The impact of two types of blogs (individually/cooperatively) on achievement and motivation in terms of a number of computer concepts for the students at the Faculty of Education at Al-Baha University

Dr. Abdullah Kholifh Alodail
Assistant Professor, College of
Education, Al-Baha University
Alodail1@hotmail.com

Abstract

The study aimed to identify the impact of using blogs (individually/cooperatively) on achievement and motivation in terms of a number of computer concepts. The study used a quasi-experimental approach to prepare the literature framework and two measurement tools, including an achievement test and achievement motivation scale. The study sample consisted of 44 learners. The researcher used a t-test to measure the differences between the two experimental groups, those working individually and cooperatively. The results showed that there are statistically significant differences between the mean students' scores of the first and second experimental group in the post-tests. Indeed, the first experimental group, which wrote their blog collaboratively, showed a greater level of study achievement and achievement motivation compared with the second experimental group that wrote blogs individually.

Keyword :

Achievement; Motivation; web blogs (single / participatory).

Introduction

The history of classroom technologies can be divided into three principal stages prior to twentieth century: teacher, chalkboard, and textbook. Since then, most educators have viewed the development of

educational technologies as a supplementary means of presenting instruction, with the Internet being one of the most significant, if not the most significant, innovations in the field of social networking and knowledge exchange in recent history. In addition, the emergence of web 2.0 technologies has led to new forms of communication and interaction with others removing geographic limitations. That is to say, the Internet offers advanced ways of communicating such as chat rooms, blogs, and video conferencing. As a tools can support and enhance interaction among students; in turn, this collaboration enables them to contribute to solving problems by discussing the problem as a larger group. The core feature is the content created by the user, the creation of which allows the sharing, creation, editing and building of knowledge that reflects the collective intelligence of the users involved and supports a constructive learning environment.

Blogs are webpages or websites that are regularly updated and are written to convey news or express ideas. The blogs can be used as a basis for designing educational environments across networks, in which the student is the focus of the educational process rather than the teacher. Furthermore, they allow students to participate and interact in the educational process. Moreover, since blogs are operated by a content management system, it is possible for a reader to refer to a specific post at a later time when it is

consequence, educational institutions have begun to use these techniques in education.

The use of blogs for social communication has been increasing in popularity in recent years across the globe in the educational environment. The application of social learning technologies, such as blogs, have allowed educational institutions to develop revolutionary learning strategies which are interactive, cooperative, and competitive.

Indeed, Web 2.0 no longer available on the first page of the blog (Al-Masri, 2013, p. 425). As a result, blogs have become a crucial tool for individuals wishing to interact, support and cooperate with others. Additionally, writing a blog can increase their motivation to learn, as it facilitates active learning, as well as allowing their education to be guided and provide a good opportunity for learning. (Al-yateem, 2017).

Blogs can play a critical role in assisting teachers to increase students' achievements in Saudi Arabia. Indeed, one of the primary tasks of the instructor is to help learners to access free and beneficial forms of technology. Blogs typically include images, photos, and videos, which are an efficient way for students to process information, and therefore are very useful additions to text, as they enhance students' progress. In short, individuals learn information from watching, reading, listening and

writing, and that is why. Blogs have emerged as a new technique for learners to simplify knowledge and present it in a visually attractively way. Faculty members need to employ e-learning techniques to improve learners' understanding of computer concepts and increase achievement motivation.

Al Ghoul (2012) identified a number of advantages for learners to cooperative learning across the web. Firstly, the web provides an online learning environment for learners, as it provides access to knowledge, a platform around which activities can be built, and supports them as they learn. Furthermore, it can be used during group work to help learners develop social skills while they gain more knowledge. In contrast, individual learning rarely provides natural opportunities for students to participate with others, and student participation is limited to learning through the blog, without the addition of receiving or giving feedback in the form of peer comments. However, it is a fact that both individual and cooperative blogs are a crucial platform in the educational environment. Therefore, the current study seeks to explore the interaction between preparations and treatments to reach the appropriate educational design through two methods of implementing blogs. The current study explores the impact of two ways of blogging (individual v. cooperative) on the subject of computer concepts had on learners' achievement and motivation.

The researcher reviewed the literature related to the effectiveness of blogs on students' achievements in the development of learner's knowledge of some computer concepts, as the author believes it is important to implement new teaching methods, such as the use of blogs, in the educational environment to demonstrate their usefulness to learners. Indeed, individual and cooperative blogs may affect students' achievements regarding the development of some computer concepts, since blogs provide a more holistic approach to learning than a lecture or text. The researcher sought to improve students' achievements by using blogs to facilitate the learning of some computer concepts in class. The computer concepts in education unit was selected from the general subject of the use of computer in special education because it was deemed suitable to be explored by students using blogs, both individually and cooperatively, to measure the development in students' knowledge of some computer concepts.

The study by Huang, Liaw and Rauch (2010) showed that structural theory supports the concept of active learning experiences, which directly links the learner to knowledge in order to create new knowledge and thus improves their thinking and problem-solving abilities.

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PROBLEMS RELATED TO THE STUDY

Although various studies have discussed the use of blogs in educational environment at universities, few have been conducted at the local level. Investigating the effectiveness of implementing individual and cooperative blogs in the Faculty of Education at Al-Baha University could therefore fill a gap in the literature.

The researcher first conducted a pilot study with a group of 20 learners outside the sample of the main study to determine any problems with the study. The study began with an achievement pretest to measure the have a starting point for the sample. The researcher detected a low achievement 30-50% level of students' in terms of the development of computer concepts in education because of the difficult of a traditional teaching method, which prompted the researcher to use individual and cooperative blogs with the aim of increasing their achievement.

According to Kim (2008), whose study aimed to identify the advantages of educational blogs over traditional methods. Indeed, blogs have a number of benefits, as they support interaction among peers, provide learners with information, can form assignments for learners, give students an opportunity to write comments, ask about exams or information related to class, as well as consider intercultural communication, and, lastly, give learners the freedom to express their feelings with their classmates.

Hence, the study aimed to overcome is the fact students have not developed their knowledge of the concepts related to computers in the class of use of computer in special education subject through traditional teaching methods. This is due to the difficulty of using the traditional methods, and so it is proposed that the use of modern technology, specifically blogs, will address this deficiency, as reflected by the findings of the studies featured in the literature review.

The researcher identified a low achievement level for students regarding their development of computer concepts in education, indicating that traditional methods of teaching are not very effective. Therefore, the researcher felt changing the teaching approach to a more modern one, could help students achieve more. In this case, the researcher seeks to establish the impact of individual and cooperative blogs on the achievement of students studying the computer concepts unit of the selected subject at the Faculty of Education at Al-Baha University. So, it is/was expected that the use of blog will increase students' knowledge of computer concepts.

Therefore, the problem of the study centered on the lack of students' understanding of computer concepts when taught by traditional methods. Thus, it is proposed that weblogs are needed to implement the course material.

The researcher has worked at a faculty in the Faculty of Education at Albaha University teaching males since 2013. Based on the researcher's experience, students' achievement has not reached its full potential due to the inability of traditional methods to attract and maintain students' attention. They also fail to meet their needs and provide practical training. Consequently, students frequently complain about the textbook chapters which provide no opportunities for practical application and thus result in a low achievement level for students. Therefore, a more modern, effective approach must be used to develop students' academic achievement in a way that is attractive and meet their needs. The researcher's solution is through the frequent use of individual and cooperative blogs.

The present study is the first that aims to reveal the effectiveness of using blogs on students' achievement at the Faculty of Education at Al-Baha University. The researcher noticed the focus on the use of blogs as part of the educational processes the present time, since they provide an effective way of solving current educational problems, by providing

students with the time needed to develop their thinking and thus increase academic achievement.

Hence, the research problem is found in the following statement: students lack knowledge related to computer concepts in the field of special education, because of the ineffectiveness of using traditional methods. Therefore, the use of blogs to address this deficiency is required.

THE STUDY OBJECTIVES

In summary, the researcher aims:
1. To measure the effectiveness of individual and cooperative blogs on students' achievements.
2. To test the significance of collecting data.
٣. To design cooperative and individual blogs for the computer concepts unit.

RESEARCH QUESTIONS

The study aimed to answer these research questions:

1. What is the impact of two types of blogs (individually/cooperatively) on achievement in terms of a number of computer concepts for the students at the Faculty of Education at Al-Baha University?

2. What is the impact of two types of blogs (individually/cooperatively) on motivation in terms of a number of computer concepts for the students at the Faculty of Education at Al-Baha University?

3.Is there a significant relationship at level α≤0.05 between their achievement and motivation of computer concepts?

HYPOYHESIS

1.There are no significant differences at level of (α≤0.05) between the mean scores of the first experimental group using a cooperative blog and the second experimental group using an individual blog during the pre and post-tests as a result of implementing the program.

2.There are no significant differences at level (α≤0.05) between the mean scores of the first experimental group using a cooperative blog and the second experimental group using an individual blog during the achievement motivation pre and post-tests as a result of implementing the program.

THE IMPORTANCE OF THE STUDY

Many educators are not aware of the advantages of using blogs in their teaching in terms of helping to organize the lesson and present the data in a more visually attractive way. The importance of this study is that it can:

1.Help educators select the most appropriate blog (cooperative or individual) for their area.

2.Be a starting point for further research that can be applied to different areas across a range of higher education institutes.

LIMITATIONS

The study was conducted at the Faculty of Education at Al-Baha University in Saudi Arabia among 44 students who registered for the course titled "Use of Computers in Special Education" during the first semester of 2018-2019. The researcher selected the "Computer Concepts in Education" unit to track learners' achievements, as this particular unit involves reading a great deal of text. The study focused on students completing blogs in two ways. The first method involved an individual approach, with tasks being completed by individual students whereas, the second method focused on a cooperation approach, with tasks being completed in groups consisting of 3 or 4 students.

THE DEFINITION OF TERMS

1.Impact is defined as the impact of the investigation as an independent element on the dependent factors, or an individual's need to obtain goals, feedback, and experience achievements (Jain and Singh, 2017). Operationally, in this study, effectiveness refers to the statistical effect on the dependent variable, that is to say, the students' progress in learning the information featured in

the unit titled Computer Concepts after using the independent variable (blogs) as a teaching method.

2.According to Sidek and Yunus (2011), Blogs are an open-ended platform. Operationally, a weblog is a way for students to communicate, interact, share, and exchange views, information and ideas with each other related to the content displayed in the blog.

3.Al-Ghoul (2012) described how cooperative learning across the web has a set of common features for learners by providing them with a web-based learning environment, as well as the knowledge and support to build activities and learn. Additionally, it helps to develop social skills among learners, as they acquire more knowledge. Operationally, cooperative learning features groups of 3 or 4 learners and involves students communicating with each other by engaging in writing comments and exchanging views and ideas related to the content presented in the blog.

4.Al Ghoul (2012) identified individual learning as a lack of communication among students contributing to a blog, and highlighted that student participation is limited when learning through a blog without being able to write comment and/or share any suggestions or opinions.Operationally, individual learning involves students writing

comments, opinions and ideas individually.

5.Achievement motivation is defined it as the tendency to reach success and the individual's desire to be successful, to be performance-oriented, or to have a strong desire to achieve goals better. (Smith, 2015). Operationally, achievement motivation is focused on individual performance to achieve and maintain goals in their educational environment, or evaluating their thoughts and behaviors.

6.According to Reiser and Dempsey (2007), the ADDIE model, which stands for analysis, design, development, implement, and evaluation, is a general process, and can be used to design a lesson. Operationally, it is an instructional design model to develop the subjects and programs in several ways based on five steps: analysis, design, development, implement, and evaluation.

LITERATURE REVIEW

Given our brain's ability to identify correlations, and patterns, studies show that visualizations and graphic representations improve user cognition (Hullman, 2011). The Internet is a platform where millions of people engage in the creation and exchange of information, and has a significant effect on a student's academic achievement and social life. According to Emeka and Nyeche (2016), the Internet is defined as a

large computer network connecting together millions of smaller computers belonging to thousands of businesses, governments, research centers, educational institutions and other organizations at numerous sites in nearly every nation. For internet users, the Internet may be regarded as a worldwide community – one with a very active life. In today's world, the Internet plays a vital role in teaching, as well as the research and learning process in academic institutions.

In their article "Technology uses and students' achievement: A longitudinal study", Lei and Zhao (2007) defined technology, and explored how students used it in 2003-2004, including the amount of hours students spent on technology. Technology is a piece, a product, and a tool; it has the ability to solve certain troubles if these are connected with specific problems. For example, the computer program Microsoft World has the capacity for literary composition. Most students (81.4%) use computers to do homework, using a mixture of four kinds of learning with technology followed by searching information for school work (71.4%), emailing (65.8%) surfing online for entertainment (58%), chatting online (51.1%) and working with specific software (50.2%). About half of the students use computers to play games (41.1%), and only 11.3% of students create websites. In general, technology is largely used for inquiry and communication than for expression and construction. In addition, students spend between 3-4 hours on computer.

A study by Kim (2008) aimed to discover the blog use in of educational contexts, which concluding blogs should replace communication support tools in the learning environment. However, blogs support interaction, provide information, instruct learners, and allow learners to write comments, inquire about exams or classroom information and consider intercultural communication, as well as provide learners the freedom to express their feelings or write comments about their classmates' blog posts. An audit analysis was conducted to find the results of the study. The results showed that students were more interested of using a personal blog but were less interested of a shared blog on classmates 'notes.

According to Kilic and Gokdas (2011), whose study aimed to identify the impact of using web 2.0 technologies such as blogs during an undergraduate course for pre-service ICT teachers, blogs are an open-ended platform. The study sample was 75 teachers (53 males and 22 females) from Turkey. A descriptive design was used in this study and the study tool was a blog to measure to the sense of community and perceived learning. The results showed that that there was a statistically significant difference in the perceived learning between the pre-service ICT teachers with a low

sense of community and those with a high sense of community. The majority of pre-service instructors had a positive perception of using blogs, regarding them as a good way of sharing knowledge and experience with others. In addition, blog-based peer feedback was shown to support students' learning.

In a study carried out by Sidek and Yunus (2011) the use of blogs as a learning approach based on individual's experiences was examined. Blogs were used as an open-ended platform. The study sample consisted of 60 learners on a public speaking course at Mara Professional College in Beranang city. Qualitative data was collected through the observation of and by interviewing students. The results showed that learners like to employee computer devices in lessons. The study recommended using a blog based on learners' experiences to increase their reflection of and communication in real life, and to improve the current practice in the future.

Abu Khater (2014) aimed to identify the effectiveness of electronic blogs that used jigsaw as a strategy in the development of computer concepts and decision-making skills of 11th grade male students in Gaza. The jigsaw strategy is a cooperative learning strategy based on students being divided in a heterogeneous manner and meet members from different teams to deal with the same subject in order to help each other.

The study focused on the development of an electronic course based on jigsaw strategy. The measuring tool was a pre and posttest test. The study used an experimental method with a quasi-experimental design. The study sample consisted of 50 grade 11 female students and found that there were statistically significant differences in favor of the experimental group that used web blogs. The study also recommended using Web 2.0 techniques, especially blogs in the educational process. According to Zhang et al (2014), whose study aimed to establish the impact of using blogs as an approach to develop individual's writing skills, blogs are an open-ended platform. The study sample was made up of 36 male and female learners of English at a university located in a metropolitan city in North China. Learners were divided into groups of three or four individuals for in and out class activities. Assignments by blog. A mixed method design was conducted to get both quantitative and qualitative data. The measuring tools included a survey, interviews and artifacts. It was found that blog-based peer feedback had a statistically significant correlation with students' motivation, collaboration, and course satisfaction. In conclusion, it was shown that group writing through blogging can encourage collaboration, self-reflection, and build awareness. The study recommended conducting an examination of how blog-mediated

peer feedback effects students 'performance. A study by Noel (2015) aimed to analyze the results of implementing blogs in cognitive and social constructivist education and teaching. Blogs were described as an important platform for constructivist learning in educational concepts. It was found that blogs enable learners to build their own knowledge by sharing information, presenting views, resolving conflicting ideas, and asking question and then receiving feedback. It also concluded that it supports collaboration among peers and their teacher. Furthermore, another benefit identified was that instructors can customize blogs to match the teaching strategy both in and out of the class. The study recommended teachers support learners with blog activities by decreasing the time spent searching for blogs and posts. Abdulfattah's (2016) study aimed to examine the impact of using blogs as an approach on the development of individual's reading skills. Blogs were divided into three kinds. Firstly, an instructor's blog which was controlled by the teacher and designed to interact with and provide information and assignments for learners. Secondly, a class blog run by students providing them with an opportunity to write comments, ask about exams or information related to class. Lastly, a learner's blog which gave learners the freedom to express their feelings or type daily comments to classmate. The study sample was made up of 22 male learners of English at Qassim Private College, Saudi Arabia. Learners were divided into groups of three or four individuals for in and out class activities assignments by blog. The quasi-experimental design was used for both the experimental group of 11 learners taught using the teacher's blog and the control group of 11 learners taught by a traditional method. The measuring tool was pre and posttest tests. The results showed that that there was a statistically significant difference between the pretest and posttest scores in favor of the experimental group. The study recommends conducting further research into blogs to explore their effectiveness in terms of developing learner's listening and speaking skills.

Benefits of previous studies: The results of the described studies serve as a starting point for the subject of this research. They guided the researcher in the development of the program, the procedures for application, and the discussion of the results and their achievement.

Differences between the current study and the previous studies: Previous studies have focused on the employment of blogs in teaching in primary or secondary education, while only a few studies have looked at universities. Therefore, this research focuses on the use of blogs to teach Computer Concepts, which has not focused much in previous studies at the Faculty of Education at Al-Baha University.

MATERIALS AND METHODS

RESEARCH DESIGN

The study belongs to the experimental design class (a quasi-experimental), as it was carried out on two experimental groups in order to see the influence of an independent variable on a dependent variable to improve the achievement of students studying computer concepts, measured by an achievement test. In total, 44 learners from the Faculty of Education were included in the study, after being parity tested, in the first term of 2018.The main study was 4 weeks in duration. The patterns related to individual and cooperative weblog use, including the achievement test, were made by the researcher of this study.

The study aimed to prove that theory that students' achievements could improve through the use of cooperative and individual blogs in the classroom. A sample of learners from the Faculty of Education at Al-Baha University participated in classes that were taught using both blogs. A quantitative data collection process was selected to provide a general picture of the research problem, and the t-test method was used in this study to analyze the data. The goal of the descriptive design was focused on two aspects: blogs usage and achievements.

The quasi-experimental design approach including pre and post-tests was used in the current study. The two experimental groups consisted of students that had not dealt with blogs before and who were taught by the researcher prior to the experiment and occurred during the academic year 2017-2018.

PARTICIPANTS

The entire population for the Faculty of Education at Albaha University is 1,080 male college learners and 1,443female college learners. The Table 1 shows the design of the two experimental groups, and the independent variable, which is the use of the individual and cooperative weblogs. The dependent variable is students' achievement.

Table 1 The experimental design of the study

Group	Pretest	Manipulating	Posttest	
The first experimental (22 learners)	Achievement pretest and achievement motivation (O1)	Teaching using the cooperative weblog(X1)	Achievement posttest and achievement motivation (O2)	Discussion and interpretation of findings
The second experimental (22 learners)		Teaching using the individual weblog (X2)		

THE PROCEDURE OF THE STUDY

A pilot study was conducted prior to the main study to ensure the reliability of the study instruments. The individual and cooperative blogs and the achievement test were used in the pilot study among a group of 20 outside the sample of the original study to verify the suitability of this educational program and test the time (25minutes) allotted for the study sample, as well as to identify any obstacles that may interfere with the process of applying the program. The pilot experiment showed that there were no significant obstacles and that the time required for implementing the program in each lecture would be one hour. Following this, forty-four learners from the Faculty of Education were selected to take part in the main study. They were included in the study after being parity tested. The main study

consisted of the first experimental group, which was composed of 22 learners, being taught using a cooperative blog, while the second group, made up of 22 learners, were taught using an individual blog. Because a random distribution of participants in the research group was prohibited according to university management policies, the study was conducted on students. However,pre-experimental measures of study achievement and achievement motivation were incorporated to ensure the equivalence of research groups for the study. The assignments for students in the first group included reading, discussing and writing about computer concepts in a cooperative blog shared between 3-4 students, whereas the assignments for the second group included reading and contributing written work to an individual blog by themselves. At the end of the sessions, the test was administered to the participants in

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both experimental groups as a post-test to determine study achievement and achievement motivation.

The list of computer concepts in education included: CD, educational games, educational software, email, computer management instruction, drill and practice, the personal computer, tute education, tutor simulation, problem solving, internet, word processing, programs, computer cultural and special education. The researcher examined the concepts resources and roots, reviewed the literature related to the variables of the study, analyzed the content of the study unit, interviewed college instructors, then showed the arbitrator the content.

In order to design the experimental manipulating materials, the researcher selected ADDIE.

The first stage is Analysis

The literature and previous studies related to the kinds of blogs and its impact was revised to prepare the theoretical framework of the study. The undergraduate students were the target audience of the study, and were asked to read and write on blogs. The study was conducted in the computer lab as it provided access to the Internet. The computer concept unit was the focus content, because it contains concepts and visuals that lend themselves to being taught via blogs. The first experimental group studied the unit by using a collaborative blog and the second experimental group through the use of an individual blog.

The second stage is design

The blogs were divided into two kinds (individual and cooperative), both of which included 25 computer concepts from the computer concepts that were studied by studying collaboratively in the first group and individually in the second group. This was done by using computer codes with clear data, color and consistency of blogs. The scenario for both blog types was drawn up. The achievement test was based on recall and cognitive goals, and featured 25 multiple choice questions to measure students' recall, comprehension and achievement motivation scale (40) items. Then a specification table was made based on the number of questions. Table 2 shows the reliability of the test.

Table 2 Test Reliability

Final grade (n)	Average of grades (m)	Standard deviation (a)	Variation of grades (a2)	Reliability coefficient (r1,1)
٢٥	23.93	6.12	34,45	0.82

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The test results shown in Table 2 indicate that the reliability coefficient of the test is 0.82, which in turn indicates that the test is of high stability, which is reassuring, as it was used as the test among the members of the research sample. In addition, the stability coefficient obtained by the analysis of variance gives the minimum coefficient for the stability of the test. The minimum current stability factor is 0.82, which

means that the test is highly stable, reliable and can be used with a high degree of confidence.

The Spearman correlation coefficient was calculated based on the scores taken from the sample divided by between the total score of the 5 comprehension level questions and the 20 recall questions. Table 3 shows the results of correlation coefficients

Table 3: Correlation coefficients between the degree of each level and the total

score of the achievement test

N	Level	Correlation coefficient
1	Comprehension	0.722
2	Recall	0.610

Table 3 indicates that the the correlation coefficients between the score of each level and the total score of the test ranged between 0.722 and 0.610, all of which are statistically significant at a level of significance of less than 0.01. This finding indicates that the items of each test level are valid.

The third stage is development

The researcher designs the blogs which were titled "The computer and educational program" and contained 24 computer concepts and a blank space to write a comment. The researcher started the production and testing of the methodology used in

the project, then showed it to a number of reviewers in the technology department to check the clarity of the screen, availability, and the basics of building the blog. The researcher conducted a pilot study of 20 learners, not including any participants that were part of the sample used in the main study, to establish the availability of test potential obstacles, and the time needed to conduct the main study (time needed from the first student to the last student answering). The results of the pilot study indicated there were no obstacles hindering the application of the program. Also, the time of an hour in each lecture was

considered adequate. Then, the measurement tool was applied during the post test, data was recorded and monitored, before the data was processed statistically, then the researcher analyzed and discussed the results, making recommendations and suggestions in light of the results

To define the time required to take the test 20 learners participated in a pilot study, and the test time needed was found to be 25 minutes. Cronbach's alpha value was 0.71, which is indicative of a high validity. To see the difficulty facing the researcher when applying the study, it is clear from that that the coefficients of ease ranged from 0.76 to 0.50 and that the difficulty coefficients for paragraphs ranged from 0.23 to 0.41. The coefficient of ease or difficulty is approaching 50%.

The fourth stage is implementation
The researcher tested the individual and cooperative blogs then revised them in terms of the availability of two blog patterns, mistakes, and sources by faculty peers, before sending a link by email to both groups including the title of blog, its goal, how to use it, and the study time. The researcher provided a contact email address and cellphone number for any inquiries related to the blog use. The age of the learners was between 20-24 years old, and 44 male learners participated, all with the ability to deal with visual and written comments. The computer concepts unit was the focus and blogs were used to help to increase the verbal, sensory, mental, and written study achievements and motivation of the learners. Finally, the researcher began and ran the course.

The researcher analyzed the content of the computer concepts unit (comprehension and recall goals). Table (4) shows the values of these transactions.

Table 4 Reliability coefficient of content

Content Analysis of concepts	Number of items	Points of difference
25	25	92%

Table 4 shows that the reliability coefficient is 92%. This indicates a high stability of the analysis. Based on the results of the analysis, the list of educational objectives was determined .The researcher determined the relative weights of the subjects, as well as established the relative weights of the cognitive levels (remembering - understanding) by determining the number of questions related to the subject matter and the number of questions that are related to each level of knowledge in

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the light of the list of objectives and cognitive concepts.

Ease, difficulty, and discrimination coefficient: Ease, difficulty, and discrimination coefficients for test vocabulary: the corrected ease coefficient was calculated from the effect of guesswork, difficulty, and the discrimination coefficient for each of the test items (according to the coefficient of corrected ease of estimation effect) through the results of the application of the test on the survey sample. The coefficient of ease and difficulty and the coefficient of discrimination were used to calculate the coefficient of ease and difficulty of the test as a whole, and were taken as: ease coefficient 1.3, coefficient of difficulty 2.0 and coefficient of discrimination 0.26.

The fifth stage is evaluation

To determine if the goals had been met, the pre and post-tests were made to measure the learners' achievements and achievement motivation. Feedback from learners was considered. The next stage involved recording and monitoring data, and processing the data statistically,

before analyzing and discussing the results. Finally, the researcher was able to make recommendations and suggestions in light of the results. Data management and statistical analysis were conducted using a statistical package for the Social Sciences (SPSS) including (t-test, Arithmetic Averages, standard deviation and Eta square).

The evaluation phase consists of two parts: formative and summative. Formative evaluation takes place during each stage of the ADDIE process. Summative evaluation consists of tests designed for domain specific criterion-related referenced items and provides opportunities for feedback from the users. Achievement test and achievement motivation scale were administered to measure study achievement and achievement motivation for the two experimental groups.

RESULTS AND DISCUSSION

The researcher calculated the test normality of this study. Table 5 shows the values of these transactions.

Table 5 Tests of Normality

	Group	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
		Cooperation	Df	Sig.	Cooperation	Df	Sig.
Post-test	Cooperation	.230	22	.014	.874	٢١	.034
	Individual	.158	22	.200[*]	.841	٢١	.475

Test for Normality

According to Warner (2008), the normality assumption is met when the residuals are normally distributed across the predicted dependent variable scores (students' achievements). The method used to test the normality assumption was Kolmogorov-Smirnov and Shapiro-Wilk. These tests are used to examine if error terms are normally distributed (whereby a p-value of more than .05 means failure to reject the null hypothesis, indicating the error terms are normally distributed) (Warner, 2008). The results of this study confirmed that the normality assumption violated one predictor: individual blog. The normality assumption was violated because the residuals were not normally distributed across the predicted dependent variable scores (students'

achievement) and the other variable was not less than 0.05 statistically significant, with the exception of the cooperative predictor.

There were no significant differences in the level of $\alpha \leq 0.05$ between the mean scores in the use of computers in the special education subject (computer concept unit) of the first experimental group, which used a cooperative blog, and the second experimental group, which used an individual blog, on the pre and post-tests due to the program.

The t-test for the two independent samples was conducted to assure the equalization of two groups in the achievement pre-test by having the same experience in terms of computer concepts unit. The results are shown below in Table 6:

Table 6 The equalization between the two groups (pre-test)

Group	N	Mean	Std. Deviation	T	Df	Sig. (2-tailed)
Cooperative	22	13.14	1.679	1.812		
Individual	22	12.27	1.535	1.812	42	.077

Table 6 shows that there are no statically significant differences between the mean scores of the first experimental group (using a cooperative blog) and the second experimental group (using an individual blog) on the pre-test achievement test. As p $\leq$ 0.05, it

means it is accepted as a null hypothesis.

The t-test for the two independent samples was conducted to measure the study achievement of the two groups in terms of computer concepts unit during the post-test. The results are shown in Table 7 below:

Table 7 The post-test from the two groups

Group	N	Mean	Std.	T value	Df	Sig. (2-
Cooperation	22	24.59	1.501	2.607		
Individual	22	23.37	1.620	2.607	42	.013

The results of the study analysis in Table 7 show the results N= 44, p< 0.05 from the first experimental group of 22 students and a second experimental group of 22 students. In terms of the students' achievements, the first group (taught using a cooperative blog) reported a means of $\bar{x}$ = 24.58 in the posttest, with a standard deviation of σ = 1.501, while the second group (taught using an individual blog) reported a mean score of $\bar{x}$ =23.37 posttest, with a standard deviation of σ = 1.620. After running a t-test on group one, it showed that the difference between the posttest = 1.23, highlighting that there was an improvement in students' achievement based on their results. P= .000. As p< 0.05, the results indicated that there were statistically significant differences in the achievements mean groups. The findings showed that the first group did significantly better than the second group in terms of their achievements. The results also indicate that the use of a cooperative blog can influence students' achievements in the unit titled Computer Concepts. The researcher attributed this to the impact of the cooperative blog, as it led to

classroom discussion, and in turn, learners increased their study achievement. However, the individual blog did not increase students' achievement because they worked individually, which led to them losing focus and not paying attention when learning the computer concepts. These findings are consistent with several previous studies regarding the use of cooperative blog in teaching and learning such as the findings of Abu Khater (2014); and Sidek and Yunus (2011). These findings contrast with those of Noel (2015); and Zhang, Song, Shen, and Huang (2014) regarding the use of individual blogs in teaching and learning.

There is no significant differences at level of (α≤0.05) between the mean scores of the first experimental group (using a cooperative blog) and the second experimental group (using an individual blog) in the pre and post-tests of achievement motivation due to the program.

The t-test for two independent samples was conducted to assure the equalization of the two groups in the pre-test regarding achievement motivation by having the same

experience. Table 8 shows the results of the pre-test:

Table 8 The equalization between the two groups (pre-measurement in

achievement motivation).

Group	N	Mean	Std. Deviation	T value	Df	Sig. (2-tailed)
Cooperative	22	152.77	16.816	-.776		
Individual	22	166.50	12.766	-.776	42	.442

Table 8 shows that there is no statically significant differences between the mean scores of the first experimental group (using cooperative blogs) and the second experimental group (using individual blogs) on the pre-measurement in terms of achievement motivation. As $p \leq 0.05$, which means it accepted the null hypothesis.

The t-test for the two independent samples was conducted on a scale to measure the achievement motivation of the two groups in the post-test. Table 10 shows the results of the post-measurement:

Table 9 The post-measurement of achievement motivation

Group	N	Mean	Std. Deviation	T value	Df	Sig. (2-tailed)
Cooperation	22	201.23	10.004	16.173		
Individual	22	127.86	18.778	16.173	42	.000

The results of the study analysis in Table 9 show the results N= 44, p< 0.05 for the first experimental group of 22 students and a second experimental group of 22 students. In terms of the students' achievements motivation measurement, the first group (taught using a cooperative blog) reported a means of $\bar{x}$ = 201.23 in the posttest, with a standard deviation of σ = 10.004, while the second group (taught using an individual blog) reported a mean score of $\bar{x}$ =127.86 posttest, with a standard deviation of σ = 18.778. After running a t-test of group one, it was shown that the difference between the posttest = 73.37, highlighting that there was an improvement in students' achievement motivation based on their results. P= .000. As p< 0.05, the results indicated that there were statistically significant differences in the achievement motivation mean groups, as shown in Table 10. The findings showed that the first group did significantly better than the

second group of respondents in terms of their achievement motivation. The results indicate that the use of a cooperative blog can influence students' achievements motivation measurement. The researcher attributed this to the impact of the cooperative blog on sparking classroom discussion, which in turn lead to learners increasing their study achievement. The results of the study analysis show that there is a strong, positive correlation between the use of cooperative blogs and students' motivation. Cooperative blogs provide learners with the opportunity to share experiences, work actively, search for information in a number of places online, interact with classmates, and write comments. These findings are consistent with other studies that have demonstrated that blogging can provide an increase in motivation and collaboration (Hsu and Wang, 2010; Lee, 2010; Sun, 2009).

The researcher calculated the measures of association of this study. Table 10 shows the values of these transactions.

Table 10 Measures of Association

	Eta	Eta Squared
Post-test* group	.966	.924

Table 10 shows the eta squared for the total grades of the posttest for the use of computers in special education subjects for the study sample (.924), which is equal to 92.4% from the grade changes of the posttests for both study groups, with the favor in the first group that taught by cooperation blog.

Implementing technology when teaching computer concepts creates a new class environment. Blogs are the most important tool of all the web 2.0 technologies to improve students' achievement, and the use of blogs could be adopted as a way of understanding the concepts, as students are motivated to learn independently. In the current study, learners were involved in online lessons via the blog, which they also used as a platform to explore the concepts both individually and together. Furthermore, learners were able to negotiate each concept then write their response.

Reyes and Izquierdo (2009) highlighted the impact of blogs for leading classroom discussion, as they showed that learners can increase their level of study achievement. Therefore, it is not surprise that the experimental group showed a significant difference in the posttest in this study. This study showed that blogs can be provide an educational setting for the learning of knowledge and information sharing. The study

recommended instructors use a teachers' blog to increase the amount of information taught by attaching students' videos, assignments and writings to the blog.

Conclusion

The study aimed to establish the effectiveness of using two different types of blogs, specifically individual and cooperative blogs, in the teaching of computer concepts as part of the special education subject (computer concepts unit) on students' achievement and its relation to achievement motivation. The study used a quasi- experimental approach through pre and post tests and a measure tool to ascertain the achievement motivation for the two experimental groups, consisting of a total of 44 undergraduate students from the Faculty of Education at Albaha University during the first semester of the academic year (1440AH-2018AD). The sample were randomly selected and divided into two experimental groups; the first experimental group consisted of 22 learners who studied with the aid of a cooperative blog method; while the second experimental group consisted of 22 students who studied by using the individual blog method. The researcher used the ADDIE model for teaching the computer concepts unit to both groups. The computer concepts test was constructed and its reliability and validity were verified. After the experiment was applied and

the data had been analyzed, the results showed that there were statistically significant differences at a level of $\alpha \leq 0.05$ between the mean students' scores of the first and second experimental group in the post achievement test in favor of the first experimental group, as well as a positive correlation between the study achievement and achievement motivation, thus concluding that the cooperative blogs are an effective tool in teaching and learning the use of computer concepts in special education at university.

RECOMMENDATIONS FOR STUDY

It is important that the teacher employees the cooperative blog according to the subject.

It is also important that the instructors develop their design blog skills.

As the sample of the current study only included leaners from the Faculty of Education at Al-Baha University, in Saudi Arabia, future studies are needed to include learners from other colleges, to increase the sample size and generalize the data.

SUGGESTIONS FOR FUTURE STUDY

More studies are needed to investigate the effectiveness of individual and cooperative blogs on learning in other subjects.

As the sample of the current study only included male participants from the Al-Baha educational college at Al-Baha University in Saudi Arabia, future studies are needed to include females and participants from other cities.

Compare all types of blogs such as personal and cooperate to know the impact on motivation, achievement, and communication.

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