THE IMPACT OF VIDEO TAPE RECORDED INFORMATION IN THE TEACHING OF NIGERIAN MUSICAL INSTRUMENTS

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Abstract

This study attempts to analyze the impact of video tape recorded information on the junior secondary school students' academic attainment in the study of Nigerian Musical Instruments (NMI). However, this study focuses and investigates ways of assisting teachers' and students of music on how to be in the same page with the other subjects in the area of using Medias (videotape, computers, ipads etc) as educational tools in teaching and learning because, anyone who fails to keep pace with giant stride taken by others in the area of teaching and learning gets left behind. However sixty (60) respondents formed the sample of the study. The level of effectiveness is measured in terms of respondents; attainment. Also this study looked into the effect of using video tape recorded information in teaching and learning of music. The population covers the junior secondary school II (JSS2), students of Lagos state public schools. Meanwhile the study is designed towards finding out if there will be any statistical significant difference in academic attainment of the students' taught music using Video Tape Recorded Information and those that were taught using the traditional approach. Questionnaires were used as instrument of data collection. The data gathered were analyzed using co-variance (ANCOVA). Teaching method and gender were subjected to treatment with two levels each. The finding showed that, learning ability and performance are enhanced through the use of video tape recorded information which helps bridge the gap between fast and slow learners. Also, this medium boosted learning ability and performance are enhanced as a result of video tape recorded information. From the classification of students' into high and low abilities it was also concluded that, distance learning could be enhanced with the use of video tape recorded information since, students' may listen and watch the tape anywhere.

Keywords: Impact, Music, Instruments, Attainment, Teachers, Students, Media

Introduction

The world is in a state today, now referred to as Jet age, the modern age where everything moves at jet speed, therefore, anyone who fails to keep pace with the giant stride being taken by others in the area of teaching and learning get left behind. It is important to know that several years back, the methods of instruction and skills acquisitions in music is passed on to the learner by physical demonstration (traditional methods) and this method does not give the students the opportunity to listen and appreciate a wide varieties of Nigerian Musical Instruments also, that the method failed to provide a broad perspective of what students know, understand and can do with this musical Instruments. In the light of the above, this study looks at the Impact of Video tape recorded information in the teaching of Nigerian Musical Instruments.

Purpose of the Study

This study is designed towards, finding out if there will be any statistical significant difference in academic performance between students taught music (Nigerian Musical Instruments) using Video-tape Recorded Instruction and those taught with the conventional method.

Significance of the Study

The outcome of this study is expected to perform the followings;

- To help curriculum developers concerning the appropriate teaching method.
- Expose teachers to instructional strategies or methods for teaching music.
- Generally, it would assess the level of the creative skills of the students, their understanding and usages of Nigeria Musical Instruments.

Objectives:

The study has the following as its Objectives.

- To find out the methods Music teachers use in the teaching of music
- To examine if there will be a significant difference in the academic performance of students taught music with the conventional method and those taught using Video Tape Recorded Instruction
- To look into the role played by gender in students performance in music
- To find out if students' verbal abilities actually affects their performance in music
- To find out the place of good teaching method in students performance in music.

Research Ouestions

- What is the effect of method of instruction of students' performance in music?
- Is there a difference between the high and low verbal ability student's in their performance in the post-test scores?
- Does gender have any significant effect on students' performance in their post-test scores?
- Is there any interaction effect of method of instruction and verbal ability on students' performance in music?
- Does the Video Tape Recorded Information have any significant effect on students' performance in music?

Theoretical Framework

Edwin G. (1997); In his theory, he explained how learning takes place in music class. The theory is a comprehensive method of teaching audiation (to hear and comprehend music in the mind). It informs the music teachers the best approach to develop students' tonal and rhythm audiation. The theory is embedded with two sequences of instruction: Discrimination Learning and Inference Learning. With Discrimination Learning, students will be able to determine whether two elements are the same or not using aural/oral, verbal association, partial synthesis, symbolic association, and composite synthesis. But with Inference Learning, students will be able to take an active role in their own education and learn to identify, create, and improvise unfamiliar patterns. Through the principles of Music Learning Theory, music teachers are guided

of all stripes to establish sequential curricular goals in accord with their own teaching styles and beliefs. By this, the tonal and rhythm audiation of the students will be developed.

Summarily, the upshot of the theory is that music teachers, through videotape recorded instruction method, music can be taught for students to hear and comprehend music in the mind. Similarly, the teachers will need to know their students' potential to achieve in music in order to enhance music learning, taking into consideration their individual differences. The audiation skills of the students are built through singing, rhythmic movement, and tonal and rhythm pattern instruction before being introduced to notation and music theory.

Methodology

Teaching method and gender were subjected to treatment with two levels each. This design is found appropriate as one of the most effective ways of carrying out the study of this type. Campbell Standby (1999);

Group	Pre-test	Treatment	Post-test
Experimental	O_1	X_1	O_2
Control	O_3	X_2	O_4

From the design both experimental and control groups were randomly selected and were exposed to pre-test O_1 and O_3 respectively. Then the two groups were exposed to two methods of teaching X_1 and X_2 . X_1 is a video tape recorded instruction given to the experimental group and X_2 is a conventional (traditional) method of instruction given to the control group. After which both were exposed to O_2 and O_4 as the post-test given to experimental group and control group respectively.

Variables in the Study

The only dependent variable considered is the achievement test of the learner in post-test of the two groups considered, while the pre-test is a covariate. The independent variables are the two instructional methods (video tape recorded instruction for the experimental group and the conventional method of instruction for the control group) Gender is considered as an intervening variable because it is considered as interrupting the result of the study got from the dependent variable (achievement test).

Population, Sampling Procedure and Sample

The target population consisted of junior secondary students in public schools in Lagos State. Sampling procedure for this study is a multistage random sampling performed at three levels to select the educational district, school and students. The first stage involves purposive sampling of selecting Oshodi/Isolo local educational district of Lagos State. This is because this educational district has a good number of mix schools (boys and girls) that offer music. The second stage of sampling also involved the use of purposive sampling to select the school that has at least a qualified music teacher in her junior secondary arm who has trained them the use of Nigerian musical instrument; especially the instruments that enable them use their vocal and verbal potentials. The third stage of sampling involved the use of simple random sampling procedure to select students of music from the selected school. The sample used consisted of 30

students assigned to each group (experimental and control) given the total number of students to be 60 in both groups.

Research Instruments

There are two research instruments used for this study:

- Nigerian Musical instrument achievement test (NMIAT)
- Nigerian musical instrument instructional package (NMIP)

Administration of Research Instruments

Nigerian Musical instrument achievement test (NMIAT) was administered to both groups (experimental and control) for 45 minutes with the aid of two teachers in the sampled school before treatment and after treatment, one of the teacher is from the music department and the other is from the English department. The teachers conducted the first rating that took place at the first week of instruction and the second rating took place at the last week of instruction. Averages of the ratings were used for analysis.

Nigerian musical instrument instructional package (NMIP) was administered by the researcher himself and to both groups. The administration of the instruments spread over a week of four periods, each period lasted for 45 minutes.

NOTE: The new generated hypotheses are:

- There is no significant effect of method of instruction on students' achievement in music.
- There is no significant difference between high and low verbal ability students in their achievement in their post-test scores
- There is no significant effect of gender on students' achievement in their post-test sores
- There is no significant interaction effect of method of instruction and verbal ability on students' achievement in music.

There is no significant effect of video-tape recorded instruction on students' achievement in music.

Results

Table 1 revealed the distribution of sample used in the study selected in the junior secondary two (JSII) of Isolo High School in Isolo Oshodi Local Government Area of Lagos State.

Table 1
Descriptive statistics showing distribution of sample

Sex	Verbal ability	Teaching method	Mean	Std. Deviation	N
Male	high	Videotape recorded instruction	70.58	8.27	12
		conventional(traditional)	52.75	5.85	4
		Total	66.13	10.98	16
	Low	Videotape recorded instruction	71.75	7.04	4
		conventional(traditional)	53.44	4.85	9

THE IMPACT OF VIDEO TAPE RECORDED INFORMATION IN THE TEACHING

Sex	Verbal ability	Teaching method	Mean	Std. Deviation	N
		Total	59.08	10.27	13
	Total	videotape recorded instruction	70.88	7.77	3
		conventional(traditional)	53.23	4.94	8
		Total	62.97	11.07	11
Female	High	Videotape recorded instruction	70.33	.58	3
		conventional(traditional)	46.50	6.28	8
		Total	53.00	12.31	11
	low	Videotape recorded instruction	66.82	8.15	11
		conventional(traditional)	51.33	3.64	9
		Total	59.85	10.15	20
	Total	videotape recorded instruction	67.57	7.30	14
		conventional(traditional)	49.06	5.48	17
		Total	57.42	11.26	31
Total	high	Videotape recorded instruction	70.53	7.34	15
		conventional(traditional)	48.58	6.63	12
		Total	60.78	13.08	27
	Low	Videotape recorded instruction	68.13	7.95	15
		conventional(traditional)	52.39	4.30	18
		Total	59.55	10.04	33
	Total	videotape recorded instruction	69.33	7.61	30
		conventional(traditional)	50.87	5.58	30
		Total	60.10	11.42	60

The table indicates that 29 students are male while 31 students are female. 16 of the 29male students were exposed to video tape recorded instruction (12 high and 4 low verbal ability students); while 13 were exposed to conventional method (4 high and 9 low). 14 of the female students were exposed to video tape recorded instruction while 17 were exposed to conventional method. Hence, the video tape recorded instruction is 30 while the conventional method of instruction is 30.

Research Question One

There is no significant effect of method of information on students' performance in music. This was tested using analysis of covariance (ANCOVA), and this was presented in table 2

Table 2
Analysis of Covariance of effect of method of instruction

Variation source	Sum of Squares	Df.	Mean Sum of Square	F	Sig.
Method	2119.031	1	2119.031	28.46	.000
Pretest	1335.473	1	1335.473	17.941	.000
Error	4242.896	57	74.437		
Total	7697.400	59			

P < 0.05; F(1, 57) = 4.01

Table 2 above revealed that there is a significant outcome in respect of the main effect of treatment (method of instruction) on performance in music ($F_{1,57} = 28.467$; P<0.05). In order to determine which of the method of instruction is better than the other, Table 3 shows that mean score of experimental group taught by video recorded instructional package is higher (mean = 66.678) than the mean score of control group taught by conventional method (mean = 53.987).

*Table 3*Mean Scores of experimental and control group in their post-test. Dependent variables: post-test scores.

Teaching Method	Mean	SD		
Videotape recording instruction	66.678		7.61	
Conventional (Traditional)	53.987		5.58	

a. Evaluation at covariates appeared in the model: pre-test scores = 55.65.

Research Question Two:

Is there a difference between high and low verbal ability students in their performance ability in their post-test scores? This was tested using independent t-test, and was shown in table 4 below;

Table 4 Independent t-test showing difference between high and low verbal ability students in their post-test.

Group	Mean	SD	Df.	t	Sig.
High verbal ability	59.515a	13.08	26		_
				1.542	0.453
Low verbal ability	61.150 ^a	10.04	32		

P > 0.05; t-critical = 3.47

From Table 4, it was revealed that there is no significant difference between high and low verbal ability students in their performance ability in music in post-test scores (t= 1.542, P>0.05). It was also evident from the mean difference between high and low verbal ability (59.515 and 61.150) with a slight difference of 1.635.

Research Question Three

Does gender have any significant effect on students' performance in their post-test scores? This was tested using independent t-test as shown in table 4 below;

Table 5 Independent t-test showing gender difference in students' achievement in music.

Sex	Mean	SD	Df.	t	Sig.
Male	61.48	1.04	28		
				2.12	0.231
Female	59.19	1.02	30		

P > 0.05; t-critical = 3.47

From Table 5, it was revealed that there is no significant effect of gender on students' achievement in their post-test scores (t= 2.12, P>0.05). Similarly, the mean difference between male and female students in the achievement (61.48 and 59.19) has a slight difference of 2.29.

Research Question Four

Is there any interaction effect of method of instruction and verbal ability on students' performance in music? This was tested using analysis of covariance (ANCOVA), and this was presented in table 6 below;

Table 6
Analysis of Covariance of interaction effect of method of instruction and verbal ability

Variation source	Sum of Squares	Df.	Mean Sum of Square	F	Sig.
Verbal	231.322	1	231.322	3.053	.089
Method	1742.710	1	1742.710	23.00	.000
Verbal * Method	198.113	1	198.113	2.614	.124
Pretest	1356.312	1	1356.312	17.90	.000
Error	4168.943	55	75.780		
Total	7697.400	59			

 $\overline{P} < 0.05$; F (1, 55) = 4.03

Table 6 above revealed that there is no interaction effect of method of instruction and verbal ability on students' performance in music($F_{1,55} = 2.614$; P>0.05). However, there is a significant effect of method of instruction on students' performance scores in music ($F_{1,55} = 23$; P<0.05).

Research Question Five

Does video-tape recorded information have any significant effect on students' performance in music? This was tested using multiple regression analysis, and this was shown below;

Table 7 Regression summary of Video-tape recorded instruction.

	Sum of Square	Df	Mean Square	\mathbf{F}	Sig
Regression	5350.001	3	1783.334	42.544	.000a
Residual	2347.399	56	41.918		
Total	7697.400	59			

P <0.05; F (3, 56) = 2.77

The information in table 7 showed that there is a significant effect of video-tape recorded instruction on students' achievement in $music(F_{1,56} = 42.544; P<0.05)$. Moreover, there is a significant effect of method of instruction on students' performance scores in $music(F_{1,55} = 23; P<0.05)$.

*Table 8*Coefficients of the Video-tape recorded instruction method

Madal	Un standar	C:~	
Model	В	Std. Error	- Sig.
(Constant)	91.304	4.015	.000
Teaching method	918.2	1.686	.524
Sex	-3.999	1.712	.270
Verbal ability	1.401	1.720	.970

From table 8, it was shown that a unit increase in teaching method increases achievement in music by 918.2. Similarly, a unit increase in verbal ability increases performance in music by 1.401. However, a unit increases in sex decrease performance in music by -3.999. The results further showed that there is a positive relationship between teaching method and performance in music; and between verbal ability and performance in music; but a negative relationship between sex and performance in music.

Table 9
Model summary of video-tape recorded instruction

R	\mathbb{R}^2	Adjusted R Square	Std. Error of the Estimate
834ª	.695	.679	6.47

a. Predictors: (Constant), Verbal ability, teaching method, sex.

Table 9 shows the model summary of how the three factors (independent variables) will affect the students' performance in music. The co-efficient of multiple regression (R) showed positive and high correlation (R = 0.834) and multiple coefficient of determination of 0.695. This means 69.5% variation in the students' performance in music was explained by the three stated factors.

Literature Review

Interestingly, many writers and reviewers have documented a lot of things in the area of teaching and learning, especially, the use of video tape recorded instruction in teaching music. Some of what had been documented is reviewed below.

Basically, in teaching theory and practical aspects of music, most music schools and individual private teachers still observe and advocate traditional face to face and individual teaching method as a matter of course. Bresler (1981); has observed that the traditional use of materials such as video-tape recorded instruction and other resources have been important teaching tools for instruction of music appreciation, music fundamentals, and other related course. The use of video-taped recorded instruction could aid students' understanding by addressing students' learning styles. This tool could also aid the instructor in the organization of a myriad of materials into one central storage device such as a DVD or CD – Rom.

Madson (1989); has observed that music teachers basically adopt traditional approaches which have been passed down through ages. Even in some of the best institutions, Powell (1984); Greak (1994); and Brodslay (1995); all claimed that not much has changed for quite a numbers of years. In the same vein, research by Pearson (1996); and Hays (1998); has revealed that the master-apprentice or mentor approach remains entrenched in music. Certainly, most music schools and individual private teachers still advocate the traditional face to face and individual approach in teaching music. Also, students were not given opportunity to listen and appreciate wide varieties of Nigerian Musical Instruments. The method failed to provide a broad perspective of what students know, understand and can do with these Musical Instruments. Invariably, this is unlike the European Musical Instruments which are more readily available and many of these musical instruments are recorded on video-tape which is used all over the world as an educational medium.

In respect of the significance of Videotape Recorded Instruction (VTRI) for classroom teaching and learning process, Bruce (1966); Ojogan (1990); Stevens S. et al (1994); Mullis et al (1999); Stigler (1999); observed that VTRI can be replayed numerous times to discover details concerning learning instruction that might be lost with normal observational techniques. The other contribution of learning that can be made by the use of educational media (VTRI) is that, it can be used to sustain attention, to provide concreteness, to increase the meaningfulness of abstract concept and to bring into the classroom place events remote in time and space.

Therefore, this study is desired to enhance the process and methods of teaching and learning most especially the use of videotape recorded instruction in teaching music.

Findings

The distribution of the junior secondary two (JSS II) of Isolo High school in Oshodi Local government Area of Lagos used for the purpose of this study as revealed in table 1 shows that 29 students out of the 60 students used are male, while 31 students used are female. 16 of the 29 Male students were exposed to video-tape recorded instruction (12 high and 4 low verbal ability students). 13 Students were exposed to conventional method (4 High and 9 Low). 14 of the female student were exposed to video-tape recorded instruction while 17 were exposed to conventional method. The total number of students exposed to video-tape recorded instruction is 30, while the total number of students exposed to conventional method of instruction is 30.

Result of the study as revealed in table 2 shows that there is a significant main effect of method of instruction on students' achievement in music. It further shows that the mean

achievement scores of the experiment group taught by Video-tape instruction package is higher than the means score of control group taught by conventional method. Ajelabi (1990); stressed the need for video-taped recorded instruction in teaching learning process in order to bring about more effectiveness in teaching and learning process. The mean difference also lend credence to this, as the mean difference between the high and low ability students is so small. It can be inferred therefore, that there is no significant effect of verbal ability on students' achievement. Agomor and Nzewi (2003).

Table 4 shows that the mean difference between the male and female music students is so negligible. One can therefore infer that gender does not have any impact on student academic achievement in music.

Result of the study also shows no significant interaction effect of method of instruction and verbal ability on students' achievement in music. However, results of the study as revealed in Tables 5, 6 and 7 shows that video-tape recorded instruction affect student's achievement in music to a very large extent. In fact, these tables reveal that teaching method contributes immensely to student's performance. A good teaching method can be used to improve the performance of low verbal ability students.

Also, one of the developments in educational technology has showed an increasing use of programmed learning, and teaching machines in schools and colleges, Cobb, P.E.Y et al (1992). It is therefore, clearly evident that the need of video-tape (CD) recorded instruction cannot be overemphasized, if the teaching and learning of music must be worth the while. Ajelabi (1990) stressed how important the video tape (CD) recorded instruction is on the Secondary School Students' achievement in many school subjects. It was also discovered while some scholars were in support of video tape recorded instruction for teaching music; others were afraid that such a device might put their jobs on the line and thus make them redundant. As at the time of collecting this data, the researcher discovered that awareness had not been integrated by most teachers in music.

The questions which normally arise, such as would the video-tape recorded instruction enhance teaching and learning? Wouldn't the job of the teacher be lost? If there are already made recorded instruction to be used in teaching music? Could be answered form the statistical findings? These finding shows the need and the effectiveness of video tape recorded instruction in teaching—learning situation. First, students' performance is enhanced as contracted to the use of the traditional method. It also clear from the findings, that the use of video tape recorded instruction cannot make the teacher lose his job; rather, it makes the job more demanding. In the area of selecting relevant video tape recorded instructions to be used in the classroom for different lessons, such that students will be carried along in the course of their instruction.

Discussion

The problems that emerged which led to this research work were:

- i. How to meet with the high demand of music teaching in our schools, vis-à-vis the advancement in technology.
- ii. What could be done to make learning of music more interesting and beneficial?
- iii. The effectiveness of the use of video tape recorded information for teaching music in our schools.

In an attempt to look into how these problems can be solved, the following ideals emerged.

- iv. Learning ability and performance are enhanced as a result of video tape recorded information which enable students to learn music more effectively. The use of this device makes teaching and learning process real and more interesting.
- v. From the findings, there is a bridge between the slow and fast learners. From the classification of students into high and low abilities it was discovered that those that fell into the low level ability were able to perform better than those who fell on the high level, when they were exposed to the use of video tape recorded instruction.
- vi. It was also discovered that distance learning could be enhanced with the use of video-tape recorded instruction since students may listen to the tape anywhere, outside the classroom. All that is required is that the student has access to the video-tape recorded instruction. He can play it on his own and on the whole, it was discovered that video-tape recorded instruction if well and properly utilized, will go a long way to help students learn music very effectively, and with relative ease.

Limitations

The limitations of this study are:

- Lack of financial support
- Logistics problems
- Academic performances of students in both schools in the Junior NECO examination results in music for the past five years are averagely the same
- Lack of instructional media in both schools.
- Lack of Nigerian musical instrument in both schools.

Recommendation

Based on the result of the findings, the following recommendations have been put forward.

- i. Both the federal and the state government should endeavor make video-tape recorded information available in schools, for teaching music and other related subjects
- ii. Teachers should be made to attend refreshers courses, where they can learn the new technical-know-how of teaching music; especially with the aid of video-tape recorded instructions.
- iii. Schools should be provided with alternative source of power supply in case of power outage by PHCN, since the video tape recorded instruction cannot work effectively, without constant supply of electricity
- iv. Workshop and seminars should be organized for teachers to make them realize that the video-tape recorded information cannot make them redundant, that their job is secure.

Conclusion

The problems that emerged which led to this research work were:

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