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Abstract- The purpose of the study is to examine the challenges and attitude of teachers toward the implementation of Data Processing Curriculum in Secondary Schools in Ondo State of Nigeria. It is a survey research which employed a descriptive design. The sample for the study comprised of 200 teachers randomly selected from the ten secondary schools in Akoko South West Local Government Area of Ondo State. Twenty teachers were drawn from each school using purposive sampling technique giving a total of 200 respondents. A four likert- type of questionnaire was used as an instrument for the collection of data. A trial test was carried out to ascertain the reliability of the instrument using Cronbach alpha statistics technique and a value of 0.75 was obtained from the test. Two hundred copies of the questionnaire were administered in all the selected secondary schools. Mean was used to analyse and interpret the result obtained.

Keywords: challenges, attitude, teachers, implem-entation, data processing, curriculum, secondary schools.

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The Challenges and Attitude of Teachers toward the Implementation of Data Processing Curriculum in Secondary Schools in Ondo State, Nigeria

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Abstract- The purpose of the study is to examine the challenges and attitude of teachers toward the implementation of Data Processing Curriculum in Secondary Schools in Ondo State of Nigeria. It is a survey research which employed a descriptive design. The sample for the study comprised of 200 teachers randomly selected from the ten secondary schools in Akoko South West Local Government Area of Ondo State. Twenty teachers were drawn from each school using purposive sampling technique giving a total of 200 respondents. A four likert- type of questionnaire was used as an instrument for the collection of data. A trial test was carried out to ascertain the reliability of the instrument using Cronbach alpha statistics technique and a value of 0.75 was obtained from the test. Two hundred copies of the questionnaire were administered in all the selected secondary schools. Mean was used to analyse and interpret the result obtained. Decision rule was based on the result of 2.5 and above as being high and anything below that as being low. Responses from all the questionnaire indicated that computer resources are not available in secondary schools and the schools lack qualify teachers to teach Data processing as a subject, teachers show positive attitude towards the implementation of Data Processing Curriculum. The study also reviewed those things that must be put in place to ensure Data Processing curriculum is fully implemented in secondary schools in Ondo State. Two null hypotheses were generated and tested at 0.05 level of significance. It was revealed that availability of computer resources and availability of Data Processing (DP) Subject teachers had no significant influence on attitude of teacher toward the implementation of Data Processing Curriculum.

Keywords: challenges, attitude, teachers, implementation, data processing, curriculum, secondary schools.

I. Introduction

According Osuafor (2012),the new Senior Secondary School curriculum structure developed by Nigeria Education Research and Development Council (NERDC, 2008) and approved by the National Council on Education (NCE), in which interrelated subjects are organized into four clear groups of Science and Mathematics, Business Studies, Humanities and Technology is a major reform in the right direction towards achieving the National Education goals. The introduction of 'Trade Subjects' into the Senior Secondary (SS) Education Curriculum is equally a welcome innovation in the Nigerian Education System. The restructuring of the SS curriculum is no doubt aimed at meeting emerging educational needs and global competitiveness; as well as ensure that entrepreneurship and technical subjects are properly embedded in the curriculum. This will go a long way to ensuring national socioeconomic growth and sustainable development. The restructuring of the senior secondary education curriculum is therefore a giant step towards achieving a strong and self-reliant nation with great and dynamic economy and full of opportunities for her citizens (Federal Republic of Nigeria (FRN, 2004 as quoted by Osuafor,2012) .The Federal Republic of Nigeria in the National Policy on Education (2004) articulated what the curriculum of the various levels of education in Nigeria should be.

Obanya (2004) defined implementation of curriculum as day-to-day activities which school management and classroom teachers undertake in the pursuit of the objective of any given curriculum. Obanya (2007) contends that effective curriculum is the one that reflects what the learner eventually takes away from an educational experience, which he termed 'the learned curriculum'. The introduction of the New Secondary School Curriculum in the secondary schools in Nigeria is a fresh initiative which according to NERDC (2011) aims at ensuring that graduates from secondary Schools are trained in entrepreneurship skills and possess relevant Information Communication Technology (ICT) skill that will equip them for challenges of labour market. According to the National Policy on Education (2004), the broad aims and objectives of secondary education in Nigerian educational system are preparation for useful living within the society (self-employment) and *preparation for higher education. Almost three decades* after adoption of the laudable initiative, majority of Nigerian youth are idle while some are involved in

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various vices due to unemployment. A good number of students who have completed their secondary education but failed to secure admission into institutions of higher learning are in dilemma. This is because they are not equipped with the requisite skills for self or paid employment (Igwe 2007).Dike (2009) noted that the five National goals cannot be realized without developing technical and vocational education, a well-rooted technical education that will definitely transform the economic, social and political life-styles of our Nation from the third This had led to the introduction of Data Processing to senior secondary school curriculum as one of the trade subjects that students must register for in both West Africa Examination Council (WAEC) and National Examination Council (NECO).

According to NERDC(2008),the following are the set of 34 trade/entrepreneurship subjects.

1.Auto Body repair and spray painting
2.Auto Electrical work
3.Auto Mechanical work
4.Auto Parts merchandising
5.Air Conditioning Refrigerator
6.Welding and fabrication Engineering Craft Practice
7.Electrical Installation and Maintenance Work
8.Radio, TV and electrical work
9.Block laying, Brick Laying and Concrete Work
10.Painting and Decoration
11.Plumbing and pipe fitting
12.Machine woodworking
13.Carpentry and Joinery
14.Furniture Making
15.Upholstery
16.Catering and Craft Practice
17.Garment Making
18.Textile Trade
19.Dying and Bleaching
20.Printing Craft Practice
21.Cosmetology
22.Leather Goods Manufacturing and Repair
23.Keyboarding
24.Data Processing
25.Store Keeping
26.Book Keeping
27.GSM maintenance
28.Photography
29.Tourism
30.Mining
31.Animal Husbandry
32.Fisheries
33.Marketing
34.Salesmanship

According to Orji (2013), trade/entrepreneurship is one of the four Compulsory Core Cross Cutting Subjects in the New Senior Secondary Education Curriculum

The four core subjects are:

- English Language
- 2.General Mathematics
- 3.Civic Education
- 4.Trades/Entrepreneurship subjects

This means that, irrespective of their field of study,

- Every student must offer (learn) at least one trade/entrepreneurship subject
- Every student must register for (be assessed in) at least one T/EE in public examinations (NECO or WAEC).

Yusuf (2005) confirmed that teachers are indispensable to successful computer education. The ultimate to use or not to use the computer is dependent on the individual teachers. Successful implementation of computer education can only be assured through teachers who acquired the necessary knowledge and skills. According to UNESCO (2002), teachers need to be adequately prepared to implement a state-of-the-art ICT curriculum. Indeed, introducing any new curriculum calls for careful preparation, management, resourcing, and continuing support. The effective implementation of the Trade/Entrepreneurship Curriculum is expected to equip the students with requisite handy skills and knowledge for Job creation, wealth generation & Poverty alleviation (Orji, 2013).

II. Specific Objectives of the Study

This study is designed to investigate the Challenges and attitude of teachers toward the implementation of Data Processing Curriculum in Secondary Schools in Ondo State, Nigeria. Specifically therefore, the study is set out:

1. To examine the availability of computer resources in the secondary schools in Ondo State.
2. To examine availability of Data Processing subject teachers.
3. To investigate the attitude of the education stakeholders toward the implementation of Data Processing.
4. To determine the remedies in ensuring the full implementation of Data Processing in secondary schools.

a) Research Questions

The following research questions were raised to guide this study:

1. Are computer resources available in the schools?
2. Do the schools have enough Data Processing subject teachers to teach the subject?
3. Do the teachers show positive attitude toward the implementation of Data Processing Curriculum?

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4. What are those things that can be put in place to ensure Data Processing curriculum is fully implemented in the secondary schools?

b) Research Hypothesis

1. There is no relationship between availability of Computer resources and attitude of teachers toward implementation of Data Processing curriculum.
2. There is no relationship between availability of Data Processing Subject teachers and attitude of teachers toward implementation of Data Processing curriculum.

c) Research Methods

The design of the study is a descriptive survey type. This method was deemed appropriate as it involved the collection of extensive and cross-sectional data for the purpose of describing and interpreting an existing situation under study. The population of the study consisted of all the teachers in public secondary schools in Akoko South West Local Government Area of Ondo State. The sample for the study comprised of 200 teachers randomly selected from the ten secondary schools in Akoko South West Local Government Area of Ondo State. Twenty teachers were drawn from each school using purposive sampling technique giving a total of 200 respondents. In order to answer the above stated questions, a questionnaire was designed to survey the challenges and teachers' attitude toward the implementation of Data Processing Curriculum in Secondary Schools in Ondo State. The instrument was subjected to reliability test using Cronbach alpha method and a value of 0.75 was obtained as the reliability of the instrument. Two hundred (200) questionnaires were taken to schools and distributed to teachers concerned. On the spot distribution and collection were adopted and the instrument was used in the data analysis. Mean was used to answer the research questions. Decision rule was based on the result of 2.5 and above as being high and anything below that as being low. The hypothesis generated was tested using t-test to identify if a significant different existed or not in the responses of teachers toward the implementation of Data Processing Curriculum in Secondary Schools at 0.05 alpha level of significance.

i. *Research Question1:* Are Computer resources available in secondary schools in Ondo State?

Table 1 : Means responses of the respondents

S/N	Items	SA	A	D	SD	X
1.	Computers are available in my school laboratory	68	91	19	22	3.03
2.	Computers in the laboratory are functioning well	31	69	62	38	2.47
3.	Computers in the laboratory are adequate	24	47	72	57	2.19
4.	There are enough computer accessories in my school laboratory	11	43	87	59	2.03
5.	Data processing textbooks are available my school.	26	87	54	33	2.53
	Grand Mean					**2.45**

Summary of result on Table 1 above reveals that computer resources are not available in secondary schools in Ondo State.

ii. *Research Question 2:* Do the schools have enough Data Processing subject teachers in secondary schools in Ondo State?

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Table 2 : Mean responses of the respondents

S/N	Items	SA	A	D	SD	X
1.	There are enough teachers to teach Data Processing	25	35	82	58	2.14
2.	School have qualified Data Processing teachers	22	50	69	59	2.18
3.	Auxiliary and PTA teachers are employed to teach the subject.	89	41	38	32	2.94
	Grand Mean					2.42

Summary of result on Table 2 above reveals that Data Processing subject teachers in secondary schools in Ondo State are not enough.

iii. *Research Question 3:* Do the teachers show positive attitude toward the implementation of Data Processing Curriculum?

Table 3 : Mean responses of the respondents

S/N	Items	SA	A	D	SD	X
1.	Principals have a positive attitude towards Data Processing	66	103	23	8	3.14
2.	Teachers show positive attitude towards Data Processing.	74	103	16	7	3.22
3.	Teachers are willing to implement Data Processing curriculum in secondary schools.	41	99	36	24	2.96
4.	Teachers are not willing to teach the subject in the school	13	35	74	78	1.92
	Grand Mean					2.81

Summary of result on Table 3 above reveals that teachers show positive attitude towards the implementation of Data Processing Curriculum.

iv. Research Question 4: What are those things that must be put in place to ensure Data Processing curriculum is fully implemented in the secondary schools?

Table 4 : Mean responses of the respondents

S/N	Items	SA	A	D	SD	X
1.	School should Source for funds and computers from well wishers	44	90	41	25	2.77
2.	Teacher Education Institutions to incorporate Computer Education into their curriculum.	77	104	14	5	3.27
3.	Teacher should be supported through regular in-service training	66	65	20	49	2.74
4.	Enough ICT facilities should be supplied to schools.	123	47	11	19	3.37
5.	Qualify Data Processing teachers should be recruited by Government.	138	50	9	3	3.62
6.	Government should provide funding to schools for computer procurement	121	61	12	4	3.46
7.	School heads should to ensure that the ICT gadgets available in the schools are utilized for Educational purpose.	112	64	7	4	3.56
	Grand Mean					3.56

Results in table 4 show that all the items have mean scores above 2.50. These responses indicate that all the above points must be put in place to ensure Data Processing curriculum is fully implemented in the secondary schools.

d) Testing of Hypothesis

i. *Hypothesis one*

H0: There is no relationship between availability of Computer resources and attitude of teachers toward implementation of Data Processing curriculum.

Table 5 : T-test comparison of mean of availability of Computer resources and attitude of teachers

Group	N	Mean	SD	Df	t_{cal}	t_{table}	Decision
Availability of Computer resources	200	2.45	0.38				
Attitude of teachers	200	2.81	0.60	198	1.04	1.96	NS

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Result of the analyzed data as shown in the table above reveals that the calculated t-value of 1.04 is less than the t-tabulated of 1.96. This implies that availability of Computer resources has no significant difference on attitude of teacher. Therefore the null hypothesis of no significant difference is retained.

The fact that attitude of teacher had higher mean score of 2.81 against 2.45 of the availability of computer resources did not indicate a significant difference.

ii. *Hypothesis two*

H0: There is no relationship between availability of Data Processing (DP) Subject teachers and attitude of teachers toward implementation of Data Processing curriculum.

Table 6 : T-test comparison of mean of availability of Data Processing (DP) Subject teachers and attitude of teachers

Group	N	Mean	SD	Df	t_{cal}	t_{table}	Decision
Availability of DP teacher	200	2.42	0.45				
Attitude of teachers	200	2.81	0.60	198	0.98	1.96	NS

Result of the analyzed data as shown in the table above reveals that the calculated t-value of 0.98 is less than the t-tabulated of 1.96. This implies that availability of Data Processing teacher has no significant difference on attitude of teacher. Therefore the null hypothesis of no significant difference is retained. The fact that attitude of teacher had higher mean score of 2.81 against 2.42 of the availability of teacher did not indicate a significant difference.

III. Discussion

Summary of data based on table one on the availability of computer resources had grand mean of 2.45 which include 3.03 for computer availability in the school laboratory, 2.47 for the status of computers in the school laboratory, 2.19 for adequacy of computers in the laboratory, 2.03 for presence of enough computer accessories in the school laboratory and availability of Data processing textbooks. This study revealed that computer resources are not available in the schools. This finding is in agreement with Ololube (2006) which stated that lack of adequate ICTs infrastructure available to University and College of Education; this has reduced access to ICT instructional material to faculty and students. This study is in line with the findings of Mac-Ikemenjima (2005 stated that there are infrastructural deficiencies and shortage of facilities, including computers, computer laboratories and online-classroom for the study of Computer Education in secondary schools. The finding is in conformation with the Evey et al (2010) who noted the lack or inadequate ICT infrastructure in many secondary schools and then called for improvement and inclusion of ICT in secondary school curriculum.

Table two above indicates that Data Processing subject teachers are few in secondary schools in Ondo State. The table above indicates grand mean of 2.42 which include 2.14 for enough Data Processing teachers, 2.18 for qualified teachers and 2.94 for Auxiliary and PTA teachers. This study is in agreement with(Duguryil, Duguryil & Katnyon, 2006; Okeke, Okoli & Osuafor, 2008) which stated that there is a dearth of such specialized teachers. Studies show that most classroom teachers are not computer literate. One of the greatest barriers to proper computer education in several parts of the world is the shortage of trained teachers.

Table three above shows that teachers show positive attitude towards the implementation of Data Processing Curriculum. The table above indicates grand mean of 2.77 which include 3.14 for Principals attitude towards Data Processing, 3.22 for teachers' attitude towards Data Processing, 2.96 for teachers' willingness to implement the curriculum and 1.92 for teachers' willingness to teach the subject. This is line with This finding is in agreement with Adeyinka et al.(2007) report that teachers perceived ICT as very easier to use in teaching their lesson and also relevant to the findings by Cox et al.(1999) and Bukaliya(2011).

Table four above reviews those things that must be put in place to ensure Data Processing curriculum is fully implemented in the secondary schools. The table above indicates grand mean of 3.56 which include 2.77 for school to source for funds from well wishers, 3.27 for incorporating Computer Education into teacher Education Institutions, 2.74 for regular in-service training, for provision of enough ICT facilities, 3.62 for employing qualify Data Processing teachers, 3.46 for provision of funds and3.56 for ensuring ICT gadget usage. Results in table 4 show that all the items have mean scores above 2.50. These responses indicate that all the above points must be put in place to ensure Data Processing curriculum is fully implemented in the secondary schools. This is in agreement with Osuafor(2012), there should be continuous in-service training of teachers both within and outside the country. There is need to sponsor teachers to International Conferences for them to interact with their colleagues in other countries and acquaint. This finding is also in agreement with Adeyinka et al.(2007) and Yusuf (2005).

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IV. Recommendations

Based on the findings of the study and conclusion thereof, the following recommendations are made:

1. The government should provide enough funds for schools to purchase computer for instructional purposes and make available suitable computer environment in our secondary schools.
2. Government should ensure effective monitoring of the implementation of Data Processing curriculum in secondary schools.
3. Entrepreneurship education should be incorporated into secondary school programme right from the junior secondary school in order to instill the spirit of job creating in the mind of the students at their formative stage of life
4. They must be a concerted effort from all education stakeholders to tackle the challenges and create a conducive environment for successful implementation of Data Processing curriculum.
5. Young graduates who have specialized in Computer Science Education or Information Technology should be given automatic employment after their National Youth service Corps.
6. There should be continuous in-service training of teachers both within and outside the country.

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