The Effectiveness of Video Clips to Enhance Students’ Achievement and Motivation on History Learning and Facilitation


Abstract—The purpose of this study is to determine the effectiveness of video clips to enhance students’ achievement and motivation towards learning and facilitating of history. We use narrative literature studies to illustrate the current state of the two art and science in focused areas of inquiry. We used experimental method. The experimental method is a systematic scientific research method in which the researchers manipulate one or more variables to control and measure any changes in other variables. For this purpose, two experimental groups have been designed: one experimental and one control group consisting of 30 lower secondary students. The session is given to the first batch using a computer presentation program that uses video clips to be considered as experimental group, while the second group is assigned as the same class using traditional methods using dialogue and discussion techniques that are considered a control group. Both groups are subject to pre and post-trial in matters that are handled by the class. The findings show that the results of the pre-test analysis did not show statistically significant differences, which in turn proved the equality of the two groups. Meanwhile, post-test analysis results show that there was a statistically significant difference between the experimental group and the control group at an importance level of 0.05 for the benefit of the experimental group.

Keywords—Video clips, Historical Learning and Facilitation, Achievement, Motivation.

I. INTRODUCTION

EDUCATION meetings, in modern times, deal with all aspects of social, economic and cultural life; the most important is the rapid development of knowledge in mass media and social media has changed the role of teachers [1]. This encourages teaching staff to use modern teaching technology to cope with some of their key issues, education and productivity experiences, by enhancing the level of learning that can be achieved by providing equal opportunity for everyone anytime and anywhere they are, while taking in view individual differences between students [6]. To improve productivity education, some teaching staff strives to highlight technology in education, develop traditional techniques, and use new educational methods [8].

Mainstream media technology in so-called "video clips" is a pattern that causes unlimited application of computer technology. The concept of this technology comes with the appearance of sound cards, then compact discs, then using digital cameras, then videos that make computers an important educational tool. Nowadays, video clips evolve into their own fields.

The concept of video clip technology is extensive and it has an unlimited use field; it is an in-depth element of educational technology as well as its use in medicine and statistics and in creating a database. In addition, the entertainment sector is one of the lion's share sectors in using this technology. Interaction is a key element in video clip technology because most of its applications are characterized by interaction through viewing. As a result, video clip programs can provide more effective and more powerful experiments than using each technology separately.

Researchers are of the view that video clips are one of the best educational techniques as they deal with more than one meaning simultaneously, as they handle the senses of sight and hearing. The video clip program provides different stimuli in their performances which include several elements part of it [5]:

- Text,
- Words spoken,
- Sound and music,
- Graphs,
- Animation and
- Static images.

These elements take precedence over a comprehensive presentation to provide effective education, which in turn will support the participation of different senses from students in various syllables [23].

Some of the benefits of this program are:

1. They make a dynamic reading process rather than a written presentation of the printed texts in the book [19].
2. Presenting different drawings and pictures supports explanation of information and information communication.
3. Easy moving from subjects presented to others provides good opportunities for inquiries and discussions.
4. Using different performances such as video clips along with a map or other types of presentation help get information closer to reality. Adding music makes the idea more clear and it attracts students [5].
5. They generate attention and interaction between students and subjects of education [30].
6. They consist of entertainment elements and tensions [30].
7. They are assessed according to the ability of students to easily and easily [30].
8. They provide teachers with a new educational style and

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encourage curiosity [21].
9. They help teachers and students view the topic from a broader perspective as each topic consists of very large information [21].
10. They guide students learning peer learning [29].
11. They are concerned with giving simultaneous feedback [30].
12. They help students remember & transfer their knowledge [29].
13. They support the user's work and innovation, which makes the computer a necessity for students and teachers.

As a result of the video clip program efficiency achieved in the educational domain, researchers are working to research these programs for investigation to know the best styles to present and apply them in a way that ensures their optimization in education.

II. RESEARCH PROBLEM

The problem of this study is focused on knowing the effectiveness of video clips to improve the achievement and motivation of lower secondary students on the learning and facilitating History. This problem is more specific in the following questions: what is the effectiveness of video clips to improve student achievement and motivation towards learning and historical development?

A. Research Objective

This study aims to identify the effectiveness of video clips on student achievement, motivation among students using video clips, and appropriate teaching video clips to attract students to learning History.

B. The Importance of the Study

The importance of studying the use of this video clip is to attract and enhance student achievement and motivation in learning and facilitating History. It also encourages the use of video clips in History learning in secondary schools in rural environments.

C. Research Question

This study provides answers to the following key questions:
• What is the effectiveness of video clips to improve student achievement and motivation towards learning and historical development?
This question can be divided into the following questions:
• Is there any significant statistical difference between the experimental group average score and the control group in the pre-experiment video clip to improve student achievement and motivation towards historical learning and facilitating?
• Is there any statistically significant difference between the average score of the experimental group and the control group in the video clips of experimental posts to improve students' achievement and motivation towards learning and historical development?
• Are there any statistically significant differences between the experimental group's average score and the control group in pre and post video clip experiments to improve students' achievement and motivation towards learning and historical development?

• Is there a statistically significant difference between the average grade of trial and control groups in academic achievement tests before and after teaching in the teaching and facilitation of video clips and their use in History education?

D. Research Barriers

Study restrictions are limited to the following:
• Space limitations: Categories (Population) students studying History consist of 270 people from nine different classes. Sample taught History in traditional way is 30 students. Sample taught History with video clips includes 30 students in this study school.
• Time limit: Learning begins at the beginning of the second semester of the school month June-October 2018; Jan-March 2019.
• Education level
• Form One

E. Variable of the Study

This study involves the following variables:
1. Independent variables: represented in experimental groups that learn history through the use of video clips.
2. Dependent variables: represented in academic achievement and student motivation.
3. Variables are controlled before the experiment:
   a) Classes intended by students are members.
   b) Student level (form one).
   c) Prior academic achievement depends on the student's score.
   d) Location of teaching used (rural area).
   e) Teacher.

F. Research Terminology

1. Video clip: Video clip (one of the multimedia tools) is represented by a combination of technological elements as it combines high quality audio, images, graphics, visuals, drawings and texts as well as visual and audio interactive environment [20].
2. Academic achievement of students: this is the result of what students learn after learning.
3. Use of video clips to enhance student achievement and motivation towards learning and facilitating history: This is a mandatory lesson given to students with 80 minutes (two times). This teaching method is specially designed for students who use video clips in the learning process. It is considered as a practical entry for the use of video clips in History learning. It focuses on modern video clip imaging (easy to display 3D images, animations, unique concepts and so on), and video clip technology in education improves the process of learning and education history.
III. LITERATURE REVIEW

Reading the previous study is important to provide some scientific facts to convey this study. Many researchers are concerned about studying the effect of using video clips on academic achievement of students and their motivation. Here is the most prominent study.

Erhan and Yeliz [11] conducted a study entitled “Comparison of Students’ Attributes On Practice Of Web-Based and Mobile Learning Systems”. In this study, it is aimed to investigate student attitudes in web-based and mobile learning systems. Two free groups were formed among 89 selected students using randomized methods. Students use a system designed for one month and to determine the student's attitude towards the target method, the attitude test is implemented. The data were analyzed in SPSS package program. The differences between mobile learning and student-based learning attitudes are statistically analyzed in pre-t-post tests. The results show that average score of student attitudes increased after practice, but they were not statistically significant. The results in both groups in post-test showed that there was no significant difference in the two groups. The post value of the post-test posture has been compared and the results are statistically not important. It can be used in other subjects for further study.

Faour and Ayoubi [12] investigate the impact of using the conceptual understanding of grade 10 students on the current electric circuit and their attitude towards physics. This study uses a quantitative trial approach. The sample was set up by 50 students from grade 10, aged 14 to 16, from the official secondary school in Mount Lebanon. Participants were randomly assigned to two groups of 25 students.

Corel Video Studio [9] exposes new creative features, as well as enhancements to favorite features, meaning an individual can make faster videos in Corel Video Studio. The main updates are listed below. In Video Studio 2018, we have improved the most widely used tools. The media are easily embedded, resized and positioned directly in the preview pane. The media will be turned on with the new Smart Guide alignment tool. The whole toolkit is faster and more accessible. The updated timeline puts common editing controls at fingertips and lets users customize the toolbar, giving instant access to the tools users love to use. Users track live tracks on timeline and edit preview when adjust it anytime. Users focus on edit and adjust the height of timeline with new controls. Now users can edit with a new screen editing window to get closer to action.

Nasr [22] revealed the impact of social media on students in higher education universities and their impact on student academic performance. Social media has become one of the most popular means of communication because of its ability to deepen the recipients' confidence and enhance their knowledge and trends. This study focused on researcher observations on the created website. The website attracted netizen with Facebook apps from around the world. Researchers use comparative and experimental approaches to measure the impact of Facebook and yield the results by relying on suggestions and outputs summarized by scientific studies published in the revised journal. The study shows that a large number of university students are using social media with a focus on Facebook, which in turn has adverse effects on their academic decisions.

Reza et al. [27] expose the development of interactive multimedia applications based on scientific approaches that can help students to improve their learning outcomes in civic education subjects in primary schools. This research method uses a mixed method which includes the Small Trial and Field Trial stage with the aim of knowing the effectiveness of interactive multimedia applications based on the scientific approach to civic education subjects. The results show that the use of the interactive multimedia-based scientific approach developed has the potential to understand the concept of students about the subjects of civic education in primary schools. Effectiveness test using the t-statistics analysis shows the difference in learning outcomes of civic education before using an interactive multimedia-based approach 67.93 and after using the interactive-based scientific approach 79.26. The conclusion of an interactive multimedia application based on a scientific approach can improve the quality of learning in primary schools. Rachmadullah [26] has found computer-based learning media is the use of computers to help students demonstrate learning materials, monitor learning progress or select other learning materials based on individual learning needs of students, or an application and computer use form that students use to directly learn to provide learning content and learning training.

Komang [16] reveals the effectiveness of learning depends on the four main elements, the content, the desired learning outcomes, the teaching methods and the delivery media. Integration of these four elements can be created in a learning module called multimedia learning or multimedia learning. In the context of learning by using computer-based multimedia, there are two main things that need to be considered so that the learning process can run effectively: how content is presented, and the way how students choose to receive and process that information becomes meaningful. First, it relates to ways to describe the content and how people learn. The second is related to student learning style. This study aims to examine the effects of visualization-static vs. animation-on computer-based multimedia learning, and visual-verbal learning styles, towards the ability of students to use the concepts, procedures, and principles of Java programming. The type of visualization acts as a free variable, and student learning styles act as moderator variables. In addition, the teaching strategy follows the Merril Component View Theory, and the multimedia presentation format follows the Seven Multimedia Learning Principles from Mayer and Moreno. Learning with computer-based multimedia learning has been done in the classroom.

Iqbal and Muhammad [18] found that the use of multimedia in education has proven its importance as a result of its positive impact on the teaching and learning process. This study investigates the effectiveness of comparative multimedia teaching on student academic achievement and low attitudes in science teaching. Samples of 60 students were randomly
divided into two groups. The pretest control group design has been selected for this study. The experimental group was taught with the help of multimedia presentations while the control group was traditionally treated. The treatment is given for a period of 20 weeks. Valid and reliable questionnaires are used as a data-gathering tool. The attitude towards the Science Scale is used to measure the attitude of both groups before and after treatment. Independent sample test is used to analyze data. The results show that multimedia-assisted teaching is more effective than traditional ones. Students' attitudes toward science increase if multimedia teaching methods are used instead of traditional teaching methods.

Osman et al. [24] found that multimedia applications are an effective teaching tool. Many instructional tools are being developed to make learning in subjects such as undergraduate and theoretical studies of Islam, language, science and technology, making it easier to learn and capture the students' interest. Visualization and interaction techniques are being implemented in several e-learning projects in our classroom. The three e-learning projects that 'Greenfoot as Instructional Tool in Programming’, 'Visualization making Array Easy' and 'e-Tajweed Yassin' app strives to engage students by allowing them to visualize the concepts learned, behavior and operations using animation, simulations and other elements, as opposed to conventional teaching methods. Therefore, students can gain a new learning experience by better understanding the concepts and doing better assessments. The results of this study have shown positive results from students. This paper compares between the three applications: Greenfoot, Visualization makes Array Easy and e-Tajweed where it discusses the design models used that meet the goals and objectives of teaching, and how non-technical students respond to the information presented.

Hong et al. [15] conducted a study aimed at identifying the effects of multimedia software on students’ academic achievement in key concepts of astrology, their ability to acquire major problem solving skills and easy skills. The study sample consists of 238 students in the ninth class, who is studying in practical classes near Austin City and is attracted by astrology. The study sample was simultaneously divided into two groups: an experiment whose students learned to use educational software (called The Astrological Village) aimed into two groups: an experiment whose students learned to use educational software (called The Astrological Village) aimed to teaching mathematical curriculum on the development of statistical skills among third-class commercial secondary students. This study aims to identify the effectiveness of computer use as an educational tool in teaching a statistical curriculum on the development of statistical skills among third-class commercial secondary school students in the Arab Republic of Egypt. Experiments were conducted on 30 students in the experimental group and 30 students in the control group. The experimental group was taught by a computer while the control group was taught by traditional methods. The results showed significant statistical differences in average grade and performance in favor of the experimental group after teaching the program.

Yunis [4] aimed to identify the extent to which multimedia software helps in academic achievement of preparatory school students in Geometric subjects and its warnings. The sample of this experimental study involved 300 male and female students divided into two groups of experiments and controls each group consisting of 150 male and female students. The experimental group was taught by a multimedia software program containing the contents of the Geometric units identified by the Ministry of Education in the Syrian Arab Republic. The results showed significant statistical differences in the academic achievement of the average experiment and control group in the tests performed after the experiment in favor of the experiment group.

Haftamu and Reza [14] examine issues within the new boundaries integrating technology into mathematical education. We propose how to teach mathematical courses by integrating meaningful multimedia technologies to foster
learning process. Specifically, this paper focuses on how integration of multimedia-based teaching approaches into the Calculus and numerical modules affects students' performance and their attitude towards educational technology. Empirical data will be collected from controlled students and experiments enrolled into this mathematical module that involves the involvement of students using traditional teaching and learning technology technologies and multimedia.

Ghazzawi [13] conducted a study titled "Designing computerized software, its impact and the impact of movement variables on academic achievement of grade 6 students on some concepts of pilgrimage ". This study aims to design educational software in accordance with recognized standards and to study its impact and the impact of movement and gender variables on academic achievement of grade 6 students on some of the concepts of pilgrimage in Jordan. For this purpose, special education software was provided and used for a sample of 107 male and female students who were divided into three distributed processing groups across six branches to find out the influence of educational software on student academic achievement and the effect of movement and gender variables through verified achievement test. Relevant variance analysis and Neumann-Kloz tests were used for post-comparison. The results showed significant statistical differences in favor of calculation methods involving moving stimuli due to movement factor.

Abdul-Majid [2] conducted a study on "Impacts of proposed programs using enhanced multimedia along with computers in teaching Analytic Geometry on the acquisition of knowledge and developing different thinking and first-grade students’ first-grade decision-making skills'. The sample of the study was selected, including two classes of junior high school students, Neda Secondary School for boys and girls in Sohag and the results were as follows:

• There is a difference in the average grade between the experimental group and the control group in favor of the experimental group grade in the academic achievement test.
• There is a difference in the average grade between the experimental group and the control group in favor of the experimental group grade in the test to develop different thinking skills.
• There is a difference in the average grade between the experimental group and the control group in favor of the experimental group grade in the decision-making skills test.

Nadar [3] conducted a study entitled "Effective use of computers to develop some of the basic skills required to enable technology education students to use video cameras". This study aims to measure computer usage effectively in the development of some of the basic skills required to enable technology education students to use video cameras at the Special Education Faculty in Tanta. This study uses experimental methods, and samples consist of 40 students from technology education randomly divided into experimental and control groups. The results of the study showed significant statistical differences at the significance level of 0.05 between the average grade of experimental group students and the average grade of the control group students in academic achievement in favor of experimental groups.

Ibrahim [17] conducts a study aimed at "Using multimedia technology to present the basics of the computer in a way that leads to the availability of adequate skills and information related to computer domains ". For this purpose, both study groups were randomly selected from second-year students, Art Education Division, Special Education Faculty, with a total of 15 students for experimental groups and 15 students for control groups. A pre-test was conducted on both groups on the study variables. Then, a proposed and prepared computer technology program has been prepared and taught to experimental groups. Student control groups studied the same curriculum as traditional methods throughout the period between 28/2/2003 and 17/3/2003, after the post-test. Delayed academic achievement tests were conducted on 7/4/2003. The results showed significant statistical differences at the significance level of 0.01 between the average grade of the experimental group in the post-application and the post-academic achievement postponed academic achievement.

Dâ’alj [10] conducted a study titled "The effect of using locally produced Mathematical software on academic achievement of second-tier girls in Riyadh ''. This study aims to identify the effects of using multimedia software produced locally on academic achievement of middle-class secondary students in mathematics. The sample of the study consisted of 70 girls who were equally divided into two experimental groups surveyed by locally produced software and control groups who studied traditional methods. This study shows no statistically significant difference at the importance level of 0.05 between experimental group and control.

Nasr [22] conducts research to study 'Effectiveness of the use of multimedia computer technology in teaching Geometry to third-graders of student preparation on student academic achievement and development of innovative thinking'. Researchers use experimental methods based on the same two group designs: one of which is an experiment that studies two proposed program units based on interactive multimedia technology in the 'Cycle Unit' in Geometry books taught to third-grade students and others is a control group that teaches the same content in traditional methods. Each group is subject to an academic achievement test as well as an innovative thinking test before the experiment. Both groups have also undergone the same test after completion of the experimental design. This study produces the following:

• There was a statistically significant difference between the average grade of two study groups (experiment and control groups) at the level of academic achievement in Geometry due to the program pattern used, based on an important interactive multimedia technology level of 0.01 in favor of experimental groups.
• There was a statistically significant difference between the average grade of two study groups (experimental groups and controls) in innovative thinking tests for the Geometric circles because of the program pattern used, based on an important interactive multimedia technology level of 0.01 in favor of experimental groups. This applies to each skill separately and the test as a whole.
• User programs are effective in developing students'
Innovative thinking skills in geometry where the ETA value for each skill separately in thinking tests is greater than 0.14 and for the whole test as well.

- The percentage of program competencies is 72% in the achievement of academic achievement of students to geometry and 71% in developing thinking skills in geometry.
- The proposed program efficiency level is 60/72, which means that 72% of students studying the program get 60% or more of the final grades in geometric thinking tests.

Previous studies [4], [27] have shown that many experimental studies have stressed effective use of multimedia as a facilitating strategy, delivering educational materials to students easily and playing a positive role in increasing the general tendency towards computer usage in education. Multimedia has a positive impact on cognitive achievement, academic achievement, understanding, and application.

The current study is an attempt to support previous studies in using experimental methods in studying variables. Perhaps this study will achieve scientific results through research ethics in the field of video clips, helping in exposing the importance of video clips in academic achievement of students to the topic of "video clips and their use in History education" and also stimulates the activation of video clip use in academic teaching.

IV. RESEARCH METHODOLOGY

Researchers used experimental methods to study the effects of independent variables (audio, visual, graphical video clip programming) on dependent variables (academic achievement), comparisons were performed between experimental groups studied using audio, visual, graphical use video clips in the throughout the teaching and facilitating of a teacher, and the other group is a person who controls by means of traditional discussion and dialogue, along with a teacher. The variables were controlled, which meant that both groups were equally specific; academic levels, teachers and teaching locations and both groups had undergone pre and post-academic performance tests.

A. The Population of the Study and Its Sample

The population of the study was Form Three students whose teaching and facilitating History was a video clip, in a rural secondary school, Sabah in the second half of the academic year 2018; and the first semester for the academic year 2019 and they are 200 junior high school students. Samples are randomly taken from the study community, where three classes are selected from the teaching and faculties of Form Three History students. The researchers divided them into control groups and experimental groups. Experimental groups are given teaching and facilitation of History through audio, visual, and graphical representation programs that use video clips, where other groups are given the same teaching using traditional teaching methods (teachers, lectures, discussions).

B. Instrument of the Study

The population Researchers is planning a presentation program that uses video clips to present teaching and facilities and presentations including sounds, images and video clips, should be mentioned that researchers are experienced in teaching the History education.

Researchers conduct pre and post-academic achievement tests, with the help of History teachers, covering all aspects of the topic to measure the level of academic achievement that is not memorized. This test includes 60 questions divided into pre-test and post-test use of video clips in learning and facilitating History:

a. Pre-test (30 objective questions of Form One History)
b. Post Test (30 objective questions of Form One History topic) and questionnaires containing 30 items of Likert scale either strongly agree, agree, disagree, strongly disagree with the use of video clips in learning and facilitating History.

The tests are made objectively and handed over to a group of arbitrators to scientifically and pedagogy, in terms of scientific materials, suitability to students and clarity of form (arbitrator is a History teacher). After knowing their views and suggestions, some questions were modified then the test came out in its final form.

C. Application of the Study Process

a) The "teaching and facilitating" section is selected from the teaching of video clips and its use in teaching as an experiment.
b) A teacher from the school was chosen to direct both groups (control and control) experimental) and deny the effect of teacher changes in the study, by taking think that teaching by video clips will not affect traditional teaching methods as this may cause in the wrong interpretation of the study of both this group.
c) Same teacher for both groups is used (control and experiment) to contradict the effect of the study's location variables.
d) Academic achievement of students is ensured towards teaching given in both groups (control and experiment) (ensuring quality).
e) Pretest is carried out to control group before conducting the study and its duration is 30 minutes.
f) Post-test is carried out to control group and experiment after first week the study and its duration is 15 minutes.
g) The equivalence of the two groups has been verified by measuring the difference between the range of two groups and calculates the standard deviation and the value (T) of the variable identified: classes, students of both groups are from school of rural area, all were in the same year, that is Form Three in addition to the equality of the group in terms of absence differences in statistical significance in their pre-academic achievement or their academic achievement, and any previous historical information, subject to be taught in this study.
D. Statistical Processing

Researchers in the following statistical processing use the Statistical Packages (SPSS) to analyze all the processes:
- Calculates the median.
- Calculates the standard deviation.
- T-test to examine the difference between control and experiment group performance.

V. Result of the Study and Discussion

After using experiments, researchers conducted academic achievement tests then they analyzed the results of the study to determine the effect of using multimedia on academic achievement of students and the results are as follows:

A. The Findings Related to the First Question

Question (1)

Are there any statistically significant differences between the experimental group's average score and the control group in pre-experimental video clips to improve students' achievement and motivation towards learning and historical development?

After obtaining the results of the pre and posttest statistics of the academic achievement of the control and experiment group, the positive impact of using video clips is clear on the teaching of History and better academic achievement of the experimental group compared to the results of the control group study, it proves that using video clips within History education is an effective way to achieve better learning.

B. The Findings Related to the Second Question

Question (2)

Is there any statistically significant difference between the average score of the experiment group and the control group in the video clips of experimental posts to improve students' achievement and motivation towards learning and historical development?

After obtaining the results of the pre and posttest statistics of the academic achievement of the control and experiment group, the positive impact of using video clips is clear on the teaching of History and better academic achievement of the experimental group compared to the results of the control group study, it proves that using video clips within History education is an effective way to achieve better learning.

D. Study Findings Related to the Fourth Question

Question (4)

Is there a statistically significant difference between the average grade of the trial and control group in the academic achievement test before and after the teaching and facilitation of History education with video clips?

To answer the question, the comparison is made between the standard deviation and the median for the experiment and control group in the academic achievement test before and after the teaching and facilitation of History education with video clips.

VI. Proposal of the Study

According to a study showing the use of effective video clips compared to traditional teaching methods, this study suggests the following:

a) Use video clips in the theory class.
b) Developments in using video clips in teaching History theoretical classes and emphasizing the use of video clips as an educational tool in History teaching.
c) Giving instructor training or awareness on History about the use of video clips in teaching History subjects as this subject will be available throughout the year academic.
d) Conduct more studies using video clips in the academic curriculum at the atmosphere of rural schools.

VII. CONCLUSION

Educational video clip is sensible to teach contemporary social science education class like history. A theatrical trailer for the historical movie, where students follow history on journey to uncover the secrets of the past, all while learning how to understand history effectively with selective audio and visual video clips.

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