

QUALITY ASSURANCE IN TECHNICAL TEACHER PREPARATION FOR EFFECTIVE SCHOOL ADMINISTRATION

Idris, A. M.; Umar, I. Y., Hassan, A. M. and Usman, G. A.
Department of Industrial and Technology Education,
School of Technology Education,
Federal University of Technology, Minna. Niger State, Nigeria.

Abstract

This study was aimed at finding out educational practices that will elicit quality assurance in technical teacher preparation for effective school administration. Two research questions and two null hypotheses were formulated to guide the study. A total of 50 lecturers randomly sampled from the Department of Industrial and Technology Education, Federal University of Technology, Minna and Department of Technical Education, College of Education Minna were used for the study. A structured questionnaire titled "Technical Teacher Preparation Practices for Effective Administration" (TTPPEA) was constructed, validated, and used for data collection. Mean, standard Deviation and t-test were employed to analyze the data. The findings revealed that the quality assurance practices are not being employed in technical teacher preparation in the University and Colleges of Education used for the study. It was therefore recommended among others; that these practices be fully incorporated and built into technical teacher education programmes for effective utilization and performance.

Keyword: Quality, Assurance, Administration, Technical teacher, Education practices.

Introduction

Education, worldwide, is a complex process of socialization that transforms individuals into social beings equipped with the necessary tools to participate fully in the dynamics of life. Transformation of individuals can only be achieved through good quality technical teachers who are dispensers of education. Nigeria can make use of the tremendous power of education through quality teacher education to tackle her numerous problems and by so doing achieve rapid national development. Technical teachers are

therefore at the vanguard of bringing about reforms in a nation's polity. One of the prime functions of the school is to provide a setting within which boys and girls can grow intellectually; this can only be accomplished through the learner's association with information, knowledge, facts among others. Books can help, so can numerous other types of learning materials. According to Becta (2005) computer has been found to be the most suitable, reliable and versatile medium for individualizing instruction. It is able to deal simultaneously with large number of students on individual basis and this tends to lower the cost in the long run. But always there stands a teacher, always on the stage, often in front and at the centre.

The quality of education that teachers receive determines the quality and quantum of reforms that they can inculcate in the nation's youths. This means that good teacher dispense good teaching which in turn produces good quality workforce such as engineers, medical doctors, architects, accountants, lawyers, among others, that would work towards the achievement of the national goal. Conversely, the consequences of poorly trained technical teachers is the production of half-baked automobile, building, electrical/electronic, metal and woodwork teachers who cannot teach, plan, organize, manage and implement policies in schools. Wikipedia (2009) stated that quality assurance is a system in which the delivery service of the quality of the product is assessed and compared with that required. Accordingly, Campbell and Rosznyai (2002) stated that quality assurance is all-embracing effort covering all policies and actions through which the quality of higher education is maintained and developed. In the context of this study, quality assurances in terms of teacher preparation are the educational practices for technical teacher preparation that will enhance effective administration in schools. Writing on the accreditation and quality assurance in vocational education and training (VET) Bulgarelli (2009) maintained that quality assurance can play a decisive role in modernizing VET and improving performance and attractiveness, achieving better value for money. However, Nicholson (2011) warned that if quality assurance measures become too onerous or restrictive, they can become impediments rather than facilitators of continuous program improvements.

The quality of technical teachers is enhanced by the quality of preparation given to the teachers-in-training. The teachers already serving must be monitored and given adequate supervision in order to keep them alert and to improve on their quality. According to Ohiwerei and Okoli (2010) supervision is the process whereby an authorized person whose

nomenclature is thereafter called supervisor sees to the work of others to see whether it is in line with stated standard. The nation must produce quality teachers so as to attain the aims and objectives of the nation. Saidu (2007) observed that every year teachers are churned out of training institutions either as full time or part time, through outreach or sandwich programme, but they are deficient in content and methodology. Such deficient teachers cannot be appropriately handled as far as school administration is concerned. Going by the stipulation of the Federal Republic of Nigeria (2004) in her National Policy on Education that the objective of the administrative service in education is to provide efficient administrative and management control for the maintenance and improvement of the system, one observes that the system cannot be improved if the principals and headmasters are of low quality, stocked with teachers of low quality bred under examination malpractice and as such lack knowledge of the subject matter coupled with laziness, lack of spirit of enquiry, creativity and inability to carryout assignments. Garba (2007) however maintained that for quality to be achieved in teaching professional teachers must be motivated through awards, payment of salaries and allowances as at when due. Therefore the purpose of this study is to determine the educational practices that will elicit quality assurance in technical teacher preparation for effective school administration and the extent these practices are employed in teacher preparatory institutions.

Research Questions

1. What practices will elicit quality assurance in technical teacher preparation for effective school administration?
2. To what extent are quality assurance practices employed in technical teacher education programme?

Hypotheses

1. There is no significant difference between the mean scores of lecturers in Department of Industrial and Technology Education, Federal University of Technology (FUT), Minna and lecturers in Department of Technical Education, College of Education (COE) Minna with regard to the practices that elicit quality assurances in technical teacher preparation for effective schools administration.
2. There is no significant difference between the mean scores of lecturers in Department of Industrial and Technology Education, Federal

University of Technology, Minna and lecturers in Department of Technical Education, College of Education Minna with regard to the extent of application of the practices in technical teacher education programme.

Methodology

The study adopted a descriptive survey design. Questionnaire was used to collect data from the respondents. A total of fifty (50) lecturers were randomly sampled from the two institutions. This is because the two groups of lecturers are from technical teacher preparatory department of the institutions. The questionnaire titled: "Technical Teacher Preparation Practices for Effective Administration (TTPPEA)" was constructed and used for data collection. The instrument was made up of two parts. Part one sought information regarding respondent's status and the institution. Part two comprised 30 items in two clusters of 15 items each. A four point rating scale of Strongly Agree (SA=4), Agree (A=3), Disagree (DA=2), Strongly Disagree (SD=1) for cluster A and Very Great Extent (VGE=4), Great Extent (GE=3), Little Extent (LE=2), and Very Little Extent (VLE=1) for cluster B were used.

The instrument was face validated and trial tested for reliability using fifteen lecturers in College of education, Minna who were not among those that participated in the study. Cronbach Alpha was used to test for the internal consistency of the items. The items yielded coefficient of 0.70 and 0.75 respectively for the two clusters and the instrument was therefore adopted for the study. The researchers administered the questionnaire personally to all the respondents that were used for the study. The data collected was analyzed using mean and standard deviation for answering the research questions and t-test for testing the hypotheses at 0.05 level of significance. The decision point was between the upper limit of 4 and lower limit of 3 being 2.49 and 2.50. This implies that items with mean values of 2.50 and above were considered as agreed, while items with mean values of 2.49 and below were considered as disagreed. The null hypotheses were accepted where the value of t-calculated were less than t-critical table value and were rejected where the value of t-calculated is greater than t-critical (which is 2.02 in this case).

Results**Research Question 1**

What practices will elicit quality assurance in technical teacher preparation for effective school administration?

Table 1

Mean Scores of the respondents on the quality assurance practices in technical teacher preparation for effective school administration

S/No	ITEMS	Lecturers (FUT) = 25		Lecturers (COE) = 25	
		Mean	SD	Mean	SD
1	Admission of quality entrants with at least 5 credits for University students and 4 credits including English and Mathematics for Student in College of Education	3.65	0.50	3.60	0.48
2	Setting up a well monitored supervisory team to assure service delivery to the student teachers	3.70	0.64	3.72	0.55
3	Through written and oral evaluation of Student devoid of examination malpractice	3.85	0.00	4.00	0.00
4	Recruitment into technical teacher education high quality trainable individuals	4.00	0.25	3.78	0.20
5	Effective supervision of teaching practice exercise devoid of malpractice	3.75	0.00	4.00	0.30
6	Mapping out one full year for teaching practice exercise	3.90	0.50	4.00	0.00
7	Increase of pass mark grades from 40% to 60%	4.00	0.00	2.90	0.75
8	Provision of instructional material allowance to pre and in services teachers	3.25	0.44	3.02	0.82

9	Motivation of student teachers through awards e.g. (Bursary) for upliftment of Interest in teaching	3.60	0.10	4.00	0.20
10	Elevating in-services teachers at all levels to the same Grade based on qualification and prompt payment of salaries and allowances.	3.70	0.50	3.64	0.40
11	Involvement of subject teachers in supervision and monitoring of student in teaching practice	3.30	0.60	3.00	0.50
12	Lecturers supervising student teachers in teaching practice in Secondary or primary school must have taught at that level	2.76	0.87	2.55	0.50
13	Organizing seminars and workshop at frequent intervals to develop the student teachers in language skills for fluency in English language.	4.00	0.00	4.00	0.00
14	Use of computers in teaching student teachers in technical teacher training institutions	3.50	0.46	3.02	0.41
15	Teacher/Students using computers and ensuring they have their own lap tops	3.45	0.40	3.20	0.54
CLUSTER GRAND MEAN & SD		3.63	0.35	3.50	0.38

The data on Table 1 showed that both group of teachers rated the 15 items in cluster 'A' high as practices that should be employed in technical teacher preparation for effective school administration.

Research Question 2

To what extent are quality assurance practices employed in technical teacher education programme?

Table 2

Mean Scores of the respondents on the extent at which quality assurance practices are employed in technical teacher preparation.

S/No	ITEMS	Lecturers(FUT) = 25		Lecturers(COE) = 25	
		Mean	SD	Mean	SD
16	Admission of quality entrants with at least 5 credits for University students and 4 credits including English and Mathematics for Student in College of Education	3.40	0.48	1.00	0.00
17	Well monitored supervisory team to assure service delivery to the student teachers	3.00	0.85	2.35	0.75
18	Well supervised written and oral evaluation of Student devoid of examination malpractice	2.42	0.60	2.40	0.86
19	Recruitment into technical teacher education high quality trainable individuals	2.60	0.40	1.20	0.54
20	Effective supervision of teaching practice exercise devoid of malpractice	3.25	0.65	2.70	0.60
21	Use of one full year for teaching practice exercise	1.20	0.00	1.00	0.10
22	Pass mark grade to be revised to 60% in graduating the students	1.00	0.00	1.00	0.00
23	Provision of instructional material allowance to pre and in services teachers	1.31	0.20	1.11	0.05
24	Motivation of student teachers through Bursary awards	1.20	0.00	1.12	0.00
25	Elevation of in-services teachers at all levels to the same Grade based on qualification and prompt payment of salaries and allowances.	2.25	0.40	2.00	0.30

26	Involvement of subject teachers in supervision and monitoring of student in teaching practice	2.00	0.60	2.00	0.50
27	Use of lecturers in supervising student teachers in teaching practice	2.40	0.46	1.80	0.60
28	Organizing seminars and workshop at frequent intervals to develop the student teachers in language skills	1.00	0.00	1.00	0.00
29	Use of computers in teaching student teachers in technical teacher training institutions	1.40	0.15	1.00	0.08
30	Compulsory possession of Laptop computers by all student teachers in teacher training institutions	1.00	0.00	1.00	0.00
CLUSTER GRAND MEAN & SD		1.98	0.32	1.51	0.29

Table 2 showed that the extent of employment of the practices for technical teachers preparation were rated low in most of the items except in items 16,17, and 19 that were rated high by lecturers of FUT. The only item rated high by both group of lecturers was item 20.

Table 3

t-test Analysis of the difference between the mean scores of lecturers in FUT and COE on quality assurance practices for technical teacher preparation

<i>Group</i>	<i>N</i>	<i>M</i>	<i>SD</i>	<i>df</i>	<i>Significance level</i>	<i>t-Calculated</i>	<i>t-Critical</i>	<i>Decision</i>
Lecturers FUT Minna	25	3.63	0.35	48	0.05	1.26	2.02	H ₀ accepted
Lecturers COE Minna	25	3.50	0.38					

Key: N = Number of respondents, M = Mean of respondents, SD = Standard deviation, df = Degree of freedom

Data on Table 3 showed that the calculated t-value of 1.26 is less than the t-critical value of 2.02 at 48 degrees of freedom and 0.05 level of significance. This shows that there is no statistically significant difference

between the opinions of the two groups. The null hypothesis was therefore accepted.

Table 4

t-test Analysis of the difference between the mean scores of the lecturers in FUT and COE on the extent at which quality assurance practices are employed in technical teachers preparation

Group	N	M	SD	df	Significance level	t- Calculated	t- Critical	Decision
Lecturers FUT Minna	25	1.98	0.32	48	0.05	5.44	2.02	H_0 Rejected
Lecturers COE Minna	25	1.51	0.29					

Key: N = Number of respondents, M = Mean of respondents, SD = Standard deviation, df = Degree of freedom

Data on Table 4 indicated that the calculated t value 5.44 is greater than the t-critical value of 2.02 at 48 degree of freedom and 0.05 level of significance. This shows there is statistical significance difference between the opinions of the two groups. Therefore, the null hypothesis was rejected.

Discussion:

The opinion of the lecturers on research question one was that the practices for quality assurance in technical teacher preparation for effective school administration should include admission of quality entrants with at least five credit passes including English language and mathematics into any teacher training institution, existence of well equipped supervision through adequate monitoring especially with the involvement of subject teachers and use of lecturers to supervise teaching practice. This is in consonance with the work of Ohiwerei and Okoli (2010) who both maintained that Supervision is the process whereby an authorized person whose nomenclature is thereafter called supervisor sees to the work of others to see whether it is in line with stated standard, and if not, he corrects, directs, teaches, demonstrates, assisting in teaching techniques, conferring with teachers, assisting in processing of evaluating and examination and revising curriculum and courses of study, holding conferences or group meeting to discuss problems,

attending local, state, regional and national professional conventions among others. Other practices include use of full year for teaching practice exercise, increasing the pass mark grade and provision of instructional material allowance to both pre and in service teachers motivation of student teachers through bursary awards and in service teachers prompt payment of salaries and allowances based on qualification at all levels of education, initiating programmes at frequent intervals to develop skills in student teachers for fluency and accurate use of English language and use of computers in teaching student teachers for achievement of vision 20-20-20. This commensurate with Becta (2005) submission that computer has been found to be the most suitable, reliable and versatile medium for individualizing instruction. It is able to deal simultaneously with large number of students on individual basis and this tends to lower the cost, in the long run. The finding on motivation is in line with the view of Garba (2007) that for quality to be achieved in teaching profession, teachers must be motivated through awards payment of salaries and allowances as at when due.

On research question two, the application of the practices for quality assurance in technical teacher preparation institutions were rated low in most of the items. By implication, most of the educational practices are not applied in technical teacher training institutions. The research has shown for example, that the admission of quality entrants with at least five credit level pass including English language and mathematics is not attainable in College of Education Minna. The research has shown that recruitment of high quality trainable candidates was rated low by lecturers of COE. This is evidence that COE lecturers are not finding it easy coping with the quality of the student teachers under their tutelage. Such students are product of examination malpractice who passes senior secondary school examination at credit level in all the subjects without acquiring the actual knowledge. These students with good results that cannot be defended are pushed into College of Education and Universities. This will negatively affect the school.

Low ratings on extents of application of one full year for teaching practice exercise, elevation of period for degree and Nigerian Certificate in Education (NCE) awards, increases of pass mark grade to 60%, provision of instructional material allowance to pre and in service teachers, motivation of student teacher's through awards and in service teachers through prompt payment of salaries and allowances based on the qualification at all levels among others, are indications that the programme for teacher preparation for quality assurance must be revisited.

The ratings were also very low in the use of computers in training of technical teachers. This implies that the student teachers do not have their own personal computers and may not have the knowledge of its application and uses. This will also affect the children and the school administration in general.

The result of the t-test analysis on Table 3 indicated that null hypothesis one was accepted as stated. This shows that there is no significant difference in the opinions of the two groups of respondents on the quality assurance practices for technical teacher preparation for effective school administration. The calculated t-value of 1.26 being less than critical value of 2.02 at 48 degree of freedom 0.05 level of significance. The result of t-test on Table 4 showed that the null hypothesis was rejected. This indicated that there is significant difference in the opinions of the two groups of respondents on the extent of quality assurance practices in technical teacher preparation for effective school administration. This is evident in the calculated t-value of 5.44 and critical t-value of 2.02 at 48 degree of freedom and 0.05 level of significance. By implication, Federal University of Technology, Minna seems to be higher in attending to some quality assurance practices in technical teacher preparation in the area of admission of more quality entrant's, well equipped supervisory team and supervision of written and oral evaluation of students, among others, than College of Education, Minna.

Implication of the Research findings

The findings of this research revealed that quality assurance practices in technical teacher preparation for effective school administration fell below the required standard. This finding is of importance to the government, Ministry of Education, Vice Chancellors, Provost of Colleges of Education and administrators if quality teachers are to be produced, to breed quality youths who will work for the nation to be among the economies of the world. This study has also created awareness in the minds of the lecturers in technical teacher preparation institutions to initiate strategies that will bring about quality assurance in technical teacher preparation for effective administration.

Conclusion

This study has identified practices for quality assurance in technical teacher preparation for effective school administration. It has shown that

some educational practices such as admission of good quality entrants, well equipped supervisory team to monitor proper service delivery to student teachers, proper supervision of written and oral evaluation of students, increment in pass mark grade, years of graduation and period of teaching practice exercise among others, are worthwhile and should be applied in teacher preparation programme to achieve quality assurance. The study also revealed that possession of laptop computers by all student teachers in teacher training institutions will help in the application of modern administrative principles for attainment of the nation's goals. The study also showed that the extent of the application of education programme needs revisiting for attainment of the nation's goals.

Recommendations

Based on the findings that arise from this study, the following recommendations were made for quality assurance in technical teacher preparation for effective school administration:

1. Universities and Colleges of Education should accept minimum criteria for admission of entrants into any teacher training institution for the award of degree or NCE certificate to be five credit level pass including English language and mathematics.
2. Universities and Colleges of Education should increase pass mark grade from 40% to 60%.
3. Technical teacher training institutions should map out one full year intensive teaching practice exercise in which the subject teacher of the school of practice must be extensively involved.
4. Technical teacher training institutions should enforce use of individual computers in teacher preparation institutions especially for those in their final year.
5. The Government should give incentive to student teachers and in service teachers in terms of awards, payment of salaries and allowances.

References

- Becta(2005). *Personalized learning with ICT*. Coventry: Becta. Retrieved January, 4th 2009 from http://www.becta.org.uk/corporate/publications/documents/personalised_learning.pdf.
- Bulgarelli, A. (2009). *Accreditation and quality assurance in vocational education and training: Selected European Approaches*. Luxembourg:

Publications Office of the European Union. Retrieved August, 28th 2013 from <http://www.cedefop.europa.eu/etv/Upload/Informationresources/Bookshop/568/4089en.pdf>

Campbell, C. and Rozsnyai, C. (2002). *Quality Assurance and the Development of Course Programmes*. Papers on Higher Education: Regional Universities Network on Governance and Management of Higher Education in South East Europe, Bucharest, and UNESCO. Retrieved August, 15th 2013 from <http://unesdoc.unesco.org/images/0012/001295/129526eo.pdf>

Federal Republic of Nigeria (2004). *National Policy on Education* 4th Edition. Abuja: NERDC Press.

Garba, M. A. (2007). Quality Teacher Education: The Pivot of National Development. In Njoku, S. (Ed). *Nigerian Journal of Professional Teacher* 1(2) 98 - 104

Nicholson, K. (2011). Quality Assurance in Higher Education: A Review of the Literature. Retrieved August, 28th 2013 from <http://csl.mcmaster.ca/COU/pdf/Quality%20Assurance%20Literature%20Review.pdf>

Ohiwerei, F. O. & Okoli, B. E. (2010). Supervision of Business Education Teachers: Issues and Problems. *Asian Journal of Business Management* 2(1): 24-29. Retrieved August, 31st 2013 from <http://maxwellsci.com/print/ajbm/v2-24-29.pdf>

Saidu, H. T. (2007). Technical Teacher Education for National Development. In Lassa, P.N. (Ed) *Teacher Education: An imperative for national development*. Kaduna: NCE.

Wikipedia. (2009). Free Dictionary, Retrieved April, 12th 2012 from [www.wiktionary.org/wiki/quality assurance](http://www.wiktionary.org/wiki/quality_assurance)