (Ross, 2005,33). The internet is a major and effective educational tool through the communication technology provided by linking a group of devices and communication between several networks, with the continuous development in the internet becoming a store of information; the internet does not deal with information only, but it "deals with the image, sound, maps, and video , global events, politics, and modern and daily weather maps," and it displays to the user documents, modern and advanced information. It provides many services such as file transfer, web service, e-mail, audiovisual communication, research services, written communication and other services (Minshawi, 2006, 4). In addition to that the internet provides many services and renewable and continuous uses in the field of education to all parties to the educational process, through which the latest knowledge releases can be identified, participation in specialised electronic periodicals, and participation in scientific conferences in all parts of the world; people can attend specialised training courses with the aim of development. Due to the advantages provided by the internet in the field of informatics and communication, and the many services that are available in it, many have paid to take advantage of them each in his/her field, and educators have tended to use the internet in education as a comprehensive educational tool. This is what made some describe the internet as "an ideal tool for use in the educational field." (Al-fraa , 1999, 371-372)

7.Obstacles to e-learning

Despite the many advantages that the internet provides in the field of education, it faces some obstacles that may limit its effectiveness in some cases, the most important of which are: lack of technical discipline, especially in third world countries, lack of privacy, and a significant shortage of qualified educational cadres. In addition to many teachers' ignorance of the internet, which necessitates training them on how to use them and providing technical assistance to them, and the lack of technical support, the use of the Internet hinders the learning process, if students face problems they do not have sufficient experience to solve. Among the main problems that hinder the process of e-learning is the fear, anxiety and mistrust that some people experience using this technology (Al-fraa, 1999, 371 -372)

Second: Teams

a. The concept of teams

Teams are one of the main topics in the literature and contemporary management practices; so many professionals have devoted a large portion of their interests to them.Schermerhorn,

(2002,416) and Al-Mayahi, (2004, 6) defined the work team as a group of individuals with complementary skills that are not identical, working together and pursuing their efforts in a competitive cooperative behaviour towards achieving individual goals and team goals leading to achieving the goals while they are carrying. They consider themselves a mutual responsibility, but Daft & Noe, (2001,220) see it as a unity between two or more people who collaborate and coordinate their work for the purpose of its accomplishment, while Hammoud and others, (2010, 161) see it as a group in which individuals share a common goal and the functions and tasks of each of its members with other goals and functions.

According to the foregoing, the researchers believe that the concept of the work team is "a group of individuals with integrated skills who cooperate and coordinate their work to achieve the achievement of their individual goals and common goals while holding themselves responsible for achieving the goals of the organisation.

The importance of the work team:-

- A- It stokes the spirit of competition.
- B- Assists in successfully implementing change and development programs (Al-Khatib and others, 2009, 215).
- C- Satisfies the needs of individuals (Gemayel, 2005, 13).
- D- Helps change patterns and values of the social culture of the work team.
- E- The benefits accrued to the team through personal efforts, personal satisfaction, complementarity, diversity in capabilities and skills, their integration and increasing flexibility of the organisation (Daft & Noe, 2001,273).

Characteristics of teams

- A- Having clear and specific goals and a full understanding among members of their roles and acceptors of them.
- B- Conscious contact between all members encourages frank discussion and expression of opinions and ideas.
- C- Clear knowledge of the team's strengths and weaknesses and a full awareness of external environmental opportunities and threats.
- D - Availability of a stimulation system on a collective, not an individual basis.
- E- Preparing to deal with disputes and settling them through cooperation (Hammam, 2012, 4).
- F- A comfortable and informal work environment, free from tension, hostility and formalism, that allows individuals to listen with companionship and accompaniment.
- G- Participation, collective participation in decision-making, and be unanimous, not majority.
- H- Practise self-censorship.



I- Relations are characterised by trust, respect and cooperation

J- Information flows freely throughout the organisation and is shared by all team members

K- The goals are clear and specific, realising conscious contact between team members and power depends on competence (123 -134, 2000 Sharp et al).,

L- He believes that it brings together the integrated skills and experiences that exceed the skill and expertise of any member of the work team, and their joint development of clear goals and approaches in communication that support the initiative and solve problems in real time, in addition to providing a social dimension that enhances the economic and administrative aspects of work, (123) 2000 Colenes).

4. Team development obstacles

The obstacles to team development differ as much as the difference and performance challenges or frameworks, although this diversity gives some advantages to a general character.

Robbins, (1996,44) asserts that the team's failure is due to conflicting needs, confused ends, unlimited management, whether decisions are taken, personal tendencies, bad leadership and lack of feedback or regular information, as well as an unclear vision of the reward system, lack of confidence in the team or the absence of the will to change. Katzenbach, (1993,23) summarises the main factors as follows:

A- A weak sense of direction as an administrative pattern that is not taken into consideration to clearly define the team's goals, objectives, and direction.

B- The lack or variation in the level of commitment to the team's performance: - The individual's aversion to work within the team results in the absence of conviction that teamwork is better than other options, methods, capabilities, and personal interests that would make the work within the team fraught with risks.

C- Skills gaps.

D- External confusion, hostility or indifference.

5. Stages of team development

We need some time to pass it and the reason for this is the type of communication technique used in the team and the second reason is that each member has his own schedule and is different from the other member because of the lack of dedication of the members to work in the team.

Table 1: It shows the stages of work team development from the viewpoint of some researchers

STAGES	WRITER NAME	NO.
The stage of formation, storming, building norms, performance and dislocation	www.abahe.co.uk	1
Formation, storming, typing, performance, disassociation	Aljamiel,23-33, 2005	2
Research phase, identification stage, definition stage, treatment stage, fusion stage	Al-khateb & Myaita 232-235-2009	3

According to the foregoing, we thought the research should address the stages mentioned (Al-Jameel, 2005, 32-33).

A- Formation phase (construction)

This is an important and decisive stage in the team; some people may feel that it is not important and try to ignore it to move to the other stage because it feels its contribution to the completion of the project, but in reality it is an important stage and must be within the stages of the team's development, which is the stage of orientation and access to acquaintance.

The members pave the ways and choose each other for the purpose of building friendship and directing the mission and clarifying it and this results in breaking the barriers between the members; the status of uncertainty is high during this stage and the team members accept a force or authority imposed on them by the formal or informal leaders and try to determine what are the actions and tasks that suit them in the team and what are the tasks that suit the rest of the members? The team sets the laws that the team will work according to and what is expected of them during the formation phase and the team leaders must give the team members enough time to get to know each other and encourage them and engage in meeting discussions. Yeh informal, characterised by caution and fear among members of the team for fear of lack of acceptance of others and begin this feeling Baltbdd when the first reaction to them with each other and the exchange of information on the tasks entrusted to them (Aljameel 2005, 32 -33).

B- Storming: - This is the most crucial stage in the development process because some teams disintegrate at this stage and others suffer in it for a short time during this stage. Individual personalities appear and individuals become more free to clarify their roles and what is expected of them. This stage is characterised by conflict and lack of agreement among team members about their views regarding the mission (duty) and the final goals of the team and how to achieve them; here we need to manage the conflict to keep it in the borders in order to address the problems and issues that have caused them, and alliances and groups based on public goods may be formed.

C- Normalisation: - At this stage, the team's conflict is over, meaning that most of the disputes between the members have been resolved, and the team agreed on the methods of work between the members in addition to an agreement on the required tasks and there began to appear harmony and unity of the team and the consensus develops on who has the power, who is the leader and what are the roles of the members. The members come to accept and understand each other, dissolve the differences and develop a sense of cohesion, and these stages are short-lived.

D- Performance stage: The team is in a strong position to confront the problems, solve them, understand the required roles, and the team members are committed to the message of the team, collaborators, and have harmony together and deal with cases of difference. Not all teams reach this stage, but only distinguished teams arrive when the deadline for showing results approaches.

E- The disintegration phase: The disassociation phase takes place in the non-permanent temporary committees and has specific duties to be performed. During this stage, the emphasis is on ending and dismantling and each individual returns to his usual activities. He/she also spoke because of the withdrawal of the team members, because of external pressures or when the team did not make progress and stood at the second and third stage.

Third: - The relationship between e-learning and work teams

Due to the development in the field of technology, information, and the development of the means of communication, it has become necessary to employ e-learning with modern technologies in educational institutions because it is one of the methods that supports the educational process and its transformation, from the process of indoctrination to the stage of creativity, interaction and skill development; so it requires restructuring its educational system through the use of work teams that work on raising the spirit of competition, achieving personal satisfaction, integration, and diversity in capabilities and skills, increasing flexibility, and that information flows freely in all the organisation and all team members participate in it and intensify its effort to build programs that are consistent with this; this is for the sake of the quality of education on the one hand and the advancement of our educational system on the other.

The Third Axis

Field Side

First: - Describing and diagnosing two dimensions of research and testing its hypotheses.

This axis includes two paragraphs; in the first, we review the description and diagnosis of two dimensions of research, and in the third paragraph we review the results of testing the research model and its hypotheses:

1. Description and diagnosis after e-learning

To describe and diagnose the first dimension of e-learning, we review the following table:

Table 2: Percentage, arithmetic mean, and standard deviations to describe and diagnose (e-learning)

Standard deviation	Arithmetic mean	Degrees of response										Variables
		Strongly not to agree (1)		Do not agree (2)		Neutral (3)		Agree (4)		Strongly agree (5)		
		%	no	%	no	%	no	%	no	%	no	
Concurrent e-learning												
0.829	3.925	—	—	7.5	4	15.1	8	54.7	29	22.7	12	X1
0.945	3.377	1.9	1	18.9	10	26.4	14	45.3	24	7.5	4	X2
0.951	3.434	1.9	1	17.1	9	26.4	14	45.3	24	9.3	5	X3
0.841	4.151	—	—	3.7	2	17.1	9	39.6	21	39.6	21	X4
0.554	3.722	0.95		11.8		21.25		46.2		19.77		Total indicator
Asynchronous e-learning												
1.111	3.641	3.7	2	17.1	9	11.3	6	47.1	25	20.8	11	X5
0.973	3.528	3.7	2	13.4	7	18.9	10	54.7	29	9.3	5	X6
1.069	3.169	5.7	3	20.8	11	35.8	19	26.4	14	11.3	6	X7
0.975	3.830	3.7	2	7.5	4	11.3	6	56.7	30	20.8	11	X8
0.714	3.543	4.2		14.7		19.33		46.22		15.55		Total indicator
0.634	3.6325	2.57		13.25		20.42		46.2		17.66		General indicator

N=53

The data of Table (2) above indicates that simultaneous education came with the highest percentage of agreement among the surveyed individuals and amounted to 65.97%, and the neutral ratio was 21.25%; the disagreement rate by the surveyed individuals was 17.25% and the arithmetic mean reached 3.722. Standard deviations reached 0.554, which contributed to the development of this indicator variable (X4), which states: it helps learners to increase their knowledge counts in many websites, as it came with a percentage of agreement of 78.12% with an arithmetic mean of 4.151% and with a standard deviation of 0.841. Then it follows in importance asynchronous e-learning, represented by the respondents' agreement at a rate of 61.77%, which was neutral at 19.33 and the percentage of disagreement was 18.9%, which contributed to the development of this variable, indicator (X8), which states: learners get to increase their knowledge counts on many websites, as it came with an agreement rate of 76.15%, with an average of 3.830, and with a standard deviation of 0.975.

B. Description and diagnosis after teams

Table 3: Percentages, arithmetic mean, and standard deviations for the dimension of the research team

Standard deviation	Arithmetic mean	Degree of response										Variables
		Strongly not to agree (1)		Do not agree (2)		Neutral (3)		Agree (4)		Strongly (5)agree		
		%	numbers	%	no.	%	no	%	no	%	N0	
configuration												
0.793	3.793	-	-	7.5	4	200.8	11	56.7	30	15.1	8	x9
0.882	3.377	1.9	1	9.3	5	49.1	26	28.4	15	11.3	6	x10
0.793	3.604	-	-	9.3	5	30.4	16	51	27	9.3	5	x11
0.853	3.755	-	-	9.3	5	22.7	12	51	27	17.1	9	x12
0.448	3.632	0.47		8.85		30.75		46.77		13.2		Total indicator
strom												
0.826	3.830	-	-	5.7	3	26.4	14	47.1	25	20.8	11	x13
0.833	3.868	1.9	1	3.7	2	18.9	10	56.7	30	18.9	10	x14
0.908	3.415	-	-	17.1	9	35.8	19	35.8	19	11.3 0	6	x15
0.729	3.925	-	-	3.7	2	18.9	10	58.5	31	18.9	10	x16
0.639	3.759	0.47		7.55		25		49.25		17.47		Total indicator
normalisation												

Standard deviation	Arithmetic mean	Degree of response										Variables
		Strongly not to agree (1)		Do not agree (2)		Neutral (3)		Agree (4)		Strongly (5)agree		
		%	numbers	%	no.	%	no	%	no	%	N0	
0.751	3.887	—	—	7.5	4	11.3	6	66.1	35	15.1	8	X17
0.811	3.642	—	—	11.3	6	22.6	12	56.7	30	9.3	5	X18
0.748	3.453	—	—	9.3	5	41.6	22	43.4	23	5.7	3	X19
0.701	3.679	—	—	5.7	3	28.4	15	58.5	31	7.5	4	X20
0.572	3.665	—		8.45		25.97		56.17		9.4		Total indicator
performance												
0.800	3.887	—	—	7.5	10	15.5	8	58.5	31	18.9	10	X21
0.669	3.774	—	—	1.6	1	30.4	16	56.7	30	11.3	6	X22
0.625	3.776	—	—	1.9	1	30.4	16	60.4	32	7.5	4	X23
0.652	3.811	—	—	1.9	1	26.4	14	60.4	32	11.3	6	X24
0.686	3.812	—		3.3		25.5		59		12.25		Total indicator
Disintegration												
5.308	4.509	—	—	7.5	4	20.8	11	54.7	29	15.1	8	X25
0.785	3.868	—	—	5.7	3	20.8	11	54.7	29	18.9	10	X26
0.768	3.604	—	—	9.3	5	28.4	15	54.7	29	7.5	4	X27
0.705	3.755	—	—	3.7	2	28.4	15	56.6	30	11.3	6	X28
1.422	3.934	—		6.55		24.6		55.17		13.2		Total indicator
0.753	3.960	0.188		6.94		26.36		53.27		13.10		indicator

Table (3) data indicates that the disintegration variable came with the highest percentage of agreement among the surveyed individuals (67.33%), while the neutral ratio was 28.4, the disagreement rate by the surveyed individuals was 3.7 and with a mathematical average of 3.755 with deviation standard reached of 0.705, which contributed to the development of this indicator variable (X25), which states: Work teams were able to accomplish the tasks entrusted to them well, followed by the importance of the performance variable, which came with a percentage of respondents agreeing, which amounted to 71.25, while the ratio of neutral was 25.5. The percentage of disagreement was 3.3, with a mathematical milieu of 3.812 and with a standard deviation of 0.686, which contributed to the development of this

problem. The index change (X21) states: team members can work as one coherent unit followed by variables - storming, typing and composition, respectively.

2. Test the research model and its hypotheses

In this paragraph, we clarify the relationship and influence of relationships between the two dimensions e-learning and work teams in the research organisation, to verify the validity of the research model and its hypotheses.

1. The correlation between e-learning and work teams

Table (4) shows a significant correlation between the two dimensions of e-learning and the work teams, as the correlation coefficient reached 0.288 ** at the level of significance of 0.01. This result indicates that whenever the researched organisation used e-learning, it led to the development and improvement of work teams; this proves the validity. This is first main hypothesis, which states that there is a significant correlation between the two dimensions of e-learning and work teams.

Table 4: The correlation between e-learning and work teams

Team work	Dependant variable independent variable
(0.288)**	E-electronic
N= 53	consider at (0.01)**

Second: The relationship between the e-learning variables and the work teams is shown in Table (5) which shows the value of the correlation between the e-learning variables and the work teams as it reached ** 0.288 and at the level of significance of 0.01 which is the highest value between the simultaneous e-learning and printing, which indicates the generation of a sense of belonging to the team and the occurrence of a type of cohesion that results in complete compliance. This shows that the group and the individual loses his ability to make individual decisions, as it reached ** 0.396 which is the highest value of correlation between asynchronous e-learning and training and also at a level of significance of 0.01, which indicates that team members choose each other according to specific laws through the use of education, internet networks and computers, and that is why we accept the sub-hypotheses.

A- Which states that there is a moral correlation between simultaneous e-learning and formation, storming, typing, performance, dislocation.

B- On the existence of a moral correlation between asynchronous e-learning and formation, storming, typing, performance, and dislocation.

Table 5: The correlation between the e-learning variables and the work teams

Team variables					Dependent variable Independent variable
Total	dissociation	performance	storming,	configure	
0.071	0.263	0.288**	- 0.064	0.025	Concurrent e-learning
0.092	0.362**	0.245	0.047	0.396**	Asynchronous e-learning

N= 53

consider at (0.01)**

Second. The effect of e-learning on work teams

Table (6) shows that work teams are affected by simultaneous education and asynchronous education and the regression coefficients are 0.554 and 0.714; the results of the analysis showed that the determination factor (R^2) indicates that these variables explain 28.8% of the variance in the work teams. The percentage (71.2) is caused by variables that affected the work teams that were not used within the research, and by a calculated (F) (4.613) which is greater than the tabular value of 2.449 at two degrees of freedom (51, 1) and is significant at 0.01; it is inferred from the coefficients (β) and (T) test have the highest effect of e-learning focused on performance and with a regression coefficient of 0.358; in terms of the calculated value of (T) (2.865) which is greater than its value. An international level is 1.296 at the level of moral (0.01) because the team makes efforts to achieve its goals and understands and assimilates the roles required of them; this confirms the validity of the second main hypothesis which states: there is a moral impact between e-learning and work teams (composition, description, performance, dislocation).

Table 6: The effect of e-learning variables on work teams of the researched organisation

Team work								Dependant variable Independent variable
Disintegration	Performance	Normlisation	Strom	Creation	β_0	F computed	R^2	
β_5	β_4	β_3	β_2	β_1				
0.253 (0.692)	0.358 (2.86)	0.325 (2.314)	-0.002 (- 0.014)	0.226 2.026) (2.9 16	4.613	0.28 8	E-electronic

(computed T)

N= 53

df (1,51)

$p^{**} \leq (0.01)$



Fourth Axis

Conclusions and Proposals

Conclusions

- 1.The work teams helps in implementing change and development programs, as well as enhancing knowledge of the team's strengths and weaknesses through close contact, trustworthiness, respect, and cooperative relationships.
- 2.E-learning faces some obstacles that limit its effectiveness, including lack of technical discipline, lack of privacy, and a large shortage of educational cadres.
- 3.E-learning is of importance in the technical institute of Mosul based on the general index of this dimension, which showed the agreement of the sample members regarding it, and it was found that simultaneous education is the one that enriched this importance, which indicates that the researched organisation showed an active interest in e-learning. In order to keep pace with the rapid developments in its environment, it was followed by a variable (asynchronous e-learning).
- 4.The field research data showed that the work teams in the surveyed organisation occupied an active space in the answers of the respondents, and storming was one of the most prominent factors in the field of research, and this shows the emergence of sub-personalities and some alliances based on common interests.
- 5.It was evident from the correlation test between the two dimensions of research in the researched organisation that there is a correlation between e-learning and work teams at the level of the researched organisation, which indicates access to improving and developing the work teams in the researched organisation, as well as there is a correlation between the two dimensions of the research. This confirms that the work teams have become affiliated and have some kind of cohesion and make efforts to achieve its goals and all the members of the team absorb the roles required of them.
- 6.It appears from the regression analysis that there is a significant effect of e-learning on work teams and that individuals through simultaneous education are able to accept each other, achieve harmony and solve problems facing the researched organisation.

The Proposals

- 1.The researched organisation should hold local seminars and conferences aiming to clarify the concept and importance of e-learning and work teams for all categories and segments of workers and explain its active role in developing the researched organisation.
- 2.The research organisation must provide all requirements for the application of e-learning (database, devices and equipment, environment suitable for work).



3.The need to adopt work teams and develop and improve the performance of individuals so that they can solve the problems facing the researched organisation.

4.The need to train individuals to use e-learning (simultaneous and asynchronous) in order for a kind of integration to take place between workers in order to work as an integrated team and to achieve the goals of the researched organisation.



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The Appendices

M / questionnaire

To the respectable respondents

We put in your hands the research tagged "The effect of e-learning on work teams." Exploratory study at the Technical Institute / Mosul. Certainly, your participation in presenting the true image will have a positive impact in producing this research at the .required level

Therefore, we kindly ask you to thank you for choosing the answer that you think is appropriate for each question, without leaving any question because that leads to neglecting the entire form, knowing that the written data is of a confidential nature and scientific integrity and there is no need to confirm the name, With my wishes of success to you in your work.

General Notes

.Please put a mark (P) in the field representing your point of view

The researcher can answer all your questions and inquiries regarding the form .2

Firstly. General data

Respondent data on the form .1

A- Name of the organisation B- Age

:(H - Gender: () Male () Female. D - Academic Achievement (Certificate

T- Job Title: Q - Duration of service with the current position

Second. Types of e-learning

A- Concurrent e-learning: It occurs through the communication between the teacher and the learner during the learning process, evaluating the performance of learning and confronting the problems encountered, through modern technical .communication media

Strongly not to agree	Do not agree	Nrutrel	Agree	Strongly agree	statements	no
					Our organisation adopts live (direct) communication through audio, visual, and written .conversations	1
					The learner uses his / her password at specified times	2
					Ensures that the special questions	3

					are not repeated and overlapped by .the learner	
					It helps learners to increase their cognitive knowledge due to the presence of many websites	4

B- Asynchronous e-learning: It is through communication between the learner and the teacher, or the learners themselves, but the questions are answered after a certain period .through the use of modern technologies such as e-mail and forums

Strongly not to agree	Do not agree	Nrutrel	Agree	Strongly agree	statements	no
					The learner accesses the targeted websites .at any time	5
					It provides the learner to communicate ..(seminars) via electronic forums	6
					Our organisation uses coded education .systems	7
					The learner gets the information stored in the different sites (electronic library)	8

Strongly not to agree	Do not agree	Nrutrel	Agree	Strongly agree	statements	no
					Team members have the option to choose each other.	9
					Team members work for leaders.	10
					The team works under specific laws.	11
					Team members have ample opportunity to discuss social (informal) topics.	12

2.The storm phase: during which conflicts arise between team members as a result of violation and lack of agreement

Strongly not to agree	Do not agree	Nrutrel	Agree	Strongly agree	statements	no
					Some teams suffer from dislocation.	13

					Contributes to the appearance of individual characters.	14
					Members do not agree on a clear and specific message and goals.	15
					Some building alliances appear on the basis of common interests.	16

3.The normalization stage: the feeling among the team members begins with belonging to the team and the occurrence of a kind of cohesion that results in total compliance with the group and in which the individual loses his ability to make individual decisions.

Strongly not to agree	Do not agree	Nrutrel	Agree	Strongly agree	Statements	no
					Help the team members solve problems.	17
					Team members are consistent and agree on the tasks required of them.	18
					Team members define the lead roles.	19
					It helps team members to accept and understand each other.	20

4.The stage of performance: The team begins work and makes efforts to achieve its goals and the team members understand and understand the roles required of them

Strongly not to agree	Do not agree	Nrutrel	Agree	Strongly agree	Statements	no
					Team members can work as one cohesive unit.	21
					It helps team members to strengthen their confidence as one team.	22
					Ensures the team leader has a high mission performance.	23
					Team members were able to give the final idea.	24

5.The disintegration phase: during which the team members were able to accomplish the tasks .assigned to them



Strongly not to agree	Do not agree	Nrutrel	Agree	Strongly agree	Statements	no
					Teams managed to accomplish the tasks assigned to them.	25
					External pressures cause the withdrawal of all or some members of the task forces.	26
					The lack of progress (consensus) at any of the previous stages leads to the withdrawal of the team members.	27
					Assigning team members to new tasks.	28