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HEIGHTENING THE INTEREST AND ACADEMIC PERFORMANCE THROUGH VODCAST MEDIA AMONG FINE AND APPLIED ARTS STUDENTS IN EKITI STATE, NIGERIA

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Abstract

The research focused on heightening the interest and Academic performance through Vodcast Media among Fine and Applied Arts students within Ekiti State, Nigeria. A pre-test post-test quasi-experimental design was utilized for this investigation. The study population comprised 723 students from fourteen public senior secondary institutions located in the Ado local government area of Ekiti State. A sample of 54 students was selected from this population employing a multistage sampling approach. The intervention instrument consisted of an adapted Vodcast Media and self-developed questions intended for the respondents. The instruments, namely the “Fine and Applied Arts Achievement Test (FAAT) and the Students’ Interest in Fine and Applied Arts Questionnaire (SIFAQ), underwent rigorous evaluation to affirm their face and content validity. Data analysis was conducted using descriptive statistics for the research questions, while the hypotheses were assessed via t-test at a significance level of 0.05. The findings revealed that students instructed through Vodcast Media exhibited a greater level of interest in Fine and Applied Arts compared to their counterparts taught through Practical Demonstration. Furthermore, it was established that students receiving instruction in Fine and Applied Arts via Vodcast Media achieved a higher statistically significant mean score difference than those educated through Practical Demonstration. It is recommended that the integration of Vodcast Media into classroom instruction should complement traditional Practical methods, given that learners demonstrated a favourable response to Vodcast lessons. Additionally, it is imperative to provide suitable training and ongoing professional development for both teachers and students concerning the use of digital educational technologies such as Vodcast Media in pedagogical practices. Furthermore, concerted efforts should be made by governmental bodies and educational administrators to supply essential resources, including internet access, reliable power supply, appropriate software, and modern computing equipment in schools, to enhance effective learning in the Fine and Applied Arts curriculum within the secondary education framework in Ekiti State, Nigeria.

Key words: Technology, Vodcast Media, Fine and Applied Arts, Practical Demonstration.

Introduction

The instructional methodology prevalent in Nigeria is predominantly characterized by a 'chalk and talk' approach. This pedagogical framework is a by-product of the developments that ensued following the introduction of the 3Rs (Reading, Writing, and Arithmetic) by missionaries who facilitated the advent of Western education in Nigeria. Most teachers have remained tied to this instructional methodology for teaching and this seems to affect student interest especially towards Art subjects.

The discipline of Arts encompasses an extensive range of concepts that defy singular definition; rather, it can be delineated according to its intrinsic characteristics in relation to diverse contexts. Arts is conceptualized as both the inquiry and the production of novel entities manifested through textures, lines, and colors that elicit cognitive pleasure and fulfill aesthetic appreciation. The categorization of art includes performing arts (such as Music, Drama, and Dance), Literary Arts (including Poetry and Prose), and Fine Arts and Applied Arts (which encompasses drawing, painting, sculpture, textiles, and graphics). Fine and Applied Arts is an academic subject offered in secondary education aimed at nurturing latent talents and expanding the imaginative capacities of students, thereby equipping them with innovative entrepreneurial competencies. The realm of Fine and Applied Arts entails the fabrication of objects or the articulation of skill and creativity, which can fulfill both utilitarian and aesthetic purposes (Odiye, 2020). Aesthetically, this domain encompasses the crafting of objects that resonate emotionally, while utilitarian skills pertain to the production of items serving practical functions. Fine and Applied Arts constitutes one of the vocational disciplines within the educational curriculum that methodically affords opportunities for art students to acquire and integrate knowledge, cognitive frameworks, and artistic abilities, thereby enabling them to realize their potential and prepare for active societal engagement. Notwithstanding the significance of Fine and Applied Arts within the school curriculum, the pedagogical approach to this subject predominantly relies on traditional teaching methodologies, wherein the educator, textbooks, and hands-on practice serve as the primary resources.

This reliance seems to detrimentally impact student engagement and enrollment in the subject. Onu et al. (2020) assert that student interest across various disciplines correlates with heightened academic performance. Interest, in this context, is characterized as a subjective inclination marked by attentiveness or inquisitiveness toward a particular subject matter. It appears that learners tend to assimilate information more effectively when it pertains to topics that captivate their interest. The incorporation of technological tools in the pedagogical framework for this subject has the potential to enhance student engagement. As noted by Ezeugwu et al. (2023), the emergence of technological instruments significantly enhances educational practices. Contemporary learners appear to be increasingly aligned with digital media literacy education, which imparts essential life skills, cultivates critical thinking, instills responsibility, and fosters an appreciation for cultural diversity. The integration of technology is indispensable in fulfilling the instructional demands of the 21st century.

Theodore (2020) asserts that both educators and students must attain technological proficiency by incorporating knowledge, skills, creativity, and innovative thinking capabilities related to technology. The integration of technology across all facets of life has become essential for effective functioning and competitiveness in the rapidly evolving technological landscape. The incorporation of technology into pedagogical methodologies is continuously evolving in Nigeria, with one of the most notable developments being the advent of digital media, particularly vodcasting.

The term vodcast refers to the online video recording platform that could enhance teaching and learning process (Javier, 2021). It constitutes a digital video file accessible on the Internet for downloading onto computers or mobile devices” (Nwachokor et al., 2019). Ronco and Scabardi (2016) characterize video podcasting, or vodcasting, as a video-on-demand service that utilizes Real Simple Syndication (RSS) feeds to distribute content that can be downloaded to mobile devices. Research examining the efficacy of vodcasts in educational settings has predominantly determined that they “resonate positively with students at a foundational level, as they afford learners autonomy over their educational environment regarding the timing, location, and pace of their learning (Jarvis & Dickie, 2010). Scholars such as Ronco and Scabardi (2016), Rea and McCarthy (2017), Folashade (2020), and Nwachokor et al. (2019) argue that vodcasting represents a valuable technological tool that can enhance student learning outcomes. These investigators have posited that vodcasts could incite greater student engagement in their studies, allowing them to learn within their comfort zones. Crucially, students are empowered to regulate the speed and tempo of their learning or viewing of specific material. Vodcasting presents educators with a streamlined method to disseminate engaging video content, which students can access anytime and anywhere, thereby enabling teachers to connect with students through a medium they are accustomed to. It is conceivable that secondary school students may experience heightened success when educators convey course material in a manner that is both practical and stimulating to their interests (Adedoya & Fakuade, 2016).

It may prove to be a more arduous task to motivate students to dedicate 30 minutes to reading; however, viewing and listening to explanations via vodcast could be both exhilarating and convenient for them. This approach could assist instructors in managing class sizes, particularly during practical sessions. Educators can segment students into groups to view content, replay recordings, and subsequently demonstrate the processes at their own pace. This methodology can facilitate remediation for students who have missed classes, allowing them to bridge knowledge gaps through downloaded lesson recordings.

Theoretical framework

The theory upon which this study is hinged is the constructivism learning theory. Constructivism emerged in the 1970s and 1980s as an extension of cognitivism that included an emphasis on internal mental constructions and the influence of others on an individual’s learning. The main ideas are based on the works of John Dewey (1859–1952) and Lev Vygotsky (1896–1934).

Constructivism theory holds that learning is the process of constructing internal psychological representation in the process of interaction with the environment. The constructivist approach has been proposed as an alternative to face-to-face teaching where learners discovered learning by themselves. Helping learners involves helping them to understand the nature, regularity and inner connections among things (Chen and Liu, 2011). In constructivist learning, knowledge must be constructed by the learner. It cannot be supplied by the teacher. From constructivism, learning could be understood in the following ways. Learning should be learner-centred a process through which learners construct internal psychological representation actively. Learning consists of reorganisation and reconstruction of old knowledge and the meaningful construction of new knowledge. Learning is not only an individualized behaviour, but a social and language-centred behaviour; which requires communication and cooperation. For the constructivist, learning involves emphasizing the situation of learning and appropriate resources to support meaning construction. (Ronghuai H, et al 2019).

Being actively engaged in viewing and listening to Vodcasts on a given content/topic can significantly increase students' learning experiences which invariably can help them in new knowledge construction and through constant repetitions can enhance mastery of learning materials. Teachers should not teach only in the traditional way but should encourage students to cooperate or interact with peers. Teachers could design multi-dimensional or multi-sensory learning scenarios, which are invigorating, interactive, immersive and informative so that learners can understand concepts from various aspects and then develop problem-solving, decision-making and innovation capabilities.

The educational landscape is undergoing transformation, significantly attributed to advancements in Information and Communication Technology (Olowoyey, 2016). Educators employ a myriad of instructional methodologies to optimize knowledge transfer to their pupils, executing this to the extent of their capabilities. Amoran, (2020) opined that many educators within Nigerian educational institutions remain inadequately versed in the emergent technologies available for pedagogical utilization, a gap that transcends the mere attainment of pertinent academic credentials in specific fields of expertise. Samdanis (2016) posits that educators specializing in Fine and Applied Arts could leverage a wide array of processes and delivery mechanisms to enhance the engagement levels of their students. The integration of computer-mediated instruction within the teaching and learning paradigms of Fine and Applied Arts could afford both educators and learners experiences that transcend conventional classroom boundaries. Nonetheless, in the context of Fine Arts, the prevailing educational culture still prioritizes direct, interpersonal interactions over digital pedagogical approaches.

An analysis of the West African Examination Council (WAEC) results from 2018 to 2021 in Ekiti State reveals a concerning trend of diminished student enrolment and fluctuating performance in Fine and Applied Arts at the senior secondary education level. Teachers have expressed dissatisfaction due to the limited number of scripts they often receive to evaluate within the realm of Fine and Applied Arts. Consequently, many educators are resorting to alternative employment opportunities, such as dyeing and bleaching, to achieve higher remuneration. This trend raises significant concerns among Fine and Applied Arts instructors, prompting initiatives aimed at addressing these issues. Scholars such as Omisola (2020), Idowu and Odewumi (2017), and Bassey and Akpan (2020) contend that the fluctuating enrollment and student performance in Fine and Applied Arts can be traced to various factors, including ineffective pedagogical approaches, geographical location, inadequate instructional materials, a scarcity of Fine and Applied Arts educators, and a lack of student enthusiasm for the discipline. The prevailing societal inclination towards science-related subjects heavily influences student choices.

The incorporation of sophisticated educational technologies, such as Vodcasting, as a digital learning methodology is posited to enhance educational outcomes. Dima et al. (2022) examined the impact of vodcasting on the performance of undergraduate students in Computer Programming, leading to the conclusion that vodcasts serve as effective instructional resources for students pursuing undergraduate programming courses at Federal University Dutsinma, Nigeria.

The phenomenon of digitization has spurred academic discussions regarding the utilization of Vodcast and other supplementary educational technologies in the teaching and learning paradigm. Consequently, this study seeks to explore the influence of Vodcast media on the academic achievement of students engaged in Fine and Applied Arts within secondary schools located in Ekiti State, Nigeria. This investigation is

grounded in the researcher's personal observations, which suggest that the instructional delivery of this subject predominantly relies on traditional face-to-face and hands-on methodologies. Such approaches appear to be burdensome and may detract from student engagement with the subject matter. Research indicates that contemporary learners are characterized as 'digital natives' (Prensky, 2001), possessing a greater affinity for digital learning due to their familiarity with technological tools for educational purposes. Conversely, many educators are regarded as digital immigrants, lacking the same level of enthusiasm for technology as their students. This disparity hampers effective communication between instructors and pupils. A significant number of students harbour misconceptions regarding Fine and Applied Arts, perceiving it as overly teacher-centered and suitable only for those deemed inherently talented and creative. The exigencies of the COVID-19 pandemic revealed the limitations of traditional classroom settings for both teachers and students in realizing their full potential.

The teaching and learning processes have evolved to integrate Information and Communication Technology (ICT). This integration is imperative; thus, the "gradual incorporation of technology adversely impacts the fulfilment of pedagogical requirements within the 21st-century educational environment. The current state of technological enhancement at the secondary school level is disheartening, which has constrained the relevance of information pertaining to the instruction and learning of Fine and Applied Arts as a discipline. Against this backdrop, this research aims towards heightening the interest and academic performance through Vodcast Media among Fine and Applied Arts students in Ekiti State, Nigeria.

Purpose of the Study

The purpose of the study is to examine the impact Vodcast media on students' interest in learning Fine and Applied Arts and performance in senior secondary schools in Ekiti State Nigeria.

Research Questions

The following research questions were raised to guide the study:

- 1) Will there be difference in the mean performance of students taught Fine and Applied Arts with Vodcast media and those taught through practical demonstration in selected secondary schools in Ekiti state, Nigeria.
- 2) Will there be difference in the interest level of students taught Fine and Applied Arts through Vodcast media and those taught through practical demonstration in secondary schools in Ekiti State, Nigeria.

Research Hypotheses

The following hypotheses were formulated and tested at 0.05 level of significance.

- 1) There will be no significant difference in the pre-test performance mean score of students in Fine and Applied Arts in the treatment and control groups in selected secondary schools in Ekiti state, Nigeria.
- 2) There will be no significant difference between the post-test performance mean score of students in Fine and Applied Arts in the treatment and control groups in selected secondary schools in Ekiti State, Nigeria

- 3) There is no significant difference in the interest level of students taught Fine and Applied Arts through Vodcast media and those taught through practical demonstration in secondary schools in Ekiti State, Nigeria.

Methodology

The study adopted the pre-test - post-test control group quasi experimental design. The effects of the independent variables on the dependent variables were examined. The design format is shown below:

Experimental Group 1	O ₁	X ₁	O ₂
Conventional strategy	O ₃	X ₂	O ₄

Where O₁, and O₃-represent the pre-test observations for the two groups

And O₂, and O₄ are the post-test observations for two groups

X₁ is Experimental treatment group: Vodcast media

X₂ is Conventional method: practical demonstration.

The study population comprised 723 students from fourteen public senior secondary institutions located within the Ado local government area of Ekiti State. The sample included 54 students from four selected public senior secondary schools within the same region. The research utilized a multistage sampling methodology. In the initial stage, purposive sampling techniques were employed to identify four schools that provide instruction in Fine and Applied Arts across the three senatorial districts of Ekiti State. The subsequent stage involved the purposive selection of 54 senior secondary school 2 students from the previously chosen four public institutions in Ado local government. Finally, intact classes of SS 2 Arts students served as the respondents for this investigation.

The research utilized the Fine and Applied Arts Achievement Test (FAAT) and the Students' Interest in Fine Arts Questionnaire (SIVQ) as the primary instruments. The FAAT comprised 20 objective items derived from the curriculum for senior secondary school 2 students, designed to evaluate their performance in Fine and Applied Arts. Each item presented four options, from which students were required to select the correct response.

The Students' Interest in Fine Arts Questionnaire (SIFQ) was employed to assess students' engagement with Fine Arts, consisting of 10 items aimed at gauging student interest in Fine and Applied Arts. Responses to the items were rated using a four-point Likert scale: Strongly Agreed (S.A=4), Agreed (A=3), Disagree (D=2), and Strongly Disagree (SD=1). The face and content validity of the instruments were verified by seasoned secondary school Fine and Applied Arts educators and specialists from Vocational and Technical Education, as well as experts in test and measurement from the Faculty of Education at Ekiti State University". The reliability of the instruments was established by administering the same test to a separate group of students outside the sample over a two-week interval; "the two sets of scores were correlated using Pearson Product Moment Correlation, yielding a reliability coefficient of 0.86 for the FAAT, while the internal consistency of the SIFQ was assessed through Cronbach's alpha, resulting in a coefficient of 0.81, deemed adequate for the study.

The research procedure encompassed pre-testing, treatment, and post-testing stages. During the treatment phase, data were provided for the internet router within the school's ICT laboratory. Gmail accounts were created for each participant, and access links were generated, enabling participants to view

and listen to the instructional episodes (lesson content) via Vodcast media through their email accounts. The collected data were analyzed using mean and standard deviation for the research questions and t-tests for the hypotheses.

Results and Discussions

Table 1: Mean and Standard Deviation of Performance between Students Taught with Vodcast media and Practical demonstration in Fine and Applied Arts

Variance		N	Mean		
			Mean	Std. Error	Standard Deviation
Practical Demonstration Group	Pretest	30	51.50	1.68	9.21
	Posttest	30	60.65	1.37	7.51
Vodcast Media Group	Pretest	24	51.25	2.07	10.14
	Posttest	24	82.41	1.53	8.21

Table 1 showed that the mean performance of students in both control groups ($\bar{X} = 51.50$, $SD = 9.21$) and experimental group ($\bar{X} = 51.25$, $SD = 10.13$) before the intervention were approximately equal, with the performance of students in the treatment group varying more than that of the control group. However, after the intervention, the mean performance score of students taught with Vodcast Media increased significantly with a post-test mean score of ($\bar{X} = 82.41$) that is greater than the control group' post-test mean score of ($\bar{X} = 60.65$); indicating a positive mean score difference ($82.29 - 60.67$) of 21.76. This implies that the performance mean score of students in the treatment group (vodcast Media) outweighed that of the Practical group due to the treatment melted on them.

Table 2: Mean and Standard Deviation of Interest level between students taught with Vodcast media and those taught through Practical Demonstration

Interest Level	N	Mean	SD
Practical Demonstration Group	30	35.40	10.14
Vodcast Media Group	24	40.13	9.57

Table 2 shows the results of the interest level of students taught with Practical demonstration and those taught with Vodcast Media. The results revealed that the students taught with Vodcast Media have higher interest level in Fine and Applied Arts with a mean of 40.13 than students taught through Practical Demonstration with mean of 35.40. This suggested that the students in the Treatment group have high interest in studying Fine and Applied Arts than the students in the control group. The reason for this higher interest in the study of Fine and Applied Arts by students in the treatment group could be that the use of Vodcast media in teaching them increased their interest in the subject than just teaching them with the conventional practical demonstration.

Test of Hypotheses

Table 3: t-test analysis on pre-test performance of students taught Fine and Applied Arts with the Vodcast Media and those taught with Practical method in Secondary schools in Ekiti State, Nigeria.

Pre-test	N	Mean	SD	t-cal	P
Practical Method (Control)	30	51.50	9.21	0.095	0.925
Vodcast Media (Treatment)	24	51.25	10.14		

P>0.05

Table 3 showed that p-value of 0.925 is greater than 0.05 at 0.05 level of significance. The condition of homogeneity of the groups has been satisfied. The null hypothesis, is therefore accepted, this implies that there is no significant difference in the Fine and Applied Arts pre-test performance of students before the intervention.

Table 4: t-test analysis on post-test Performance of Students taught Fine and Applied Arts with vodcast Media and those taught through Practical method in secondary schools in Ekiti State, Nigeria.

Post-test	N	Mean	SD	t-cal	P
Practical Method (Control)	30	60.67	7.51	10.089*	0.000
Vodcast Media (Treatment)	24	82.29	8.21		

*P<0.05

Table 4 showed that p-value of 0.000 is less than 0.05 at 0.05 level of significance. The null hypothesis is therefore rejected. This implies that there is significant difference in the Fine and Applied Arts Post-test performance of students taught with Vodcast Media and those taught through practical method in secondary schools in Ekiti State, Nigeria.

Table 5: t-test analysis on the interest Level of students in Fine and Applied Arts in the Treatment and control groups.

Interest	N	Mean	SD	t-cal	P
Practical Group (Control)	30	35.40	10.14	1.744	0.087
Vodcast Media (Treatment)	24	40.12	9.574		

P<0.05

Table 4 showed that the mean (35.40) of the interest of Practical group is lower than the mean (40.12) of the Vodcast media group, but they are fairly similar. Statistically, the p-value of 0.087 is greater than 0.05 at 0.05 level of significance; the null hypothesis is therefore accepted. This implies that there is no significant difference in the interest level of students in the vodcast Media and Practical groups.

The finding of this study revealed that the students taught with Vodcast instructional method performed better in Fine and Applied Arts than those taught with the conventional method, This is in agreement with the findings of Dima, et al (2022) that the supplementary use of Vodcasts in teaching and learning yielded positive outcome on students' performance in computer programming among undergraduates students in Federal University Dutsin ma Nigeria.

The study revealed that the mean score performance of both groups before the intervention is similar and the slight mean difference between them is statistically non-significant. This result contradicts the findings of Rae and McCarthy (2017) who in a similar study examined the effectiveness of video-on-demand

podcasts (Vodcasts) on the performance of first year undergraduate in Physiology, found that the study group of 2013-2014 GEM 1 students taught with Vodcast achieved significantly higher grades in various examination formats in comparison to the control 2012-2013 GEM 1 cohort.

The study also found that students taught with Vodcast instructional method had higher interest level in the study of Fine and Applied Arts compared to those taught with conventional method. This finding appears to be in agreement with Rae and McCarthy (2017) who revealed that the majority of students liked Vodcasts, previewed them before lectures and considered Vodcasts to be valuable revision tools that indeed facilitate understanding of the lecture material. This likeness of Vodcast seems to necessitate students' high interest in Fine and Applied Arts. The use of Vodcast in teaching Fine and Applied Arts appears to have increased their interest in the subject than just learning without them. This result is equally in tandem with the finding of Folashade (2020) who examined the effectiveness of Vodcast (video and podcast) lessons as a strategy in online teaching, found that learners have high positive perceptions towards the use of Vodcast lessons during the pandemic period. However, the difference in the students' interest level in studying Fine and Applied Arts is further found not to be statistically significant". This corroborates the result of Nwachokor, et al (2019) who examined students' perception of vodcast and podcast as instructional method, found that the students to a very low extent agreed that vodcast and podcast increased productivity, promoted creativity and facilitated academic learning.

Conclusion

Based on the findings of the study, the following conclusions were made:

Students' interest and performance in learning different subjects has been investigated overtime. Interest can be developed since it is influenced by situation and individual, hence, the use of teaching strategy that makes teaching attractive and learner centred such as the Vodcast media will enhance the teachers' effort by keeping the students active in the learning process; this improves students' interest. This study concluded that students taught through Vodcast media had higher interest level in the study of Fine and Applied Arts than those taught through the practical method. It added that the Vodcast media significantly contributed more than the conventional method in the variation of students' performance in Fine and Applied Arts in senior secondary schools in Ekiti State Nigeria.

Recommendations

Arising from the conclusions of the study, the following recommendations were made:

- 1) Teachers in secondary schools should aspire to use Vodcast media as a teaching strategy for Fine and Applied Arts lessons in order to sustain the interest and increase the level of enrolment of the students in studying Fine and Applied Arts as a subject.
- 2) The teaching and learning of Fine and Applied Arts in secondary schools should not be limited to the Practical method but supplemented with the Vodcast Media.
- 3) Attempt should be made by the government and school administrators to provide Vodcast Instructional tools in schools to enable teachers and students to adequately engage with digital instructional processes in teaching and learning of Fine and Applied Arts.

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