

TEACHER VARIABLES AND USE OF COMPUTER ASSISTED INSTRUCTIONAL MATERIALS (CAIM) IN UPPER BASIC SOCIAL STUDIES IN KWARA STATE

OLOKOOPA, Issa Nasiru

Email: olokooba.in@unilorin.edu.ng/olokoobain@gmail.com

Phone number: +2348060071895

&

ABDULSALAM, Alliyu Ayodele

Email: aladealliyuay@gmail.com/abdulsalam.aa@unilorin.edu.ng

Phone number: +2348036252287

Social Sciences Education Department, University of Ilorin, Ilorin

Abstract

Teachers are the most important agents for the successful implementation of educational programme. They play vital roles on educational innovations and their application in teaching and learning process to assist learners in the acquisition of concrete and rewarding school experience, Social Studies teachers are not exception. This study examined teacher variables and use of Computer Assisted Instructional Materials (CAIM) in Upper Basic Social Studies in Kwara State. A descriptive survey research design was adopted. The population for this study covered all upper basic social studies teachers in Kwara State. Sample for this study comprised 150 respondents sampled through a stratified random sampling technique. The instrument was a questionnaire titled "Computer Assisted Instructional Materials in Social Studies Assessment Checklist (CAIMSSAC)" with a reliability of 0.83. The data collected were analysed using percentage for the research questions while hypotheses were tested using t-test statistic. The findings of the study showed that CAIM are not frequently used by Social Studies teachers for instructional purposes. Only computer systems are occasionally used for information processing and storage. The study revealed that there is no statistically significant difference between male and female ($t=0.12$, $p>0.05$), qualified and unqualified teachers ($t=0.02$, $p>0.05$), and experienced and less experienced Social Studies teachers ($t=0.27$, $p>0.05$) on the use of CAIM. Based on these findings, it was recommended that teachers should be encouraged to be computer literate and frequently use CAIM for teaching. Regular workshops, seminars, and in-service training should be organised to improve teachers' efficiency on the usage of CAIM.

Key words: *Social Studies, Computer Assisted Instructional Materials, Upper Basic Schools and Teacher variables*

INTRODUCTION

Social studies is a social science subject being taught at lower, middle and upper basic levels of education in Nigeria. The subject appears to be the most popular social science subject at this level, because it has the potential to inculcate in learners right attitudes, values and moral that will make them to be effective citizens and contribute positively to the development of their country. Social Studies as a school subject tries to teach children the total experiences within their environment which they need

to live in the world. The subject develops in learners appropriate skills and attitudes which will make them to become patriots and contributors to the community (Ogundare, 2010).

The content of the subject is dynamic based on the need of the society and particularly to accommodate changes in the areas of values, technology, social problems and educational philosophy of the country (Ogundare, 2010). The overall objectives of Social Studies at the basic education and junior secondary levels as stated by Nigerian Educational Research and Development Council (NERDC, 2007) involved develop the ability to adapt to his or her changing environment, become responsible and disciplined individuals capable and willing to contribute to the development of their societies, inculcate the right types of values, develop a sense of comprehension towards other people, their diverse cultures history and those fundamental principles that make them human, develop the capacity to recognize many dimensions of being human in different cultural, social contexts, develop a sense of solidarity and sharing based on a sense of security in one's own identity. These objectives could only be achieved when the subject is properly taught by teachers with appropriate instructional media.

It has been observed that teachers are not only teach learners with basic knowledge of Social Studies content but also with higher cognitive skills, such as problem solving and thinking skills that allow for self-development, continuous learning and Information and Communication Technology (ICT) skills in order to meet up with global challenges. Social Studies is not left out in these challenges. To meet up with these, there is a movement from direct teaching as in the lecture method, note copying and dictations, where the learners are given contents to memorize and regurgitate to constructive instructional approach like Computer Assisted Instruction (CAI) and how they could be constructively use the approach for effective teaching and learning of Social Studies. The new approach is pupil or learner-centered. The learners are not treated as an empty vessel. They are credited with knowledge, skills and attitudes from the day they were born which requires development, encouragement, and motivation (NTI, 2010).

Teachers are the most important agents for the successful implementation of educational programme. For creative teaching, teachers must necessarily be conversant with educational innovations, new media and their application in learning process to assist learners in the acquisition of concrete and rewarding school experience. As expressed in the National Policy on Education (FRN, 2013) "no education system is expected to rise above the quality of its teachers" that is, the qualification and experiences of teachers are considered to be of paramount important in the implementation of school curriculum. Ogundare (2010) pointed out that the central point in the teaching of Social Studies

is the resources, but the central value of the human resources is the resourcefulness. Effective learning of the subject is determined by teachers' skillfulness and resourcefulness in identifying and selecting method and instructional materials to teach the content of the subject. Therefore, it becomes imperative for teachers to possess a store of modern technology, practice and expertise in designing and use of the appropriate instructional materials for a particular lesson.

Computer is a modern technological tool designed to make life easier due to its speed, accuracy, and ability to store large quantities of information and to carry out large and complex operations (Ayoko, 2002). The use of computer is not new in education and it has been applied at various levels as Computer Assisted Instruction (CAI), Computer Based Education (CBE), Computer Managed Instruction (CMI) and Computer Supported Learning Aid (CSLA). Computer Based Education (CBE). According to MacArthur (2001) is the broadest term which refers to virtually any kind of computer use in educational settings. Therefore, there is need to incorporate it into the teaching and learning of Social Studies as a school subject.

Computer Assisted Instruction (CAI) is the means of using computer directly as a medium of instruction by a teacher in order to bring about effective teaching and learning that would encourage and permanent change in learners behaviours. It is the technique of using the computer to carry out the teaching and learning activities with the assistance of teacher (Odewumi, 2008). The merits of CAI include fostering a comparative group atmosphere, when two or more students are working together on a single computer, there is more collaboration and cooperation in problem solving. CAI tends to motivate the spirit of cooperation, an extremely powerful academic mix. It also provides simulation of instructional activities, bring about an indirect empowerment of students in computer operations, improving their performance and making teaching and learning more interesting and effective (Adedamola, 2015; Fagbemi, Gambari, Oyedum & Gbodi, 2014).

Upper basic Social Studies curriculum contains teaching and learning materials that are computer assisted instructional materials. These include: internet, CD-Rom, documentaries, simulation games, drill and practice, tutorials and information retrieval system, documentaries on family life education and simulation materials which are expected of Social Studies teachers to facilitate and enhance teaching and learning of Social Studies (NERDC, 2007).

In Nigeria, computer is widely used for research, examination or evaluation purposes in the tertiary institutions and by examination bodies like the West African Examination Council (WAEC)

and National Examination Council (NECO) for marking and collation of scores (Odewumi, 2008). It was believed that computer will transform the school system as computer technology has been identified as a device that could facilitate teaching and learning at all levels of education and training. However, the use of computer for teaching and learning is gradually widespread. Ukpebor and Emwanta (2012) established that the availability and use of computers and internet is very poor. Many schools may boast of computer laboratory but only a few can pride themselves on the internet access. This is not far from Goldman, Cole and Syer (1999) who claimed that most schools have computer laboratories and many computers in the classrooms, but since internet services are the latest technology in the educational system, there are still many factors that still impede internet access within and outside the school environment. However, most of the schools who could boast of computers in their schools only had outdated computers from which a few were functioning. It is highly imperative that schools should endeavour to acquire computers for practical and also internet access so as to empower the student on educational pursuit.

Olokooba (2013) found out that Computer Assisted Instructional materials (CAIM) for teaching Social Studies are characterized by documentaries, programmer-designed, manufactured software, internet-based materials but they are not frequently used by teachers for instructional purposes. In most of schools sampled in his study, it is only computer systems that are available and occasionally used for information processing and storage purpose.

Gender, teaching qualifications and experience has been identified as major factors influencing the use of instructional materials in schools (Ross, Hogaboam-Gray, & Hannay, 1999; Okonkwo, 2002; Yusuf, 2007; Adekeye, 2008 & Umar, 2010). Jimoh (2002) opined that complete education process of teaching and learning cannot be accomplished without the experience, quality and quantity of teachers that are involved in it. He viewed teaching as a profession of experience, the main yardstick in the implementation of any curriculum. This is in support of Ross, Hogaboam-Gray, and Hannay (1999) who reported that access to technologies increased teachers' opportunities for successful teaching experiences, thereby contributing to greater confidence in their instructional ability.

Adekeye (2008) and Umar (2010) discovered that a significant difference exists in the use of instructional resources between male teachers and female counterparts in the teaching of Social Studies and Islamic Studies in the use of instructional media. Okonkwo, (2002) worked on the relationship between schools and teacher variables and students' achievement in Mathematics. His findings showed that in terms of teachers' qualification, teachers with degree made a better used of instructional media thereby produced the highest scoring while the NCE holders followed. Kolawole (2002) was of opinion

that a professional becomes more efficient and more effective as he stays longer on his profession by learning more and more about the difficulties that students encounter while learning. His growing experiences help students to gain insight into ways to overcome difficulties in learning. He sees experienced teachers as those that have spent more than five years in the teaching profession. Yusuf (2007) discovered that there is no significant difference between the experienced and less experienced Social Studies teachers in their use of community resources.

Therefore, this study investigated whether the teacher' variables have influence on the use of Computer Assisted Instructional Materials (CAIM) in upper basic Social Studies. The teacher' variables considered in the study are gender, teaching qualifications and experience.

Methodology

The descriptive survey research design was used in the study. This is necessary to be able to explain the variables in the study based on information gathered. The research was conducted in the Ilorin metropolis which is the capital of Kwara State. The population was all upper basic Social Studies teachers in the metropolis. A sample of one hundred and fifty upper basic Social Studies teachers was purposively sampled using stratified random sampling technique. A questionnaire titled "Computer Assisted Instructional Materials (CAIM) in Social Studies Assessment Checklist (CAIMSSAC)" was used for data collection. The questionnaire was divided into two sections. Section A deals with information about demographic data about the respondents while Section B contains items on Computer Assisted Instructional Materials and was on a three point Likert scale. To validate the instrument, copies of the questionnaire was given to experts in Social Studies in the Department of Social Sciences Education, University of Ilorin to ensure content validity. Its reliability was established using test-retest technique and a reliability index of 0.83 was obtained. Frequent counts and percentage were used to answer research question 1 while research question 2, 3 and 4 that have corresponding null hypotheses were tested using t-test statistic at 0.05 significant level.

Research Questions

1. To what extent do Social Studies teachers use Computer Assisted Instructional Materials (CAIM) for Social Studies in upper basic schools?
2. Do Social Studies teachers differ on the use of Computer Assisted Instructional Materials (CAIM) in upper basic schools based on gender?
3. Do Social Studies teachers differ on the use of Computer Assisted Instructional Materials (CAIM) in upper basic schools based on qualification?

4. Do Social Studies teachers differ on the use of Computer Assisted Instructional Materials (CAIM) in upper basic schools based on teaching experience?

Research Hypotheses

H₀₁: There is no significant difference between male and female Social Studies teachers on the use of Computer Assisted Instructional Materials (CAIM) in upper basic schools.

H₀₂: There is no significant difference between qualified and unqualified Social Studies teachers on the use of Computer Assisted Instructional Materials (CAIM) in upper basic schools.

H₀₃: There is no significant difference between experienced and less experienced Social Studies teachers on the use of Computer Assisted Instructional Materials (CAIM) in upper basic schools.

Results

Questions 1: *To what extent do Social Studies teachers use Computer Assisted Instructional Materials (CAIM) for Social Studies in upper basic schools?*

In order to answer research question one, responses of Social Studies teachers on items 1 to 8 of the questionnaire on the extent of using CAIM were analysed using percentage to determine the extent. The result is shown in table 1.

Table 1: Usage of Computer Assisted Instructional Materials (CAIM) by Social Studies Teachers

S/N	ITEMS	FREQUENTLY	SOMETIMES	NOT AT ALL
1	Computer systems	29 (19.3%)	52 (34.7%)	69 (46%)
2	Internet facilities	15 (10%)	26 (17.3%)	109 (72.7%)
3	Internet connectivity	16 (10.7%)	18 (12%)	116 (77.3%)
4	Computer-based Encyclopedia	14 (9.3%)	28 (18.7%)	108 (72%)
5	Computer-based simulated materials in social studies topics	32 (21.3%)	30 (20%)	88 (58.7%)
6	Instructional films in Social Studies	28 (18.7%)	37 (24.6%)	85 (56.7%)
7	Instructional Software in Social Studies	23 (15.3%)	33 (22%)	94 (62.7%)
8	Computer-based documentaries in Social Studies	23 (15.3%)	33 (22%)	94 (62.7%)

Results on the table 1 showed that Computer Assisted Instructional Materials (CAIM) are not frequently used by Social Studies teachers for instructional purpose as majority of the respondents did not use the CAIM at all.

Hypothesis 1: *There is no significant difference between male and female Social Studies teachers on the use of Computer Assisted Instructional Materials (CAIM) in upper basic schools.*

In order to test null hypothesis one, responses of male and female Social Studies teachers on the extent of using CAIM for teaching Social Studies were analysed using t-test statistic. The result was illustrated in table 2.

Table 2: t-test Analysis of male and female Social Studies Teachers on Use of CAIM

Variables	NO	Mean	SD	df	t-value	Sig. (2-tailed)	Decision
Male	66	12.11	1.77	148	0.12	0.72	NS
Female	84	14.73	3.82				

$P \geq 0.05$

Results in Table 2 showed that the calculated t-value 0.12, was obtained with p-value, 0.72 at alpha level of 0.05. Since the p-value is greater than 0.05 alpha level ($0.72 > 0.05$), therefore, null hypothesis 1 is hereby accepted. This implies that there is no statistically significant difference between

male and female Social Studies teachers on the use of Computer Assisted Instructional Materials for Social Studies in upper basic schools.

Hypothesis 2: *There is no significant difference between qualified and unqualified Social Studies teachers on the use of Computer Assisted Instructional Materials (CAIM) in upper basic schools.*

In order to test null hypothesis one, responses of qualified and unqualified Social Studies teachers on the extent of using CAIM for teaching Social Studies were analysed using t-test statistic. The result was illustrated in table 3.

Table 3: t-test Analysis of CIP of qualified and unqualified Social Studies teachers

Variables	NO	Mean	SD	df	t-value	Sig (2-tailed)	Decision
Qualified teachers	130	12.12	3.85	148	0.02	0.99	NS
Unqualified teachers	20	12.10	3.70				

$P \geq 0.05$

Results in Table 3 showed that the calculated t-value is 0.02, was obtained with p-value, 0.99 at alpha level of 0.05. Since the significance value is greater than 0.05 alpha level ($0.99 > 0.05$), therefore, null hypothesis 2 is hereby accepted. This implies that there is no statistically significant difference between qualified and unqualified Social Studies teachers on the use of Computer Assisted Instructional Materials for Social Studies in upper basic schools.

Hypothesis 3: *There is no significant difference between the experienced and less experienced Social Studies teachers' use of Computer Assisted Instructional Materials (CAIM) in upper basic schools.*

In order to test null hypothesis one, responses of experienced and less experienced Social Studies teachers on the extent of using CAIM for teaching Social Studies were analysed using t-test statistic. The result was illustrated in table 4.

Table 4: t-test analysis of CIP of experienced and less experienced Social Studies teachers

Variables	NO	Mean	SD	df	t-value	Sig. (2-tailed)	Decision
Experienced teachers	73	12.03	4.02	148	0.27	0.79	NS
Less Experienced teachers	77	12.19	3.65				

$P \geq 0.05$

Results in Table 4 showed that the calculated t-value is 0.27, was obtained with p-value, 0.79 at alpha level of 0.05. Since the significance value is greater than 0.05 alpha level ($0.79 > 0.05$), therefore, null hypothesis 3 is hereby accepted. This implies that there is no statistically significant

difference between experienced and less experienced Social Studies teachers on the use of Computer Assisted Instructional Materials for Social Studies in upper basic schools.

Discussion of Findings

This study on the teacher' variables and use of Computer Assisted Instructional Materials (CAIM) in upper basic Social Studies has provided some findings. Findings of this study revealed that majority of Social Studies teachers do not use Computer Assisted Instructional Materials (CAIM) in teaching Social Studies they only use it for storage and processing of information. This finding corroborates Adekeye (2008) who discovered that audio-visual instructional materials such as television, video, computer and internet are not so available despite the fact that these resources are very important for the successful teaching and learning of Social Studies. This finding also in line with that of Ukpebor and Emwanta (2012) who established that computers and internet are not adequately available and use in schools. Many schools may boast of computer laboratory but only a few can pride themselves on the internet access. However, most of the schools who could boast of computers in their schools only had out-dated computers from which a few were functioning.

Finding of this study also revealed that teachers' gender is not a significant variable in the use of Computer Assisted Instructional Materials (CAIM) in upper basic schools. This finding disagreed with Adekeye (2008) who discovered that a significant difference exists in the use of instructional resources between male teachers and female counterparts in the teaching of Social Studies and Umar (2010) whose findings also showed that a significant difference exists between male and female Islamic Studies teachers in the use of instructional media.

Finding of this study also revealed that teachers' qualification is not a significant variable in the use of Computer Assisted Instructional Materials (CAIM) in upper basic schools. This finding disagreed with Umar (2010) whose findings also showed that a significant difference exists between qualified and unqualified teachers of Islamic Studies in the use of instructional media and Okonkwo, (2002) who found out that in terms of teachers' qualification, teachers with degree made a better used of instructional media thereby produced the highest scoring while the NCE holders followed.

In this study, the finding also showed that teaching experience is not a significant variable ($t=0.27, p>0.05$) in the use of Computer Assisted Instructional Materials (CIP) in upper basic schools for the teaching of Social Studies. This finding corroborates Yusuf (2007) who discovered that there is no significant difference between the experienced and less experienced Social Studies teachers in their use of community resources while it disagreed with that of Adekeye (2008) who established that

experienced Social Studies teachers use instructional media like instructional materials more than their less experienced counterparts.

Conclusion

This study investigated the use of Computer Assisted Instructional Materials (CAIM) for teaching Social Studies in upper basic schools. CAIM are recommended for teaching upper basic Social Studies curriculum to facilitate and enhance the learners' experience about the subject. However, it as found out in the study that CAIM are not frequently used by Social Studies teachers for instructional purpose in upper basic schools. Only computer systems are occasionally used for information processing and storage purposes. Gender, teaching qualifications and experience are not statistically significant variables that have influence on the use of CAIM for teaching Social Studies in upper basic schools.

Recommendations

Based on the findings of this study, the following recommendations were made.

- i. All upper basic school teachers should be encouraged to be computer literate and use CAIM for teaching.
- ii. Regular workshops, seminars, and in-service training should be organized for teachers to enable them acquire the necessary skills and update their knowledge on the importance and proper use of instructional software in teaching of Social Studies.
- iii. Curriculum developers and other policy makers should include Internet, information retrieval skills in the school syllabus/curriculum for teachers to facilitate teaching and learning of Social Studies.
- iv. Capacity building on the use of CAIM should be mounted for teachers.

References

- Adedamola, A.K. (2015). Effects of Computer Assisted Instruction on Students' Academic Achievement and Attitude in Biology in Osun State, Nigeria. In *Journal of Emerging Trends in Educational Research and Policy Studies (JETERAPS)* 6(1), 69-73. Retrieved eteraps.scholarlinkresearch.com
- Adekeye, J.D. (2008). *Availability and utilization of resources for teaching junior secondary school social studies in Kwara State, Nigeria*. An unpublished M.Ed. Thesis University of Ilorin, Ilorin.
- Ayoko, A.K. (2002). *Educational technology theory and practice*. Oro: Kwara State College of Education, Oro, Department of Curriculum Studies and Education Technology.
- Fagbemi, P.O., Gambari, A.I., Oyekum, N.A. & Gbodi, E.B. (2011). Effects of self instructional computer-based package on Social Studies achievement among senior primary school pupils in Niger State, Nigeria. *Journal of Science, Technology, Mathematics and Education (JOSTMED)* 7(2), 3-13.
- Federal Republic of Nigeria (2013). *National Policy on Education (6th Edition)*. Lagos: NERDC Press.
- Goldman, S., Cole, K. & Syer, C. (1999). The technology/content dilemma {online}. Retrieved www.ed.gov/Technology/TechConf/1999/whitepapers/paper4.html.
- Jimoh, K.I. (2002). Challenges to Social Studies teachers in the 21st century. *International Journal of Applied Systematic Studies (IJASS)*, 3 (1), 55-60.
- Kolawole, C.O. (2002). *Developing and Implementing a Workable Curriculum in Nigeria*. A paper presented at the 2nd Annual Conference of the Curriculum Organization of Nigeria (CON) University of Lagos.
- MacArthur, C.A. (2001). Technology applications for students with literacy problems: A critical review. *The Elementary School Journal*, 101, 273-378.
- National Teachers' Institute (2010). *Manual for capacity building workshops of teachers under the federal teachers' scheme on Social Studies: A MDGs Project 2010* Kaduna: NTI Printing Press.
- Nigerian Educational Research and Development Council (2007). *9-year Basic Education Curriculum Social Studies for JSS 1- 3*. Abuja: UBEC.
- Odewumi, M.O. (2008). *Effect of a computer assisted instructional package on the performance of Junior Secondary Schools Fine Art students in Ogbomoso*. An unpublished M.Ed. Thesis, University of Ilorin, Ilorin.
- Ogundare, S.F. (2010). *Invitation to fundamentals of teaching Social Studies*. Ibadan: Franco-Ola Publishers.

Teacher Variables and Use of Computer Assisted Instructional Materials (Caim) in Upper Basic Social Studies in Kwara State

- Okonkwo, S.C. (2002). Relationship between some Schools and Teachers' Variable and Students' Achievement in Mathematics. *Journal of Science Teachers' Association of Nigeria* 35, 1 (2), 45-49.
- Olokooba, I.N. (2013). *Availability and use of Computer-based Instructional Programmes (CIP) by upper basic Social Studies teachers in Ilorin, Nigeria*. An unpublished M.Ed. Thesis, University of Ilorin, Ilorin.
- Ross, J.A., Hogaboam-Gray, A. & Hannay, L. (1999). Predictors of teachers' confidence I on their ability to implement computer-based instruction. *Journal of Educational Computing Research*, 21 (1), 75-97.
- Ukpebor, O.C. & Emwanta, M.G. (2012). Availability and the use of computer and internet by secondary school students in Benin City, Nigeria. *International Journal of Library and Information Science* 4 (2), 16-23. Retrieved <http://www.academicjournals.org/IJLIS>
- Umar, M. (2010). *Assessment of teachers' use of instructional media for teaching Islamic Studies in secondary schools in Kano State*. An unpublished M.Ed. Thesis, University of Ilorin, Ilorin.
- Yusuf, T.H. (2007). Influence of Teachers' variable on the Use of Community Resources for Social Studies Instructions in Ilorin Metropolitan Environment. In *Ilorin Journal of Education*, 26, 11-20