EFFECTIVENESS OF USING YOUTUBE IN ENHANCE THE LEARNING OF COMPUTER IN EDUCATION SKILLS IN NAJRAN UNIVERSITY

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ABSTRACT_ *YouTube is become global tool that allows learning without restrictions, as it allow for active, constructive, and interactive learning opportunities. Learning through video on YouTube achieves better learning outcomes of computer skills. This study aimed at examining the effectiveness of using YouTube to improve learning computer skills in education at the Najran University. The study has implemented a quasi-experimental approach using experimental and control groups with pre and post measurement. The study sample composed of (48) students at level two of General Diploma in Education, those are registered in "Computer In Education" course in second semester of the academic year (1435 – 1436 Ah/ 2014 - 2015). The study finding: there are statistically significant differences at the level of (0.05) between the students' scores mean of experimental group achievement test (learned using YouTube) and students' scores mean of control group (learned using traditional method) in the post measurement of the academic achievement test and in the post measurement of the observation card for using computer in education skills favoring to the experimental group.*
Conclusion: YouTube is an effective tool in teaching computer skills and in cognitive achievement.
KEY WORDS: *YouTube, learning computer, computer in education, Najran University.*

I.   INTRODUCTION:

Web 2.0 basically refers to the transition from static HTML Web pages to a dynamic Web that is more organized and based on serving Web applications. The Web 2.0 applications provide more features to learning from internet. Its allowing self-learning opportunities, which provide many relevant features take into account individual differences, and supporting the student to master knowledge and skills according to own pace, and choosing learning time preferred, and thus achieve better learning outcomes. The students can learn from self-paced according to their abilities, educational needs and the labor needs, these features are in the ultimate goal of learning experiences that are lifelong learning.

The researchers in the current study used (YouTube) as an essential tool in teaching computer in education skills. YouTube has high potential for improving the learning skills of students. Mann [1] confirmed that the educational videos through YouTube are effective means of communication and easy to use, and it has great educational value. Many educators confirmed that YouTube content production represents a kind of educational practice that leads to and helps developing a deeper understanding of the learning subject [2].

YouTube video tutorials are considered highly effective tools in learning skills in general and in particular computer skills where the content is employed and integrated into multimedia application that reflects the reality of the applying skills and renderings leading to deeper understanding [3].

According to Fathallah [4] "educational video clips is a recorded educational situation that includes real elements, ranging in length between (3-7) minutes, and teaches a specific goal".

YouTube provides many services including upload, download, watching and sharing video. YouTube allow exchange views and proposals about the video, also allocation channels for transfer lectures and conferences, and channels for courses which display a series videos to explain the skills and educational experiences. Due to the dense use of YouTube in educational purposes, Google launched the service "YouTube for Schools" which includes video clips of educational materials and courses.

The educational uses of YouTube have great important, as it allows active, constructive, and interactive learning opportunities. Learning through YouTube videos achieve better learning outcomes of computer skills due to YouTube make videos available anytime and anywhere, with high quality, and the possibility of video repeat or stop and complete later, as it contributes in developing visual education skills, read images, graphs faster and easier without conceptual errors. YouTube also encourages teamwork activities through videos sharing among the students group, which bring fun learning and makes learning meaningful with more period of retention. In addition, YouTube can also be used as a container for E-portfolio for the student and teacher alike, where the teacher can keeps students works and provide an opportunity to evaluate student with high level of transparency.

In recent times several studies highlighted the importance of YouTube and its effectiveness in improving student learning. McMullen [5] confirmed the role of YouTube in supporting and developing the curriculum, making learning experiences meaningful, and helps to facilitate learning according to educational strategies supported by the use of digital video clips. While Zahn et al. [6] study recommended the need to develop teacher

skills, professionally and technology through a mental frame of mind maps; so they can do constructive educational practices using YouTube. It seems that the use of YouTube in the educational process has become at the forefront of the uses of YouTube. Rice et al. [7] confirmed that educational research in second rank in the categories for priority research to participate in the video uploaded on "YouTube" website over the next five years.

Tools and techniques of Web2.0 has allowed the establishment of many virtual communities between individuals with similar interests and orientations, so Woodard [8] confirmed the need to use and recruitment of social networking in the teaching and learning processes, led by YouTube. So the issue about benefit from YouTube features in the educational process has become inevitable, especially in learning computer skills and their application in education. Educational videos can be included and uses from YouTube in teaching and learning processes which displays explanations and clarifications about the concepts and skills of using computer in education according to the course syllabus.

In this regard Procopio [9] referred to the methods and activities related to using YouTube that provides students with opportunities to improve their skills and courses achievement, also help them to interact and acquisition them the skills of the labor market. Procopio also reported that the teaching students the use of YouTube as a learning tool makes them show high enthusiasm and increased interaction and convergence among them. Woodard [8] referred that the use of YouTube in education make learning more fun and has led to the well-being and satisfaction of students on learning activities, in addition to enrich the educational situation with new ideas, and the exchange of useful ideas between students and their teachers.

Despite the recommendations of several international literatures the need for including video tutorial through YouTube in teaching, which has become very important to meet young people's needs and desires in learning through educational technology; there is a dearth of Arabic studies that recommend the use of YouTube as an educational tool. Therefore, this study is in response to the recommendations of many studies, conferences and aware of the importance of YouTube in improving students' skills in computer literacy.

Study aim and questions:

The current study aimed at examining the effectiveness of using YouTube in improving learning computer skills in education at the Najran University, through these questions:

1. What are computer skills in the education target in "computer in education" course?

2. What is the effectiveness of using YouTube in improving learning computer skills in Education at the Najran University?

II. METHODOLOGY

The current study aimed to examine the effectiveness of using YouTube in improving learning computer skills in education at the Najran University. A quasi-experimental approach was used with the experimental design of experimental and control groups and the utilization of pre and post testing methodology.

3.1 Participants:

The study sample composed of (48) students enrolled in General Diploma in Education, level two, and who are registered for the "Computer In Education" course in their second semester of the academic year (1435 – 1436 Ah/ 2014 - 2015). They were randomly divided into two groups: experimental group (n = 25) students (who are taught using YouTube), and control group (n = 21) students (who taught by using the traditional method).

3.2 Study limitation:

The study was limited to a sample at Najran University whom registered in Computer in Education course in General Diploma in Education. The study focused on Computer in Education course in level II, the study will applying in second semester of the academic year 1435-1436 AH/ 2014 - 2015.

III. INSTRUMENTATIONS

3.3.1 Computer in education skills list:

The researchers prepared a list of computer skills used in education composed of nine major skills and 60 sub-skills and presented it to a number of reviewing panel (6) in the field of educational technology in order to determine the validity of the list. Reviewing panel has approved some amendments to this list, including: the division of skills to master skills falls into sub-skills, add some sub-skills and delete some of them to be repeated.

3.3.2 Achievement test:

In the light of the of "Computer In Education" course syllabus, educational objectives and course content, the researchers prepared an achievement test with multiple choices and true and false questions; the test made up of (50) clauses, divided into (25) multiple choices, and (25) true and false. The researchers presented it to a number of reviewing panel (6) in the field of educational technology in order to determine the validity of the test. Reviewing panel has approved some amendments to this test, including: amend the wording test vocabulary, as well as redesign of some alternatives, and modifying test instructions for each section.

Pilot study was conducted in order to calculate the test reliability through Cronbach's Alpha coefficient. Result was (0.833) which indicates the reliability of the test and that it is ready for application.

3.3.3 Observation card:

In order to measure students' capabilities in using computer skills in education, the researcher prepared an observation card to measure the extent to which students are using computer skills in education. The observation

card consisted in its final format (50) statements describing the usage of computer skills in education on a Likert type scale of four choices. (High=3 – medium = 2 – low = one – unavailable = zero).

In order to assure the validity of the observation card, the researcher presented the observation card to a group of experts (6) in the field of educational technology. A percentage of agreement among experts on the validity of the test statements was (89.7%). The Cronbach's Alpha coefficient for the observation card was (0.833) which indicates the reliability of the observation card and that it is ready for application.

3.4 Data analysis:

The researchers are used statistical methods to analysis data raw; the t-test measures the differences between the study groups in achievement and acquisition skills. Calculate ETA square for effect size.

3.5 Pretest measurement:

To assure groups equality, a pre-test was applied to measure participants' academic achievements and skills acquisition in using computer skills in education. Results of pre-test showed that there are no statistically significant differences between groups as illustrated in table (2):

TABLE 1
results of pre- achievement test for equality of experimental and control groups

Group	N	mean	Std deviation	df	t	Sig.
Experimental	25	12.68	4.89	42.48	0.532	0.597
Control	21	11.90	4.95			

Table (1) showed that (t) value was (0.532) which is less than the value of tabular t (2.021) at the significant level of (0.05), which means that there are no statistically significant differences between groups in the pre-test of academic achievement; thus, can explain the equality of experimental and control groups for the dependent variable (academic achievement).

The researcher ensured the groups equality (experimental and control groups) in using computer skills in education, as the results of pre-test of the performance observation card showed that there are no statistically significant differences between groups in the practical test of using computer skills in education as illustrated in table (2):

TABLE 2
results of pre-test of performance observation card for equality of experimental and control groups

Group	N	mean	Std deviation	df	t	Sig.
Experimental	25	13.40	4.62	43.89	0.647	0.521
Control	21	14.24	4.06			

Table (2) showed that the (t) value is (0.647) which is less than the value of tabular t (2.021) at the significant level of (0.05), which means that there are no statistically significant differences between research groups in the pre-test of performance observation card; this can explain the equality of experimental and control groups for the dependent variable (using computer in education skills).

IV.   RESULTS

The results are displayed according to the sequence of the research questions as follow:

4.1 First: stated that "What are the differences between the

students' mean of achievement test of the experimental group (learned using YouTube) and students' mean of control group (learned using traditional method) in the post measurement of the academic achievement test related to using computer skills in education?"

To answer the question, a t-test for independent samples was used in order to examine the significance difference between the mean of students' scores in the experimental and control group students at the achievement test in the post measurement, table (3) explains this:

TABLE 3
t-test results of post achievement test of experimental group and control group

Group	N	mean	Std deviation	df	t	Sig.
Experimental	25	34.92	7.05	43.90	3.290	0.002
Control	21	28.43	6.18			

The above table (3) shows that the means of scores of the experimental group in the posttest is (34.92) which is greater than the means of scores of the control group in the posttest which is (28.43) with a difference of (6.49), the detection of the significance of this difference found that the value of t-calculated equals to (5.539) which is greater than value of t-tabular which equals (2.021) at significance level (0.05), that means there are statistically significant differences at the significance level of (0.05) between the means of students' scores in experimental group and control groups at post achievement tests in favor to experimental group.

4.2 Effect size:

The concept of statistical significance of the results reflects the confidence that we grant for the results of differences or relationships regardless the size of the difference or the correlation; while the definition of (effect size) focuses on the difference or correlation size regardless of the degree of confidence we grant for results [10]. Therefore, the researcher calculated the effect size by calculating the ETA square ^{2} for the independent variable (using YouTube) on the dependent variable (achievement), table (4) display this:

TABLE 4
effect size (ETA square) of using YouTube in academic achievement

Independent variable	Dependent variable	ETA ^{2}	Effect size
using YouTube	Achievement	0.55	medium

4.3 Second: stated that "What are the differences between the students' scores mean of the experimental group (using YouTube) and the means of students' scores of control group (learned using traditional method) in the post measurement of the observation card of using computer in education skills?"

To answer the question, a t-test for independent samples was used in order to examine the significance difference between the mean of students' scores in the experimental and control group students at the observation card of using computer in education skills; table (5) explains this:

TABLE 5
t-test results of post measurement of the observation card of experimental group and control group

Group	N	mean	Std deviation	df	t	Sig.
Experimental	25	135.32	27.57	40.57	3.973	0.000
Control	21	100.71	30.90			

The above table (5) shows that the means of scores of the experimental group in the posttest is (135.32) which is greater than the means of scores of the control group in the posttest which is (100.71) with a difference of (34.61), the detection of the significance of this difference found that the value of t-calculated equals to (3.973) which is greater than value of t-tabular which equals (2.021) at significance level (0.05), that means there are statistically significant differences at the significance level of (0.05) between the means of students' scores of experimental group and control groups in post measure of the observation card of using computer in education skills, and this is lead to accept the current hypothesis.

4.4 Effect size:
The researcher calculated the effect size by calculating the ETA square ^{2} for the independent variable (using YouTube) on the dependent variable (using computer in education skills), table (6) display this:

TABLE 6
effect size (ETA square) of using YouTube in using computer in education skills

Independent variable	Dependent variable	ETA ^{2}	Effect size
using YouTube	using computer in education skills	0.65	large

V. DISCUSSION

The study findings showed the superiority of experimental group (learned using YouTube) over the control group (learned using traditional method) in using computer skills in education and the relevant academic achievement in Computer In Education course of General Diploma in Education at the Najran University, this may be due to one or more of the following reasons:

Everyone seeks to have special skills that distinguish it from the others. As educational institutions seeking to provide their students with the skills and experience that can be characterized by the graduate for the other universities. Hence is illustrated the importance of acquisition computer skills for students, which is needed now for excellence in the professional business. Computer skills required to enable students a range of renderings that should be applied in accordance with the methods and procedures and sequential steps with precision and speed of delivery.

The importance of the use of computers in education emerged from the results of scientific research. Educational colleges proceeded to the inclusion of computer skills in education within the educational matrix as one of the courses that the student must study and acquire their skills. Computers in education outcomes are closely linked to the basic teaching skills efficiently (lesson planning skill, classroom management skill, and test development skill).

The importance of video is heavily used to improve learning skills and to support and stimulate the students' understanding of different courses in traditional learning and e-learning. YouTube is one of the most important educational video channels that are used on a large scale, and that could be used to improve student learning in general and learning skills in particular [11,12].

According to Skiba, Connors and Jeffries [13] the ease access to the internet, and the tools of Web 2.0, has allowed the scientific and educational community to exchange skills and experiences and views, which promotes the idea of using YouTube in the educational process that are easily made availability in the home and in the office and on the street through computers or mobile that also strengthened its easy access to the skills and mastery optimally, in addition to bridging the gap between faculty staff skills and teaching experiences and between the aspirations of the target matrix learning outcomes of universities under the application of total quality system in the educational process.

The literature findings have shown the ability to use video as an educational tool in learning in general and in the acquisition of skills in particular and in which they can reduce the gap between theory and practice [14]. Other studies confirmed the ability to use video in motivating students' learning, approximating educational concepts, and reducing teachers' teaching loads, especially in learning skills that require repeated videos more than once to acquire the skill. This allow the student managed the video according with student learning speed even

acquisition skills without increasing student cognitive loading [15,16].

Berk [17] has pointed out the many video benefits as being an attractive educational tool that attracts the attention of the students, containing many multimedia elements (e.g., the combination of sound, image and movement), the possibility of supplying it in the time and place of students' choice, and the possibility of repeating the skill over and over for an infinite number of times allowing students to master the skill.

Kelsey [18] added if we are checking the quality of performance, video tutorial must be used as learning tool, and that the use of YouTube as the strongest database to display the video tutorial make it easier for students to compare and choose between learning expertise provided. In addition, the availability of YouTube, possibilities for discussion and exchange of views on the video, hence, facilitates interaction and follow-ups [18].

VI.   CONCLUSION:

YouTube provides many services including uploading, downloading, viewing, sharing videos, and exchanging views and feedbacks about the viewed videos. The allocation of YouTube channels facilitates transferring of scientific and educational contents via using E-contents. YouTube allows active learning opportunities and achieving larger learning outcomes. YouTube is an effective tool in teaching computer skills and in academic achievement. Results of this study approved that using YouTube as a mean of instruction enhanced and advanced students' learning of computer skills and their usage in education.

VII.   RECOMMENDATIONS

Based on the study findings, the researchers recommend the following:

1. Faculty members and teachers should be trained to develop and manage videos in YouTube to take advantage of it to improve learning outcomes.

2. Activating universities web sites and portals and share of YouTube and make it within the teaching course plan.

3. Establishing an educational channel for each course that contains videos to explain the topics and contents and enhance more shared communications between faculty members and students.

4. Use YouTube channel as e-portfolio file for students and the teacher.

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