

Quality Instruction: A Sin Quo-Non to Effective Technological Education in South Eastern States of Nigeria

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Abstract

This study sought to find out ways of promoting quality instruction in secondary schools in South Eastern States. Quality instruction has no substitute to technological education and so it should be pursued with vigour. The study made use of 5 research questions and 1 null hypothesis. It was a survey research design. The population of the study comprised all the principals and teachers in all the Secondary Schools in South Eastern States numbering 1,337 principals and 21,605 teachers. Simple random sampling technique was used to select 500 principals and 5,000 teachers from three States of the five States in South Eastern States. Data was collected using 41 item questionnaires named (Quality Instruction and Effective Technological Education Instrument (QIETEI) with a reliability co-efficient of 0.87. Mean was used to answer the research questions while Z- test was used in testing the null hypothesis at 0.05 level of significance. The result of the study among others specified many roles of different stakeholders in education like principals should reduce teachers work load, teachers should prepare very well for their lesson etc. Based on the results, it was recommended among others that government should increase the funding of schools, parents should live up to their responsibilities as regards to giving their children quality education.

Keywords: Technological education, South Eastern States

Introduction

Quality in education is synonymous with efficiency and effectiveness. It is a deserved and desired virtue. It is the attribute in our educational sector that can move our nation technological upwards. When the quality of a nation's education is poor, invariably that nation's technological development will not have any hope. The level of technological development of any nation depends on the quality of education in that nation.

Quality in education according to (UNESCO 1998) is a multidimensional entity which embraces all functions and activities, teaching and academics programmes, research and scholarship, staffing, students, building, facilities, equipment services to a community and academic environment. It is the extent of solid education programme introduced to learners under a conducive environment that will produce school leavers with desired attributes that will meet the technological challenges of any nation.

For Beeby (1966), quality instruction includes learners that are healthy, well nourished and ready to participate and learn the content that is reflected in relevant curricula and materials for the acquisition of basic skills needed for a changing society.

Technology according to Merian Webster dictionary is the making, modification, usage and knowledge of tools, machines, techniques, methods of organization in order to solve a problem, achieve a goal and perform a specific function. It is the practical application of knowledge especially

in a particular area. This practical application can not really take effect without somebody gaining quality knowledge.

Quality instruction is a prerequisite to a quality knowledge that begets technological education. No wonder, one of the aims of National Educational Agenda according to FRN (2004) is the production of quality graduates. High quality in education is not just earning high grades in examination but the acquisition of high grade that is attributed to the desired skilled relevant to the societal technological development. Nwangwu (2000) also added that for education to be technological relevant, it should not only be learners passing examination but must include the acquisition of relevant cognitive, psychomotor and affective skills, full of positive values that will match the changing environment. Willm (2000) concluded that learning environment is made up of physical, psychological and service delivery elements. Learning can occur anywhere, but the positive learning outcome generally sought by educational system happens in a quality learning environment.

Dashe and Patsohot (2011) also added that quality is the ability of a product, service or structure of a phenomenon to conform to an agreed standard that is superior to others. It is not out of place to say that our product and services cannot conform to the agreed standard of the changing environment. Researches have shown that many graduates of all levels, despites the high grade obtained from external examination could not fit in properly into the technological age of the society. It is a worrisome situation to all the stakeholders in education because education is the bedrock upon which all other societal development rest and considering the huge amount of fund government invested in education sector yearly. The researcher wants to find out ways of improving quality instruction by all the stakeholders in education so that technological development will be ensured.

Problem of the Study

There is a general perception that the quality of instruction in our education system is seriously dwindling due to laxity on most of the stakeholders in education. This has even made some researchers like Akubuiro and Joshua (2004) to begin to complain about the fallen standard of education; fallen standard in terms of both quality input and output. Researchers like Ogbuagu (2004), and Ekemezie (2010) concluded that most Nigerian Secondary Schools are known by inadequate and over crowded classrooms, lack of equipment, furniture, learning materials and poorly motivated teachers etc. The researcher begins to wonder, despite the importance of quality instruction in the development of technological education in our nation, how these kinds of characterized school environment produce quality output. Education being the bedrock of any national development can not produce the desired output without thoroughly looking at the quality of input. It is based on this, that the researcher wants to find out ways of improving quality instruction in schools to enable our nation gain effective technological education needed in this 21st century.

Purpose of the Study

The main purpose of this study is to find out various ways in which quality instruction can be promoted in secondary schools in South Eastern States by different stakeholders in education. The study covers all government owned secondary schools in South Eastern States. It also covers the ways various stakeholders in education can promote quality instruction in schools.

Research Questions

The following research questions guided the study:

- (1) What are the ways government can promote quality instruction in schools?
- (2) What are the ways principals can promote quality instruction in schools?
- (3) How can teachers promote quality instruction in schools?
- (4) How can parents promote quality instruction in schools?
- (5) What are the ways students can promote quality instruction in schools?

Hypothesis

This null hypothesis was tested at 0.05 level of significance.

Ho1. The mean rating of principals and teachers on how quality instruction can be promoted by different stakeholders is not significantly different.

Methodology

The study adopted a descriptive survey design aimed at finding ways of promoting quality instruction in secondary schools in South Eastern States. The population consists of all principals and teachers in government owned secondary schools in South Eastern States. It consists of Abia State 198 principals and 3,286 teachers, Imo State 320 principals and 1200 teachers, Anambra State 357 principals and 4,474 teachers, Enugu State 271 principals and 4000 teachers and Ebonyi State 191 principals and 2645 teachers totaling 1,337 principals and 21,605 teachers as the entire population.

Simple random sampling technique was used to select a sample size of 500 principals and 5,000 teachers from three States in South Eastern Nigeria. The States are Abia, Ebonyi and Imo States.

Instrumentation

The instrument was Nwogbo (2007) "Quality Promotion Instrument". The researcher adapted it, reconstructed and added many things to suit her environment. It was re-named "Quality Instruction and Effective Technological Education Instrument (QIETEI)". It consists of 41 items that was based on a 4 point likert type scale of Strongly Agree (SA) = 4, Agree (A) = 3, Disagree (D) = 2 and Strongly Disagree (SD) = 1 point respectively for research questions 1-5. Any response from 2.50 and above is regarded accepted while any response below 2.50 is regarded as rejected.

The face and content validity of the instrument was established by the help of three experts from the Department of Educational Administration and Measurement and Evaluation, of University of Nigeria, Nsukka. 30 principals and 60 teachers from Akwa-Ibom State were used to test the reliability of the instrument. It was re-tested after a period of two weeks and Pearson Product Moment Correlation Coefficient that yielded a value of 0.87 attested the reliability of the instrument. 5,500 copies of questionnaire instrument were distributed with the help of six research assistants, 2 in each State and 5,180 were collected on the spot and used for the study.

Results

Research Question 1: What are the ways government can promote quality instruction in schools?

Table 1: Mean rating of principals and teachers on ways government can promote quality instruction in schools.

S/N	Items	Principals' response		Teachers' response	
		X	Dec	X	Dec
1.	Recruitment of qualified personnel	3.70	Agreed	3.78	Agreed
2.	Adequate provision of needed infrastructural facilities	3.51	Agreed	3.62	Agreed
3.	Regular supervision of instruction	2.68	Agreed	2.61	Agreed
4.	Use of qualified personnel in supervision of instruction	2.71	Agreed	2.65	Agreed
5.	Adequate teachers' development programme	3.71	Agreed	3.75	Agreed
6.	Maintenance of all kinds of school plants	2.76	Agreed	2.71	Agreed
7.	Disbursing enough money for the management of schools	3.05	Agreed	3.07	Agreed
8.	Improved personnel welfare scheme	3.25	Agreed	3.30	Agreed
9.	Prompt and regular payment of salaries and other benefit of staff	3.92	Agreed	3.98	Agreed
10.	Insist on normal class size	2.60	Agreed	2.68	Agreed
Pooled mean		3.19		3.22	

Results in Table 1 shows that both principals and teachers agreed that the items are ways government can promote quality instruction because their responses are above 2.50.

Research Question II: What are ways principals can promote quality instruction in schools?

Table II: Mean rating of principals and teachers on ways principals can promote quality instruction in schools.

S/N	Items	Principals' response		Teachers' response	
		X	Dec	X	Dec
11.	Adequate supervision of instruction	3.25	Agreed	3.40	Agreed
12.	Provision of needed instructional resources/facilities	2.72	Agreed	2.78	Agreed
13.	Delegate duties to teachers	2.50	Agreed	2.60	Agreed
14.	Reduce teachers work load	3.50	Agreed	3.25	Agreed
15.	Encourage personnel development programme	3.12	Agreed	3.30	Agreed
16.	Create good and enabling environment for staff	2.70	Agreed	3.20	Agreed
17.	Maintain school plant of all kinds	2.54	Agreed	2.65	Agreed
18.	Involve staff in management of the school	2.51	Agreed	2.70	Agreed
19.	Be democratic in dealing with staff and students	2.60	Agreed	3.02	Agreed
	Pooled mean	2.78		2.99	

Results in Table II shows that both principals and teachers agreed that the items are ways principals can promote quality instruction because their responses are above 2.50.

Research Questions III: What are ways teachers can promote quality instruction in schools?

Table III: Mean rating of principals and teachers on how teachers can promote quality instruction in schools.

S/N	Items	Principals' response		Teachers' response	
		X	Dec	X	Dec
20.	Proper lesson planning	3.85	Agreed	3.21	Agreed
21.	Use of well prepared lesson note	3.50	Agreed	3.60	Agreed
22.	Varying methods of teaching	3.20	Agreed	3.51	Agreed
23.	Active learners participation	3.90	Agreed	3.85	Agreed

24.	Adequate use of relevant instructional resources	3.52	Agreed	3.60	Agreed
25.	Proper knowledge of subject matter	3.11	Agreed	3.01	Agreed
26.	Proper knowledge of learners/individual differences	2.70	Agree	2.65	Agreed
27.	Good personality trait	2.61	Agreed	2.56	Agreed
Pooled mean		3.30		3.25	

In table III, the responses of both principals and teachers scored above 2.50, which indicates that all the items are ways teachers promote quality instruction.

Research Question IV: What are ways parents can promote quality instruction in schools?

Table IV: Mean rating of principals and teachers on how parents can promote quality instruction in schools.

S/N	Items	Principals' response		Teachers' response	
		X	Dec	X	Dec
28	Provision of educational materials and facilities for children at home.	3.01	Agreed	3.52	Agreed
29.	Regular attendance to PTA meetings.	2.60	Agreed	2.56	Agreed
30.	Help children at home with their assignment	2.70	Agreed	2.62	Agreed
31.	Provide proper nutrition to their children/ward through good feeding.	2.90	Agreed	2.81	Agreed
32.	Pay their children/wards schools fees regularly	3.01	Agreed	2.98	Agreed
33.	Give their children time to study/play at home.	2.86	Agreed	2.72	Agreed
34.	Allow them to leave home for school on time.	2.91	Agreed	2.85	Agreed
35.	Give their children proper orientation about school at home.	2.60	Agreed	2.65	Agreed
Pooled mean		2.82		2.84	

In table IV, the responses of both principals and teachers scored above 2.50 which, indicates that all the items are ways parents can promote quality instruction.

Research Question V: What are ways students can promote quality instruction in schools?

Table V: Mean rating of principals and teachers on how students can promote quality instruction in schools.

S/N	Items	Principals' response		Teachers' response	
		X	Dec	X	Dec
36	Attending school/classes regularly and on time.	3.01	Agreed	3.12	Agreed
37	Being always attentive in the class.	2.91	Agreed	2.86	Agreed
38	Doing assignment/homework regularly.	2.65	Agreed	2.81	Agreed
39.	Good studying habit both at home/school	2.78	Agreed	2.67	Agreed
40.	Obedient to school authority.	2.61	Agreed	2.72	Agreed
41.	Stopping loitering/bullying.	2.62	Agreed	2.68	Agreed
Pooled mean		2.76		2.81	

In table V, principals and teachers agreed that all the items on ways students can promote quality instruction are true. This was seen in all the mean scores that recorded above 2.50.

Hypothesis 1

The mean rating of principals and teachers on how quality instruction can be promoted by different stakeholders is not significantly different.

Table VI: Z-Test analysis of the mean rating of principals and teachers on how quality instruction can be promoted.

Respondents	N	X	SD	DF	Z-cal	Z-Cri	Prob.	Dec
Principals	480	2.77	0.48	5,178	1.42	1.99	P>0.05	Accept
Teachers	4700	3.02	0.51					

In table VI, the Z-calculated value of 1.42 at 0.05 level of significance is less than the Z-critical value of 1.96 which indicates that the null hypothesis is uphold. It means that there is no significant

difference between the mean rating of principals and teachers on how quality instruction can be promoted by different stakeholders.

Discussion of Results

Quality instruction is definitely a special virtue which all the stakeholders in education should pursue. It is a stepping stone to effective technological development of any nation. In the findings of this study in table 1 for example on the perception of principals and teachers on ways government can promote quality instruction, all the items are what government should do to make sure that quality instruction is provided in our schools. These findings are in agreement with Willms (2000), Postle Waithe (1998) and Anukam (2001) who were of the opinion that teachers working condition affects the ability to promote quality education. In the same development, they agreed that class size has a lot of impact on the quality of instruction a child gets in the school. If the normal class size is not maintained, definitely, teachers will be frustrated and learners will be uneasy to get the best from the teachers. Many aspects of school life and educational policy go into teachers perceptions of their employment. The condition of infrastructure and availability of learning materials, all influence the teachers experience as an educator. Postle Waithe (1998) also added that low and late remuneration may lead teachers to take on another job which hurts students learning.

A study in 12 Latin American countries found that children in schools where many teachers work in other jobs in addition to teaching are 1:2 times more likely to have lower test scores (Willms 2000) concluded. The low test scores invariably attest to low quality instruction because of unsteadiness and unseriousness.

For teachers to be productive and produce the best result, they need supportive working condition to maintain these positive attitudes. The quality of administrative support and leadership is another critical element in school processes both for students and teachers as observed in research question I. This assertion was in line with Miske and Dowd (1998) who concluded that teachers need governments who are supportive in education system. Organizational support for teaching and learning that enhances quality takes many forms like measures as advocating for better conditions and professional development, respecting teacher's autonomy and professionalism, financial support, maintenance of structures and development including decision making process. Such support by government has been seen to have positive effect on quality of teaching and learning.

In research question II, it was found out that despite the effort of government to promote quality instruction in schools, principals, parents, teachers and even students, have a more embracing role to play. This group of people is directly affected. From the findings of this study in table II, all the items were agreed by both principals and teachers as the roles parents should play in quality instruction in schools. These findings corroborate the findings of researchers like Dolan, Drake, Maier, Brooler and Jukes (2000). They concur that guidance and counseling services, the provision of extra-curricular activities and provision of school snacks are other examples of service provision that contribute to quality school environment. McCain and Mustard (1999) added that adequate instruction is critical for normal brain development in the early years of a child. Physical and psychological healthy children learn well. And also healthy development in early childhood plays an important role in providing the basis for a healthy life and successful formal school experience. They also agreed that parents should provide educational materials and pay their children's school fees regularly to avoid being sent home from school and try as much as possible to visit their school to see what they are doing. Children should not be over labored at home to

enable them rest and carry out their home works which parents as a necessity should help them. Quality instruction is a step by step stage that needs a gradual assistance to make it real.

In research question III, the findings of this study also revealed that all the items by both principals and teachers on what principals should do to promote quality instruction are in agreement with what researchers like Carron and Chau (1996), Miske and Dowd (1998). They were of the opinion that quality supervision of instruction, development of authority, respecting teacher's autonomy and inclusive decision making process are all roles of school administrators to make sure that teachers are relaxed in their work environment.

Principals that are autocratic and do not involve teachers in decision making process stand a chance of loosing the unity of their workers in an organization and it has adverse effect on the quality of instruction. Willms (2000) also added that a great relationship occur between teachers work load and their sense of efficacy. This is to say that teachers work more efficiently and quality is assured when work load is less as supported by both principals and teachers.

In research question IV, both principals and teachers accepted all the items as ways teachers can promote quality instruction in schools. This is in support of what researchers like Darling-Hammond (1997) said about professional learning for teachers. Darling-Hammond concluded that the highest quality teachers are those most capable of helping their students learn, have deep mastery of both their subject matter and pedagogy. This is also to corroborate Ekemezie (2010) who was of the view that most of the professional qualities of a good teacher that can render quality instruction are, good knowledge of learners, adequate mastery of the subject matter, sound knowledge of teaching methods, good personality traits, adequate use of instructional resources etc. A teacher that must provide quality instruction must be able to prepare his lesson in advance and be a teacher indeed and not a cheater.

In research question V, both principals and teachers accepted all the items as ways students can promote quality instruction in schools. This is to say that, though students as the recipients of the instruction can contribute meaningfully to the provision of quality instruction in schools. Researchers like Miske and Dowd (1998) and Ekemezie (2010) demonstrated that to achieve academically, children must attend school/classes consistently and be attentive in the class. This is also in agreement with a study of village-based school in Malawi, who found that students with higher rates of attendance had greater learning gains and lower rates of repetition.

In table VI, the Z-test analysis of the rating of principals and teachers on how quality instruction can be promoted by different stakeholders indicates that the null hypothesis was accepted which means that the findings in all the research questions and the hypothesis were in agreement with what the above researchers found out as the expected roles of different stakeholders in education. Quality instruction is not made overnight, it demands dedication and commitment to duties and proper implementation of educational policies instead of mere lip service and policy formulation.

Conclusion

Quality instruction as an attribute has no substitute to technological development. It is only when the quality of input is ensured that the quality output can be dreamt of. So far, any nation to grow technologically all the stakeholders in education should embrace the challenges of quality instruction in order to reach the nation's goal in this technological era.

Recommendations

Based on the findings of this study, the following recommendations are made:

1. Government should increase the funding of schools in order to provide all needed infrastructures.
2. Teachers' salaries/allowances should be paid on times and conditions of service be improved.
3. Principals should be democratic in dealing with both teachers and students.
4. Teachers should live by the ethics of the noble profession and avoid being cheaters.
5. Parents should live up to their responsibilities as regards to giving their children quality education.
6. Government should employ qualified personnel to schools.
7. Students should always put their priority right in life; this will make them to be self motivated.

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