

# INSTRUCTIONAL SUPERVISORY STRATEGIES AND QUALITY ASSURANCE FOR TECHNOLOGY EDUCATION TEACHERS IN NIGERIA

Igwe, C. O., Ohize, E. J., Atsumbe

Department of Industrial and  
Technology Education  
Federal University of Technology  
Minna  
(e-mail: christoigwe@yahoo.com)

B. N., Onoh

Department of Technology and  
Vocational Education  
Enugu State University of Technology  
Enugu State

and

C. E. C. Ibeneme O. T.

Department of Vocational Education  
Nnamdi Azikiwe University  
Akwa

## ABSTRACT

The quality of education at any level cannot be divorced from the quality of teachers in the educational system. The paper advocates that attention and priority for instructional supervisory strategies in training and retraining of teachers is essential to make reasonable and sustainable impact in teaching of students. Some of the strategies include: target setting, team training and organizational diagnosis among others. It is recommended that the government should ensure better condition of service for technical teachers in order to enhance their commitment to the job, and improved funding for in-service training of technical teachers thereby actualizing quality assurance in technical education system.

## Introduction

Technology education is the type of education that is functional and benefits the graduates by empowering them with specific knowledge, attitude and skills to be productive, self-reliant and possibly emerge as employers of labour, thereby contributing to economic development of the nation.

Quality in technology education is a multi-dimensional concept which should embrace all its functions and activities, teaching and academic programmes, staffing, students, infrastructure and provide the manpower need of the society. Teachers and facilities constitute important resources for education. Omoregie, (2005) posited that teachers and facilities are vital to the realization of school goals and objectives and that in many cases, poor standard of education has been linked to

---

**Keywords:** Instructional Supervisory Strategies, Quality Assurance, Technology Education System.

poor quality and inadequate quantity of teachers and/or facilities. Ensuring high quality in the teaching of technology education is an on-going process that deals with pre-service education, intensive monitoring and supervision of instructional process and professional development.

Instructional supervisory techniques are geared towards improving the quality of teachers and the teaching process. Ensuring teachers improvements, entails directly or indirectly seeking for innovations and changes that will result into such improvement. The teaching profession, like all other professions, requires specific strategies that will result into the development and improvement of teachers while on the job. This paper considers the quality of technical teachers and improving their instructional delivery through the application of some instructional supervisory strategies.

### **Technology Education In Nigeria**

Technology education brings about technological advancement, knowledge improvement, appropriate skills importation and proper work habits, inculcating on the people. It is very vital to the sustenance of technological development of every nation. Miller (2003) described technology as the application of scientific knowledge or principles to practical task for developing and producing goods and services for mankind. Education on the other hand, was described by Nneji (2004) as a process of polishing the heart, the head and hand of the individual to enable him to live a worthy self-reliant life.

The National Policy on Education (2004) in Section 7 (42) stated that technology education amongst other benefits will:

1. Provides trained manpower in the applied science, technology and business particularly at advance craft and technical levels.
2. Provides the technical knowledge and vocational skills necessary for agricultural, commercial and economic developments.
3. Gives training and impart the necessary skills to individual to be self-reliant.

Technology education just like any other type of education is taught at different levels of Nigerian educational system. Each level has its scope or area in which technological information is presented. The levels include: Primary, Junior and Senior Secondary Schools, Technical Colleges; and at Tertiary levels, Polytechnic, College of Education (Technical), Monotechnics and Universities.

Igwe, (2008) further stressed that every nation seeks a new conceptual model of technology education to sustain her economy through youth empowerment as no nation can rise beyond her productive capacity which is a function of the quality and quantity of her workforce. By implication, quality assurance in technology education system in Nigeria will guaranty quality workforce which will propel and increase productivity for a robust economy. Oni, (1996) pointed out that formal classroom instruction and out of school industrial training are the two major ways that exist through which the nation's human resources can be refined and processed to the required quality that is necessary for technological advancement.

Shortage of qualified technical teachers is a very serious problem in technology education in Nigeria. Most graduates from the numerous vocational and technical institutions do not like to

teach, they prefer to work in the industry and those who are ready to teach are most of the time not employed and so they become unemployed (Akamobi, 2005). The effect of this is that technical subjects are not offered in some schools, while some are offered and taught by unqualified teachers. This greatly affects the quality of graduates from the technology institutions.

### **Quality Assurance In Technology Education**

Quality assurance has been a subject of interest and debate in recent times. The status of technology education in Nigeria when compared with other nations like China, Malaysia and Indonesia is worrisome. The need for quality in the delivery of technology education cannot be overemphasized as it is a sure way of realizing educational objectives and increasing productivity of the nation's economy. Technology education focuses on the individual's need for development, self-fulfillment and it geared towards providing the society with immediate and future manpower requirements. Moving the developing nations from relatively technology backwardness to the state of technological, social and economic development through efficient manpower planning and optimum utilization (Idialu, 1991).

With the teeming population of students seeking admission into technical schools and the rapid growth in the number of private institutions, it becomes imperative that more teachers be recruited to teach in schools, staffing is a critical problem of the Nigerian technical school system. It is amazing that the school system generates its needed manpower, but has not been able to attract them to remain in the system. Ijeoma, (1997) opined that some of the best professors in the country, stifled by the remuneration and the frustration of intellectual emasculation or strangulation, are forced to seek greener pastures abroad. The resultant brain drain syndrome is a great loss to Nigeria as the vacuum cannot be filled within a short term. The unfortunate plight of teachers in the country has reached an alarming stage that a good number of technical teachers particularly have found their way to the industrial sector, while many more left the country for better and more regular paid jobs.

Many Nigerian academics have criticized the quality of education given at Nigeria's three levels of education. Ovah, (2003) observed that most of the private universities in Nigeria today do not have required quantity and quality of lecturers to take care of their teaching and research. Agnenta, (2001) warned that the low quality of education in Nigeria will take a further dive since the teachers are poorly remunerated, motivated and often unceremoniously removed from teaching before they can establish themselves as experienced teachers. Teachers are indispensable tool in human resource development, thus they should be motivated. Salaries should be enhanced to the status expected of such a noble profession. Salaries and allowances are to be paid on time and retraining of teachers should be continuous (Olalekan, 1992)

### **Instructional Supervisory Strategies For Technology Education Teachers**

Teacher quality is an important educational issue, and teacher's qualification is an important component of teacher quality. The primary customers of educational organizations are the students, and the teacher must have the ability to use a variety of instructional methods in their classroom to

meet students' learning needs, create a relaxed environment and cater for the needs of the students regarding technical education learning, motivation and interests.

Nwangwu, (2005) added that some of the factors that determine quality assurance in education enterprise have been identified to include the availability and adequacy of modern facilities, adequate funding, continuous appraisal of education programmes and personnel, adequate planning, availability and adequacy of qualified teaching staff, regular as well as development and supervision. According to Nwangwu, (2005) quality assurance cannot be attained without a systematic and continuous process of instruction and supervision. Omoregie, (2008) observed that quality assurance is the process of maintaining standards in products or services through inspection or testing of samples.

In order to maintain standards and quality assurance, adequate attention must be given to the teaching delivery of the technical teachers. Oftentimes, there is nothing wrong with the curriculum. The question is how fully have the contents of the curriculum been taught? The achievement of excellence is highly dependent on the right caliber of teaching staff and the maintenance of conducive working and learning environment (Ijeoma, 1997). Quality assurance in Nigerian schools can be sustained through a process of continuous improvement in the quality of teaching and learning activities via a variety of instructional supervisory techniques.

The need for instructional supervision, monitoring and mentoring of the junior teachers by the senior and qualified teachers become imperative considering the poor statistics of qualified teachers in Nigerian educational system. Okojie (2008) presented the academic staff strength in Nigerian universities in 2006/2007 in table 1.

A research by Ifedili and Egenti (2010) on the quality of teachers in all the secondary schools in the 36 States of the Federation and Abuja revealed that out of 222,238 identified teachers only 6 States had between 50 - 64% graduate teachers with teaching qualification, 31 States had less than 50% of qualified graduate teachers. Five states had less than 24% graduate teachers with teaching qualification.

**Table 1 : Academic Staff Strength**

<b>Rank</b>	<b>Number</b>	<b>Percentage</b>
Professors/Readers	5,483	20%
Senior Lecturers	6,475	23.6%
Lecturer I and below	15,436	56.4%

**Table 2 : Summary Of Teacher Distribution By State And Qualification**

S/N	State	Degree With TQ	%	Degree Without TQ	%	NCE	%	DIPL	Tech & Others	%	Total
1.	Abia	3064	58	1210	23	753	14	121	147	5	5295
2.	Adamawa	1176	33	786	22	1153	34	376	73	13	3569
3.	Akwabom	3439	48	1906	27	1412	20	276	173	6	7206
4.	Anambra	4064	57	1002	14	1640	23	158	331	7	7195
5.	Bauchi	629	22	694	25	898	32	446	165	22	2832
6.	Bayelsa	1217	44	680	24	688	24	51	154	7	2820
7.	Benue	2566	28	1822	20	3656	40	727	316	11	9087
8.	Borno	1017	36	670	29	790	28	261	73	12	2811
9.	CrossRiver	2847	44	1589	24	1869	29	150	81	4	6536
10.	Delta	6071	47	2283	18	3902	30	387	348	6	12991
11.	Ebonyi	878	34	785	30	793	31	65	82	6	2603
12.	Edo	3900	39	2323	33	2646	26	742	494	12	10104
13.	Ekiti	2768	47	733	12	2236	38	112	66	3	5915
14.	Enugu	3685	48	1609	21	2060	27	165	128	4	7647
15.	FCT Abuja	2414	57	838	20	824	19	153	34	4	4263
16.	Gombe	88	23	67	17	175	45	27	32	15	389
17.	Imo	4212	66	834	11	1374	18	155	198	4	7473
18.	Jigawa	889	31	370	13	1069	38	312	202	18	2840
19.	Kaduna	2546	35	1785	24	2267	31	592	140	10	7333
20.	Kano	2825	34	1709	20	2365	28	1049	401	17	8349
21.	Katsina	730	23	714	23	1101	35	472	138	19	3155
22.	Kebbi	819	26	1066	33	922	29	280	113	12	3202
23.	Kogi	1466	32	836	18	1903	41	285	162	10	4652
24.	Kwara	3153	52	1338	22	1347	23	141	84	4	6063
25.	Lagos	7882	52	3136	21	3599	24	279	196	3	15092
26.	Nasarawa	504	26	381	19	979	50	83	25	5	1927
27.	Niger	2021	38	845	16	1932	36	475	128	11	5411
28.	Ogun	4858	43	2520	22	3491	37	246	134	12	11249
29.	Ondo	4148	42	2280	23	3060	31	249	100	4	9837
30.	Osun	4816	60	1248	16	1691	21	146	98	3	7999
31.	Oyo	8088	58	2299	16	3243	23	186	274	3	14050
32.	Plateau	2270	30	1791	24	2758	37	415	225	9	7459
33.	Rivers	3182	60	1153	22	731	14	57	154	4	5277
34.	Sokoto	742	31	388	16	1021	43	231	16	10	2398
35.	Taraba	800	27	723	24	1082	36	308	97	13	3010
36.	Yobe	287	12	365	16	1207	53	317	123	19	2299
37.	Zamfara	409	22	394	21	874	47	126	50	10	1853
		97,213	44	45172	20	63518	29	10620	5715	7	222238

Source: Operation Reach All Secondary School, 2006

From Table 1 and 2 above, it is obvious that majority of the teaching staff in Nigerian secondary schools and universities are unqualified/junior status, making it difficult to achieve quality assurance as unqualified teachers cannot produce quality graduates. It therefore, becomes imperative to embark on instructional supervision, thereby mentoring the junior teaching staff to attain quality assurance, Nwaogu, (1980) in explaining the philosophy underlying supervision of instruction in Nigeria, observed that all human beings in the educational process whether students, teachers, or administrators are endowed with potentials that can be more gainfully released through guidance, advice, clarification, justification of appropriate behaviours to bring about improvement in teaching process.

Beginning teachers who have access to intensify monitoring by expert colleagues are likely to remain and contribute their best to the profession. These expert monitors can spend time to coach beginners in their first year on the job. The young teachers will not only stay in the profession but also become competent more quickly than those who must learn by trial and error.

Miles, (1964) as cited in Adedoyin & Adegbija (2006) proposed six types of interventions which could result in improving teachers of all categories. These are:

1. **Team training:** This is a form of intact work group, cooperative- or collaborative work. Teachers, in schools can plan a meeting together to discuss common problems with the aim of finding solution and improving relationships.
2. **Survey Feedback:** The process of fact finding through research on any issue affecting teachers, the school system and education as a whole.
3. **Role Workshop:** This is when the incumbents of a particular role such as Head Teachers meet to discuss on the basis of questionnaire data, the problems associated with the role, with a focus on role clarity and between role and personality of the teachers.
4. **Target Setting:** Getting teachers focused and be able to attain their goals will bring improvement and progress to the teaching profession.
5. **Organizational Diagnosis:** The process of addressing specific problems and their solutions through new procedures, specific problems affecting teachers should be identified and new measures through technological devises and globalization should be used to address the problems for progress and development.
6. **Organizational Experiment:** Design experiments used to illicit data to evaluate the various developmental stages of the teachers and teaching as profession.

## Conclusion

Technical teachers are crucial determinants of technological learning outputs. The attention of the stakeholders has been drawn to the importance of quality teacher as expressed in the education parlance that "no education can rise above the quality of its teachers". The quality of technical teachers can be assured through training and retraining programmes within and outside the classroom environment. Effective utilization of instructional supervisory strategies are keys to teachers quality improvement as more qualified and experienced teachers supervise and guide the instructional process of the inexperienced ones.

### Recommendations

There are lots of challenges facing quality assurance of technical education in Nigeria, but with effective application of these recommendations, there shall be great improvement.

1. The government should invest in technical teacher education by paying attention to in-service education as well as on-the-job development of teachers.
2. Provision of teaching aids and facilities should be made for in-service training and retraining of teachers.
3. Adequate funding to organize workshops and interactive fora to equip the technical teachers with new ideas, knowledge and skills.
4. The welfare of technical teachers should be paramount in the mind of all Stakeholders. Payment of salaries, allowances and promotions should be attended to without delay to ensure optimum performance on the job which will ensure quality teaching in schools.
5. Technical teachers should prepare for their lessons and make use of real or concrete materials as teaching aids for students.
6. A mandatory order of every expert teacher mentoring a specified number of younger teachers within a specified time frame should be made and enforced.

### REFERENCES

1. Adedoyin, G. A. And Adegbiya M. V. : The Learning Process, Strategies And Collaborative Teaching On Teachers Improvement While On The Job. Nigerian Journal Of Professional Teachers 1 (2), (2006), 51-60.
2. Aghentam A. : Educational Planning: A Turning Point In Education And Development In Nigeria. University Of Benin Inaugural Lecture Series 58. (2001).
3. Akanmobi, I. : Strategies For Ensuring Quality In Teaching Of Vocational Education In Secondary Schools. Journal Of Qualitative Education 1(2), (2005), 86-90.
4. Federal Republic Of Nigeria : National Policy On Education, Lagos: National Educational Research And Development Commission (NERDC), (2004).
5. Idialu, J. C. : An Appraisal Of The Philosophy And Objectives Of Vocational Technical Education In Nigeria. Nigerian Vocational Journal. Vol. 1(5), (1991).
6. Ifedili, C. J. And Egenti M. N. : Quality Teacher, Quality Education - A Key Way To Achieve Educational Goal. Journal Of Educational Research And Development. 5(2), (2010), 1-9.
7. Igwe C. O. : Technology Education: A Vehicle For Sustainable Youth Empowerment In Nigeria. Applied Psychology: Selected Readings Vol 5(1), (2008), 54-57.

8. Ijeoma, M. K. : Maintaining Excellence In Higher Education Under Conditions Of Economic Depression. *Studies In Educational Planning And Administration (SEPA)* 1 (1), (1997), 32-35.
9. Miller I. O. : Skill Acquisition In Metal Work, A Panacea For Self-Reliance In A Deregulated Economy. A Paper Presented At The College Of Education (Technical) Akoka, Lagos. A Seminar Organized By Nigerian Association Of Teacher Of Technology (NATT) On 10th July, (2004).
10. Nwangwu, I. O. : Quality Assurance In Public Secondary Schools. *Issues And Concerns. . Nigerian Journal Of Educational Administration And Planning (NAEAP)* 5(1), (2005), 18-21.
11. Okojie, J. A. : Licensing, Accreditation And Quality Assurance In Nigerian Universities; Achievements And Challenges. Paper Presented At A Session Of The 2008 Academic Summer Workshop Held In Abuja, Nigeria. (2008).
12. Omoregie, E. O. : A Comparative Study Of Quality And Quality Of Teachers And Facilities In Public And Private Schools In Esan West Local Government Area Of Education State, Nigeria *Journal Of Education Administration* 5(1), (2005), 201--202.
13. Omoregie, N. : Quality Assurance In Nigerian University Education And Accreditation. *Education Winter* Retrieved On 20th June 30, (2008), from <http://indarticles.com>.
14. Oni, B. : The Role Of Industrial Training Fund (ITF) In Human Resources Development. *Ibadan Monograph Series* 2. (1996).
15. Ovah, I. I. : Fundamental Issues In Quality Assurance In University Education Delivery. Paper Presented At The Training Of Managers Of State And Private Universities In Quality Assurance On 23rd June, 2003 At The National University Commission Secretariat, Abuja, (2003).