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EFFECT OF ANIMATED INSTRUCTION RESOURCES ON TERTIARY STUDENTS' ACHIEVEMENT AND INTEREST IN CITIZENSHIP EDUCATION IN FEDERAL POLYTECHNIC NASARAWA, NASARAWA STATE

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ABSTRACT

The study investigated the effectiveness of animated instruction on student's achievement and interest in Citizenship education. The design of the study was a quasi-experimental research design. The population of the study consisted of 3,456 Civic education students in tertiary institutions and polytechnics in Nasarawa Local Government Area. Using purposive sampling techniques, 109 students from the two intact classes made up the sample size and the instrument for data collection were questionnaires. The reliability of the instrument was established using test re-test method of Pearson Moment Correlation techniques. The method was used to test reliability since the instrument were used twice (at pre-test and post-test). The temporal stability of 0.79 and 0.86 were established for both Students' Achievement Questionnaire (SAQ) and Students' Interest Questionnaire (SIQ). Mean and standard deviation were used to answer research questions while t-test was used for hypotheses at 0.05 level of significance. The findings revealed that animated instructional resources enhanced students' achievement and interest in Civic education. It was recommended among others that tertiary institutions should train and retrain Civic lecturers on the use of animated resources in teacher and learning.

Keywords*:* Effect; Animated Instruction; Resources; Tertiary Students; Achievement; Interest; Citizenship Education.

Introduction

Animation is discovered to be very important in the teaching and learning process, it provides a learning environment that will help learners to be more active. Steward (2002). Stated that the role of animation in the teaching and learning process is rapidly becoming one of the most learning friendly and widely used in classroom. Animation is a Latin word which means to revive. Animation is an alive, stripped and detailed form of computer. Edveatron System has an important role to play in shaping the perceptions and characters of students that will be leaders tomorrow (Ndagi, 2012).

The comprehension needs of youngsters can no longer be completely

fulfilled by conventional learning framework as it has not kept pace with the latest teaching pedagogy (Atadoga and Onalapo, 2008). Thus, Iravani and Delfechresh (2011) affirmed that for effective learning to take place in the tertiary institution, the conventional teaching should be supplemented with Animation. Also, Musa et al. (2015), remarked that instructive animation is an animation created to be utilized in schools, which could be on instructive TV programmes. Utilization of animation has been firmly as creative, useful and student center alternative. Rias and Zaman (2011), states that animation instructions are much better at representing ideas which involves changes over time; because of its ability in creating/imaginary thinking. Therefore, animation concretizes abstract ideas and increases students' academic potentials. Animation instructional resources has reduced the abstract nature of most school subjects especially in the higher institution where students learn with fun and reduced tensions created in some course work (Sousa, 2011). Animation gives extra interest to students and help for mental recreations, permitting the student to perform higher measure of subjective task. The quality of education can be leveraged with the inclusion of animated resources. Animated resources has made it possible for any concept to be presented in lively and visually (Adeyemi, 2008). Through animated instructions, students retained what they learn for a log duration compared to oral memorization (Akor, 2011). Furthermore, animated educational resources like videos could, take away boredom from learners. The limited attention span or lack of concentration from which most students suffer could be overcome. Rias and Zaman (2011), noted that tertiary student take great delight in watching and sharing memes, videos and animation on social media sites; this implies that animated content deposits a deep-rooted impression on the malleable intellect of students. Sousa (2016), outlined that animation could be used in tertiary institutions for the following purposes:

1. Explaining complex and challenging concepts in easy to comprehend manner.
2. Making learning more enjoyable experience for even poorly performed students.
3. Presenting learning in a completely new perspective.

The role of animated resources in promoting interest for learning in students is paramount. It is imperative that teacher and other stake holders should champion the cause of including animation in tertiary institutions. According to Kylie, Katcha and Musa (2017), animated learning enhances the innate creativity quotient in students. Their interest to learn is ignited, using animation, complex topics and abstract concepts which could be articulated easier. Animated educational videos enhance creativity in learners and motivate them to explore complex dimensions of knowledge. Students

in the tertiary education could employ animation in presentation and other seminar work; thus, the challenges of difficulty could be decisively overcome as complex concepts could be demonstrated in visually appealing manner with fun elements. Carr and Haas (2008), suggested that certain concepts that required focused teaching efforts to provide clarity to students could be handled with 3D animated course videos, deployed to provide in-depth information and explanation about such concepts. Multi-media elements such as radio, video, texts, images and gestures could be blended together intelligently and coherently to make complex course contents more comprehensible. Students with various I.Q levels could exhibit exemplary understanding with animation. Lowe and Mahnun (2004), maintained that through the use of animated resources, concepts that battle understanding could be easily articulated. Such inscrutable concepts can be defined at length using interesting multi-media concepts in better manner. Animated resources has made interactive lessons possible from different locations. Access to resources can be gained even from home and library. Animated resources enhance the communication skills of learners, student learn to imitate and mimic the peculiar ways of objects depicted through animation. Also, learner's confidence in facing others for delivering their ideas in compelling manner grows.

The objective of citizenship education among others, critically, rationally and creatively in dealing with the issue of citizenship. Citizenship education has an effort to improve the ability of students to live, understand and be able to implement the values of the Nigerian Constitution as a basis of behavior in the life of the community, nation and state, so that a citizen has responsibility and obligation as nation builders. Sanaky (2013), stated that citizenship education will make students participate in quality and responsibility, and act intelligently in community, national and state activities. Citizenship education makes students develop positive and democratic values. Citizenship education is a vehicle for the development of citizens who are democratic, civic intelligence and fostering the responsibility of citizens.

Currently, the Nigerian education system needs a transformation and re-orientation of the curriculum objective that will prepare the mind of the students towards citizenship education and civic responsibilities, and obedience to the laws of the Nation (Okon, 2015). The Nigerian Nation has witnessed greater crisis in recent time from the Separatist groups agitating for self-determination, Terrorist organization, Fulani herdsmen killing host communities and the different political groups creating tension in the nation's polity.

Therefore, Bezimo (2018), suggested the use of animated instructional resources to re-orientate the tertiary students who are always easy and willing tools in the hands of

both politicians and other key players to cause havoc and crime in the society.

Scholars and students attests to the fact that Animation in teaching and learning combats boredom, having the capacity of activating the senses of sight, hearing and concretizing learning objects. Animation provides learners with higher interactive activities establishing concrete basis for conceptual thinking were more than one single sense of perception is experience. Frank (2016), maintained that the greater the number of sense involved in perception (learning situation), the quicker and the better the learning, and the longer the interest and retention of students. If animation is properly used in the teaching of Citizenship Education, it can bring into the class inaccessible process, materials, events and objects which will help diffuse and clarify the confused mind. Schank (2014), noted that animated resources are widely used in Physics, Chemistry and Mathematics and other pure science courses in tertiary institutions; however, Abraham (2015), observed that animation could be applied to most school subjects and mostly in social science which have a lot of value-laddened concepts. Basically, learning from multi-media such as the audio-visual, this increases the volume of knowledge especially in the 21st century were the educational system is moving away from the traditional classroom to a virtual learning (Jones, 2011). This development has shifted education from mere acquisition of declarative knowledge and skills to the application of conceptual and integrated knowledge, so that, social science students are better able to apply their knowledge to situational problem-solving and in novel situation in which learners must perform. The application of visualization such as animation, is potentially well suited for learning contents like Citizenship education. This type of learning will make teaching and learning more real through animated instructional package, in such that, instruction would be simplified and appreciated. The Civic education teacher will teach efficiently when there is a collaboration of method; it would be short-sighted to focus only on the traditional approach. Since the world and students' needs are dynamic, the adoption of animated resources in the teaching of Citizenship education is imperative. Aluko and Beyers (2016), obtained that a higher order thinking is born out of the application of animated instruction.

According to Basuki and Anita (2017), students' interest and achievements are enhanced in the combination of asking question, offering feedback and additional commentary of the teacher. Studies also have shown that the use of animated resources have improved achievement and students' interests (Pumama, Munadi and Miftah, 2014). Animated resources have given every one the opportunity to access the internet, become self-teachers, and have their own television and radio stations. Animation could have positive and negative effects on students. It could help students understand

difficult lessons, provide videos and memes that gives tutorial, techniques and easy way to find a solution to a students' problem. However, if not properly guided, students could become addictive to animation. Munir, Pumam and Sadiman (2017), noted that educating students using animated instruction and other visual aids, has strengthened the component of many tertiary education courses including Civic education; and todays educators are taking steps to include the animation and other media based tools to improve participation and learning in students. Animation enables inexpensive creation and distribution of academic and educational content. Hashidaand Haron (2014), established that students remember only 10% of what they read, 20% of what they hear, 30% of what they see and 50% of what they hear and see (animation).

Academic achievement represents performance outcomes that indicate the extent to which a person has accomplished a specific goals that were the focus of activities in an institutional environment, especially schools, colleges and universities. The academic achievement of students is determined to an extent on many factors e.g. age, environment and instructional method. Students' interest is the state of curiosity or concern about set objective - the driving force or forces responsible for initiating, persistent direction and vigour for goal-directed behavior.

However, high level of interest in a particular instructional method of teaching (animated instruction) may not guarantee high achievement ability; thus, students out of excitement could develop high interest for the novel teaching and may be carried away by the euphoria, not careful enough to internalize the major facts of the lesson. This could lead to poor achievement event when interest is high. Students develop interest for different reasons which may not be for academic achievement, such as leisure, peer influence, fun and novelty of the method (animation).

Therefore, social media tools like animation should not be left out to students' total control as a supplementary instructional tools. Teachers need to find out how best to make use of it for the benefits of students. The goal of this study was to determine the extent of animated instructional resources can enhance Civic education students' achievement and interest. Specifically, the study sought to determine:

1. The effectiveness of animated instruction in enhancing tertiary students' achievement in learning Citizenship education.
2. The effectiveness of animated resources in enhancing tertiary students' interest in Citizenship education.

The study was guided by the following research questions:

1. What is the effect of animated instruction in enhancing tertiary student achievement in Citizenship education?

2. What is the effect of animation in enhancing tertiary students' interest in Citizenship education?

The following null hypothesis guided the study and were tested at 0.05 level of significance:

Ho_1: There is no significant difference in the mean achievement of students based on instructional methods.

$H0_2$: There is .no significant difference in the mean interest of students based on instructional methods.

Research Method

The study adopted a quasi-experimental research design involving two intact groups, one experimental group and one control group. The research was carried out in Nasarawa State. The population of the study is made up of 3,456 Civic education students in the polytechnics in Nasarawa State. Purposive sampling techniques was used to sample 109 from two schools with similar characteristics, while simple random sampling involving balloting withdrawal and replacement was used for assigning the sampled school to control and experimental groups. The method of instruction employed was animated instructional resources and conventional method of teaching Citizenship education. Simple random techniques was used to select intact classes. The sample size was based on the number of students in the intact classes from the sampled schools; one Civic education lecturer from the sampled schools was exposed to the use of animated instruction in implementing Civic education contents, while the second teacher was exposed to the use of conventional method in implementing Civic education contents. The researcher made use of two instruments, which were, student achievement questionnaire (SAQ) and student interest questionnaire (SIQ). Two experts, one from measurement and evaluation and the other from social science education validated the instrument.

The instruments were trial tested in a different location which has similar characteristic with the area of the study. From the data collected, the reliability of the instrument was established using Test Retest method or Pearson Moment Correlation techniques. The temporal stability for both are 0.71 for (SAQ) and 0.82 for (SIQ).

Presentation of Results

Research Question 1: What is the effect of animated instructional resources on students' academic achievement?

Table 1: Mean rating and standard deviation of the effect of animated instructional resources in enhancing students; achievement on Citizenship education.

Methods mean	Pre-test deviation	Standard Post-test mean deviation	Standard Mean difference		
Conventional	1.27	0.72	2.64	0.61	1.56
Animated	1.33	0.65	3.51	0.37	2.18

The data in Table 1 shows that the grand mean and standard deviation of the respondents on the effect of animated resources in enhancing students' performance in Citizenship education in tertiary education. In a class where conventional method was employed, students had a grand mean of 1.27 at pre-test with standard deviation of 0.72; whereas, at post-test, they had a grand mean of 3.51 with standard deviation of 0.37. The lower standard deviation of students' taught Citizenship education with animated resources shows that, the variability of their individual mean rating were close to their group mean score compared to their counterpart in the conventional class. Also, the mean difference of 2.18 for the animated resources class and 1.56 for the conventional class, shows that students taught Citizenship education gained more achievement than their counterparts.

Research Question 2: What is the effect of animated resources in enhancing students' interest in Citizenship education?

Table 2: The mean rating and standard deviation of the effect of animated resources in enhancing students' interest in Citizenship education.

Methods mean	Pre-test deviation	Standard Post-test mean deviation	Standard Mean difference
Conventional	1.79 0.872.11	0.75	0.29
Animated	1.640.893.64	0.381.86	

The data in Table 2 shows the grand mean and the standard deviation of respondents on the effect of animated resources in enhancing students' interest in Citizenship education. At pre-test, the conventional class had a grand mean rating of 1.79 and standard deviation of 0.87; while at post-test, the conventional class had a grand mean of 2.11 with standard deviation of 0.75. In the class were animated instruction was employed, students had a grand mean of 3.64 and standard deviation of 0.38. The lower standard deviation of student taught Citizenship education using animated

instruction shows that the variability of their individual mean raging were close to their group mean score, compared to their counterparts in the conventional class. Therefore, the mean difference of 1.86 for animated resources class and 0.29 for conventional class, shows that students' taught Citizenship education using animated instruction developed more interest than their counterparts.

Hypothesis one: There is no significant difference in the mean rating of students' achievement based on instructional methods.

Table 3: t-test of the significant difference in the mean rating of students' achievement based on instructional methods

Methods	Mean	Standard t.df	Sig (2-tailed)	Remarks	
Conventional	2.86	0.78	3.546	0.018	s
Animated	3.62	0.37	3.51	0.37	

The data in Table 3 is the t-test of no significant difference in mean rating of students' achievement based on instructional methods. The result shows that there was a significant difference in the mean rating of students in conventional class (M = 2.86, SD = 0.78) and animated class (M = 3.62, SD = 0.37); t = (3.546) and p = 0.018. Therefore, the null hypothesis of no significant difference was rejected. Hence, there is a significant difference in mean rating of student's achievement exposed to Civic education content using animated package.

Hypothesis Two: There is no significant difference in the mean rating of students' interest based on instructional methods.

Table 4: t-test of the significant difference in the mean rating of students' interest based on instructional methods.

Methods deviation	Mean	Standard t.df	Sig (2-tailed)	Remarks	
Conventional	2.75	0.53	2.573	0.036	S
Animated	3.53	0.38	3.51	0.37	

The data in Table 4 above, shows the t-test of no significant difference in mean rating of students' interest based on instructional methods. The result shows that there was a significant difference in the mean rating of student in conventional class (M =

2.75, SD = 0.53); and animation class (M = 3.53, SD = 0.38), t = (2.573), p = 0.036. Thus, the null hypothesis of no significant difference was rejected. Hence, there is a significant difference in rating of students' exposed to Citizenship education using animated instructional resources.

Discussion of the Findings

The study revealed that students' taught Citizenship education using animated instructional resources performed highly compared to their counterparts. More so, a further statistical test showed that there was significant difference in mean rating of students' achievement in support with students taught with animated resources. The success of animated instruction in enhancing students' achievement could be attributed to its ability to use sound and visual and at the same capturing students' sense of hearing and perception. Therefore, integrating animated instructional delivery especially in the tertiary institutions, as it enables students to increase interest and achievement. The finding of this study is in conformity with the findings of Aluko and Beyers (2016), which revealed that the use of animated instructional resources, images, videos and sound attracts students' attention and increase their interest. The effectiveness of animated instruction could be attributed to its features such as sound and videos that attracts students' interest.

Conclusion

From the findings of this study, the following conclusion were drawn: that in teaching and learning Civic education (Citizenship education), the use of animated package enhanced students' achievement and interest. Thus, the adoption of animated instruction in teaching and learning Civic education in tertiary institution enhances students' achievement and interest.

Recommendations

Based on the findings of this study and conclusion obtained, it is recommended that Civic education lecturers should adopt animated instructional resources to enable them achieve the objective of the course as it increases students' performance and interest. There should be workshop for training and retraining of Civic education teachers in the application of animated instructional resources to be organized for all teachers/lecturers in Nasarawa State.

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