

A SURVEY OF IMPLEMENTATION OF BASIC TECHNOLOGY CURRICULUM IN JUNIOR SECONDARY SCHOOLS IN OYO SOUTH SENATORIAL DISTRICT

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Abstract

Basic Technology curriculum was designed to offer pre-requisite knowledge in Junior Secondary School (JSS) to students promoted to Senior Secondary School (SSS) in preparation for 34 trade subjects. Hence, this study assessed the relevance of objectives of the curriculum and the implementation strategies while the adequacy of the teaching resources was examined. The study adopted descriptive survey design of an ex-post facto type. Random sampling technique was employed to select 9 out of 11 Local Government Areas (LGAs) in Oyo South Senatorial district. 4 JSS were randomly selected from each of the 9 LGAs totaling 36 JSS. All the 260 teaching staff of the 36 JSS was purposively selected. 50% of the JSS III in each of the 36 JSS were randomly selected making a total of 664 students. All the 41 inspectors of education covering JSS in 11 LGAs under study were purposively selected. The grand total of sampled participants is 965. A validated instrument tag Implementation of Basic Technology Curriculum Questionnaire (SIBTCQ) (0.79) was used to collect data. Data were analysed with the use of descriptive statistical tool of frequency and percentage count. The findings revealed that majority of the stakeholders perceived objectives of Basic Technology curriculum to be relevant to societal needs. The result also showed that adequate implementation strategies were put in place in JSS as perceived by the majority of the stakeholders. However, majority of the stakeholders perceived material resources as not being adequately supplied both human and non-human. Hence, it is recommended that the school authorities need to supply basic material resources to JSS for effective implementation of Basic Technology Curriculum.

Keywords: Curriculum, Implementation strategies, Teaching resources and Basic Technology

Introduction

Science and technology play an important role in nation building and development hence, Nigeria as nation depends on what science and technology could offer her for her national economic empowerment and development (Opara, 2004; Ajewole, 2005). Basic Technology is an integrated subject and component of vocational Technical Education (VTE) which comprises wood work, metalwork, Building Technology, Auto Mechanic and Technical drawing which is a pre-vocational subject in Junior Secondary school. The major aim of studying this subject in the upper Basic Education is the acquisition of knowledge and basic technical skills to promote technological literacy, career awareness and intelligent understanding of the increasing complexity of technology (FGN, 2004). According to Okenjom (2018) the introduction of Basic Technology as a core compulsory subject is an infusion of creative and critical thinking, entrepreneurial skills and relevant elements of National Economic Empowerment and Development strategy (NEEDs). Ajewole (2015) is of the opinion that Basic Technology plays crucial roles in the realization of the need to change from theory based and white collar job-oriented educational system to practical science and technology oriented educational system which prepare the individual to be self-reliant and useful to the society. It is pertinent at this

juncture to make reference to research work of some eminent scholars on the problems confronting teaching / learning of Basic technology. Research findings of Olaitan (2010) released apathy on the part of students to study of Basic technology. This could be the fair of not ending up as 'Road – Side' artisans.

Akorede and Adefuye (2011) contended that for Basic technology curriculum to fulfill its' laudable objectives, the teachers in the implementation of the curriculum must be professionally trained and well disposed to appropriate teaching methods that will emphasize active participation of the learners in both the theory and practical aspect of the content of the curriculum. Alade (2007) noted that it has been graduate of Technical College and Polytechnic who tag themselves teacher of Basic Technology in many schools. Many of them do not have teaching qualification; therefore, lack pedagogical skill on the part of the teacher and this hinders effective teaching / learning. Reacting to this, Ezekiel- Hort and Agina-obu (2010) emphasized that teachers are one of the Chief determinants of educational achievement whose academic qualification, relevant professional training, working experience among others are most significant determinant of student academic performance. Lack of fund to sustain full implementation of technical education programme at Junior secondary school level might have led to poor teaching methods Onele (2018) listed some of the Basic Technology teaching materials.

Which various studies have revealed that they are either not available or inadequate in Basic Technology class in our institutions. Another issue of concern in Basic Education curriculum is the societal attitude to Basic Education curriculum which people see as a course for less privilege members of the society. Poor attitude of government to technical education generally also reflects in Basic Education curriculum implementation. This was revealed in the study conducted by Dare (2020) in the area of inadequate supply of teaching materials such as Basic Education laboratory and its equipments. According to Ogwe, (2020) Nigeria needs a deliberate policy on technical education to boost technical and vocational skills among the youths in the country. Momozoku and Yusuf (2014) findings revealed that the principal causes of unemployment among the youths in Nigeria are lack of relevant basic vocational skills required by employers/self employment. Gender is another variable of concern which influences effectiveness and non-effectiveness of curriculum implementation. AAUM (2010) found out that having a woman teacher instead of a man raises the achievement of girls by 4% of a students' deviation and lowers the achievement of boys by roughly the same amount producing overall gender gap of 8% of a standard deviation in science and technology in the context of the foregoing, it is noted that Basic Technology curriculum is relatively new in Junior secondary education in Nigeria, hence, it needs to be assessed in order to know whether the subject is relevant to the needs of the society. The study also examined the effectiveness of the implementation strategies and availability and non-availability of teaching materials both human and non-human.

Research Questions

1. Is there any difference in the perception of stakeholders towards the relevance of the objectives of Basic Technology curriculum to the needs of the society?
2. Is there any difference in the perception of stakeholders on the implementation strategies of Basic Technology curriculum?

3. How do the stakeholders perceive the availability and adequacy of both human and non-human material resources?

Statement of the Problem

Basic technology curriculum was designed to offer pre-requisite knowledge in Junior Secondary School to students promoted to Senior Secondary School in preparation for 34 Trade Subjects. Since the Senior Secondary School do not have control over the training received by the Junior Secondary school students prior to their admission into Senior Secondary School. However, it is believed that poor quality of Junior Secondary School students output in Basic Technology curriculum might constitute a major constraint to the implementation of 34 trade subjects in Senior Secondary School. To this end, the study evaluated the effectiveness of the implementation strategies, availability and non-availability of teaching materials both human and non-human while the relevant of the curriculum to societal needs were also examined.

Methodology

The target population for this study comprised Junior Secondary school 3 (JSS III) students of Basic Technology (BT), teaching staff (BT teachers, Principals, Vice Principals and Inspectors of Education) in Oyo south senatorial district. The reason for this choice is that the above stakeholders have been exposed to BT curriculum implementation in at least two academic sessions. The study adopted descriptive survey design of an ex-post facto type. Multi-stage sampling procedure was adopted in this study. Oyo senatorial district has been clustered around 11 Local Government Areas (LGAs). Random sampling technique was employed to select 9 LGAs. From each of the selected LGAs 4 JSS was selected using random sampling technique making a total of 36 JSS III students. All the 260 teaching staff was purposively selected. 50% of the JSS III students in each of the 36 JSS were randomly selected making a total of 664 students. All the 41 Inspectors of education covering JSS in 11 LGAs under study, data for the study were collected from the sampled stakeholders; teaching staff, students and inspectors of education. The total sample therefore was 965 participants. Descriptive statistics of frequency and percentage count was used to analyse the data collected.

The instrument used by the researcher for the collection of data was a compartmentalized, validated and tag 'Implementation of Basic Technology Curriculum Questionnaire' (SIBTCQ). The instrument contains 23 statements grouped into 3 sections to seek information from the stakeholders; teaching staff (principals, vice principals and teachers) students and Inspectors of education. Section A contains 5 items on objectives of the curriculum, section B contains 8 items on curriculum implementation strategies while section C is made up of 10 items on teaching resources. Cronbach alpha formular was used to compute the reliability of the instrument and the value obtained was 0.792.

Research Question 1: Is there any difference in the perception of stakeholders towards the relevance of the objectives of Basic Technology Curriculum?

In answering the question above, data were collected and the outcome was presented in table 1. Below showed the summary of data that determined the perception of stakeholders towards the objectives

Table 1: Differences in the perceptions of the stakeholders in the objectives of Basic Technology

Group	N	Strongly	Agree	Disagree	Strongly Disagree
Teaching Staff: (Principals, Vice Principals & Teachers)	260	52	21	17	10
Students	664	57	18	15	10
Inspectors of Education	41	65	16	11	8
Mean%	965	58	18.2	14.4	9.4

Table 1 revealed 73% of Principals, vice Principal and the Teachers that perceived the objectives of Basic Technology as being very relevant to societal needs. However 75% of students perceived the objectives to be very relevant while 81% of the inspectors of education also perceived it to be very relevant. This is an indication that majority of the stakeholders perceived the objectives of Basic Technology curriculum to be relevant. Records of 73%, 75% and 81% from Teaching Staff, students and Inspectors of education respectively showed no significant difference in the perception of the stakeholders on the relevance of the Basic Education Curriculum.

Research Question 2: Is there any difference in the perception of stakeholders on the implementation strategies of Basic Technology curriculum?

In answering the question above, data were collected and outcome was presented in table 2. Below showed the summary of data that determined the perception of stakeholders on the implementation strategies

Table 2: Difference in the perception of stakeholders on the implementation strategies of Basic Technology curriculum

Group	N	Strongly	Agree	Disagree	Strongly Disagree
(Teaching Staff: (Principals, vice principals and the Teachers)	260	60.0	15	15.3	9.7
Students	664	55	30	10	5.00
Inspectors of Education	41	50	35	7.00	8.00
Mean%	965	55	26.6	10.8	7.6

Table 2 above showed that 75%, 85% and 85% of principals, vice principals and the Teachers, students and Inspectors, vice principals and the Teachers, students and inspectors of education respectively agreed that the implementation strategies of the Basic Technology Curriculum is adequate. The figures also showed that there is no significant difference in the perception of the stakeholders on the implementation strategies.

Research Question 3: How do the stakeholders perceive adequacy of both human and non human teaching resources?

In answering the question above, data were collected and outcome was presented in table 3. Below showed the perception of stakeholders on adequacy of both human and non – human resources

Table 3: Stakeholders perceive adequacy of both human and non human teaching resources

Group	N	Strongly Agree	Disagree	Strongly Disagree
Teaching Staff .(Principal, Vice Principal & Teachers)	260	15	25	40
Students	664	15	20	50
Inspectors of Education	41	20	20	35
Mean %	965	12.5	16.25	31.25

Table 3 above indicated that 60% of the teaching staff perceived teaching resources as not adequate and 65% of the students' also maintained non-adequacy of the teaching resources while 60% of the inspectors of education equally perceived non-adequacy of the teaching resources.

Discussion

The result revealed that 73% of Principals, vice Principal and the Teachers that perceived the objectives of Basic Technology as being very relevant to societal needs. However 75% of students perceived the objectives to be very relevant while 81% of the inspectors of education also perceived it to be very relevant. This is an indication that majority of the stakeholders perceived the objectives of Basic Technology curriculum to be relevant. This is in line with the finding of Akorede and Adefuye (2011) who found that for Basic technology curriculum to fulfill its' laudable objectives, the teachers in the implementation of the curriculum must be professionally trained and well disposed to appropriate teaching methods that will emphasize active participation of the learners in both the theory and practical aspect of the content of the curriculum. Alade (2007) noted that it has been graduate of Technical College and Polytechnic who tag themselves teacher of Basic Technology in many schools.

The result of the second research question revealed that 75%, 85% and 85% of principals, vice principals and the Teachers, students and Inspectors, vice principals and the Teachers, students and inspectors of education respectively agreed that the implementation strategies of the Basic Technology Curriculum is adequate. The figures also showed that there is no significant difference in the perception of the stakeholders on the implementation strategies. This is in line with the finding of Ezekiel- Hort and Agina-Obu (2010) who found that teachers are one of the Chief determinants of educational achievement whose academic qualification, relevant professional training, working experience among others are most significant determinant of student academic performance.

The result of the third research question indicated that 60% of the teaching staff perceived teaching resources as not adequate and 65% of the students' also maintained non-adequacy of the teaching resources while 60% of the inspectors of education equally perceived non-adequacy of the teaching resources. This is in line with the finding of Ogwe, (2020) who found that Nigeria needs a deliberate policy on technical education to boost technical and vocational skills among the youths in the country. Momozoku and Yusuf (2014) findings revealed that the principal causes of unemployment among the youths in Nigeria are lack of relevant basic vocational skills required by employers/self employment. Gender is another variable of concern which influences effectiveness and non-effectiveness of curriculum implementation.

Conclusion

The paper assessed the implementation of Basic Technology in the Junior secondary school in Oyo South Senatorial district. The outcome of this research showed that there is no significant difference in the perception of the stakeholders on the objectives of the Basic Technology curriculum. Majority of the stakeholders revealed that the objectives are relevant to societal needs. Tables 1, illustrates further. As regards the implementation strategies, the findings showed that the implementation is adequate. Figures in table 2 also attest to this. On account of adequacy of teaching resources, majority of the stakeholders signified inadequacy of teaching resource both human and nonhuman in the teaching / learning of Basic Technology as shown in tables 3.

Recommendations

There is the need to improve on various means of achieving the objectives of basic technology in order to meet the needs of the society.

1. Effort should be made to have 100% specialist and adequate provision of other teaching resources for effective implementation of the Basic Technology curriculum.
2. Laboratories /workshop should be built and equipped in JSS for an effective practicalization of theories in Basic Technology curriculum.
3. Teachers, inspectors of education handling basic technology should be encouraged to attend conferences, seminars and workshop on teaching and learning of Basic Technology.

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