

**PLANNING NETWORK CONSTRAINTS AND STAKEHOLDERS’
PARTICIPATION FOR EFFECTIVE IMPLEMENTATION OF SCHOOL-BASED
TECHNICAL AND VOCATIONAL EDUCATION IN DELTA STATE, NIGERIA**

By

OPENE, BENEDICT O.

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MEENYINIKOR, J. N.D. (PH.D)

Department of Educational Management, Faculty of Education
University of Port Harcourt, Rivers State, Nigeria.

Abstract

This research investigated planning network for effective implementation of school-based technical and vocational education in Delta state. Two research questions and two hypotheses were formulated for the study. The study adopted a descriptive survey design. The study consists of 292 respondents, which comprised of 12 administrators and 280 instructors of technical and vocational institutions in the state. A census sampling technique was used to select all the population as sample size for the study. Questionnaire was used to elicit information from the field. It was structured according to the modified four point Likert scale. The research questions were answered using mean and standard deviation, while the null hypotheses were tested at 0.05 level of significance using the z-test statistics. The reliability coefficient 0.76 and 0.81 were obtained for the two clusters. The study revealed that the constraint to adequate planning for effective implementation as thus; underfunding; citizens’ dislike for technical and vocational education and low rating of graduates of vocational institutions. The findings further showed that stakeholders’ participation in planning process was high in extent. The study showed that there is no significant difference between the mean scores of administrators and instructors on the extent of stakeholders’ participation in the planning for effective implementation of school-based technical and vocational education in Delta state. The study recommended among other things that, educational planners and administrators should ensure that the views of employers of labour and other relevant stakeholders are taken into consideration during planning of school-based technical and vocational education. The government should ensure that workshops in the technical and vocational schools are adequately equipped according to plan.

Keywords: *Planning Principles, Network, Effective Implementation, School-Based Technical and vocational Education, Delta State,*

Introduction

Education has been proven to be the engine of any country’s development. This is evidence in the immense contributions played by educated people in advancing

socio-economic and technological development of the society. Basically, education equips the individual with the relevant skills, training and knowledge to function effectively in the contemporary

society. The various educational levels in Nigeria include the primary, secondary and tertiary levels, with respective objectives targeted at transforming the citizens into effective human capital agents to promote development in the various sectors of the economy. This is the reason why government, private individuals and organizations are investing in education as a means of fostering national development.

However, this objective may not be achieved if the outputs of the various levels of education are not of appreciable standard. Jaiyeoba and Atanda (2005) posited that standard is synonymous with quality, efficiency, excellence, relevance and worthiness. When applied to education, it is the success with which an institution provides educational environment which enables students to effectively achieve worthwhile learning that enhances their competitiveness in global economy. Educational development in Nigeria has been complex. From the early 50s to the period of independence, serious efforts and huge financial resources were directed towards bridging the gap between political advancement and educational backwardness. The Ashby report of 1960 showed clearly the extent to which this gap has been bridged as at Nigeria's independence (Njoku, 2015).

Before the advent of colonialism, and introduction of formal education in Nigeria, the traditional Nigerian society was known to have witnessed tremendous growth and development through an organized programme of citizenship training that was crucial to their developmental needs. The sole aim of

education in those early days was to teach the people the means to earn a living in order to be useful to themselves and their communities. Education was seen as part of preparing people for adult life, and a period they must be involved in the social, political and vocational life of the community (Ebete, 2016).

As a result, the setting of the Nigerian traditional society was deliberately tailored towards training of the youths for the community survival. Though the setting then had no physical classrooms, but the training was organized through coordinated lines. For instance, parents were involved in teaching practical skills to their children in occupation in which they do. Some were sent to learn from craftsmen as apprentices. Skills like craft, agriculture, trade, goldsmithing, leatherwork, bead making, tattoo or body art and hunting, were part of the major areas the youth received training (Enaohwo, 2017). Hence, from the onset, the Nigerian society was tailored towards the acquisition of vocational skills. In other words, the youth were prepared for the world of work.

The vocational base upon which the Nigerian traditional education was built was dismantled with the introduction of western education. This was followed by the introduction of general education which primary aim was to train people who would be literate enough to interpret the bible, qualified only for local administration at the lowest rank and communicate with English language as a remedy to bridge the communication gap between the people and the colonial

masters. In other words, the type of education introduced by the colonialists laid emphasis on reading, writing and arithmetic (Igbozurike, Peter & Haruna, 2018). Vocational education which as of today is known as technical and vocational education otherwise called vocational and technical education to justify the application of science and technology in the training of individuals in most trades and crafts was neglected. Thus, the grammar schools were established after the English system. Though technical and vocational schools were established, but not at the early stage. This was mainly because the colonialists were not interested in manpower development of the indigenous people.

As at 1909, it was only the Hope Waddell Training Institute and the Nassarawa College that were offering courses in weaving, metal work, tailoring, carpentry and leather work (Okoro as cited in Suraj, 2016). This showed the low commitment on the part of the colonial masters to advanced technical and vocational education in Nigeria. In 1946, a ten year plan for development and welfare for Nigeria was published by the Colonial Government. A significant feature contained in the plan of the report was the criticism levelled against technical and vocational education, which resulted in complete education imbalance in the Nigerian system in terms of manpower development. The plan further recommended an expansion of technical and vocational education to meet the demands for technicians, technologists, craftsmen, artisans, bureaucrats and auxiliary medical personnel. The political,

economic and cultural changes brought about by the nation's independence highlighted the need for a reform of the country's educational system (Madumere, 1997). The 1969 national curriculum conference held in Lagos was a direct response to this need. One of the greatest outcomes was a new philosophy for Nigerian education that later gave birth to the National Policy on Education, first published in 1977 and later reversed severally. The National Policy on Education became Nigeria's first document to streamline the concepts, goals of education as well as prescribed a uniform educational system for the entire country, thus, giving technical and vocational education in Nigeria a scheme of place.

The prominence placed on technical and vocational education as enshrined in the National Policy on Education is a step in the right direction to ensure that necessary skills and training required for economic growth are impacted into Nigerians. There is no sector of the nation's economy that will not benefit from technical and vocational education. For example, the technical knowledge and skills needed for proper understanding of the modern technological products are acquired through training and retraining in technical and vocational institutions. Effective technical and vocational education impact into the individuals practical skills for their survival, and create vibrant work-force that can think outside the box, in terms of wealth creation, economic development and the overall improvement in the standard of living.

The inclusion of technical and vocational education in the school curricular would facilitate technological advancement as well as provide the manpower required to boost the nation's economy. The introduction of technical and vocational education into formal education system was reflected in the 6-3-3-4 system of education, thereby making secondary education relevant to the industrial, manpower and self-reliant needs of the individuals. As an aspect of national policy on education, technical and vocational education is seen as integral part of general education and a medium for inculcating practical skills and abilities to individuals to function effectively in the various sectors of national life (Madumere, 1997). However, it seems that the desired impacts of technical and vocational education are yet to be fully seen in the Nigerian economic system. This might be due to lack of appropriate instructional activities in the technical and vocational schools with the result that teaching and learning of technical and vocational skills is mostly ineffective that the graduates of these technical and vocational schools do not measure up with expectations in the world of work. Apart from this, there is also the issue of inadequate and competent teachers to handle the technical subject. Even what is being taught presently in technical and vocational schools seems not to have direct relevance on the creativity of the learners (Suraj, 2016). These to a large extent, highlighted the inadequacies of the planning framework used in the planning as well as implementation strategies. Therefore, the study will investigate the planning network for effective

implementation of school-based technical and vocational education in Delta state.

Statement of Problem

Technical and vocational education is aimed at providing the citizens with skills that will enable them function well and contribute meaningfully to the growth of the society and at the same time become self-reliant. However, in a situation whereby the technical and vocational schools lack the necessary facilities, equipment and instructors might hinder the delivery of effective technical and vocational education.

Technical and vocational education was efficient when the environment in which the learners are trained is a replica of the work environment that awaits them. Observation has shown that there is clear disparity between the training environment and the working environment in Nigeria and Delta state in particular. The learners acquiring technical and vocational education are not trained with the same tools and machines as in the occupation itself due to lack of equipment in the technical and vocational schools. As a result of this, the students in the technical and vocational schools are trained in theoretical aspects of their vocation rather than practical aspect.

It seems therefore, that technical and vocational education has not contributed effectively in equipping school leavers with employable skills that are relevant to making citizens self-reliant. This could be due to the haphazard planning and poor implementation of technical and vocational education. More specifically, the multi-layer nature of planning

technical and vocational education in which the inputs of key stakeholders, actors and specialists are considered in participatory manner seems to have been neglected in the planning process. The researcher was therefore bothered to find out whether there was adequate network in planning of school-based technical and vocational education in Delta state.

Research Questions

The following research questions guided the study:

1. What are the constraints to adequate planning for effective implementation of school-based technical and vocational education in Delta state?
2. What is the extent of stakeholders' participation in the planning for effective implementation of school-based technical and vocational education in Delta state?

Hypotheses

The following hypotheses were tested at 0.05 level of significance in the study.

1. There is no significant difference between the mean scores of administrators and instructors on the constraints to adequate planning for effective implementation of school-based technical and vocational education in Delta State.
2. There is no significant difference between the mean scores of administrators and instructors on the extent of stakeholders' participation in the planning for effective implementation of school-based technical and vocational education in Delta state.

Conceptual Review

The principle of participatory planning is a set of planning arrangements used in the educational planning process. Participatory planning in education is planning designed in which different interest and stakeholders are allowed to take part in decision making process. It requires that all those whose interest is to be affected by a particular educational policy must be fully involved in the decision pertaining the educational programme (Agabi, 1999). The basic tenet of this principle is that it consciously integrates right from the decision-making stage, the interest of all the stakeholders in all planned educational programmes (Adiele et al., 2017). Through this principle, opportunity is given to all the stakeholders as in a programme to contribute their own quarter for better planning and implementation of the programme. A good example of this could be seen from the perspective that the stakeholders in education such as employers of labour, NGOs and the school management can participate in the planning and the implementation of a practical training programme or IT programme, in which the student can be trained in a manner that will not affect their normal schooling. From this end, they all participate and join hands together to ensure that any programme adopted is implemented accordingly. They are therefore seen as partners in the formulation of policies that have to do with educational planning and formulation.

Ebete (2016) observed that interest group in education such as teachers, school heads; student, Parent Teacher Association (P.T.A), School Development Committees

(S.D.C), State Ministry of Education (S.M.E) and Local Government Education Authority (L.G.E.A) are essential organs of educational planning. Ukaigwe and Igbozuruike (2019) opined that the opinion of these interest groups are useful sources of good ideas that could arm policy-makers, adding that their views should be sought in the formulation of vocational education policies to ensure seamless implementation process. Corroborating this view, Ajayi and Afolabi (2012) remarked that the success or failure of any organization including the school lies significantly on decision making. Akudoh (2017) argued that the planning and implementation of technical and vocational education becomes worthwhile only with the involvement of relevant stakeholders such as administrators, teachers, technical planners and parents. This advocates policy formulation through group interaction. In other words, effective decision making involving multi-layer discussions is a key principle to the actualization of effective technical and vocational education.

Methodology

The study design of the study was descriptive. The population of the study included all the six technical and vocational institutions in Delta state. There were 292 respondents, comprising 6

administrators, 6 vice – administrators and 280 instructors teaching in the six technical and vocational institutions in Delta state. The purposive sampling technique was used to draw the sample. The instrument used to generate data was a self-structured 11-item questionnaire titled ‘Planning Network Constraints and Stakeholders’ Participation for Effective Implementation of School-Based Technical and Vocational Education Questionnaire (PNCSPDISTVEQ)’. It was divided into two sections, namely, Section A and Section B. Section A contained items seeking data on demographic variables of the respondents, while section B contained items assessing the two variables investigated in this study. Cronbach Alpha was used to establish the reliability co-efficient of the instrument at 0.81. The modified four-point Likert-type rating scale of Strongly Agree and very high extent (4 points), Agree and high extent (3 points), Disagree and low extent (2 points) and Strongly Disagree and very low extent (1 point) was used to code responses. Items that scored $x \geq 2.50$ criterion were accepted whereas those below the criterion were deemed rejected by the respondents. The research questions were answered using mean and standard, while the hypotheses were tested at 0.05 significant level using the z-test.

Data Analysis and Results

Research Question 1

What are the constraints to adequate planning for effective implementation of school-based technical and vocational education in Delta state?

Table 1: Mean and standard deviation of the responses on the constraint to adequate planning for effective implementation of school-based technical and vocational education in Delta state.

S/N	Questionnaire items	n=12 Administrators			n=12 Instructors		
		\bar{X}	SD	Rank order	\bar{X}	SD	Rank order
1.	Lack of fund for programme planning for effective implementation is a major problem	3.09	0.99	2 nd	3.31	0.61	1 st
2.	The citizens have strong dislike for technical and vocational education.	2.61	0.87	5 th	2.50	1.01	5 th
3.	The graduates of vocational institutions are not regarded or rated higher in the society.	3.10	0.67	1 st	2.89	0.76	4 th
4.	The required statistical data are not always available.	3.03	0.85	3 rd	3.20	0.94	3 rd
5.	Technical and vocational education is poorly funded by the government.	3.03	0.81	3 rd	3.30	0.83	2 nd
Aggregate mean		3.03			3.04		

In table 1 above, it revealed that all the respondents agreed in all items 1, 2, 3, 4 and 5 as shown by their respective mean of 3.09, 2.61, 3.10, 3.03 and 3.03 for administrators and 3.31, 2.50, 2.89, 3.20 and 3.30 for instructors. This implies that technical and vocational education was underfunded, citizens have strong dislike for technical and vocational education, the graduates of technical and vocational

institutions were not rated very high in the society and the required statistical data were not always available. The aggregate mean of 3.03 and 3.04 for both set of respondents were above the criterion mean, which implies that all the items are constraints to adequate planning for effective implementation of school-based technical and vocational education in Delta state.

Research Question 2

What is the extent of stakeholders' participation in the planning for effective implementation of school-based technical and vocational education in Delta state?

Table 2: Mean and Standard Deviation of the responses on the extent of stakeholders participation in the planning for effective implementation of school-based technical and vocational education in Delta state.

S/N	Questionnaire items	n=12 Administrators			n=12 Instructors		
		\bar{X}	SD	Rank order	\bar{X}	SD	Rank order
6.	The opinions of teachers are sought during policy formulation for effective implementation	2.51	0.84	4 th	2.66	0.82	4 th
7.	The views of parents obtained through P.T.A meetings were taken into consideration during planning effective implementation	3.01	0.82	1 st	3.00	0.76	2 nd
8.	Technical advices are sought from experts before construction of instructional facilities for effective implementation	3.00	0.72	2 nd	2.83	0.68	3 rd
9.	The perspectives of employers of labour are sought in planning curriculum for effective implementation.	2.07	0.89	5 th	2.21	0.91	5 th
10.	The views of senior officer in the ministry of education are sought during planning for effective implementation.	2.94	0.76	3 rd	3.01	0.76	1 st
11.	The views of relevant NGOs were taken into consideration in the planning for effective implementation	1.99	0.66	6 th	2.03	0.94	6 th
Aggregate mean		2.58			2.62		

In table 2 above, items 6, 7, 8 and 10 which sought to know the extent to which the views of teachers, parents, technical experts and senior officers in the ministry of education are taken into consideration in the planning for effective implementation revealed a mean score of 2.51, 3.01, 3.00 and 2.94 for administrators and 2.66, 3.00 and 2.83 and 3.01 for instructors respectively, which are higher than the criterion mean of 2.50, and thus establishes that the views of the said stakeholders were sought in planning for effective implementation of school-based technical and vocational. Items 9

and 11 were yielded mean scores of 2.07 and 1.99 for administrators and 2.21 and 2.03 for instructors respectively, which are lower than the criterion and thus implies that views of employers of labour and NGOs were not sought in planning for effective implementation of school-based technical and vocational. The high aggregate mean of 2.58 and 2.62 for administrators and instructors respectively, implies that stakeholders participated to a high extent in the planning for effective implementation of school-based technical and vocational education in Delta State.

Results to the test of hypotheses

H₀₁: There is no significant difference between the mean scores of administrators and instructors on the constraints to adequate planning for effective implementation of school-based technical and vocational education in Delta state.

Table 3: z-test analysis of the mean scores of administrators and instructors on the constraints to adequate planning for effective implementation of school-based technical and vocational education.

S/N	Respondents	N	\bar{X}	SD	df	z-cal	z-crit	Sig level	Remark
1.	Administrators	12	3.03	0.84					
2.	Instructors	280	3.04	0.83	290	-0.04	1.96	0.05	Not significant (H ₀ accepted)

The table 3 above showed that at 290 degrees of freedom and 0.05 significance level, the z-test analysis yielded z-cal of -0.04. The z-cal (-0.04) is less than the z-crit of 1.96, hence the null hypothesis which states that there is no significant difference between the mean scores of

administrators and instructors on the constraints to adequate planning for effective implementation of school-based technical and vocational education in Delta state is hereby accepted, and thus the researcher concluded that no significant difference existed.

H₀₂: There is no significant difference between the mean scores of administrators and instructors on the extent of stakeholders' participation in the planning

for effective implementation of school-based technical and vocational education in Delta state.

Table 4: z-test analysis of the mean scores of administrators and instructors on the extent of stakeholders participation in the planning for effective implementation of school-based technical and vocational education.

S/N	Respondents	N	\bar{X}	SD	df	z-cal	z-crit	Sig level	Remark
1.	administrators	12	2.58	0.78					
2	Instructors	280	2.62	0.81	290	-0.17	1.96	0.05	Not significant (H ₀ accepted)

The table 4 above showed that at 290 degrees of freedom and 0.05 significance level, z-test analysis yielded at z-cal of -0.17 and z-crit of 1.96. Given that z-cal is less than z-crit, the null hypothesis which states that there is no significant difference between the means scores of

administrators and instructors on the extent of stakeholders' participation in the planning for effective implementation of school-based technical and vocational education in Delta state is hereby accepted, and thus the researcher concluded that no significant difference existed.

Discussion of Findings

Constraint to effective implementation of school based technical and vocational education

The findings of the study revealed that the programme was under funded. It also revealed that citizens have strong dislike for technical and vocational education, the graduates of vocational institutions were not rated high in the society and the required statistical data for planning technical and vocational education are not always available. This is in line with Ebete (2016), who reported that they appeared to be strong dislike towards technical and vocational education in Rivers state. He also reported that the programme was underfunded and statistical data for effective implementation of the programme were not available. These factors posed serious challenge to effective delivery of school-based technical and vocational education. Also Orji and Maekae (2013) agreeing with the findings asserted that the poor funding of the educational sector is a direct reciprocal of its products. Apart from that, they maintained that teachers will not be adequately remunerated, which may have negative consequences on their performance.

This is likely to continue because not much increase has been seen from the yearly government allocations, and the systematic corruption makes the matter worse. The study also agrees with Suraj (2016), who observed that false statistics have affected planners when making projections for technical and vocational education in North Central Nigeria. To a large extent, most data used in planning

technical and vocational education is falsified. The test of hypothesis showed that there is no significant difference between the mean scores of administrators and instructors on the constraint to adequate planning for effective implementation of school-based technical and vocational education. This implies that both sets of respondents were of the views that under funding, citizens dislike for technical and vocational education, low regards for technical and vocational graduates, and inaccurate data are some of the constraints to effective implementation of school-based technical and vocational education.

The extent of stakeholders' participation in planning for effective implementation of school-based technical and vocational education

The research question one examined the extent stakeholders participate in the planning for effective implementation of school-based technical and vocational education. It was revealed that the extent of stakeholders' participation was high in areas that the inputs of teachers, parents, technical experts and senior officers in the Ministry of Education were sought during the planning for effective implementation of school-based technical and vocational education. These findings are in consonant with Akudoh (2017) who revealed in his study that educational administrators, teachers, technical planners and parents were involved in the planning and implementation of technical and vocational education in Delta state. These findings confirmed the stance of Adiele et al. (2017) who posited that the basic tenets of the principle of participatory planning is

ensuring that it integrates right from the decision-making stage, the interest of all the stakeholders in all planned educational programme. However, the findings disagreed that the views of employers of labour and relevant NGOs were sought during the planning for effective implementation of school-based technical and vocational education. Ikegwuru (2014) reported that the lack of essential IT training and other forms of collaborations between employers of labour or industrialist and technical and vocational schools contributed largely to the graduates of technical and vocational schools not meeting the expectation expected of them in their places of work. It was expected that the inputs from other critical stakeholders and partners, will aid better planned programme and implementation. The study also showed that no significant difference existed between the mean scores of administrators and instructors on the extent of stakeholders' participation in the planning for effective implementation of school-based technical and vocational education in Delta state. This implies that majority of the respondents were affirmative that the above mentioned variable will ensure proper planning and effective implementation of school-based technical and vocational education. To ensure comprehensive programme in respect to school-based technical and vocational education, all relevant stakeholders must be given the opportunity to make inputs in

the planning and implementation stages. Thus, the Ministry of Education, Secondary School Board and administrators should adhere strictly to this strategy during the formulation and implementation of technical and vocational policies in the state.

Conclusion

Based on the findings, the study concluded that technical and vocational institutions are underfunded, and this has grave consequences on the relevance of technical and vocational education to the industrial manpower needs as well as self-reliance needs of the citizenry. Also, this study concludes to a high extent that the principle of participatory planning was adhered to, in the planning for effective implementation of school-based technical and vocational education.

Recommendations

The following recommendations were made based on the findings of the study;

1. Educational planners and managers should ensure that the opinions of employers of labour and relevant NGOs are taking into consideration when planning for effective implementation of school-based technical and vocational education.
2. Corporate bodies, government and individuals, should assist in funding education. This will help improving the facilities that are lacking in technical institutions.

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