



MANAGEMENT OF ICT (INFORMATION AND COMMUNICATION TECHNOLOGY) CURRICULUM AND GOAL ATTAINMENT IN PRIVATE SECONDARY SCHOOLS IN CROSS RIVER STATE, NIGERIA

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Abstract

This study investigated the extent to which management of ICT curriculum influence goals attainment of private secondary schools in Cross River State, Nigeria. Stratified random sampling technique was used to select 300 out of a total of 491 private secondary schools in the three education zones of Cross River State. Two instruments were used for data collection namely, Management of Curriculum Innovation Questionnaire (MOCIQ) and Goals Attainment Scale (GAS). Out of the 300 private secondary schools, 247 of both questionnaires were successfully administered and retrieved from private secondary schools and used for the study. Teachers were the respondents in the assessment of curriculum innovation in ICT while students assessed goals attainment by Private Secondary Schools. Data were analysed using descriptive statistics (means) to answer the research question posed by the study and one-way analysis of variance (ANOVA) at .05 level of significance to test the hypotheses. The results showed that level of effectiveness of the management of ICT curriculum influences goals attainment in private secondary schools in terms of natural consciousness, civic responsibility, cultural value orientation and skills acquisition. The result of the hypothesis test revealed that the level of effectiveness of the management of ICT curriculum significantly influence goals attainment with respect to national consciousness, civic responsibility and cultural value orientation at 0.5 level of significance. Based on the finding, it was concluded that effectiveness of the management of ICT curriculum by private secondary schools greatly influences their goals attainment. It was recommended, among other things, that the Secondary Education Board, the Ministry of Education as well as the Principals should organize regular capacity development programmes for teachers in the area of ICT utilization and pedagogy in their areas of specialization to enhance educational goals attainment.

Keywords: Management, Goal Attainment, Goal and Private Secondary School.

1.0 Introduction

Private Secondary Schools are educational institutions of learning that are being

coordinated, directed and supervised primarily by their owners who bear the burden of funding the projects while the

government sends inspectors from time to time to investigate the curriculum and the environment of the schools. Attainment of secondary school goals among private secondary schools in Cross River State is really still a mirage. Observers may attribute this unfortunate situation to a whole lot of factors, which may include profiteering, a problem that could be apparently peculiar to most privately owned institutions.

Often, the attainment of educational goals has always been a national issue however to some extent the poor utilization of human and mutual resources and the application of the right curriculum has brought a lot of setback in achieving the goals. Thus the management of ICT has become an indispensable tool for goal attainment in schools. The adoption of ICT curriculum in schools facilitates and stimulates communication between the administrators and the students. It enables the teachers to improve quality delivery of the curriculum to the students (Pashia & Black, 2009).

ICT is generally regarded as a diverse set of technological tools and resources used to transmit, store, create, share and exchange information (Adomi and Kpagbani 2017). The twenty- first century is already turning out to be the century of the computer age. The computer revolution that started after the Second World War is now developing exponentially and computers are beginning to influence and take over nearly every aspect of our lives. In a rapidly changing world, basic education is essential for an individual to be able to access and apply information. The Economic Commission for Africa has indicated that the ability to access and use information is no longer a luxury, but a necessity for development.

Unfortunately, many developing countries, especially in Africa, are still very backward in the application of Information and Communication Technology (ICT), as cited by Aduwa and Iyamu, (2005). The ability to use computers effectively has become an essential part of everyone 's education. Skills such as book keeping, clerical and administrative work, stocktaking, and so forth, now constitute a set of computerized practices that form the core Information Technology skills package: spreadsheets, word processors, and database, (Aduwa & Iyamu, 2005)

The demand for computer/ICT literacy is increasing in Nigeria, because employers have realize that computers and other ICT facilities can enhance efficiency. On the other hand, employees have also become computer literate. The Federal Government of Nigeria introduced computer education into the nation's Secondary School system in 1988 through the policy enactment of the National Computer Policy.

Current and new facilities require users to have technical, operational and application skills and competencies if they are to use and apply such facilities to support themselves and others. A factor explored in one study - learner perceptions of computing careers - indicated that these were generally regarded to be poor (McEwan and McConnell 2013). Poor perceptions of the value of the subject has been discussed also by teachers, who have stated that they feel that the value of teaching ICT focusing on IT skills and digital literacy is low by comparison to the value associated with teaching computing. With ICT, teaching is described as being 'dull and unchallenging', teachers and educators concerned with these poor perceptions have argued that computing should be adopted

more strongly, with its more highly-regarded associated creative and problem-solving approaches (Royal Society 2012).

Most schools and teachers using computing technologies have been concerned over the past 20 years or more with how these facilities can be integrated into subject and topic teaching, and how their deployment can support learning. Teachers have been concerned, for example, with how their learners might gain greater understanding through the teacher's usage of interactive whiteboards, or how the teacher can engage learners in reflective learning through appropriate feedback in electronic form. This focus has been concerned with applications of existing computing technology facilities (both software and hardware), rather than a focus on using the underlying computing facilities themselves, and how they might be developed and used through programming or networking to solve problems.

The level of ICT knowledge the students acquire will help them appreciate the impact of information and computer packages and it will also help them appreciate economic, social and psychological impact it has on them. In matters such as National Consciousness, civic responsibility, skill acquisition and cultural value re-orientation are usually affected by the quality of the management of ICT in our various schools. For instance, the educational system in China, America, Britain, etc. has significant and enormous impact on their students, individual and national development in ICT. Hence this means that where there is education there is development.

However, there is wide spread of agreement that ICT is one of the most lucrative and viable beings and will increasingly be used

not only by government establishments but companies, organizations, individuals and even students including other various purposes. In line with this, McEwan and McConnell (2013) lamented that poor perception of the value of the subject by teachers play a prominent role in the cultural, economic, political and social life of a country if they are not properly educated. Hubwieser (2012) observed that, allowing students to study ICT for a long period serves as an important indicator to enviable progress. King (2016) reveals that there are strong research indicators supporting the claim that ICT management has significant goal on attainment of students' learning which brings about sufficient skills for every student in their various schools. Leong (2010) carried out a research study on the relevant of teachers behaviors towards using ICT for educational purposes. The result obtained from analysis of data revealed that there is a significant influence of teachers' behavior on teaching ICT. It was therefore proven that most teachers are computer non-compliance.

Despite this relationship between ICT management and goal attainment a large proportion of students receive little or no ICT in many African countries. It has been estimated that in developing countries generally, about 60 percent of students in both urban and rural areas are not ICT literate. ICT is one of the subjects taught in the Primary, Junior and Senior Secondary Schools and even Colleges of Education, Polytechnics and Universities in Cross River State because of its importance in bringing ICT literacy amongst students in the society. It enables students to learn and imbibe the economic benefits of the subject but this

however, has not been achieved due to epileptic supply of electricity in our nation. Based on the importance of ICT in equipping individuals with entrepreneurial skills it is one of the compulsory subjects taught across Primary to Tertiary levels of education in Nigeria, Nigerian Educational Research and Development Council (2012) reported that ICT is one of the vocational subjects that affords students the opportunity of developing manipulative skills for improving their private agility and become self-reliant in life. Unfortunately, this is not so among students offering ICT due to the deplorable situation. There is urgent need for Curriculum Planners to pay attention to the management of ICT curriculum so as to avoid wasting too much efforts and time (Owolabi & Oginni, 2012). Hence this study aims at answering the question, to what extent does the management of ICT (Information and Communication Technology) curriculum influence goals attainment by private secondary schools in Cross River State, Nigeria.

2.0 Method

This study used a survey design. Stratified sampling technique was used to select schools for the study. This was done in order to obtain an adequate representative sample of principals from all the eighteen (18) local government areas constituting the three educational zones. The simple random sampling method was used to ensure that each school had equal and adequate chance of being selected. The purposive sampling technique was used in the selection of six (6) teachers in each of the sampled school to assess the principals' effective management of ICT curriculum innovation. The

population of the study was 491 private secondary schools in Cross River State, out of which 300 private schools were sampled.

The instruments used in this study were two sets of survey questionnaires. The first questionnaire was on management of ICT curriculum innovations in private secondary schools. It was designed for teachers to assess their principals' on the effectiveness of the management of curriculum innovations. The second set of questionnaire was on goals attainment in private secondary schools questionnaire (GAIFSSQ). This is to be completed by students who were meant to assess attainment of educational goals in private secondary schools. Out of the 300 private secondary schools, copies of both questionnaires were successfully administered and retrieved from 247 private secondary schools sampled for the study.

Both the management of ICT curriculum innovations and goal attainment of private secondary school were designed on the modified four point likert-type scale with various weight as follows: Strongly Agree (SA) = 4, Agree (A) = 3, Disagree (D) = 2 and Strongly Disagree (SD) = 1. The research question was analysed using means and standard deviation while the hypothesis of the study was tested at .05 level of significance using one-way analysis of variance (ANOVA).

3.0 Results

3.1 Research Question

To what extent does the management of ICT (information Technology) curriculum influence goals attainment by private secondary schools?

Table 1: Mean rating of Management of ICT curriculum and Goal Attainment by private secondary schools

Items	Mean	St. Deviation	St. Error	Minimum	Maximum
Natural Consciousness	22.63	3.68	.26	11.00	28.00
Civic Responsibility	22.36	4.04	.28	9.00	28.00
Skill Acquisition	20.81	4.33	.28	5.00	29.00
Cultural Value	21.95	4.11	.26	5.00	28.00
Re-orientation					

3.2 Test of hypothesis

The management of Information and Communication Technology curriculum does not significantly influence goals attainment by private secondary schools.

One-way ANOVA was applied with the categorized management of Information and Communication Technology (ICT) curriculum as factor and each of the goals attainment sub-variables as dependent variable. The F-ratio test was also applied.

Table 2: One-way ANOVA goals attainment variables by level of effectiveness of Management of ICT curriculum

Goals attainment variables	Effectiveness of Mgt. of ICT curriculum	N	\bar{x}	Sd	Std. Error
National Consciousness	High	6	21.833	3.971	1.621
	Average	204	22.927	3.686	.258
	Low	37	21.135	3.267	.537
	Total	247	22.632	3.677	.234
Civic Responsibility	High	6	22.167	2.994	1.222
	Average	204	22.799	3.936	.276
	Low	37	19.973	4.017	.660
	Total	247	22.360	4.043	.257
Skills Acquisition	High	6	18.833	4.167	1.701
	Average	204	21.034	4.353	.305
	Low	37	19.865	4.131	.679
	Total	247	20.806	4.331	.276

Cultural Value Orientation	High		6	20.167	3.430	1.400
	Average		204	22.284	4.194	.294
	Low		37	20.405	3.287	.540
	Total		247	21.951	4.107	.201
Dependent variable	Source of variation	Sum of squares	Df	Mean square	f-value	p-value
National Consciousness	Between groups	104.19	4	52.209	3.955*	.020
	Within groups	3221.055	244	13.201		
	Total	3325.474	246			
Civic Responsibility	Between groups	250.365	4	121.183	8.101*	.000
	Within groups	3770.566	244	15.453		
	Total	4020.931	246			
Skills Acquisition	Between groups	66.755	4	33.377	1.791	.169
	Within groups	4547.917	244	18.639		
	Total	4614.672	246			
Cultural value orientation	Between groups	130.155	4	85.077	3.951*	.020
	Within groups	4019.262	244	16.472		
	Total	4149.417	246			

*significant at .05 level $P < .05$

Table 3: Fisher’s Least Significant difference pair-wise comparison of goals attainment variables by level of effectiveness of the mgt. of ICT curriculum

Goals attainment variable	Level of ICT Mgt.	Level of ICT Mgt.		
		High	Average	Low
National Consciousness	High	21.833	-1.094	0.698
	Average	.468	22.927	1.792*
	Low	.663	.006	21.135
Civic Responsibility	High	22.167	-0.632	2.194
	Average	.698	22.799	2.826*
	Low	.206	.000	19.973
Cultural Value Orientation	High	20.167	-2.117	-0.238
	Average	.209	22.284	1.879*
	Low	.894	.010	20.405

*significant at .05 level. $P < .05$.

Values along main diagonal are group means, above it are mean differences and below it are corresponding p-values.

4.0 Discussion of result

The result in Table 1 shows mean of management of ICT curriculum and goal attainment by private secondary schools. The results showed that management of ICT Curriculum enhances natural consciousness which had the highest mean value of $\bar{x} = 22.63$, this was followed by Civic responsibility ($\bar{x} = 22.36$), cultural value re-orientation ($\bar{x} = 21.95$) and skill acquisition ($\bar{x} = 20.81$). Reasons for these could be the level of goal attainment which the students may have acquired before leaving the secondary school. However, most teachers are not conversant with the king’s theory of goal attainment thus other factors such as

stress, space and time might have affected their goal attainment.

The null hypothesis stipulates that management of ICT curriculum does not significantly influence the goal attainment of students. The results in Table 2 revealed that only the p-value (.169) associated with the computed f-value (1.791) for skills acquisition was greater than .05. The rest of the p-values (.020, .000 and .020) for national consciousness, civic responsibility and cultural value orientation respectively were less than .05. Thus, the null hypothesis was retained for skills acquisition but rejected for national consciousness, civic responsibility, and cultural value orientation. This means that management of ICT curriculum does not

significantly influence goals attainment in terms of skills acquisition but does not significantly influence the attainment of national consciousness, civic responsibility and cultural value orientation. To locate the pairs of group means responsible for the observer's significant results, Fisher's least significant difference (LSD) pair wise comparison was carried out and the result presented in Table 3 which shows that only the mean difference (MD) between average and low management effectiveness of ICT curriculum was significant for each of the respective goals attainment variables – national consciousness, civic responsibility and cultural value orientation (MD=1.792, P=.006, MD=2.826, P=.000; MD=1.879, P=.010).

The outcome of data analysis shows that management of ICT curriculum by principals significantly influences goal attainment. In the same manner, management of ICT curriculum was categorized into high, average and low while goal attainment was also divided into four sub-variables natural consciousness, civic responsibility, skill acquisition and cultural value re-orientation. The data analysis also showed a mark mean difference among the various categorization of school management of principals in terms of low, average and high. The cross examination of the study findings depicts the goal attainment extent in term of natural consciousness, civic responsibility, skill acquisition and cultural value re-orientation under those private school principals with strict implementation of the management of ICT curriculum innovation which had higher mean and performed significantly better than their counterparts who are under the principals with averagely and low mean. The implication of these study findings is that a principal who complies with government

policy concerning the management ICT curriculum innovation performed better in their overall goal attainment than principals with low compliance.

Management of curriculum innovation significantly influences goal attainment among student. This also means that management of ICT curriculum significantly influences goal attainment among students in terms of natural consciousness, civic responsibility and cultural value re-orientation. It could be concluded that management of ICT curriculum has made a significant difference in goal attainment among student. The findings of this study is in agreement with the previously scholarly work by Eade (2009), King (2016) who, found a significant influence of management in their study. The cited study findings proved that ICT management have positive influence on goal attainment and students learning. The results also indicate that the management of ICT curriculum brings out sufficient skills for every students in their various schools. In the same vein, Torruam and Abur (2013) affirmed that ICT utilization, positively impact on classroom management and also management of educational goal. Leong et al, 2010 observed that the use of ICT in teaching and learning process ensure efficient harmonization of difficult concept. According to them innovations that ICT has brought in teaching learning process will reduce the burden of keeping bulky information.

5.0 Conclusion

Based on the findings of this study, it is evidenced that management of ICT curriculum significantly influence goal attainment among students in terms of national consciousness, civic responsibility and cultural value re-oriented. Hence,

principals who complies with government policy concerning the management of ICT curriculum innovation performed better in their overall goal attainment than principals with low compliance.

6.0 Recommendations

1. Government should refocus attention in encouraging private secondary schools to prioritize the development and effective management of ICT rather than only focusing on public secondary schools.
2. The Teachers Restriction Council of Nigeria (TRCN) should ensure that only trained technical teachers with high professional teaching qualification are employed in all schools.
3. The private schools principals should comply effectively to the application of the implementation of the ICT curriculum innovations in their schools to ensure sustainable development.

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