

Effect Of Computer-Assisted Model On Upper Basic Iii Students' Attitude Towards Drug Abuse Education In Nasarawa State, Nigeria

¹Samuel, Ruth Iwanger and ²Nurudeen, Jamila Idris

¹Department of Science, Technology and Mathematics Education,
Faculty of Education, Nasarawa State University, Keffi, Nigeria
ruthsa124@gmail.com

²National Commission for Colleges of Education (NCCE), Abuja, Nigeria.
nurujash@gmail.com

DOI: 10.29322/IJSRP.8.9.2018.p8175
<http://dx.doi.org/10.29322/IJSRP.8.9.2018.p8175>

Abstract

This study investigated the effect of Computer-Assisted Model on Upper Basic III Students' Attitude towards Drug Abuse Education. Purposive sampling procedure was employed to select 85 upper basic III students from two public co-education schools in West Senatorial District, Nasarawa State, Nigeria. Quasi experimental design was employed for the study. Two research questions guided the study and two research hypotheses were tested at 0.05 level of significance. Attitude Towards Drug Abuse Education Questionnaire (ATDAEQ) was used as instrument for data collection. The reliability of ATDAEQ was determined using Cronbach Alpha and the coefficient obtained was 0.79 implying that the instruments were reliable enough for the study. Descriptive statistics was used to answer the research questions while the hypotheses were tested using Analysis of Covariance (ANCOVA). The findings of this study revealed significant differences in the attitude of upper basic III students towards drug abuse education. Based on the findings of this study, it was recommended that upper basic teachers should adopt the use of Computer-Assisted Model in teaching so as to improve students' attitude towards drug abuse education.

Keywords: Attitude, Computer-Assisted Model, Drug Abuse, Students

INTRODUCTION

Drug abuse is the excessive and persistent self-administration of a drug without regards to the medically or culturally accepted patterns. It could also be viewed as the use of a drug to the extent that it interferes with the health and social function of an individual (World Encyclopedia, 2004). In essence, drug abuse is the arbitrary overdependence or mis-use of one particular drug with or without a prior medical diagnosis from qualified health practitioners (Abdullahi, 2009).

Drug abuse is a major public health problem all over the world. The use and abuse of drugs by male and female adolescents have become one of the most disturbing health related phenomena in Nigeria and other parts of the world (Ekpenyong, 2012). Several adolescents who persistently abuse substances often experience an array of problems, including academic difficulties in the likes of declining grades, absenteeism from school and other activities, and increased potential for dropping out of school; health-related

problems (including mental health); poor peer relationships, and involvement with the juvenile justice system (Abdu-raheem, 2013). Additionally, there are consequences for family members, the community, and the entire society (Oshodi, Aina & Onajole, 2010).

Research on the effect of drug abuse and students' educational performance revealed that it could lead to reduced academic achievement or even halt their entire academic process (Abdu-raheem, 2013; Ekpenyong, 2012; Oshodi, Aina & Onajole, 2010). Drug abuse has become a threat to the lives and success of the youths in Nigeria. This is evidently a source of sorrow to parents, guardians, relatives and a big challenge to the whole nation. It has therefore become pertinent to educate and sensitize students on the danger of drug abuse using appropriate and innovative teaching strategies such as computer assisted model.

Computer assisted instruction (CAI) refer to instruction or remediation presented on a computer. It is the use computers as an interactive instructional technique whereby a computer is used to present the instructional materials and monitor the learning that take place. It is assisted learning because it allows the learner to interact with instructional techniques. It uses a combination of text, graphics (animation), sound and video in the learning process. Computers could play powerful roles in the child learning in school. That is because it helps to develop learners' potentials in different areas of learning and may also constitute powerful delivery system that may bring about great changes in learners behaviours that are desirable to the society at large. It is noted that, most learning occurs by doing (experimental learning) including getting things wrong as well as getting them right determined by immediate feedback in other words computers appears to be capable of giving almost instant feedback, tirelessly no matter how often learners get it wrong during the process (Furo, 2015).

Computer as instructional material has made a significant contribution to a wide range of group-learning activities. They can, for example, be used to manage or structure a group-learning process, by guiding the group through a simulation exercise of some sort (Gambari & Yusuf, 2017). This can provide a vehicle through or with which a group of learners interact, and gain access to information, investigate simulated situation, which can lead to creativity indeed, virtual all these are ways in which computers can be used to determine pupils interest in learning. It can also be used in group-learning situations. Learners in groups thus, do not only benefit from feedback they receive from the computer, but also from the feedback they receive from one another (Nwafor & Okoi, 2016).

Attitude as a concept is concerned with an individual's way of acting and behaving. It has very serious implications for the learner, the teacher, the immediate social group with which the individual learner relates and the school system. Attitudes are formed as a results of some kind of learner experiences. They may also be learned simply by following the examples, opinions of parents, teachers or friends. This is imitation which also has a part to play in the teaching and learning situation. In this respect the learner draws on his teacher's deposition to form his own attitude which may likely affect his learning outcomes (Eriba, 2013). Negative attitude can lead to low expectations on students 'academics. Also teaching strategies can influence the attitude of students positively or negatively. Reports have shown that improved instructional strategy affects the attitude of students. Gambari and Yusuf (2017) reported that students taught using cooperative learning strategy had positive attitude to the educational benefits derived from group work.

The purpose of this study was to examine the effect of Computer-assisted model on upper basic III students' attitude towards drug abuse education Specifically, the study sought to find out:

1. The effect of computer-assisted model on upper basic III students' attitude towards drug abuse education.
2. The effect of computer-assisted model on male and female upper basic III students' attitude towards drug abuse education.

Research Questions

1. What is the mean attitude scores of upper basic III students exposed to computer-assisted model and those exposed to the expository method?
2. What is the mean attitude scores of male and female upper basic III students exposed to computer-assisted model and those exposed to the expository method?

Research Hypotheses

H₀₁: There is no significant difference between in the mean attitude scores of upper basic III students exposed to computer-assisted model and those exposed to the expository method.

H₀₂: There is no significant difference between in the mean attitude scores of male and female upper basic III students exposed to computer-assisted model and those exposed to the expository method.

Methodology

Quasi experimental research design was employed for the study. The sample for study comprised 85 upper basic III students from three intact classes purposively selected from three public co-education schools in West Senatorial Zone, Nasarawa State, Nigeria. The schools were purposively sampled based on equivalence in laboratories, ICT facilities and manpower. The schools were randomly assigned to experimental groups (exposed to Computer-Assisted Model (n = 40), Expository Method (n = 45)).

Attitude Towards Drug Abuse Education Questionnaire (ATDAEQ) was used as instrument for data collection. ATDAEQ contained 20 items designed to determine students' attitude toward drug abuse education, it was rated using a four-point rating scale. The options were; Strongly agreed (SA) = 4 points, Agree (A) = 3 points, Disagree (D) = 2 points and Strongly Disagreed (SD) = 1 point. The reliability of ATDAEQ was determined using Cronbach Alpha and the coefficient obtained was 0.79 implying that the instruments were reliable enough for the study.

Results

Mean gain scores were used to answer the research questions while Analysis of Covariance (ANCOVA) was used to test the research hypotheses at 0.05 alpha level of significance.

Research Question One

What is the mean attitude scores of upper basic III students exposed to computer-assisted model and those exposed to the expository method?

The mean gain attitude scores of upper basic III students exposed to computer-assisted model and those exposed to the expository method are presented in Table 1.

Table 1: Mean Attitude Scores of Students Exposed to Computer-Assisted Model and Those Exposed to The Expository Method

Group	Type of Test	No. of Stud.	Mean	Mean Gain
Computer-assisted Model	Pre-attitude	40	25.35	42.86
	Post-attitude	40	68.21	
Expository Method	Pre-attitude	45	23.72	26.71
	Post-attitude	45	50.43	

Table 1 shows that the Computer-assisted model have the highest mean attitude gain scores while Expository Method have the lowest mean attitude gain score.

Research Question Two

What is the mean attitude scores of male and female upper basic III students exposed to computer-assisted model and those exposed to the expository method?

The mean gain attitude scores of male and female upper basic III students exposed to computer-assisted model and those exposed to the expository method are presented in Table 2.

Table 2: Mean Attitude Scores of Male and Female Students Exposed to Computer-Assisted Model and Those Exposed to The Expository Method

Group	Gender	N	Type of Test	Mean	Mean Gain
Computer-Assisted Model	M	21	Pre-attitude test	34.44	32.65
	M	21	Post-attitude test	67.09	
	F	19	Pre-attitude test	32.37	22.07
	F	19	Post-attitude test	54.44	
Expository Method	M	22	Pre-attitude test	22.09	25.58
	M	22	Post-attitude test	47.67	
	F	23	Pre-attitude test	19.11	20.77
	F	23	Post-attitude test	39.88	

Table 2 shows that the male students in both the Computer-Assisted Model and the Expository Method have the highest mean attitude gain scores while the female students in both groups have the lowest mean attitude gain score.

Research Hypothesis One

There is no significant difference between in the mean attitude scores of upper basic III students exposed to computer-assisted model and those exposed to the expository method.

The test of this hypothesis provided the data on Table 3.

Table 3: Result of Analysis of Covariance on Students' Attitude Towards Drug Abuse Education Using ATDAEQ

Source	Type III Sum of Squares	Df	Mean Square	F	Sig.	Result
Corrected model	4230.331	2	1103.141	43.119	0.000	S
Intercept	11343.312	1	11343.312	321.372	0.001	S
Pre-attitude	39.763	1	39.763	42.342	0.000	S
Group	2016.524	1	2016.524	97.101	0.000	S
Error	4601.921	80				
Total	22231.851	85				

Significant at P<0.05

Table 3 shows a significant difference in the attitude of upper basic III students towards drug abuse education, F= ratio of 97.101, P<0.05. The result implies that the instructional methods produced significant effects on the post attitude scores of students when covariate effect (pre-attitude) was controlled. The null hypothesis of no significant difference was therefore rejected indicating that there is significant difference.

Research Hypothesis Two

There is no significant difference between in the mean attitude scores of male and female upper basic III students exposed to computer-assisted model and those exposed to the expository method.

The test of this hypothesis provided the data on Table 4.

Table 4: Result of Analysis of Covariance on Male and Female Students' Attitude Towards Drug Abuse Education Using ATDAEQ

Source	Type III Sum of Squares	Df	Mean Square	F	Sig.	Result
Corrected model	2161.081	2	1103.141	510.75	0.000	S
Intercept	10525.314	1	11343.312	401.509	0.001	S
Pre-attitude	131.801	1	39.763	42.342	0.003	S
Group	1701.070	1	2016.524	49.180	0.000	S
Gender	127.310	1	127.310	86.079	0.001	S
Error	30215.021	79				
Total	44861.597	85				

Significant at P<0.05

Table 4 shows a significant difference in the attitude of male and female upper basic III students towards drug abuse education, F= ratio of 86.079, P<0.05. The result implies that the instructional methods produced significant effects on the post attitude scores of

students when covariate effect (pre-attitude) was controlled. The null hypothesis of no significant difference was therefore rejected indicating that there is significant difference.

Discussion

The findings of this study revealed that the use of Computer-assisted model had significant effect on students' attitude toward drug abuse education. Students exposed to computer-assisted model had a higher mean attitude gain scores than those exposed to Expository method. This result is in agreement with the findings of Gambari and Yusuf (2017); Nwafor and Okoi (2016); Furo (2015); who found out in their different studies that Computer-assisted model have positive effect on students' attitude in Science Education.

The findings of this study suggest that exposing Basic students at the upper level to computer supported learning model could improve attitude towards drug abuse education. This should be given strong emphasis in the teaching of at upper basic schools in Nigeria.

Conclusion

The findings of this study revealed significant differences in the attitude of upper basic III students towards drug abuse education.

Recommendations

1. Basic Science teachers should be encouraged to adopt computer-assisted model so as to improve students' attitude towards drug abuse education.
2. Government should provide adequate materials, enabling environment and appropriate training of upper basic teachers through seminars, workshops and conferences.

References

- Abdullahi, Z. (2009). Drug abuse among youths. Strategies for school counselling. *The Nigerian Society of Educational Psychologists, Jos: Nigeria*, Pp 131-136.
- Abdu-Raheem, B. O. (2013). Sociological factors to drug abuse and the effects on secondary in an urban setting in Nigeria; Prevalence and associated factors. *African Journal of Psychology*, 1(3), 52-57.
- Ekpenyong, S. N. (2012). Drug abuse in Nigerian schools: A study of selected secondary schools in Bayelsa State, South-south, Nigeria. *International Journal of Scientific Research in Education*, 5(3), 260-268.
- Eriba, J. O. (2013). Effectiveness of the persuasive communication model in changing students' attitude towards science enrolment in secondary schools in Benue state, Nigeria. *Case Studies Journal*, 1, 15-27.
- Furo, P. T. (2015). Computer assisted instruction and students' interest as determinant of ss 2 chemistry students' achievement in chemical equilibrium in rivers state. *IOSR Journal of Applied Chemistry*, 8(1), 50-56.

Gambari, I.A. & Yusuf, O.M. (2017). Relative effectiveness of computer-supported Jigsaw II, STAD and TAI cooperative learning strategies on performance, attitude and retention of secondary school students in Physics. *Journal of Peer Learning* 10:76-94.

Nwafor, C. E., & Okoi, O. O. (2016). Effects of computer assisted instruction on junior secondary school students' achievement in basic science. *International Journal of Scientific and Engineering Research*. 7(10), 1940-1957.

Oshodi, O. Y., Aina, O. F. & Onajole, A. T. (2010). Drug abuse among secondary school students school students' academic performance in Ekiti and Ondo States, Nigeria. *Contemporary issues in Education Research*, 6(2), 234-240.

World Book Encyclopedia (2004). Vol 6, Chicago: World Book.