EFFECTS OF COMPUTER GRAPHICS AND ANIMATION INSTRUCTIONAL MODES ON JUNIOR SECONDARY STUDENTS' SKILLS ACQUISITION IN BUSINESS STUDIES IN IBADAN, NIGERIA

Olamigoke Grace Odoarefe & Ibode, Felix Osa
International Centre for Educational Evaluation,
Institute of Education, University of Ibadan
E-mail: olamigokepeace@gmail.com&felixibode@yahoo.com

Abstract

The level of students' skills in Business Studies at the Junior Secondary School Certificate Examination is poor in Nigeria. The curriculum specifies that the skills aspect should be taught practically, using a computer, reports have, however shown, that these aspects of the subject are taught and examined theoretically. Extant studies on how to improve students' skills in Business Studies have focused largely on other teaching methods, but with little attention paid to the use of Computer Graphics Instructional Mode (CGIM) and Computer Animation Instructional Mode (CAIM). The study, was therefore, designed to investigate the effects of CGIM and CAIM on Students' Skills Acquisition in Business Studies (SABS). The moderation effects of Students' Interest (SI) were also examined. Purposive sampling was used to select two Local Government Areas from Ibadan city and one Local Government Area from Ibadan less city. Purposive sampling technique was used to select nine schools that had functional computers (six from Ibadan city, three from Ibadan less city). Two hundred and seventy junior secondary school students participated (Thirty JSS – students were selected from each school). Ninety students were randomly assigned to each group CGIM, CAIM and Control. Instruments used were business studies skills acquisition scale (r=0.86) and business studies interest scale (r=0.84). The treatment lasted eight weeks. Data were analyzed using analysis of covariance and Sidak post-hoc test at 0.05 level of significance. There was a significant main effect of treatment on SABS ($F_{(2,257)} = 14.99$, partial $\eta^2 = 0.10$). Students in CAIM had the highest mean score (47.36) in SABS, followed by students in control (44.90) and CGIM (42.88) groups. There was a significant main effect of SI ($F_{(2,257)} = 9.14$, partial $\eta^2 = 0.034$) on SABS. Students with high interest had the higher mean (45.38) than low interest group (44.71). The highest mean score was

from CAIM (47.83), followed by CGIM (46.92) and control (45.80) groups The computer graphics and animation instructional modes enhanced junior secondary school students' academic achievement and skill acquisition in Business Studies. These instructional modes should be employed by teachers.

Keywords: *Computer graphics instructional mode, Computer animation instructional mode, Skill acquisition in Business Studies and Interest*.

Introduction

Business Studies is taught as one of the essential subjects with the intention to enable students acquire useful skills for a more functional living within the society. Business activities affect the everyday lives of all Nigerians as they work, spend, save, invest and travel. It influences job, livelihoods, and opportunities for personal enterprise. It has a noteworthy impact on the quality of living and quality of life of individuals, including the environment in which we live and which future generations can obtain (Ekanem, 2008). Business Studies is a commercial subject that formed the essential foundation in the Junior Secondary School system in Nigeria. Business Studies is a part of vocational training that prepares people with the required skills and hypothetical knowledge required for performance in the business world either for Government work or for independent work.

Osuala (1998) noticed that a search for a method of providing the young people with the instructive experience which can outfit them with essential skill and abilities is the principal objectives of the 6-3-3-4 system of education introduced in Nigeria. The National Policy, according to Osuala is capable of providing secondary school students with the required pre-vocational skills with a view to permit them to be helpful to themselves and to the society in which they live. The Federal Republic of Nigeria (FRN) (2004) emphasized the inclusion of vocational and technical education subjects in the curriculum in order to make the recipients immediately employable or self-reliant on leaving school. To this end, the secondary school system is provided in two phases, namely the Junior Secondary School (JSS) and the Senior Secondary School (SSS).

Along these lines, the National Policy on Education (2014) stipulates the following as the aims of pre-vocational Education in Nigeria, the introduction of students into the universe of technology and decision of vocation at the end of Junior Secondary School and in future;

(i) Acquisition of skills in business;
(ii) Exposing students to vocation mindfulness by investigating usable options in the world of work; and
(iii) Enabling youth to have an intelligent comprehension of the expanding intricacy of technology.

However, Business Studies includes a number of skills such as keyboarding as a communication tool, computer skills in business studies, typewriting skills, but this study focused on keyboarding as a communication tool such as page set-up, techniques development in keyboarding, paragraphing, printers' correction signs and marks, which can only be taught and developed systematically.

It has been observed that students' performance in Business Studies is not very encouraging. The poor overall performance of students in Business Studies presently might be related to the fact that they are not taught practically the practical aspect of the subject which leads to the acquisition of skills in Business Studies. The skills aspect is expected to be taught practically to enable the students to demonstrate what they have been taught theoretically. The curriculum specifies that Business Studies should be taught both practically and theoretically, but experience shows that teachers only focus on the theoretical aspect of Business Studies than the practical aspect.

Skills in Business Studies are taught in an unattractive and less interesting way, and also the impact of lack of qualified teachers has a negative effect on the acquisition of business skills (Mohd 2010)

Moreover, the use of suitable teaching method is important to triple-crown teaching and learning of the subject for proper acquisition of skills. The teaching method is described as a combination of several teaching behaviours and the way they are put together to bring about positive change in learners (Nzewi, 1999). Universal Basic Education Board (UBEB) (2008) sees the teaching method as the ability for the purpose of understanding. It was further described as a supporting

device which a teacher uses to emphasize ideas, points, beliefs, etc. through communication and manipulation of resources.

The conventional method according to Lai (2002) is not the most effective teaching method, because it concentrates completely on intellectual development and disregards empirical learning. Moreover, the skills aspect of Business Studies such as page set-up, printer's correction marks and signs, paragraphing cannot effectively be taught within the four corners of the classrooms without using computers. So, there is a need for Business Studies teachers to have a change of teaching method in order to see how it can influence the acquisition of skills.

Computer graphics is the creation, storage, and manipulation of colours, drawings, and pictures with the aid of a computer system (Adekoya and Adekoya in Sangodoyin, 2011). They are constituted of by way of an extensive kind of rendering software. Chen, Shi, and Xuan (2007) concluded that because of development in rendering technique, computer graphics appear so realistic that it could be used as a resounding shape of photographic photo forgery. Computer graphics consist of different software packages which can be used for graphics presentation programs for effective teaching and learning. It can be found in art, science, sports, in fact everywhere (Sangodoyin, 2011). The most popular graphics software packages used for graphics instructional modes are CorelDraw, Microsoft power point and computer-aided design (CADs)

According to Sangodoyin (2011), the graphics presentation modes are designed to help teachers produce high-quality learning and teaching packages, concepts, and ideas or lesson plan that are interesting to learners and effective in its ability to convey teacher's message. Therefore, this study used Microsoft power point, coral draw and Snagit for the software package to teach the selected topics. Adeyemi (2016) in his study found that graphics instructional modes had a great impact on improving students' skills acquisition. However, the finding of Hisham (2017) indicated the effectiveness of the graphics program acquisition of some of the media skills for mass communicators at schools

On the other hand, the animation is the method of photographing successive drawings or positions of puppets or to form a phantasm of movement while the film is displayed as a sequence

(Mayer and Moreno, 2002). The animation is the use of drawing, cartoons and other graphic materials to form motion photos. Precisely, computer animation images in motion (Dywer and Dywer, 2003). The animation is life in graphics (Olamigoke, 2019). Computer Animated-media instructional strategy is a form of animation instructional methodology that apply the utilization of computer animation, graphics, and comics in classroom teaching. Mayer, (2001) noted that animated instruction related to the use of Video Compact Disc (VCD), Digital Video Disc (DVD), Power point, or 16mm film is used in animation teaching.

Hoffler and Leutner (2007), study the effect of instructional animation versus still images. The meta-analysis showed that animation is superior over static picture presentation. Rahmat, (2010) indicated that computer animation learning courseware had given a positive impact on students' performance in visual art education subject. Owolabi and Oginni (2014) ascertain that there is a significant difference in the performance of science students exposed to cartoon animation than their counterparts exposed to lecture method only. The difference is in favour of students exposed to the treatment.

Furthermore, Renninger and Hidi (2011) put interest as an essential psychological and emotive psychological feature variable that guides attention, facilitates learning in diverse content areas, for all students of all ages, and develops through practice. Mazer (2013) defines interest as a kind of consciousness accompanying and stimulating attention, a pleasant or painful feeling directing attention. Interest can be defined as a pre-determinant of one's insights that is, what aspect of the world one is most possible to see continuously (Mc Clnermey, Dowson, Young and Nelson, 2005). It can be a temporary or permanent feeling of preference.

According to Bafadal (2005), interest is not always an end outcome of human nature but can be shaped and cultured learned and developed. Interest means a preference for engaging in some types of activities rather than others. When one is interested in a particular activity, he or she is inclined to attend to it. Interest additionally refers to a state of looking to recognize or learn about something or a person. Aggarwal (2009) ascertained that the aim of teaching is to defend the students' attention through arousing and sustaining interest in lessons of multi-dimensional instructions. Mangal (2010) reported that ideal

learning environment and techniques, purposeful teaching materials and a stimulating teacher have a positive effect on students' interests in learning. However, students' interest could be stimulated and maintained through the utilization of multimedia instructional method (Adegoke, 2010).

Abanikannda (2018) worked on the effects of technology tools on students' interest in Biology. The researcher's findings revealed that students make use of technology tools for learning in High schools influence their interest in learning Biology, but technology tools for learning Biology are scarce. Alexander, Jetton, and Kulikowich (1995) using a science subject also found out that there is a positive correlation between Mathematics and Physics. Hidi in Obafemi (2014) stated that interest most often is directly tied to the context or instruction, and it also directs and enhances learning. Forming conditions that request students to form their own questions helps keep them interested (Hidi and Renninger 2006). Most researchers like Krapp (2004) believed that interest emerges from an individual's interaction with his or her environment**.**

Business skill acquisition refers to the system of training by people or group of people which can aid acquisition of knowledge for self-reliant. Business skill acquisition, which is an instrument of empowerment, seeks to provide people with skills, vocation and entrepreneurial skills, such as bead making, hat making, sewing, shoemaking and making workers interested in their job and at the same time improving on their existing skills. These practical training skills which also include carpentry, upholstery, and others will in no doubt help to reduce or eradicate the poverty level. The United Nation Development Report (1990) says enhancing the human factor is the real wealth of a nation. It is through human creativity, initiative, capability, and commitment that authentic improvement may be completed. Skill acquisition is the procedure and the method of liberating human strength, it means imparting a possibility for human beings to make the most contributions to their very own improvement and to the self-improvement of their communities.

According to Ogundele, Oluwolara and Adegbemi (2011), business skills achieved by students would help job creation, young people empowerment and poverty alleviation, which in turn have the capability to resolve diverse social complications. Mbionwu (2008)

stated that students who acquire business skills have better opportunities to become entrepreneurs after graduating from school. Acquisition of skills is the technique of describing the habit of lively thinking or manners in a very precise action (Ochiagha, 1995). The researcher additionally explicit that skill acquisition is the capability to try to or do a bustle that is connected with meaningful exercise, work or job. The researcher affirms that in developing a skill, suitable understanding, attitudes, habits and merits of character are learned to assist the learner to improve an intelligent, emotional and ethical eccentric which fixes him or her for a favorable destiny.

Asante in Buwai (2004) found that skill acquisition helps to reduce the level of poverty if human beings are trained in various areas and they, in returns, make wealth for themselves and their instantaneous surroundings. In addition, Donli (2004) is of the opinion that acquisition of skills in business is the display of notion and information with the aid of training which is moved towards imparting in people, entrepreneurship spirit required for significant improvement. The researcher further emphasised that if people allowed the opportunity to obtain skills that are relevant desired for self-sustenance in the economic system, tendencies to acquiring marketable skills will be eminent, which might stimulate their charisma in any work surroundings. Kikechie, Owana, Ayodo, and Ejakait (2013) retain that acquisition of skills in business offers a podium for quality in technology in the world economic system.

Akpotowoh and Amahi (2006) affirm that the business skills acquired through business-related subjects, promote training in entrepreneurship, in addition to furnish students with the requisite skills to establish and run small organizations of their own.

Adah, Omalle, and Okedi (2008) attributed the poor level of skills acquisition to the implementation of the different subject matter, or among other things such as poor infrastructural facilities. Mbar, (2006) observed that pre-vocational subjects like Introductory Technology, Home Economics, Agricultural Science etc. were poorly implemented with obsolete and non-functional equipment.

Dasmani (2011) found that there is a low correlation between entrepreneurial skills and paid employment. Amadi (2012) found a significant positive influence of entrepreneurial skill acquisition and tertiary education on enterprise creation. However, due to lack of

materials, laboratories, equipment needed for exploratory activities, these subjects are taught in a traditional teacher-centered classroom, while students copy notes from the chalkboard. According to Magbagbeola (2004), business skill acquisition requires the buildup of various skills that enhance performance of task through the combination of theoretical and practical forms of knowledge. Ola (2013) recommended that youngsters empowerment is better performed through entrepreneurship schooling. In a look at the determinants of skills acquisition and professional know-how obtained by Nigerian graduates through the present day university curriculum, using primary research methods, he discovered that entrepreneurial training is satisfactorily acquired in the school settings. Also, gaining knowledge by doing is visible as the first-class method or technique to train entrepreneurial education.

Nigeria is rapidly a principally the world of youths with a high rate of joblessness; therefore, it entails teaching of youth skills in technical and vocational education in order to attack joblessness that has grasped a disquieting proportion. However, with the introduction of quality acquisition of skill programmes, nations like America, Germany, Japan etc. have changed drug addicts, school failures and numerous indigent which ultimately assisted expressively to the economic system and the growth of the high capacity of output in their nations. Kanyenze, Mhone, and Sparreboom (2000) underscore that training in vocational and technical skills will decrease youth relegation.

Statement of the Problem

Business studies occupies an important position in Nigeria's transformation towards business development, as the subject is a vocational subject presently taught in Junior Secondary Schools in the country. However, the present method of teaching the subject in school is largely attributable to the existing conventional method currently used in teaching the subject. Business Studies curriculum for Junior Secondary School specifies that the skills components (paragraphing, techniques development in keyboarding, page set-up, printers' correction signs and marks) should be taught practically, using a computer, reports have, however shown, that these aspects of the subject are taught and examined theoretically.

In addition, students' performance in Business Studies is not encouraging. A number of studies have been carried out by researchers in an attempt to identify what may be accountable for students' poor performance and poor acquisition of skills in the subject. Many of these studies looked at school, teachers, students, class-size and home as factors that may be hindering teaching and learning of skills in the subject. But it seems none of these studies has addressed the issue of instructional strategies, especially as it relates to the use of computer graphics and animation instructional modes on Junior Secondary School two acquisition of skills in Business Studies in South West, Nigeria. Therefore, this study investigated the effects of computer graphics and animation instructional modes on the acquisition of skills in Business Studies in Ibadan, Nigeria.

Hypotheses

H_{01}. There is no significant main effect of treatment (Computer graphics and animation instructional modes) on students' skills acquisition in Business Studies.

H_{02}. There is no significant main effect of interest on students' skill acquisition in Business Studies.

H_{03}. There is no significant interaction effect of treatment (Computer graphics and animation instructional modes) and interest in students' skills acquisition in Business Studies.

Theoretical background.

Psychomotor Theory

Gottfried Wilhelm Leibniz develop psychomotor or psychophysical theory during 1646 – 1716. The theory pertains to extrasensory motion that these days has protracted to communication that includes telephone skills, and computer operations like information entry, and keyboard skills etc. These include mind and physique harmonization. In psychomotor as is completely in different spheres, there are three rudimentary stages in the general educational method namely; imitation, practice and habit.

Operative use of the ideologies of psychomotor theory gives knowledge on ways in which instruction in a skill primarily based areas may be used to teach students. At the imitation phase, the instructor stocks the knowledge contents and shows the skills. It is at this phase

that teacher demonstrates the vital facts regarding the skill, which includes details, contextual information and safety deliberations. Then the skills are divided into petite steps, verified and then the student is permitted to replicate the skill.

At the second stage, the student is permitted to drill with the teacher and later alone continuously, with comment from the teacher till major skill is grabbed. Also, the learner can raise questions, get response, and attempt to do the practical task.

The time at a skilled level. The overall performance will become natural, when the students gets to this stage, the students should be able to make his personal model of the skill and teach other people.

The use of psychomotor theory is very important in this study as students were anticipated to master numerous ICT aspects that are related to business studies such as, page set-up, printers' correction signs and marks techniques development in keyboarding, with the use of Microsoft word to form documents. During teaching, the learners are supposed to mimic the teacher that discusses the contents and demonstrates the skills. The students continue to practice till they become expert. The theory permits for the generation of understanding, transfer of skill and information. It is relevant to this work because it addresses the cognitive and physical facet of the learner. Experiential learning has the learners directly involved with the materials being mastered rather than talking and thinking about the materials. The theory is related to this study because ICT skills can solely be developed through learning and training. Through continuous practice, learners' movement relating to psychomotor activities become additional skillful; at the similar time, their knowledge increases and they also develop certain traits so attained together. Business Studies is a task oriented subject and for task to be accomplished, the task must be broken into modules so as to deliver operative response. As a result of constant practice, the skills become automatic.

Methodology

(i) Design

This study adopted a pre-test, post-test, control group quasi-experimental design.

(ii) Population, Sampling Technique and Sample

The target population of this study comprised public schools with computers, Junior Secondary School students and their teachers in Ibadan, Oyo state. Purposive sampling technique was used to select two Local Government Areas (LGAs) (Ibadan North, Ibadan North West) from Ibadan city and one Local Government Area (Akinyele) from Ibadan less city, totaling three LGAs. Purposive sampling technique (based on schools that had functional computers) was also used to select six schools from Ibadan city and three schools from Ibadan less city, making a total of nine (9) schools from the three chosen LGAs. Thirty Junior Secondary School students in each of the schools were randomly selected making a total of 270 students.

The schools that took part in the experimental study;

i. had at least ten functional computers system with a standby generator each;
ii. were co-educational and;
iii were far from one another in terms of distance to avoid undue interaction among the participants of one school and the other.

The selected schools were assigned to each of the treatment. That is, three schools were assigned to each of the groups (Computer graphics instructional modes, computer animations instructional modes and conventional lecture method of teaching). Finally, in each of the schools that were selected, simple random sampling was adopted to select an arm of JS II. The class was chosen because the class had covered a large proportion of the Junior Secondary School's Business Studies curriculum thereby having sufficient knowledge in Business Studies.

(iii) Instrumentation

Two validated instrument were used in this study. They were:

Business Studies Interest Scale (BSIS)

The researcher developed the instrument. The instrument has twenty (20) items on a three (3) point Scale and consisted of two sections. Section A was used to capture the biodata of respondents, gender, age and class of the respondent. Section B contained the responses to the statements in the questionnaire. Ranging from Always (A), Often (O), to Rarely (R). The instrument was subjected to face and content validity by experts in the field of Business Studies as well as some lecturers in the International Centre for Educational Evaluation. Cronbach Alpha was used to establish the reliability of the instrument which yielded a value of 0.84. The positive items were scored 3, 2, and 1, while negative items were reversed in the opposite way.

Skills Acquisition in Business Scale (SABS)

Skills Acquisition in Business Scale (SABS) was constructed specifically by the researcher to assess the nature and level of students' skill in Business Studies. It consists of two sections A and B. Section A contains information about students' gender and age. Section B consists of twenty (20) items. The items were placed under three respond format scale of Highly Skilled (HS); Moderately Skilled (MS); Less Skilled (LS) with 3,2,1-point scale. The instrument was subjected to face validity. The reliability of the items was determined using Cronbach Alpha which gave a value of 0.86. Each of the items was rated as follows; 3, 2 and 1.

Treatment and Procedure

Three treatment packages were prepared by the researcher as a guide for the research assistants (Business Studies teachers) that participated in the study. Each of the nine schools selected was assigned to treatment and control groups. The pre-test was administered to participants before the treatment. The three groups were exposed to treatment after which post-test was administered on them.

Treatment Groups

The trained teachers served as research assistants to teach the selected topics in the manual package prepared by the researcher. Students were taught page set-up, printers' correction signs and marks, techniques development in keyboarding and paragraphing using computer graphics and animation instructional modes packages. Pre-

test and post-test were given the students before and after treatment respectively to determine the effect of the treatment. Adequate tasks were given to students to carry out as class exercises and as take home assignment.

Conventional Method Instructional Guide (CMIG)

Students in this group were not exposed to any treatment package. Students were taught same topics with those in the treatment groups. The students were also given tasks to carry out in form of class work exercises and homework just as those in the treatment group. They were given pre-test and post-test before and after teaching and learning exercises.

Data Analysis

The study adopted the Analysis of Covariance (ANCOVA) to analyze the data collected. This is to test for the significant differences between group mean and to control for the effect of covariates.

Hypothesis 1: There is no significant main effect of treatment (computer graphics and animation instructional modes) on junior secondary two students' skills acquisition in Business Studies.

Table 1.1: Analysis of the Analysis of Covariance (ANCOVA) of Students' Skill Acquisition in Business Studies by Treatment (Graphics, Animation and Conventional Method) and Interest

Source	Type III Sum of Squares	Df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	18559.725	12	1546.644	91.906	.000	.811
Intercept	3810.486	1	3801.486	225.895	.000	.468
Pre Skill Acquisition	1796.030	1	1796.030	106.725	.000	.293
Main Effect						
Treatment	504.451	2	252.225	14.988	.000	.104
Interest	153.735	1		9.135	.003	.034

			153.735			
2-Way Interaction Effect						
Treatment*Interest	865.558	2		25.717	.000	.167
			432.779			
Error	4324.942					
		257	16.829			
Total	583218.000					
		270				
Corrected Total	22884.667					
		269				

Table 1.1 presents the summary of Analysis of Covariance (ANCOVA) of students' post-test skill acquisition scores in Business Studies by treatment and interest. The table indicates that after adjusted for the covariance (pretest scores in skill acquisition in Business Studies), there was a significant effect of treatment on students' skill acquisition in Business Studies; $F(2,257) = 14.99$, $p < 0.05$. The null hypothesis which stated that there is no significant effect of treatment on students' skill acquisition in Business Studies was therefore rejected. This implies that the treatment improved students acquisition of skills in Business Studies. Also, the table shows that the partial eta squared was estimated to be 0.104. This indicated that treatment account for 10.4% of the variance observed on students' acquisition of skills in Business Studies.

Hypothesis 2: There is no significant main effect of interest on students' skills acquisition in Business Studies.

Table 1.1 shows that there was a significant main effect of interest on students' skills acquisition in Business Studies, $F(1,257) = 9.14$, $p<0.05$. The null hypothesis which stated that there is no significant effect of treatment on students' interest in Business Studies was therefore rejected. The partial eta squared estimate was 0.034. This implies that 34% of the variance observed in the skill acquisition was due to treatment.

Hypothesis 3: There is no significant interaction effect of treatment and interest on Junior Secondary two skills acquisition in Business Studies.

Table 1.1 indicates that there was a significant interaction effect of interest on Junior Secondary Two Students in Business Studies, F (2,257) = 25.72; p < 0.05. Consequently, the null hypothesis that stated that there is no significant interaction effect of interest on Junior Secondary two students' skill acquisition in business studies was rejected. This implies that the treatment and interest improved students acquisition of skills in Business Studies. Also, the table shows that the partial eta squared was estimated to be 0.167. This indicated that treatment and interest account for 16.7% of the variance observed on students' acquisition of skills in Business Studies.

Table1.4: Marginal Mean of Students' Skill Acquisition in Business Studies by Treatment and Interest

Treatment	Business Interest	Mean	Std.Error	95% Confidence Interval Lower Bound	Upper Bound
Graphic Instructional Mode	High	38.852[a]	.950	36.982	40.722
	Low	46.915[a]	.594	45.746	48.083
Animation Instructional Mode	High	47.834[a]	.982	45.901	49.768
	Low	46.889[a]	.949	45.020	48.758
Control	High	45.795[a]	.988	43.849	47.742
	Low	43.998[a]	1.183	41.670	46.327

Table 1.4 presented the estimated marginal mean of students' skill acquisition in Business Studies by treatment and interest. It is indicated in the table that students with low interest in the graphics instructional mode had the highest mean score of ($\bar{x}$= 46.915), followed by students with low interest in the animation instructional mode with the mean score of ($\bar{x}$= 46.889), while students with low interest in the conventional teaching method had the lowest mean score of ($\bar{x}$=43.998). Also, table 1:4 showed that students with high interest in the

animation instructional mode had the highest mean score of ($\bar{x}$=47.834); followed by students with high interest in the conventional teaching method ($\bar{x}$=45.795), while the students with high interest in the graphics instructional mode had the least mean score of ($\bar{x}$=38.852). However, the difference in their mean was statistically significant.

In order to examine the line of interaction, a line graph was constructed to disentangle the interaction as shown in fig. 1:1

Fig.1.1: Interaction Effects of Treatment and interest on Students' Skil ls Acquisition in Business Studies

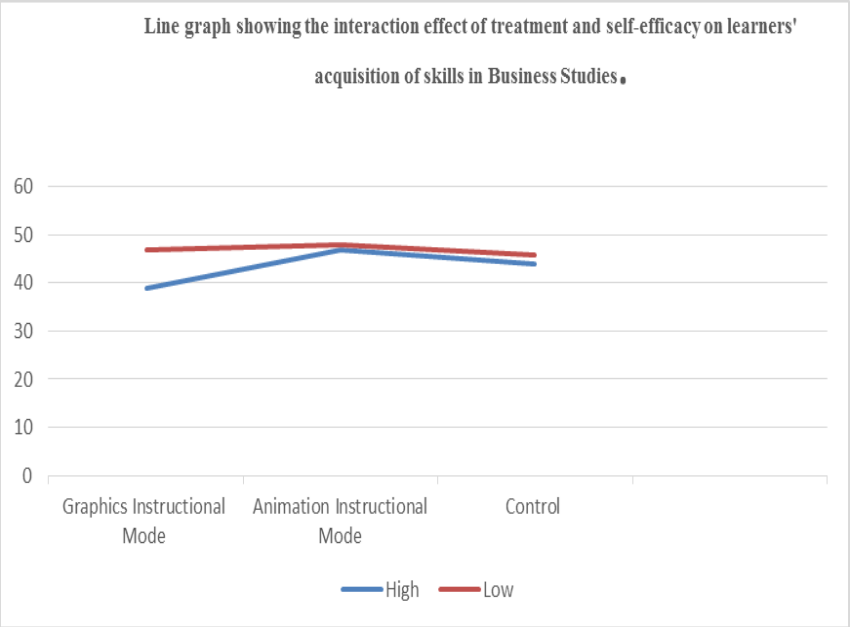

Fig.1.1 shows that students that have low interest (46.915) performed better than students that have high interest (38.852) using graphics instructional mode, but for students who have high interest (47.834) performed better than students that have low interest (46.889) using animation instructional mode. In similar vein, students in conventional method (control group) that have high interest (45.795) performed better than students who have low interest (43.998**).** Observing the interaction critically, one can conclude that the statistical difference

was stronger with students who were taught with animation instructional mode, while those who were taught with graphics instructional mode had the least mean scores, with the students with high interest obtaining higher mean score (47.834) than students with high interest (38.852). Consequently, the null hypothesis that stated that there is no significant interaction effect of treatment and interest on junior secondary students' skill acquisition in Business Studies was rejected.

Discussion

The result showed that there was a significant main effect of treatment (computer graphics and animation instructional modes) on Junior Secondary students' skill acquisition in Business Studies. This implies that computer graphics and computer animation instructional modes increase students' skill acquisition in Business Studies. It was unveiled that students who were taught with animation instructional mode had the highest mean score in skill acquisition, followed by students in the control group while those taught with graphics had the least mean score. This implies that skill acquisition is a factor to be considered when teachers want to use any of the approaches in this study in teaching Business Studies. When a good instructional method like animation instructional modes is employed and implemented, students' skills acquisition is improved and enhanced. This finding is in support of Dasmani (2011) who found in his study a low correlation between entrepreneurial skills and paid employment. Also, this finding collaborates with the findings of Amadi (2012) who found a significant positive influence of entrepreneurial skill acquisition and tertiary education on enterprise creation.

However, despite the fact that skill acquisition of students in the control group was enhanced better than those in the graphics instructional modes, this does not mean that graphics instructional modes can improve students' skills acquisition in Business Studies. This could be due to the fact that students are used to the conventional teaching method. The implication of this finding is that any Business Studies teacher that is aimed at improving students' skills in Business Studies should embrace animation teaching method and conventional teaching rather than graphics instructional modes. The result of this finding is in consonance with findings of Adeyemi (2016) who found

that, although graphics instructional modes did not improve the acquisition of skills over the conventional teaching method, graphics instructional modes had a great impact in improving students' skills acquisition in the matter. However, this finding contradicts the finding of Hisham (2017) who indicated the effectiveness of the graphics program acquisition of some of the media skills for mass communicators at schools.

The result revealed that there was a significant main effect of interest on junior secondary school students' achievement in Business Studies.

The study showed that students with high interest in skill acquisition had the highest mean score while the students with low interest in skills acquisition had the least mean score. This result is in line with the findings of Abanikannda (2018) who worked on the effects of technology tools on students' interest in Biology. His findings revealed that students make use of technology tools for learning in High schools influence their interest in learning Biology, but technology tools for learning Biology are scarce.

The interaction effect of treatment and interest on students' skill acquisition in Business Studies was significant. Treatment and interest when taken jointly had an effect on students' skill acquisition in Business Studies. The interaction effect of treatment and interest less than one percent of the variance observed. The reason adduced to this result is that the sampling techniques used in the study did not consider the disparity in the level of students' interest whether high or low, that is students were randomly assigned to treatment group without prejudice to their level of interest. This may seem to be why the interaction effect of treatment and interest produced a significant effect on students' skills acquisition in Business Studies. Students tend to enjoy equal benefits when given an equal opportunity to learn without being biased. This finding is in support of Isidore and Razak (2016) who worked on the effect of skill acquisition on enterprise creation among Malaysian youths.

Conclusion

The result of this study provides empirical evidence that there is a significant main effect of the teaching methods on students' learning outcome and acquisition of skills in Business Studies. This is an

indication that students perform better when the appropriate teaching method is used to teach. Computer Graphics and Animation instructional modes is a teaching method which gives a good way of getting bright ideas and helps learners perform better in Business Studies. The result showed that those who were exposed to conventional teaching method had a lower mean score in acquisition of skills in Business Studies.

Recommendations

There is a need for curriculum planners to ensure that the skills aspect of Business Studies as specified in the curriculum to be taught practically, are taught practically in particular with the use of computers. There is a need for the government to organize seminars, workshops, and conferences for teachers to enlighten them on the use of these teaching methods. There should be adequate provision of computers and computer rooms in schools to enhance the effective delivery of instructions.

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