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Dear Authors,

After having carefully evaluated your article titled "The degree of use by secondary school teachers in the Hashemite Kingdom of Jordan of education technology of the educational learning process and its relationship with some variables" and taken the referees' advice into consideration, the editors came to the conclusion that your paper is suitable for publication in our Journal. In order to save time, the referees communicated their opinion to us verbally. As part of our evaluation process, we normally ask the opinion of two referees who are experts in the relevant field of research. The paper is also read by the editor. If both of the referees and an editor concur in their view, their decision is final. We consult a third referee if there is a difference of opinion.

In order to expedite the proceedings, which is one of the objectives of the journal, we do not require a full report on the paper from the referees. The choice of referees and the fact that we require a consensus view between the referees and an editor ensures, however, that the process is as fair as possible.

Your article will be published in "EUROPEAN JOURNAL OF SOCIAL SCIENCES" Volume 31 Issue 3.

Yours sincerely,

Adrian Marcus Steinberg, PhD  
Managing Editor
The degree of use by secondary school teachers in the Hashemite Kingdom of Jordan of education technology of the educational /learning process and its relationship with some variables

Mohammad Saleem AL Z boon
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The study aimed at identifying the degree of use by secondary school teachers in the Hashemite Kingdom of Jordan of education technology of the educational /learning process and its relationship with some variables. The survey was limited to secondary school teachers at the directorate of Education in the governorate of Zarqa. The study sample consisted of (620) male and female teachers who teach at the secondary level for the academic year 2009/2010.

A questionnaire consisting of (30) paragraphs was used to measure the degree of teachers’ use. The results of the study showed that the degree of use of secondary school teachers in the Hashemite Kingdom of Jordan to education technology of the educational/learning process was significant. The results further showed that there are no statistically significant differences attributable to the variables of gender, qualifications and teaching experience.

In light of the results of the study, the researcher presented a set of recommendations that would hopefully be of benefit to the experts of the education policy, curricula and teachers in schools, in order to mainstream the use of IT education in the educational/learning process.

(Keywords: technology of education, the educational learning process)
Introduction to the Study

Education has been gaining lots of interest day after day, by considering its important role in individuals and communities within the world’s rapid changes and challenges that are witnessed today such as; the information and knowledge revolution, technical and scientific progress as well as democracy trends and the globalization’s challenges that included all walks of like.

Therefore, countries work hard through their educational systems for the sake of preparing individuals for the present and the future, that requires considering education through a comprehensive outlook for adapting all changes and challenges, in order to ensure that education as a real opportunity for growth of the individuals’ personalities, developing their creative innovative abilities, creating individuals capable of adaptation, work and moving from one place to another easily and smoothly.

The new phase requires new educational and teaching methods; education shall be opened to the basics of knowledge which can only be realized only through earning the self-learning skills that enable individuals to reach the knowledge resources, adapt with the content of information, understand and criticize them by getting skills of scientific thinking and applying these skills in practical life (Weh 2003).

Updating the teacher’s qualifications and roles in the century of knowledge economy, is represented in academic abilities and skills, high emotional features, challenge, creativity and distinctiveness skills, as well as the ability to lead the class, and justice in practices within the new roles.

Modern education needs a modern teacher educationally and technologically qualified, as today’s teaching has moved from tradition memorizing and simulation to a vocation of drawing the strategic plan, and following systems method, which means following an approach, method, and a way in organized steps towards the knowledge goals through advanced technological educational channels. Since education became an art and science, there must be strong structure to ensure success of the teacher, based on various experiences to be used in teaching, and employing several ways that fit to the subject he/she teaches and to the good behavior (Al Ghoul 2002).

Education technology is an incessant need to develop educational systems of designing education field. The huge information flow, diversity of knowledge channels and population explosion, the decreasing practical learning-teaching qualification, the improvement of education process, its outcomes and communications revolution, the emergence of new methods, scientific and technological growth in many fields, and the constant need to specialized individuals, all the above necessitate inserting
education technology to the educational process, and employing it to develop teaching-learning process in light of the systems theory, as it is a system that suits the culture of creativity and innovation we are witnessing nowadays.

Many definitions were formed for the education technology concept; the British Council defined education technology as: the development in applying and correcting techniques, systems and methods to improve processes of human learning (Percival & Ellington, 1988).

Education technology is defined as: the way of teaching by using modern communication techniques, like computer, its networks and multi-media, including sight, sound, animations, research and electronic libraries, as well as internet channels, whether inside the class room or in remote learning. What matters is using technology with all its forms to transfer information to the learner in least time and effort, but most advantage (Al Mousa 2004).

Thus, many education experts believe that it is possible to benefit from technology in developing education systems and increasing their efficiency and competence. By using education technology, a new educational frame can be found to enhance quality and quantity of direct interaction between students and various sources of knowledge, and connect general objectives of education with all mechanical, human, and structural inputs of education system; education technology is an integrated process that includes individuals, methods, ideas, tools and systems that are used in solving programs, as applying and managing such factors makes the educational process oriented, meaningful and convenient (Al Hilah 2000).

It is important to note that using education technology contributes in reforming the educational systems, providing effective educational environment, self-learning opportunities and remote learning. It also helps in changing strategies of preparing and training teachers, reducing time and effort consumed in gaining knowledge and information, providing rich sources for teachers and learners to enable them in choosing the suitable information and connecting the educational institutes together (Al Far 2002).

Furthermore, using education and information technology in the learning-teaching process helps and promotes the learner's drive towards knowledge gaining; it also provides opportunities for teachers and students alike to realize the desired goals correctly. Using modern technology is not limited to the learning-teaching process, it also includes administrative work at schools and all educational institutions. One of the most important uses of education technology (ET) in this domain is preparing files, budgets, the administrative plan, marks book, providing training opportunities and educational development for teachers and those working in the education institution, it is also used to provide a chance of constant teaching for learners outside school (Basiouni 2002).
ET, as a technical input, is a must for the 21st century in preparing a generation that is able to handle today’s language, and raising this generation in contact with life and community, so that they can recognize the real life and actual concerns of the community. A student is the major aspect of the learning-teaching process, and they are the goals of this process and the main target of education development process (Abdel Dayem 1981).

The First National Conference of Educational Development held in 1987, revealed that Jordanian education process needs to take advantage from educational techniques in general and computers in particular. Recommendations of the Conference called for providing computer room in each school, primary and secondary; thus, the Ministry of Education founded educational computer directorate in 1988 to contribute to developing and updating education, preparing and qualifying students to adapt in an advanced technological environment, and all schools were furnished with necessary computers.

Study’s matter & questions:

Subject of this study represents in identifying the level of secondary school teachers’ using education technology in the learning-teaching process. The study aims at answering the following questions:

Q1: How much do secondary school teachers use education technology (ET) in the educational process?
Q2: Are there statistical differences in the level of using ET by secondary school teachers in Jordan in the educational process, that are attributed to variables of gender, academic competence and teaching experience?

Importance of the study:

Today we live in technology and globalization century, sciences are quickly developing, and we must exert more efforts to keep pace with such development, especially knowledge and education explosion. During the last few years, interest in the role of technology in education has been increasing, as it is very important in the students’ growth and improvement, so that they become able to adapt with the century and its innovations.

Goals of the study:
This study aims at identifying the level of using ET in education by secondary school teachers in Jordan, as well as observing the effects of some variables on detecting that level (gender, academic qualification, and teaching experience).

Previous studies:

• Hussein (1988) conducted a study aimed at detecting the reality of using educational methods, and the challenges that hinder such use, on a sample of 301 male and female teachers at 6 colleges. Results showed that there is positive attitude towards using technological means in education.

• Chuang (1998) study tried to specify technology teachers’ attitude towards using computers as tools for teaching and learning, and to determine their personal capacities and skills in teaching students how to use school computers depending on programs of technology teaching.

The sample consisted of 294 persons, and the study came up with many results: technology teachers in Taiwan enjoy positive attitude towards using computers in education, and there are no statistical differences attributed to variables of gender, age, experience years, academic level and specialization.

• Piper (2000) conducted a study to identify factors effecting the use of computers in classrooms; the study sample consisted of 160 male and female teachers from 9 educational districts in the state of Pennsylvania.

The study adopted analytic descriptive approach, and the results were: there are some factors that may affect using computers in classrooms, such as intended use of books, academic use, and advanced use, the above were found out within four variables: experience & knowledge, perception of leadership, self sufficiency and tendency to computers. The findings also indicated that the above variables positively affect the learning of computer.

• Al Amawi (2003) conducted a study with the aim of observing the reality of educational techniques in primary schools of Irbid province, in regard to availability of educational resources and tool and using them, taking into account gender, academic major, teaching experience and training variables. In addition to detecting obstacles that prevent using educational technologies. The study sample included 662 male and female teachers, and a questionnaire was prepared to realize his study goals, and it came up with several results indicating that there are statistical differences in using education tools and equipment, attributed to the variable of gender, training courses, experience and academic major in favor of female teachers.
The study also pointed out that there is a set of obstacles hindering the use of educational methods, and that some of these obstacles related to administration, the teacher or the method itself.

- Al Jamlan (2004) study aimed at discovering reality of using ET in education centers in the Kingdom of Bahrain as seen by specialists on learning centers. The researcher used analytic descriptive methodology in implementing his study, and prepared a measurement for the opinions.

  The results of the study indicated that the opinions of specialists in learning sources centers were positive in regards to using ET, besides some advantages and disadvantages of using it, such as unavailability of regular maintenance of the tools and inability to produce information programs and software.

- The study of Hamdi & Al Balawi (2010) aimed at measuring the level of teachers’ readiness in Jordan to adapt with future challenges that may result from using ITC in education.

  The study results found that teachers enjoy a high level of readiness that enable them to adapt with future challenges resulting from using ITC in education, they are also ready to shoulder their future roles as ITC may suggest, regardless of their academic levels, but there are differences in the level of readiness, that appeared in gender and experience variables in favor of male teachers and those of modest experience, successively.

- Steve Kennewell, Howard Tanner, Sonia Jones, Gary Beauchamp (2007) made a study on the degree of using interactive board by teachers, and its tole in upgrading the main skills as reading, writing and mathematics, by focusing on class teaching and interactive teaching. Teachers gave many reasons for using interactive board, namely: flexibility, diversity, multimedia, saving, printing, teaching ITC and qualification.

  The study led to several findings: that interacting between students and teachers is a key factor in promoting the educational process, since it encourages students to ask questions and activate a dialogue between students and teachers. Another finding was that teachers encourage using interactive board in the learning-teaching process, and that there are features of ITC such as interactive boards that teachers shall use, such features include speed, range, ability, interaction, and spontaneous.

Terms of the study:
• Secondary school: is a phase of education of two years and four academic chapters that follow the primary phase of education and it ends by the first ten years of a learner's age.

• Education technology (ET): planning and designing programs and educational curricula and the methods of applying them including learning-teaching material and situations-managing and correcting the learning-teaching process. In other words, it means using technology in education, as educational techniques, educational media and others in the learning-teaching process.

Limitations of the study:

The study was limited to male and female teachers of secondary school in the Directorate of Education in Al Zarqa province, during the 2nd semester of the academic year 2009/2010.

Approach and procedures of the study:

The used approach

The study used the descriptive approach which describes the phenomena, by collecting data about it, sorting out the data, analyzing it, and connecting it to their indications and significance, in order to understand the matter of study, as well as the variables of effect using the questionnaire. It determined the study sample, the used tool, the application and suitable statistical analysis for the study goals and questions.

Study community:

The study community consisted of all secondary school teachers of males and females at the Education Directorate in Al Zarqa province, as the community amounted to 1240 male and female teachers, so specified in table (1):
Table (1): distribution of the study community members on the Education Directorate of Zarqa for the academic year 2009/2010

<table>
<thead>
<tr>
<th>Gender</th>
<th>Male</th>
<th>Female</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>No.</td>
<td>721</td>
<td>619</td>
<td>1340</td>
</tr>
</tbody>
</table>

Study sample:

The study sample was chosen from male and female teachers of secondary school in random simple way. The sample was specified to be 50% of the study community, which equals 620 male and female teachers. See table (2).

Table (2): distribution of the sample members upon the variable of gender, academic qualification, and years of experience in teaching

<table>
<thead>
<tr>
<th>Variables</th>
<th>No.</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>706</td>
<td>%41</td>
</tr>
<tr>
<td>Female</td>
<td>314</td>
<td>%59</td>
</tr>
<tr>
<td>Academic qualification</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BA</td>
<td>389</td>
<td>%63</td>
</tr>
<tr>
<td>BA + Diploma</td>
<td>140</td>
<td>%23</td>
</tr>
<tr>
<td>Masters degree +</td>
<td>91</td>
<td>%14</td>
</tr>
<tr>
<td>Experience in teaching</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less than 5 years</td>
<td>246</td>
<td>%40</td>
</tr>
<tr>
<td>5 – 10 years</td>
<td>170</td>
<td>%28</td>
</tr>
<tr>
<td>10 +</td>
<td>199</td>
<td>%32</td>
</tr>
<tr>
<td>Total</td>
<td>720</td>
<td>%100</td>
</tr>
</tbody>
</table>

Study tool:

The study used the questionnaire as a main tool to achieve its goals and answer its questions. The questionnaire included many paragraphs to measure the level of using ET by secondary school teachers of Jordan in the learning – teaching process. the following measures were taken to design the tool:

Reviewing educational literature related to ET and its techniques- designing a questionnaire in form of phrases marking the level of using ET by teachers in the learning – teaching process. Each phrase was given a scale on the teachers' responses as the following: very high degree (5 points), high degree (4 points), medium degree (3 points), low degree (2 points), very low degree (1 point).
Accuracy of the study tool:

The questionnaire was reviewed by 10 arbitrators of the faculty in the University of Jordan, and they raised some notes regarding the paragraphs’ relevance to the study, so some of them were reformulated and other were omitted, making the paragraphs of the questionnaire 30, after the arbitrators’ amendments.

Reliability of the study tool:

To ensure reliability of the tool it was checked using test-retest on a sample of 30 male and female teachers two weeks ahead. Pearson's coefficient of correlation was calculated between the test application results and the retest application results, and the correlation coefficient of the tool's paragraphs reached to 0.85.

Statistical processing:

After collecting data, they were uploaded into the computers, using the statistical systems SPSS. Statistical procedures were taken in the following order:

To answer the 1st question, average and standard deviation of each paragraph of the study tools and of the tool as whole. To answer the 2nd question average, deviation and T-test was conducted as well as one-way analysis of variance to find out the significance of differences in using ET in the learning-teaching process which varies upon each variable of the study.

The study adopted the measurement in table (3) to review the level of using ET, through the average of each paragraph of the tool paragraphs:

<table>
<thead>
<tr>
<th>Level of use</th>
<th>Average category</th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
<td>≥ 2</td>
</tr>
<tr>
<td>Medium</td>
<td>1.69 – 2</td>
</tr>
<tr>
<td>Low</td>
<td>Less than 3</td>
</tr>
</tbody>
</table>

Discussion of the study results:
This part tackles the findings of the study in hand, and discusses them, as follows:

First: Findings in regards to the 1st question

Question one: how much do secondary school teachers in Jordan use ET in the learning-teaching process?

To answer this question average and deviation of each paragraph of the tool and the total were found, as clarified in table (4).

Table (4): averages & deviations of the sample members’ scales of using ET in the learning – teaching process, in descending order

<table>
<thead>
<tr>
<th>Use level</th>
<th>Deviation</th>
<th>Average</th>
<th>Paragaphs</th>
<th>No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
<td>1.83</td>
<td>4.79</td>
<td>I use ET as it enriches the academic curricula</td>
<td>1</td>
</tr>
<tr>
<td>High</td>
<td>1.99</td>
<td>4.78</td>
<td>I try to use suitable software to recognize the wrong and right in work during practice and training</td>
<td>2</td>
</tr>
<tr>
<td>High</td>
<td>1.97</td>
<td>4.78</td>
<td>I use ET as it helps raising the students’ level and avoid plain verbalism</td>
<td>3</td>
</tr>
<tr>
<td>High</td>
<td>1.76</td>
<td>4.77</td>
<td>I use ET in teaching many trainings by putting teachers in situations that motivate them to think</td>
<td>4</td>
</tr>
<tr>
<td>High</td>
<td>1.79</td>
<td>4.77</td>
<td>I use ET as it helps developing positive attitudes towards the subject.</td>
<td>5</td>
</tr>
<tr>
<td>High</td>
<td>1.97</td>
<td>4.77</td>
<td>I use ET as it meets the increasing needs of learners through their positive participation</td>
<td>6</td>
</tr>
<tr>
<td>High</td>
<td>1.96</td>
<td>4.76</td>
<td>I use ET as it provides a kind of equal opportunities among students</td>
<td>7</td>
</tr>
<tr>
<td>High</td>
<td>1.88</td>
<td>4.76</td>
<td>I use ET as it contributes to increasing the learner’s experience about the subject they study</td>
<td>8</td>
</tr>
<tr>
<td>High</td>
<td>1.88</td>
<td>4.76</td>
<td>I use ET as it helps to consider individual differences among students.</td>
<td>9</td>
</tr>
<tr>
<td>High</td>
<td>1.74</td>
<td>4.74</td>
<td>I use ET to employ the necessary skills of the learning-teaching situation</td>
<td>10</td>
</tr>
<tr>
<td>High</td>
<td>1.70</td>
<td>4.73</td>
<td>I use ET as it helps learners keep pace with all developments related to the subject they study</td>
<td>11</td>
</tr>
<tr>
<td>High</td>
<td>1.93</td>
<td>4.73</td>
<td>I use various software programs for their role in individualizing education.</td>
<td>12</td>
</tr>
<tr>
<td>High</td>
<td>1.70</td>
<td>4.71</td>
<td>I use internet to gain knowledge quickly</td>
<td>13</td>
</tr>
<tr>
<td>High</td>
<td>1.70</td>
<td>4.71</td>
<td>I intend using internet to know the latest programs and use them in teaching</td>
<td>14</td>
</tr>
<tr>
<td>Use level</td>
<td>Deviation</td>
<td>Average</td>
<td>Paragraphs</td>
<td>No.</td>
</tr>
<tr>
<td>-----------</td>
<td>-----------</td>
<td>---------</td>
<td>-----------------------------------------------------------------------------------------------</td>
<td>-----</td>
</tr>
<tr>
<td>High</td>
<td>.96</td>
<td>4.18</td>
<td>I use computer as it stimulates more than one sense of the learner's</td>
<td>10</td>
</tr>
<tr>
<td>High</td>
<td>.81</td>
<td>4.10</td>
<td>I intend to use ET as it helps in solving the problem of jammed classes</td>
<td>11</td>
</tr>
<tr>
<td>High</td>
<td>.74</td>
<td>4.14</td>
<td>I use ET as it can call the students’ attention during teaching</td>
<td>17</td>
</tr>
<tr>
<td>High</td>
<td>.92</td>
<td>4.13</td>
<td>I use ET to change and vary in the promotion methods</td>
<td>18</td>
</tr>
<tr>
<td>High</td>
<td>.20</td>
<td>4.12</td>
<td>I search the internet for educational studies related to teaching</td>
<td>19</td>
</tr>
<tr>
<td>High</td>
<td>1.15</td>
<td>4.11</td>
<td>I use ET to determine the suitable academic material to realize the lesson’s goals</td>
<td>20</td>
</tr>
<tr>
<td>High</td>
<td>.87</td>
<td>4.11</td>
<td>I use ET which contributes to retain attitude and creates new scientific orientations</td>
<td>21</td>
</tr>
<tr>
<td>High</td>
<td>.83</td>
<td>4.10</td>
<td>I use ET as it simplifies reviewing some lab experiments that complement the learning-teaching process</td>
<td>22</td>
</tr>
<tr>
<td>High</td>
<td>.90</td>
<td>4.18</td>
<td>I look for ET methods that help to understand the scientific content</td>
<td>23</td>
</tr>
<tr>
<td>High</td>
<td>.89</td>
<td>4.11</td>
<td>I use ET as it helps clarifying terms and material to the student</td>
<td>24</td>
</tr>
<tr>
<td>High</td>
<td>.88</td>
<td>4.10</td>
<td>I use ET, especially computer, as it helps in correcting information and referring to them</td>
<td>25</td>
</tr>
<tr>
<td>High</td>
<td>.93</td>
<td>3.98</td>
<td>I use ET in exams to find out results directly</td>
<td>26</td>
</tr>
<tr>
<td>High</td>
<td>.97</td>
<td>3.90</td>
<td>I encourage students to use ET as it helps in self-learning</td>
<td>27</td>
</tr>
<tr>
<td>High</td>
<td>.96</td>
<td>3.93</td>
<td>ET helps to deep root the lessons in the students’ memories for a long time</td>
<td>28</td>
</tr>
<tr>
<td>High</td>
<td>.94</td>
<td>3.91</td>
<td>I use ET to motivate the students’ drives</td>
<td>29</td>
</tr>
<tr>
<td>High</td>
<td>1.02</td>
<td>3.73</td>
<td>I use ET as it promotes cooperation and teamwork among students</td>
<td>30</td>
</tr>
<tr>
<td>High</td>
<td>1.49</td>
<td>4.14</td>
<td>Total</td>
<td></td>
</tr>
</tbody>
</table>
Table (4) shows that the total of averages for the tool paragraphs recorded high levels, with average of 4.14 and a deviation 0.79. Averages ranged between 4.29 (the highest scale) for the paragraph "I use ET as it enriches the curricula", and 3.73 (lowest scale) for "I use Et as it promotes cooperation and mutual work among students".

This result is attributed to the teachers' interests in ET, that represent in positive practices using various methods of ET; as the technology revolution in different fields affected education, its concept, goals and programs methods, thus, it is normal that such changes include the academic and professional preparation of teachers.

The educational strategy of Jordan has proven the importance of teacher's role in the renovation process of education. Education is a renewable method which depends on the teacher's experience, preparation and rehabilitation, in addition to the teacher's satisfaction with ET's role, their awareness on its concept and importance in education, and the willingness to develop themselves in ET.

It is important to note that the Ministry of Education in Jordan obliges passing the ICDL test to allow assignation of teachers, and such condition forces teachers to use computers for a while; moreover, observers of the Jordanian experience in ET note the idea adopted by His Majesty, King Abdullah II, which calls for spreading the use of ET in all fields especially education. The Ministry, thereof, shouldered the responsibility of realizing this vision by providing all the Kingdom's schools with computers, and connecting them to the internet, as well as computerizing academic curricula, and constant training courses for teachers. Now teachers are well aware of the importance of ET in the learning-teaching process in developing student's comprehension and training them on mutual work, considering individual differences and self-learning.

Second: results regarding the second question:

Are there any differences of statistical significance in the level of using ET in education by secondary school teachers in Jordan, in relation to variables of gender, academic qualification, and teaching experience?

To answer this question it was divided into three sub-questions, and results of each sub-question was extracted as below:

Results in regards to Q2- a: Are there statistical differences in the level of using ET in the learning-teaching process, by secondary school teachers in Jordan that related to the gender variable?
To answer this question averages, standard deviations, and T-test on separate samples were found out on the significance level $\alpha \leq 0.05$. See table (5).

Table (5), averages, standard deviations & T-test results to detect the significance level of the average of applying ET in learning-teaching process upon gender variable

<table>
<thead>
<tr>
<th>Significance level</th>
<th>Freedom degree</th>
<th>P value</th>
<th>Standard deviation</th>
<th>Average</th>
<th>No.</th>
<th>Gender</th>
</tr>
</thead>
<tbody>
<tr>
<td>$0.92$</td>
<td>$777$</td>
<td>$1.79$</td>
<td>$7.94$</td>
<td>$39.13$</td>
<td>$301$</td>
<td>Male</td>
</tr>
<tr>
<td>$7.04$</td>
<td></td>
<td>$38.0$</td>
<td></td>
<td>$364$</td>
<td></td>
<td>Female</td>
</tr>
</tbody>
</table>

We can note from table (5) that there are no differences of statistical significance on the significance level $\alpha \leq 0.05$, in detecting the level of using ET in the learning-teaching process by Jordanian secondary school teachers. This finding can be related to the type of courses that students and teachers receive in different domains, as well as the keenness of the Ministry of Education to prepare teachers academically, professionally and behaviorally.

This pushed both sides to follow the same method in handling the class and dealing with the students, since differences began to diminish between the two sexes, which we can attribute to opening education opportunities to both males and females, and eliminating judgment on people upon their genders, the both receive the same care and treatment, such factors reduced differences among both males and females' opinions in education, learning and teaching issued.

Moreover, the Ministry of Education adopted many modernizing projects to elevate the social and economical level of teachers and to upgrade the teaching vocation in general, this includes: adopting rating system for teachers and applying considering professional growth, order, creativity and fine performance, in order to promote teachers gain the specialized qualifications and constantly develop them, especially in the field of employing ET regardless of gender, the only attention shall be paid to quality and performance.

The system shall also include raising the performance level of teachers through designing quality training programs for them upon the needs, to enable them master and improve teaching skills, by focusing on training teachers on advanced curricula, improving strategies and methods of teaching various subjects, and promoting technological training which comprises: training related to teachers’ ranks as (ICDL), and those related to educational use of ICT like (INTEL).

**Results regarding Q2-b:** are there any differences of statistical significance in the level of using ET in the learning-teaching process by Jordanian secondary school teachers, that are related to the academic competence variable?
To answer the above question, averages and deviations were calculated as stated in table (6).

Table (6) averages & standard deviations of the level of applying ET in the learning-teaching process by teachers, in relation to the academic qualification variable

<table>
<thead>
<tr>
<th>Standard deviation</th>
<th>Average</th>
<th>No.</th>
<th>Academic qualification</th>
</tr>
</thead>
<tbody>
<tr>
<td>7.18</td>
<td>38.27</td>
<td>389</td>
<td>BA</td>
</tr>
<tr>
<td>8.59</td>
<td>39.21</td>
<td>140</td>
<td>BA + Diploma</td>
</tr>
<tr>
<td>1.22</td>
<td>38.87</td>
<td>91</td>
<td>Masters degree +</td>
</tr>
<tr>
<td>7.20</td>
<td>38.07</td>
<td>72</td>
<td>Total</td>
</tr>
</tbody>
</table>

Results of table (6) indicate that averages of opinions of secondary school teachers in Jordan on the level of using ET in education contain mild differences; to know if these differences have statistical significance the one-way analysis of variance was conducted on the significance level $\alpha \leq 0.05$. Results came up as in table (7).

Table (7), results of one-way analysis of variance (V) to detect the significance level of differences in teachers' use of ET in education upon the academic qualification variable

<table>
<thead>
<tr>
<th>Significance level</th>
<th>P value</th>
<th>Squared averages</th>
<th>Freedom degree</th>
<th>Squared total</th>
<th>Source of variance</th>
</tr>
</thead>
<tbody>
<tr>
<td>.04</td>
<td>.068</td>
<td>50.76</td>
<td>7</td>
<td>91.31</td>
<td>Between groups</td>
</tr>
<tr>
<td></td>
<td></td>
<td>52.10</td>
<td>121</td>
<td>33777.77</td>
<td>Inside groups</td>
</tr>
<tr>
<td></td>
<td></td>
<td>52.3</td>
<td>123</td>
<td>33707.79</td>
<td>Total</td>
</tr>
</tbody>
</table>

Results in table (7) reflect no statistical differences (on level $\alpha \leq 0.05$) in the opinions of secondary school teachers on their level of using ET in education in relation to the academic qualification variable, this finding is attributed to the teachers awareness of the education philosophy in Jordan, the publishing of this philosophy in the teachers' magazine, and to the education supervisors’ stress on the necessity of using modern technology channels in the process of explaining lessons, in addition to the Ministry's courses for teachers in all fields, and the requirement of ICDL & INTEL certificates, preparing educational and obligatory programs that teachers must gain regardless of their academic qualification.

The keenness on developing teachers' knowledge, skills, personality and workspace upon the teachers' needs and requirements, is a major element for teachers' development; therefore, a teacher shall be connected and constantly updated with the latest developments in her/his major and ways of teaching it.
Results on Q2- c: are there statistical differences in the level of using ET in education by secondary school teachers in Jordan, in relation to the experience variable?

To answer the above question, averages and deviations were calculated as stated in the table below.

Table (8), averages & standard deviations of applying ET in education by teachers upon the experience variable

<table>
<thead>
<tr>
<th>Deviation</th>
<th>Average</th>
<th>No.</th>
<th>Experience</th>
</tr>
</thead>
<tbody>
<tr>
<td>7.28</td>
<td>38.72</td>
<td>246</td>
<td>Less than 5 years</td>
</tr>
<tr>
<td>7.73</td>
<td>38.84</td>
<td>170</td>
<td>5-10 years</td>
</tr>
<tr>
<td>7.09</td>
<td>38.12</td>
<td>199</td>
<td>More than 10 years</td>
</tr>
<tr>
<td>7.45</td>
<td>38.05</td>
<td>220</td>
<td>Total</td>
</tr>
</tbody>
</table>

Results in table (8) show that averages of opinions of secondary school teachers in Jordan on the level of using ET in education, reflect few differences. To know if these differences have statistical significance the one-way analysis of variance was conducted on the significance level \( \alpha \leq 0.05 \). Results came up as in table (9).

Table (9), results of one-way analysis of variance (V) to detect the significance level of differences in teachers' use of Et in education upon the experience variable

<table>
<thead>
<tr>
<th>Significance level</th>
<th>P value</th>
<th>Squared averages</th>
<th>Freedom degree</th>
<th>Squared total</th>
<th>Source of variance</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.05</td>
<td>0.60</td>
<td>31.11</td>
<td>4</td>
<td>77.31</td>
<td>Between groups</td>
</tr>
<tr>
<td></td>
<td></td>
<td>22.70</td>
<td>22</td>
<td>222.94.77</td>
<td>Inside groups</td>
</tr>
<tr>
<td></td>
<td></td>
<td>223</td>
<td></td>
<td>222.94.77</td>
<td>Total</td>
</tr>
</tbody>
</table>

Results in table (7) indicate that there are no statistical differences (on level \( \alpha \leq 0.05 \)) in the opinions of secondary school teachers on their level of using ET in education in relation to the experience variable. This finding may refer to the knowledge explosion and spread of modern media and technology channels in all fields, which made teachers' access to different media channels easy; therefore, the gap between teachers who have long experience and those who don't, or with less experience, became narrower.

Teachers of various backgrounds have clear image on the modern educational programs that develop the learning-teaching process. In Jordan, the Ministry of
Education is always keen on academic and behavioral preparation of teachers, whether before or during their service, regardless of their teaching experience.

**Recommendations:**

Within the study outcomes of the study, it recommends the following:

1- To adopt an educational strategy by using education technology (ET) in order to keep pace with the present time and to overcome all issues related to dealing with educational means and channels.

2- To raise teachers' awareness on the importance of using ET and its role in improving and developing the outcomes of teaching.

3- To hold more training courses and workshops specializing in using ET in the learning-teaching process.

4- To connect schools with internet, in light of its importance in education.
References


