E-learning in Iraqi secondary schools / Reality and Challenges

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Abstract. This study aims to identify the trends and opinions of students and teachers towards the process of e-learning in an important period of human history, which is the period of the global crisis of the Corona pandemic and knowledge of its scientific term (Covid-19), as this period witnessed a complete closure of all aspects of social life, including operations. Educational in schools and universities in all countries of the world. During this period, electronic systems for education were employed to meet the procedures of imposing closures and social distancing, and this experience was new for most students, and therefore it was necessary to identify the general trends and opinions of students and teachers towards the electronic systems used in the education process. The study was applied to a sample of teachers and students of (50) teachers (250) students. The questionnaire was used as a tool to collect data after it was divided into several axes that included (20) questions that dealt with the positive and negative aspects of e-learning, and The results of the study showed the dissatisfaction with e-learning, and the majority of them tend to prefer the traditional learning system over e-learning. In the light of the results of the research, some conclusions were drawn and recommendations and suggestions.

Keywords. E-learning, reality, opinions of students and teachers

Introduction:
The progress of any nation is measured by the extent of its people’s culture, as science has become one of the most important requirements of life, which is included in all its economic, political, cultural and social aspects, because of its role that is reflected in the nation’s technological, social and educational development and shows the efficiency of its educational policy.
The world is currently witnessing a momentous event that may threaten education with a massive crisis, perhaps the most dangerous in our contemporary time. The Corona pandemic has caused more than (1.6) billion children to be cut off from their educational institutions in (161) countries around the world, by approximately (80%). of students enrolled in educational institutions around the world, This is in addition to the fact that there is already an educational crisis, as there is a large number of students who go to schools who do not receive an actual education and who lack many of the basic skills they need in practical life. These changes, which took over all fields, led to a reconsideration of the traditional teaching methods used in most educational institutions and at all levels, Since Iraq was not immune to these changes, this imposed on it the necessity of employing modern technologies and integrating them into the educational process in a way that ensures achieving the basic goal, continuing the educational
process, and ensuring its quality. E-learning has become a necessity in educational institutions, but it is accompanied by some challenges regarding the use of e-learning and its success in the educational environment.

Chapter One (Research methodology and previous studies)

1- Research Problem:
In light of the Corona pandemic, many universities and schools have resorted to relying on e-learning systems, and teachers and students have organized in dealing with lessons through the electronic system, which is a new experience for many of them, especially students, who may be affected negatively or positively by this sudden change in their educational plans.

The goal of education in general is the same, but there are fundamental differences between using the traditional method of education and using electronic systems to provide lessons and the curriculum, noting that reliance on e-learning in Iraq was very weak during the past periods and there was some fear of dealing with it. With electronic systems among a large segment of professors and students, this may be attributed to a lack of previous experience in dealing with these systems, the belief that they are difficult to use, or the fear of errors occurring, especially with regard to tests, assignments, etc.

However, with the emergence of the Corona pandemic, many students were forced to deal directly with the administration of electronic educational systems, which may create some problems related to professors, as well as the extent of the student’s acceptance of this change, and the impact of this on the student’s level of achievement, as well as the expected effects on students’ averages and grades as a result of this transformation. The sudden shift from the traditional system of education to the electronic system. Hence, the researcher became aware of the problem of his research through his educational and professional work, which made him work to diagnose this educational problem that emerged in light of the pandemic, which can be formulated with the following questions: What are the opinions and attitudes of students and teachers towards e-learning? What are the challenges they face?

2- Research Importance:
E-learning is a method of teaching using modern communication mechanisms, such as computers, networks, and multimedia, such as audio, images, graphics, search mechanisms, electronic libraries, as well as Internet portals, whether remotely or in the classroom. The important goal is to use technology of all kinds to deliver information to students in the shortest time, the least effort, and the greatest benefit.

The importance of theoretical and applied research is represented in the following points:

1. The importance of e-learning as an educational method or method enables students to obtain information, knowledge, and education remotely in light of a global pandemic that has faced groups of society in general and students in particular.
2. Seeking to diagnose the reality of e-learning in secondary schools, based on the opinions of teachers and students, as e-learning is a recent trend that has been applied in middle and secondary schools.
3. The importance of the research tool that contributes to identifying the opinions and trends of students and teachers about the reality of e-learning, diagnosing it in reality, and working to develop it to achieve scientific educational and learning goals.
4. Reaching results, conclusions, recommendations and proposals that may help improve the uses of e-learning in schools.
3- **Search Goal:**
The current research aims to identify the reality of e-learning in schools from the point of view of teachers and students in terms of the extent of its use, its pros and cons, and the obstacles to its application.

4- **Search Limits:**
The limits of the current research are limited to a group of students (males and females) and teachers (male and female teachers) in schools affiliated with the General Directorate of Education of Baghdad, Al-Karkh III, for morning studies - academic year 2021-2022.

5- **Previous Studies:**
1- A study conducted by (Bashir, 2029) aimed to model the interaction of e-learning, learner satisfaction, and continuing education intentions in Ugandan higher education institutions. This study relied on the survey method, and studied the effectiveness of e-learning, which was linked to learner satisfaction and continuing learning intentions. It was applied to 232 learners. The results revealed that e-learning interaction consists of a three-factor structure: the learner interface, the feedback interaction, and the learning content [18].

2- Al-Jamal (2020) conducted a study that aimed to identify the difficulties facing Palestinian university students in the Hebron Governorate in the distance learning system (e-learning) in light of the Corona crisis, and to demonstrate the impact of: gender, academic year, and specialization on the difficulties facing students, and it was used The electronic questionnaire was used as a tool for collecting data. The size of the study sample was (102) male and female students who were chosen randomly. The descriptive analytical method was also used to analyze the data and come up with the results. The results of the study indicated that the students suffer from high difficulties in distance learning (e-learning). These difficulties are in order of importance: (difficulties related to lecturers, difficulties related to psychological pressure, difficulties related to infrastructure, difficulties related to knowledge in the field of e-learning) [9].

3- Study (Abu Shkhidem et al. 2020) This study aimed to reveal the effectiveness of e-learning in light of the spread of the Corona virus from the point of view of teachers at Khadoori University. To achieve the objectives of the study, the descriptive and analytical approach was relied upon, and the study sample consisted of (50) faculty members, The necessary data was collected using a questionnaire, and the results of the study revealed that the study sample’s assessment of the effectiveness of e-learning in light of the spread of the Corona virus from their point of view was average, and the researchers recommended holding training courses in the field of e-learning for both teachers and students to get rid of all obstacles to e-learning [10].

4- Study by Salah Abdel Salam Daou, Salama Muftah Al-Misrati (2020) This study presented a theoretical framework about the challenges facing the application of e-learning in Libyan educational institutions in light of the crises. The inductive and deductive approach was used to prepare the study, as it dealt with a presentation of all the theoretical concepts of e-learning, and the most important The challenges and difficulties facing its use in general and Libya in particular. Finally, the study reached results, the most important of which is the lack of legislation, laws and regulations necessary for the use of these technologies and the weakness of the necessary infrastructure, in addition to the fact that the reality of implementing e-learning in Libya is still in the process of being established. The study also recommended the necessity of enacting Legislation, laws and regulations by the Ministry of Education, which enable comprehensive survey studies to be conducted to identify the difficulties and challenges that will face the use of e-learning in order to allow educational institutions to integrate e-learning into their future plans according to a clear and pre-defined vision [7].
5- Study (Halima Ahmed Al-Tarawneh 2021) This study aimed to examine the impact of the Corona pandemic on teachers’ attitudes towards using educational platforms in distance learning. The study sample consisted of (80) male and female teachers, and the study used a measure of attitudes towards e-learning in light of the Corona pandemic, and the results showed There is an impact of the Corona pandemic on teachers’ attitudes towards e-learning. The arithmetic averages of the sample members’ responses to the areas of the study tool showed a moderate degree. The study recommended further expansion through experimental and quasi-experimental studies to examine the impact of the Corona pandemic on distance education and its relationship to attitudes towards teaching in general. [11].

1- Comment On Previous Studies
It is noted from the presentation of previous studies that they are diverse in their objectives and tools. Accordingly, it can be said that previous studies contributed directly to strengthening the current study and the success of its elements. Due to the diversity of previous studies and their treatment of different aspects of e-learning and learning platforms, the current research has gained breadth in Access to everything related to learning platforms. The current research has benefited from these studies in developing the data collection tool, identifying its results, and balancing these results with the results that the current research will reach.

Chapter Two (The reality of e-learning and its challenges)

1- The Concept Of E-Learning :
E-learning refers to the use of information and communication technologies to enable access to learning resources via the Internet. It is an interactive system for distance education that is provided to the learner according to demand, and relies on an integrated digital electronic environment aimed at building courses and delivering them through electronic networks, providing guidance and direction, organizing tests, managing or evaluating resources and processes. This definition reflects the determinants of e-learning that affect educational communication processes, building educational curricula and strategies, and evaluation. [2]

2- Objectives Of E-Learning:
E-learning, like other types of education, seeks to achieve a set of the following goals:

1. Providing a rich educational environment with multiple knowledge sources that serve the educational process in all its aspects.
2. Reformulating the roles in the way the teaching and learning process is carried out in line with developments in educational thought.
3. Creating incentives and encouraging communication between the educational process system, such as communication between home and school, and the school and the surrounding environment.
4. Modeling education and presenting it in a standard form. Lessons are presented in an exemplary form and distinct educational practices can be repeated.
5. Transferring educational experiences by creating communication channels and forums that enable teachers, trainers, supervisors, and all those interested in educational affairs to discuss and exchange opinions and experiences through a specific site that brings them all together in a virtual room despite the distance.
6. Preparing a generation of teachers and students capable of dealing with technology and the skills of today’s tremendous developments that the world is witnessing [1].
7. Helping to spread technology in society to become electronically literate and keep up with what is happening in the far corners of the earth.
8. Providing education that suits different age groups, taking into account their individual differences [14].

3- Characteristics Of E-Learning:-
There are many characteristics associated with e-learning that distinguish it from others as an alternative or other means in addition to traditional education:
1. It provides an interactive learning environment between the learner and the teacher and vice versa, and between the learner and his colleagues [12].
2. It depends on the learner’s effort in teaching himself (self-learning), as well as learning with his companions in small groups (cooperative learning) or within the classroom in large groups [6].
3. Flexibility in place and time.
4. It provides a learning environment with educational experiences free of risks.
5. The learner can learn without committing to a specific age, as this will encourage continuous learning throughout life.
6. The possibility of measuring learning outcomes using different assessment methods, such as tests, and granting the learner a recognized certificate.
7. The presence of an electronic administration responsible for registering students, paying fees, following up on the student, and awarding certificates [13].
8. The learner needs to have certain technologies such as a computer and its accessories, the Internet, and local networks.
9. The low cost of e-learning compared to traditional education.
10. Ease of updating programs and websites via the World Wide Web [16].

4- The Reality Of E-Learning In Iraq:-
After the Corona epidemic spread in all countries of the world, the central government took a series of measures that would remove the danger of the Corona epidemic from the country, and one of these measures was the imposition of a curfew, which was known as (home quarantine), which represents disrupting the work hours of students in schools, universities, and institutes, both governmental and private, in a step to prevent any infected person from mixing or coming into contact with others who are not infected. However, despite all these measures taken, the epidemic was introduced to Iraq by expatriates and travelers, in addition to the increase in contact with the infected people, so infections and deaths rose in a way that shocked the Iraqi street.

After the suspension of work in universities, schools and institutes and the recording of infections in all Iraqi governorates, the Ministry of Education launched several platforms to complete the prescribed curricula and not stop studying at the time by implementing the new educational system, which many countries followed during the curfew period to limit the spread of the epidemic and control it.

But there is a question that arises about the extent of the ability and ability of the concerned authorities to implement this new educational system? Is the necessary infrastructure available for such a system, whether these capabilities are material or human? To answer these questions, we must focus on the educational reality in Iraq, which is characterized by backwardness at all levels, as well as the weakness of the technological and digital environment in most Iraqi institutions, including the educational institution. After some institutions turned to using technology in managing their affairs, such as nationality, passports, and today education, It
showed weak government performance accompanied by weak infrastructure in the communications and technical services sector.

5- Difficulties and challenges facing the application of e-learning:

Educational institutions in Arab countries in general, and Iraq in particular, face many challenges that hinder the use of e-learning, including:

2- Information technology infrastructure:
If we look at the Arab countries, there is a weakness in the spread of rapid communication technologies, their scarcity and their inefficiency compared to the means of communication in developed Western countries, and this plays a negative role in disseminating and increasing electronic content in the Arabic language and leads to the weakness and spread of many applications that increase the volume of Arabic content allocated to e-learning. [7]

3- Challenges resulting from the economic and academic level:
The lack of availability of devices for all students in educational institutions, as using computers is expensive and modern education requires high-level devices to suit advanced programs, in addition to the lack of experience among the people in charge of educational programs and their lack of enrollment in related courses and seminars, as well as the difficulty of adapting teaching staff and students With this type of education because of their habituation to traditional education and fear of change [3].

4- Material and human obstacles:
It is represented by the scarcity of computers, the difficulty of Internet coverage and its limited speed in some areas, as well as the high cost among individuals, in addition to the scarcity of experts and technicians in using e-learning application mechanisms [5].

5- Technical challenges:
It is represented by the weak ability of educational institutions to establish large networks and provide large numbers of devices and equipment, especially since media and communication technologies are witnessing multiple developments and transformations on a rapid and continuous basis [4].

6- Legal legislative challenges:
To shift to e-learning in a way that ensures the dynamism of the educational system, keeps pace with modern developments, ensures the protection of freedom of thought and the acquisition of knowledge, and requires amendment to some laws that stand in the way of electronic dealing [3].

7- Human and financial challenges:
Change and the trend towards e-learning represents a challenge to many individuals who are accustomed to the traditional system, which requires the presence of a policy of awareness, motivation, and firmness in order to accept this change, as well as the financial resources necessary for this type of education [15].

Chapter Three (Research procedures and analysis of results)

First - search procedures:

1- The research community and its sample:
The current research community included (teachers and students) a number of secondary schools within the third Baghdad Al-Karkh Education School, with (50) male and female teachers and (250) male and female students, where the students were randomly selected from various middle and high school grades and schools.
The researcher built a questionnaire consisting of (20) questions divided into positive questions that fall within the positives of e-learning and negative ones that fall within the negatives of e-learning for the purpose of determining the extent of the response of teachers and students to e-learning and obtaining data and information related to the research problem, and what are the positives and negatives that they see From their point of view, within the framework of the questions that were placed in the questionnaire, as in Appendix (1).

2- The Validity of the tool:
Gay (2011) defined the validity of the instrument as “the questions of the test form perform and measure what they were actually designed to measure in terms of the clarity of the test questions and their vocabulary and are understandable to students, as well as being suitable for statistical analysis.” (Gay et.al., 2011) [17].

The researchers presented the final questionnaire to a group of arbitrators with expertise in measurement, evaluation, psychology, and teaching methods to verify the validity of the questionnaire. In light of it, some paragraphs were modified, as the researcher followed apparent validity to ensure the validity of the research tool.

Secondly - Presentation, interpretation and discussion of the results:
➢ Getting to know e-learning from the point of view of teachers and students:
For the purpose of identifying this goal, the researcher applied an electronic questionnaire using (Google forms) to the research sample of a number of teachers and students in secondary schools within the third Baghdad Al-Karkh Education School. The table below shows the percentages according to the results that were calculated from this questionnaire for each question, and Table (1) indicates this.

<table>
<thead>
<tr>
<th>Questionnaire questions</th>
<th>agree</th>
<th>indifferent</th>
<th>not agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 E-learning is better than regular education</td>
<td>15.1%</td>
<td>15.8%</td>
<td>69.1%</td>
</tr>
<tr>
<td>2 E-learning is more flexible and fun than regular education</td>
<td>19.5%</td>
<td>14.4%</td>
<td>66.1%</td>
</tr>
<tr>
<td>3 Students are able to move from regular education to e-learning</td>
<td>24.5%</td>
<td>23.2%</td>
<td>52.3%</td>
</tr>
<tr>
<td>4 Students have difficulty dealing with e-learning systems</td>
<td>67.8%</td>
<td>14.8%</td>
<td>17.1%</td>
</tr>
<tr>
<td>5 Teachers are able to adapt to e-learning</td>
<td>38.6%</td>
<td>29.9%</td>
<td>31.5%</td>
</tr>
<tr>
<td>6 The current state of schools allows for the transition to e-learning</td>
<td>35.2%</td>
<td>20.5%</td>
<td>44.3%</td>
</tr>
<tr>
<td>7 E-learning systems face physical obstacles</td>
<td>63.1%</td>
<td>17.4%</td>
<td>19.5%</td>
</tr>
<tr>
<td>8 E-learning systems face cognitive obstacles</td>
<td>54%</td>
<td>26.8%</td>
<td>19.1%</td>
</tr>
<tr>
<td>9 The exam content is clear and covers all curriculum items</td>
<td>43.6%</td>
<td>23.2%</td>
<td>33.2%</td>
</tr>
<tr>
<td>10 A mechanism to view your results easily</td>
<td>58.4%</td>
<td>22.1%</td>
<td>19.5%</td>
</tr>
<tr>
<td>11 You go to another place if the Internet is down at your home</td>
<td>46.6%</td>
<td>13.1%</td>
<td>40.3%</td>
</tr>
<tr>
<td>12 Working on e-learning systems requires a lot of time</td>
<td>74.2%</td>
<td>12.4%</td>
<td>13.4%</td>
</tr>
<tr>
<td></td>
<td>Description</td>
<td>Agree (%)</td>
<td>Indifferent (%)</td>
</tr>
<tr>
<td>---</td>
<td>-----------------------------------------------------------------------------</td>
<td>-----------</td>
<td>-----------------</td>
</tr>
<tr>
<td>13</td>
<td>Working on e-learning systems requires a lot of effort</td>
<td>73.5%</td>
<td>13.8%</td>
</tr>
<tr>
<td>14</td>
<td>I enrolled in a training course in developing skills in using electronic platforms</td>
<td>38.3%</td>
<td>20.1%</td>
</tr>
<tr>
<td>15</td>
<td>I feel satisfied with the discussions and questions that occur in e-learning</td>
<td>43%</td>
<td>19.1%</td>
</tr>
<tr>
<td>16</td>
<td>I feel satisfied with the time I spend during the day using e-learning</td>
<td>37.2%</td>
<td>19.5%</td>
</tr>
<tr>
<td>17</td>
<td>I feel satisfied with the extent to which courses have been developed electronically and interactively</td>
<td>37.6%</td>
<td>25.2%</td>
</tr>
<tr>
<td>18</td>
<td>I feel satisfied with preparing seminars and workshops to develop users’ skills in using the computer and its educational applications</td>
<td>39.6%</td>
<td>28.5%</td>
</tr>
<tr>
<td>19</td>
<td>I feel satisfied with the extent of the use of e-learning technologies</td>
<td>42.3%</td>
<td>20.8%</td>
</tr>
<tr>
<td>20</td>
<td>It is recommended that at least the theoretical part be taught electronically in the future</td>
<td>34.9%</td>
<td>17.1%</td>
</tr>
</tbody>
</table>

The following graphs show the percentages mentioned in the previous table:

(1) Agree: 60.1%, Indifferent: 15.1%, Not Agree: 15.0%

(2) Agree: 60.1%, Indifferent: 14.4%, Not Agree: 15.5%

(3) Agree: 52.3%, Indifferent: 23.2%, Not Agree: 24.5%
We note from Table No. (1) and the graphical figures above that the positive items answered by the sample’s teachers and students in the questionnaire indicate the lack of satisfaction with the reality of e-learning, and this is due to the weak ability of educational institutions to establish wide networks and provide large numbers of devices and equipment. Poor use of electronic platforms due to their lack of enrollment in relevant courses and seminars. This result is consistent with the study of (Samir Suleiman Al-Gamal (2020)), and the study of researchers (Salah Abdel Salam Daou and Salama Muftah Al-Misrati (2020)), in terms of the difficulties facing teachers and students in the e-learning system (difficulties related to psychological pressures, difficulties related to infrastructure, Difficulties related to knowledge in the field of e-learning).

Chapter Four (Conclusions, recommendations and proposals)

In light of the results of the research, a set of conclusions were drawn up, and appropriate recommendations were made for them, and a set of proposals are as follows:

First - Conclusions:

1. E-learning is a modern and advanced concept for flexible education systems such as the distance education system and the open education system. It is also the result of the tremendous technical development and wide knowledge openness that the world is witnessing, which is a major challenge to the current level of Iraqi educational institutions.
2. The e-learning system depends on the use of information and communications technology in a relatively absolute manner, which requires attention to this sector in parallel to e-learning in order to reach an integrated educational system that serves educational goals in Iraq.
3. The reliance of all Iraqi educational institutions on traditional teaching methods, in addition to the lack of cultural and social awareness of the importance of the Internet and the difficulty of dealing with electronic programs.
4. Lack of adequate availability of e-learning requirements, including the necessary infrastructure.
5. The lack of a clear and well-thought-out plan by specialists in educational technology for the purpose of the gradual transition from traditional education to e-learning in educational institutions in Iraq.
6. The lack of familiarity of most teachers, trainers and students with the necessary skills to deal with modern technologies, as well as the absence of cultural awareness to adopt such technologies in the field of education and a lack of organizational and guidance expertise on which to work.
Second - Recommendations:
1. Working to spread the culture of e-learning and the use of modern technology in educational institutions, and paying attention to developing electronic content by organizing courses and lectures to educate education officials and those concerned about the importance of modern technology.
2. Providing an appropriate educational infrastructure for applying e-learning in educational institutions (networks, smart boards, websites for each stage, and multiple educational satellite channels that are compatible with all stages and specializations, and benefiting from the experiences of developed countries in this field) and removing all human, material, and technical obstacles that prevent its use in The educational system at various levels and fields.
3. Implementing the e-learning experience in Iraq must be carried out gradually according to a targeted strategy, especially in institutions where the burden of using computers and communications technology networks is still modest.
4. Working to support educational institutions to implement e-learning programs, and employing scientific competencies to undertake this process, which includes paying attention to the human element and working to develop and develop his skills on an ongoing basis.
5. The necessity of establishing legislative regulations and regulations for e-learning.
6. Holding more workshops, seminars and forums for students, which result in opportunities to exchange views, as well as benefiting from the proposals submitted by students and integrating them with the educational process to form a solid foundation for adopting e-learning techniques on sound foundations.

Third - Proposals:
1. Conduct an accurate comparative study between e-learning and traditional education in Iraq. 
2. Conduct a study to determine the reality of e-learning at the level of all education directorates in the Ministry of Education. 
3. Conduct a comprehensive survey to evaluate e-learning in Iraq to find out the reasons for the unwillingness of students and teachers to use it and develop solutions, proposals and treatments.

The References:
➢ Arabic sources:
https://www.researchgate.net/publication/345896615_thdyat_tthyq_alitlym_alalitrwny_fy_m . wssat_alitlym_allybyt_fy_zl_alazmat_jayht_kwrwna_drast_nzryt 90
الجمل، سمير سليمان عبد (2020). الصعوبات التي تواجه طلبة الجامعات الفلسطينية في نظام التعلم عن بعد (التعلم الالكتروني) في ظل أزمة كورونا، المجلة الدولية للبحوث والدراسات (IJS)، أكاديمية رواة التميز للتدريب والاستشارات والتنمية البشرية، مجلد (2)، عدد (6)، 2020، جمهورية مصر العربية.


المواقع الالكترونية:
http://www.elearning solutions.net/html/alandalus_project.htm

Foreign sources:
[16]- Nadi Kamal Jarjis, the Internet, integrated projects, organizing system for the integration of curriculum and development, (Beirut, farmer library for Publishing and Distribution) in 1999.