

PRE-TEST POST-TEST EFFECTS OF VIDEO-CLIPS INSTRUCTIONAL STRATEGY ON SECONDARY THREE STUDENTS' MOTIVATION AND ACHIEVEMENT IN CULTURAL AND CREATIVE ARTS IN PANKSHIN, PLATEAU STATE, NIGERIA

Soliu Adeyemo Shittu

Curriculum Department, College of Education,

Federal University of Education.

Pankshin. Plateau State.

Dr. Stevenson Samtareni Manabete and Prof. Michael Segun Abifarin

Department of Science and Technology Education,

Faculty of Education.

University of Jos, Nigeria.

Abstract

The study examined effects of video-clips instructional strategy on Secondary Three students' motivation and achievement in cultural and creative arts (CCA) in Pankshin, Plateau State, Nigeria. The objective was to find out the pre-test and post-test motivation and achievement mean scores of Junior Secondary School students in CCA. The study answered two research questions and tested two hypotheses. The design for the study was pre-test, post-test non-equivalent control group design. The population comprised all Junior Secondary School Three students with a total of 684. These were 392 male students and 292 female students drawn from 13 coeducational schools. The sample size for the study comprised 94 students. These were experimental group with 45 (24 males and 21 females) students and control group with 49 (31 males and 18 females) students. Two instruments were employed for the treatment, that is, Learning Cultural and Creative Arts Motivation Questionnaire (LCCAMQ) and Cultural and Creative Arts Achievement Test (CCAAT). The findings of the study revealed that there was a significant difference in the pre-test and post-test motivation and achievement mean scores in CCA for Junior Secondary III students in the experimental and control groups. Thus, video-clips instructional strategy did increase experimental groups' pre-test and post-test motivation and achievement mean scores in CCA. The study recommended that teachers should incorporate video-clips into their CCA instruction to boost students' motivation and achievement. Also, government should provide necessary resources and training for teachers to effectively use video-clips in teaching CCA.

Keywords: *Cultural and Creative Arts (CCA), Video-clips Instructional Strategy, Motivation and Achievement.*

Introduction

In Nigeria, the role of education towards nation-building is indispensable. This has led to the introduction of different courses into its curriculum such as Educational Technology. The introduction of Educational Technology into the curriculum is to support instructional delivery and development of educational resources. Educational Technology is a field of learning that combines both methodology and technology together (Bouchrika, 2025). It entails planning, designing, production and utilization of educational facilities in line with psychological theories and technological principles to enhance educational systems.

In Educational Technology, there are different instructional materials that can aid instructional delivery in Cultural and Creative Arts. These are materials that appeal to human senses of hearing and seeing. They are classified as audio, visual, audio-visual and relia. They motivate, stimulate and actively involve students in critical thinking with little assistance. A good example of such instructional materials is video-clip that can be used as a strategy in delivery Cultural and Creative Arts (CCA) instructions.

As an integrated subject, CCA combines arts, music, drama and dance. It is a multi-disciplinary subject that assists learners to appreciate Nigerian culture (Onuora-Ogumor, 2023). It provides students with necessary information to appreciate Nigerian arts. In addition, CCA is an area of learning that entails creation of sounds as well as objects for self-expression. Through creativity, learners are groomed to develop creative and aesthetic skills that enable them to express their feelings. Over the years however, students' performance in Basic Elementary Certificate Examination (BECE) in CCA in Pankshin has not been encouraging. The evidence is indicated in the past examinations organised by Plateau State Ministry of Education between 2021-2024, whereby, the candidates performed below expectations as indicated below.

Year	Number of Candidates	A(80-100%)	B(70-79%)	C(60-69A%)	D(50-59%)	F(Below 50%)
2021	698	30(4.3%)	58 (8.3%)	115(16.4%)	259(37.1%)	236(33.8%)
2022	892	26(2.9%)	64(7.1%)	278(31%)	164(18.3%)	360(40.3%)
2022	674	11(1.6%)	12(1.7%)	258(38.8%)	122(18.1%)	271(40.2%)
2024	996	19(1.9%)	79 (7.9%)	262(26.3%)	274(27.5%)	362(36.3%)

Source: Plateau State Ministry of Education. Jos. Plateau State (2024).

Several factors may be responsible for the low performance of Junior Secondary students in CCA. One of such factors is the method of teaching being employed by CCA teachers. The most common method being employed is the conventional method. The method has reduced students' interest in learning CCA because they are not sufficiently motivated. This has led to students' poor performance and low achievement in the subject. Against this background, this study investigated the effects of video-clips instructional strategy on Junior Secondary School Three students' motivation and achievement in CCA in

Pankshin, Plateau State based on gender. Video-clips instruction is a strategy in which recorded audio-visual information with moving images that are played in segments to viewers with a set of television (Evangelou, 2023). It contains electronically recorded images that are projected in form of pictures, text, sound plus graphic. Video-clips as derived from educational video and educational television can initiate students to perform better in teaching and learning process, making students to have visible images through sounds and sight.

Aim of the Study

The study aimed at finding out the effects of video-clip instructional strategy on junior secondary school three students' motivation and achievement in Cultural and Creative Arts in Pankshin, Plateau State, Nigeria with the following objectives.

3. To find out the pre-test and post-test motivation mean scores of Junior Secondary School students in Cultural and Creative Arts in the experimental and control groups in Pankshin.
4. To find out the pre-test and post-test achievement mean scores of Junior Secondary School students in Cultural and Creative Arts in the experimental and control groups in Pankshin.

Research Questions

The following research questions were formulated to guide the study:

3. What are the pre-test and post-test motivation mean scores in Cultural and Creative Arts for Junior Secondary III students in the experimental and control groups in Pankshin, Plateau State?
4. What are the pre-test and post-test achievement mean scores in Cultural and Creative Arts for Junior Secondary III students in the experimental and control groups in Pankshin, Plateau State?

Hypotheses

The following null hypotheses were stated and tested at 0.05 level of significance:

3. There is no significant difference between the pre-test and post-test CCA motivation mean scores of Junior Secondary III students in experimental and control groups.
4. There is no significant difference between the pre-test and post-test CCA achievement mean scores of Junior Secondary III students in the experimental and control groups.

Literature Review

Numerous researchers have investigated the impact of video as instructional tool in teaching CCA and other subjects. Anulobi and Ihem-Chijoke (2020) conducted a research on effects of self-instructional video packages on Junior Secondary students' motivation and achievement in Cultural and Creative Arts in Owerri, Imo State. Findings from the study revealed there was a difference between the pre-test and post-test motivation mean scores of the experimental group taught self-instructional video packages and control group taught with lecture method. Also, there was a significant difference between the pre-test and post-test motivation mean scores of the experimental group taught self-instructional video packages and control group taught with lecture method. The difference at pre-test and post-test motivation mean scores favoured the experimental group. The following studies

corroborated Anulobi and Ihem-Chijoke (2020)'s study on students' motivation at pre-test and post-test. These are Mbaba (2024) in CCA and Onasanya, Daramola, Adedigba and Olumorin (2023) in CCA. However, the study was contradicted by Omotayo (2023)'s study in CCA, indicating that there was no difference between the pre-test and post-test motivation mean scores of the experimental group.

In another study carried out by Odewumi and Yusuf (2022) on the effect of text-video instructional packages on students' achievement in Tie and Dye, Cultural and Creative Arts in Abeokuta Metropolis, Nigeria. The result revealed that experimental group significantly benefited from text-video approach, performing better than the control group. There was a difference in the pre-test post-test achievement mean scores between experimental group taught with text-video and control group taught with lecture method. This indicated there was a significant difference in the pre-test post-test achievement mean scores between experimental group taught with text-video and control group taught with lecture method. The significant difference at pre-test and post-test achievement mean scores favoured the experimental group. The following studies are consistent with Odewumi and Yusuf (2022)'s study. These are Azubuike (2023) in CCA and Udosen and Chisara (2023) in CCA. However, the study was contradicted by Odewumi and Onkwoko (2021)' study in CCA, indicating that that there was no difference between the pre-test and post-test achievement mean scores of the experimental group and control group.

Methodology

The research design adopted quasi-experimental design, specifically, the research adopted pre-test post-test non-equivalent groups. In the pre-test and post-test non-equivalent group research design was a directionality of the research, which means that a dependent variable was measured before and after treatment to assess the impact of the intervention. This design was adopted to find out effects of video-clips instructional strategy on Junior Secondary three students' motivation and achievement in CCA in Pankshin, Plateau State

The population of this study comprised all Junior Secondary School Three students in Pankshin Local Government Area of Plateau State during the 2023/2024 school year. These were 13 schools with a total number of 684 students, made up of 391 male students and 293 female students, offering CCA. The sample size for the study consisted of 94 Junior Secondary Three students offering CCA. These were experimental group with 45 students and control group with 49 students. These students were yet to write Basic Elementary Certificate Examination (BECE). Two schools were sampled as sample size for this study. The classes were sampled as experimental and control groups by using simple random sampling technique through balloting. The experimental group was made of 45 students and control group was made of 49 students.

Two instruments were used for data collection. These were Learning Cultural and Creative Arts Motivation Questionnaire (LCCAMQ) and Cultural and Creative Arts Achievement Test (CCAAT). Both LCCAMQ and CCAAT were subjected to content and face validity by three experts. Content validity of LCAAMQ was established at 0.81 while the content validity of CCAAT was established at 0.94 by using Kendell' coefficient value. The construct validity of LCCAMQ was calculated by using factor analyse method. Its Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy was 0.801 indicating that the

instrument was suitable. The reliability of LCCAMQ was estimated to be 0.92 by using Cronbach Alpha method while the reliability of CCAAT was estimated to be 0.89 using test re-test method. Mean scores and standard deviation were used in addressing the research questions while t-test was used in testing the hypotheses. The decision rule for ANCOVA was that when $p > 0.05$, the null hypotheses was upheld and rejected when $p < 0.05$.

Results

Research Question One

What are the pre-test and post-test motivation mean scores in Cultural and Creative Arts for Junior Secondary III students in the experimental and control groups in Pankshin, Plateau State?

Table 1: Pre-test and Post-test Cultural and Creative Arts Motivation Mean Scores of Students in the Experimental and Control Groups

Group	Pre-test			Post-test			\bar{x} -Gain difference
	N	Mean	SD	Mean	SD	Mean Gain	
Experimental	45	38.11	16.25	67.46	28.97	29.35	18.84
Control	49	38.32	19.91	48.83	24.32	10.51	

Table 1 above shows the CCA motivation mean scores of the Junior Secondary three students in experimental and control groups. The experimental group obtained a pre-test mean score of 38.11 with a standard deviation of 16.25 and a post-test mean score of 68.46 with a standard deviation of 28.97, yielding a mean gain of 29.35 after exposure to video-clips instructional strategy. The control group had a pre-test mean score of 38.32 with a standard deviation of 19.91 and post-test mean score of 48.83 with a standard deviation of 24.32, yielding a mean gain of 10.51. The mean gain difference was 18.84 in favour of the experimental group. It revealed that the pre-test post-test motivation mean scores of students for learning CCA increased for the experimental group. This suggested that pre-test and post-test motivation mean scores in CCA for Junior Secondary III students in the experimental group was higher than control group in Pankshin, Plateau State.

Hypothesis One

There is no significant difference between the pre-test and post-test CCA motivation mean scores of Junior Secondary III students in experimental and control groups.

Table 2: ANCOVA Result on Pre-test and Post-test Motivation Mean Scores of Junior Secondary III Students in Cultural and Creative Arts in the Experimental and Control Groups.

Source	Type III Sum of Squares	Df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	10289.738 ^a	2	5144.869	7.408	.001	.140

Intercept	79955.298	1	79955.298	115.133	.000	.559
Motivation	2148.260	1	2148.260	3.093	.082	.033
Group	8091.435	1	8091.435	11.651	.001	.114
Error	63195.634	91	694.458			
Total	387039.000	94				
Corrected Total	73485.372	93				

a. R Squared = .140 (Adjusted R Squared = .121)

The data were subjected to analysis of covariance (ANCOVA) having experimental and control groups to determine if a significant difference exists in the pre-test and post-test motivation mean scores of Junior Secondary three students in CCA. Table 2 shows that $F(1, 91) = 11.651, P < 0.05$. Since the p-value of .001 is less than the 0.05 level of significance, the null hypothesis was rejected. The result further reveals an adjusted R squared value of .121 which means that 12.1 percent of the variation in the dependent variable which is students' motivation is explained by variation in the treatment of video-clips instructional strategy while the remaining is due to other factors not included in this study. It showed that motivation mean scores for learning CCA was higher in the experimental group compared to the control group. It indicated that there was a significant difference between the pre-test and post-test CCA motivation mean scores of Junior Secondary III students in experimental and control groups.

Research Question Two

What are the pre-test and post-test achievement mean scores in Cultural and Creative Arts for Junior Secondary III students in the experimental and control groups in Pankshin, Plateau State?

Table 3: Pre-test and Post-test Cultural and Creative Arts Achievement Mean Scores of Students in the Experimental and Control Groups.

Group	Pre-test			Post-test		Mean Gain	\bar{x} -Gain difference
	N	Mean	SD	Mean	SD		
Experimental	45	35.84	3.11	64.31	6.96	28.47	18.33
Control	49	35.30	3.17	45.44	6.35	10.14	

Table 3 shows the CCA achievement mean scores of Junior Secondary III students in experimental and control groups. The experimental group obtained a pre-test mean score of 35.84 with a standard deviation of 3.11 and a post-test mean score of 64.31 with a standard deviation of 6.96 giving a mean gain score of 28.47. The control group had a pre-test mean

score of 35.30 with a standard deviation of 3.17 and a post-test mean score of 45.44 with a standard deviation of 6.35 indicating a mean gain of 10.14 obtained. It means that students in the experimental group had a higher achievement mean score of 64.31 after exposure to video-clips instructional strategy than the control group who had a post-test score of 45.44 the mean gain difference of 18.33 was obtained between the experimental and control groups. Thus, video-clips instructional strategy did increase experimental groups' pre-test and post-test achievement mean scores in CCA. It revealed that pre-test and post-test achievement mean scores in CCA for Junior Secondary III students in the experimental group was higher than control group in Pankshin, Plateau State.

Hypothesis Two

There is no significant difference between the pre-test and post-test CCA achievement mean scores of Junior Secondary III students in experimental and control groups.

Table 4: ANCOVA Result on Pre-test and Post-test Achievement Mean Scores of Junior Secondary III Students in Cultural and Creative Arts in the Experimental and Control

Source	Type III Sum of Squares	Df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	8023.838 ^a	2	4011.919	87.196	.000	.657
Intercept	2193.673	1	2193.673	47.678	.000	.344
Achievement	.053	1	.053	.001	.973	.000
Group	8015.222	1	8015.222	174.205	.000	.657
Error	4186.938	91	46.010			
Total	293161.000	94				
Corrected Total	12210.777	93				

Groups

a. R Squared = .657 (Adjusted R Squared = .650)

Analysis of covariance (ANCOVA) was conducted to determine if a significant difference exists in the pre-test and post-test achievement mean scores of Junior Secondary three students in CCA. Table 4 shows that $F(1, 91) = 174.205$, $P < 0.05$. Since the p-value of .000 is less than the 0.05 level of significance, the null hypothesis was rejected. The result further reveals an adjusted R squared value of .650 which means that 65.0 percent of the variation in the dependent variable which is students' achievement is explained by variation in the treatment of video-clips instructional strategy while the remaining is due to other factors not included in this study. Achievement mean scores for learning CCA was higher in the experimental group compared to the control group. It implied that there was a significant difference between the pre-test and post-test CCA achievement mean scores of Junior Secondary III students in experimental and control groups.

Findings and Discussion

Results obtained from research question one showed that experimental group had a higher mean gain score of motivation after exposure to video-clips instructional strategy than the control group that was treated with conventional method. It further revealed that before the treatment, the experimental and control groups had almost similar pre-test mean scores. However, after the treatment, the post-test mean score of the experimental group was higher than that of control group. It showed that there was a difference in the pre-test and post-test motivation mean scores in CCA for Junior Secondary III students in the experimental and control groups in Pankshin, Plateau State. Current study's findings aligned with earlier findings of Anulobi and Ihem-Chijoke (2020) in CCA, Mbaba (2024) in CCA and Onasanya, Daramola, Adedigba and Olumorin (2023) in CCA. However, current study contradicted findings of Omotayo's (2023) in CCA, that indicated no motivation difference.

The results obtained from hypothesis one supported the null hypothesis. The experimental group had a higher motivation mean score for CCA after exposure to video-clips instructional strategy than those in the control group that was treated with conventional method. Video-clips instructional strategy increase experimental group's motivation mean scores in CCA than control group. It indicated that there was a significant difference in the pre-test and post-test motivation mean scores in Cultural and Creative Arts for Junior Secondary III students in the experimental and control groups. Experimental group. Current study's findings agreed with earlier findings of Anulobi (2020) in CCA and Udesen and Chidara (2024) in CCA. However, current study contradicted the findings of Odewumi and Onkwoko (2023) in CCA which revealed no significant difference in motivation.

The results obtained from research question two showed that experimental group had a higher mean gain score of achievement after exposure to video-clips instructional strategy than the control group that was treated with conventional method. It further revealed that before the treatment, the experimental and control groups had almost similar pre-test mean scores. However, after the treatment, the post-test mean scores of the experimental group was higher than that of control group. It showed that there was a difference in the pre-test and post-test achievement mean scores in CCA for Junior Secondary III students in the experimental and control groups in Pankshin, Plateau State. Current study supported earlier findings of The following studies are consistent with Odewumi and Yusuf (2022) in CCA, Azubuike (2023) in CCA and Udosen and Chisara (2023) in CCA. However, the study contradicted Odewumi and Onkwoko (2021) in CCA that showed no difference in achievement.

The results obtained from hypothesis two supported the null hypothesis. The experimental group had a higher achievement for CCA after exposure to video-clips instructional strategy than those in the control group that was treated with conventional method. It indicated that there was a significant difference in the pre-test and post-test achievement mean scores in CCA for Junior Secondary III students in the experimental and control groups. Video-clips instructional strategy improves students' achievement in CCA than conventional method. The following studies agreed with findings of Azubuike (2023) and Odewumi and Yusuf (2022) in CCA. However, current study contradicted the findings of Odewumi and Onkwoko (2021) in CCA, which indicated no significant difference in achievement.

CONCLUSION AND RECOMMENDATION

The study reveals that video-clips instructional strategy significantly enhances students' motivation and achievement in CCA. This suggests that incorporating video-clips into CCA instruction can be an effective approach to improving learning outcomes. The study, therefore, recommends that: teachers should incorporate video-clips into their CCA instruction to boost students' motivation and achievement, government should provide necessary resources and training for teachers to effectively use video-clips in teaching CCA and further studies should investigate the long term effect of video-clips on students' motivation and achievement.

REFERENCES

- Azubuike, O. J. (2023). Investigated the relative effectiveness of comp-video in junior secondary school students' motivation and achievement in cultural and creative arts for lifelong learning. *Journal of Nigeria Association for Educational Media and technology*, 22(1).158-172.
- Bouchrika, I. (2025). *What is educational technology (Ed-Tech) for2025?Research.com*. Retrieved March 28,2025 from [http//research.com](http://research.com).
- Evangelou, F. (2023). Video an educational tool for teaching and learning for primary school students. *European Journal of Education and Pedagogy*. Retrieved from May 25, 2024, from [http/www,ej-edu.org](http://www.ej-edu.org)
- Mbaba, A. E. (2024). Effects of text-video instructional packages on students' motivation and achievement in cultural and creative arts in Andoni, River State. Nigeria. *International Journal of Innovative Social and Science Education Research*.12(1), 84-91.
- Muhammed, A. A. (2024). Effect interactive video strategy on Biology students' academic achievement in senior secondary schools in Gombe, Gombe State. *International Journal of Education and Social Sciences*. 3(5). Retrieved April 4, 2025, from <https://injedscs.com>.
- Odewumi, M. & Onkwoko, I. O. (2021). Effect of text-video series on performance of Juniorsecondary school students in cultural and creative arts in Ogbomoso. *International Journal of Education and Research*, 5(11), 93-116.
- Odewumi, M. & Yusuf, M. O. (2022). Effect of effect of text-video instructional packages on students' achievement in Tie and Dye, Cultural and Creative Arts in Abeokuta Metropolis, Nigeria. *Unizik Journal of Art Humanitarian (UJAH)*,17(3),137-144.
- Omotayo, S. & Michael, O. (2023). Using developed video instructional package to teach creative arts-drama in junior secondary schools in Ondo State. *International Journal of Innovation Research and Advance Studies (IJIRAS)*,10(4), 89-102. Retrieved August 1, 2024, from <https://www.researchgate.net>.
- Onasanya, S. A., Daramola, F. O., Adedigba, M. V. & Olumorin, C. O. (2023). Effects of compact dicks-video presentation on student' achievement in cultural and creative arts. *Journal of Education, Media and Technology*,5(1),67-71.
- Onuora-Ogumor, N. C. (2023). Cultural and creative arts as a subject in Nigerian secondary schools: Issues and panacea: A case study of schools in Enugu Metropolis. West East. *Journal of Social Sciences*. 6(3).30-35.
- Udosen, E. A. & Chisara, S. E. (2023). impact of Lecture Capture Technology (LCT) and Glaser Model(GM) as correlates on students' achievement in cultural and creative Art at upper basic education level in Owerri, Imo State, Nigeria. *Journal of Social Sciences*. 6(3).74-88.