

Selection and Retention of Professional Technology Teachers in North-East Federal Polytechnics, Nigeria

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Abstract

The study was focused on the Selection and Retention of Professional Technology Teachers in North-East Federal Polytechnics, Nigeria. Two (2) research questions were used and a structured questionnaire for data collection. Proportionate stratified random sampling technique was adopted and a sample of 80 respondents drawn from the study population of 200 respondents obtained from 4 Federal Polytechnics in North-Eastern Nigeria was used for the study. Descriptive survey design was employed while mean and standard deviation was used for the data analysis. The findings identified some factors such as: -The use of informal sources of selection, bribery, corruption, injustice and Underutilization of job selection instrument as constraints to the selection process and the causes to the Constraints among others are lack of position classification, Rigidity in the approach to personnel and students problems, Lack of central employment agent (s), Lack of transparency in selection processes. Conclusively, the Federal Polytechnics in North-Eastern Nigeria were faced with the problems of poor students' performance, Boko Haram issue that had affected their academic activities, issues of differences in tribe, religion, injustice and sectionalism had compounded to the institutions inabilities to conduct free, fair and just selection and retention exercises for their personnel. Based on these findings, the study recommended that the Federal Polytechnics in North-Eastern Nigeria should strive to resist employment pressure from employees, de-emphasize subjective and informal sources of selection and emphasize sources such as professional organizations and unions, Utilization of job selection instrument properly when embarking on selection exercises among others. Further research study on understanding the problems and prospects of personnel job satisfaction in the Federal Polytechnics in North-Eastern Nigeria was suggested by the researchers.

Keywords:

Technology Teachers,
Selection,
Retention,
Polytechnics,
Nigeria.

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Background of the Study

Technology is the application of science and industrial art in the actualization of inventions and discoveries in order to make them available and useful to mankind. Technology supplies the needs of human society in the areas of tools, machines, manpower and techniques of producing them through technology education. Technology education refers to the study of sciences and the acquisition of skills, attitudes, understanding and knowledge relating to occupation in various sectors of economic and social life of people (Merritt, 2009). In other words, Technology Education is a comprehensive action based educational programmes that are concerned with technology means, their evaluation, utilization and significance with industries, techniques, resources and products and their social and cultural impacts for development (Manil, 2010).

A cardinal and traditional role of technology education in a society is technical personnel development. Nigeria's industrial sector relies on technology education for the supply of her technical personnel such as: Operatives, Craftsmen, Master-craftsmen, Technicians, Technologists, Engineers, etc. The proficient level of training of these categories of industrial workers has direct bearing on Nigeria's industrial development. Technology programmes, technology teachers and indeed the technology teachers educators are needed in Nigeria's technical skills acquisition institutions e.g. Vocational training centres, Basic skills acquisition centres, Technical colleges, Polytechnics and Universities of technology for the training and supply of these technical personnel (Uwaifo et.al, 2009).

Technology teachers refer to those persons that have quality technology education knowledge, obtained from recognized institutions of learning after having intensive training and retraining on technology oriented skills or trades and decides to impart this same knowledge to others via institutions of learning or apprenticeships. Technology teachers assume various capacities in the society, ranging from Educators, Instructors, Lecturers, Professors and what have you. Based on these roles played by the technology teachers in the society, it is clearly pointed out that the technology teachers convert the society's raw materials (Students) into finished products (Graduates) for the society to consume; hence, national development (Shittu et.al, 2016).

The efficiency and effectiveness of any educational system, be it the private or the public sector and whether in developed or the under developed nation, depend on the calibre of their teachers (Kwairanga H.B, 2002). The effectiveness of personnel in an organisation cannot just happen by chance but through a fair and articulated selection exercise without sentiment (Dike, 2006). Selection of personnel is an activity that is connected with the process of obtaining sufficient number of professional candidates at the right time and from the right places (Baikie, 2002). In standard organizations, personnel selection process begins with job analysis. Information from job analysis and human resource planning activities activates the next phase in the selection exercises, e.g. attraction of potentially professional candidates to apply for vacant positions in the organization (Armstrong, 2006).

The selection exercise can be done within an organization (internal source of selection exercise) and/or outside the organization (external sources of selection exercise). After this phase, the organization should then device selection tools to help sort out the relative

qualifications of the job applicants and appraise their potentials for being good performers in a particular section (UNICEF, 2000). These selection tools include application and resumes, interviews, reference checks, tests (Bateman et.al, 1999). The reason for these selection activities is for an organization to appoint the best applicants with the right ability, temperament and willingness to work effectively and correctly (Kirman et.al, 2009).

The purpose of selection in any educational system is to obtain those that will best meet the needs of the aims and objectives of teaching profession in order to develop and maintain a qualitative and sound educational system through which the system can fulfil her aims and objectives (Motala, 2000). Unlike other sectors in Nigeria, e. g. the civil service, has the civil service commission as her employment agent and does Selection exercises (Bande, 2001). Selection in the Nigerian technology education sector is the sole responsibility of the educational institution concern (Fabunmi, 2003). Selection of professional technology teachers is a crucial tasks of modern governments especially in most under developed nations and lies in the heart of the problem of personnel administrations (Jusut, 2005), Nigerians under the baby democratic dispensation demand for uniformity, standardization, equity, transparency and justice in their day by day activities, most especially in recruiting competent job applicant (Babaru, 2003).

Despite these demands and emphases by Nigerians, it is perceived that the selection process of technology teachers in Nigeria lacks equity, standardization and transparency (Okokoye, 2002). Instead, it is full of differences ranging from tribal, religious and regional, making it difficult if not impossible to select the best qualified job applicants for available job vacancies in the Nigerian technology education sector and at the end, unqualified applicants without education background are selected into the sector and graduates from the various technology education learning institutions in the country were graduated dilapidated (Kolawale et.al, 2000), hence rotten technology education sector as the nation is experiencing today, where industries in the country have to give on the job training for newly employed. Also, environmental influences such as technological, social, political and economic demands cause some of the problems that affect selection in technology education sector in Nigeria. The selection process requires monitoring of these problems and their impact on the selection exercise in order to attract broad range of potential applicants that have had technological training and education background and screen out unsuitable applicants that do not have education background even though they have had technological training (Achi, 2003).

The rationale behind the study is to create solid background for the Federal Polytechnics in North-Eastern Nigeria to create a standard and objective selection instrument and retention decisions in order to appoint the right applicants into the sector and accurately matching them with position classification more especially in the Federal polytechnic Mubi. Good selection and retention exercise enhances quality productivity and reduces cost of labour turnover rate and employee satisfaction

Statement of the Problem

Researches and observations by stake holders showed that the professional qualities of technology teachers in polytechnics in North-Eastern Nigeria are below expectation level, students' academic performance in North-Eastern Nigeria are poor. The problem of Boko

Haram Terrorists activities in North-Eastern Nigeria, problem of teachers placement on positions and levels after employment, the need for equal employment opportunities for Nigerians by Nigerians, poor performance of polytechnics graduates in Nigerian Industries after employment, and the need for technological advancement and nation building constituted the backgrounds that the study stood firmly to investigate the Selection and Retention of Professional Technology Teachers in the Federal Polytechnics in North-Eastern Nigeria.

Objective of the Study

The objective of the study was to identify the prevalent: -

1. Constraints of selection and retention of professional technology teachers in The Federal Polytechnics in North-Eastern Nigeria.
2. Causes of the constraints of the selection and retention of professional technology teachers in The Federal Polytechnics in North-Eastern Nigeria.

Significance of the Study

The findings and recommendations of the study will help:-

1. To pave way for equity, standardization and transparency in the selection and retention of Technology Teachers in the Federal Polytechnics under study.
2. To eliminate differences ranging from: - tribal, religious, regional that exist in the selection and retention processes in the areas of the study.
3. To enhance the performance standards of the polytechnics graduates so that the nation's industries shouldn't have to give on the job training for the newly selected /employed.
4. To provide solutions to tackle the environmental influences such as: - social, political and economic demands that causes some of the constraints to the selection and retention of the technology teachers in the study areas.
5. The authorities of the Federal Polytechnics in the areas of the study to create standard and objective selection instrument and retention decision in order to select professional Technology Teachers and classify them into the appropriate positions and levels.
6. Not only academicians and students, the study will be significant to other education stalk holders and the general public or every citizen of the nation because it concerns situation of society that is directly linked to the future of the children who will be the leaders of tomorrow.

Research Questions

To investigate the Selection and Retention of Professional Technology Teachers in The Study Areas, the following questions were used as guides:

1. What are the Constraints to the selection and retention of professional technology teachers in The Federal Polytechnics in North-Eastern Nigeria?
2. What are the causes of the Constraints to the selection and retention of the professional technology teachers in the Federal Polytechnics in North-Eastern Nigeria?

Literature Review

Theoretical Framework

This study has been hinged on Recruitment & Selection & Retention Theory by Sam Ashe-Edmunds based on their close relationship. The theory is of the view that Recruiting, hiring and retaining employees require tried-and-true human resources techniques to prevent bad recruiting, hiring, retaining and high turnover in an organisation.

Conceptual Framework

The progress of an organization or a sector depends to some large extent on so many factors such as capital, material, information, idea and other inputs. While these factors are seen to be important, human factor leads all the others, because people co-ordinate and use all the other factors in an organization (Saakshi, 2005).

The issue of the constraints of selection and retention process, concerns human resource factor that involves the process of identifying and attracting job applicants with needed skills and abilities to fill vacant positions in an organization and matching them with specific and suitable jobs (Job analysis)(Peretomode and peretomode, 2001). Job analysis is the beginning of selection and retention process and involves compiling detailed description of tasks, determining relationship of the job to technology and to other jobs as well as examining the knowledge, qualifications, and requirement for the job. Job analysis provides important information for selection, placement and retention decision in an organization (Nwachukwu, 2000).

After the job analysis process, the recruiters source potential applicants by creating awareness for the existing vacancies in order to attract the right job applicant from the right places and at the right time to be selected and placed on the correct positions and section in the organization. Selection sources can be internal or external; their usage depends on the demand and decision of an organization (Al-Gazali, 2006).

When using internal source of selection, the concerned organization turns to existing employees to fill vacant positions. Employees that are selected internally are either seeking change in responsibility or promotion, the advantages of this source is that it is less expensive, less time consuming, the employees are already familiar with the system and the organization also has information about their skills, abilities and actual behaviour on the job. Whereas external selection source is done when an organization looks outside for potential applicants, but it is mostly used for lower entry jobs in periods of expansion and for positions whose requirements cannot be met by present employees within the organization. The means for the external selection is advertisement in media, employment agencies, as well as work-ins by job hunters. Others are employee referrals, academic institutions, professional associations, unions and informal networks (James et. al, 2000).

The advantages of external selection source include: having access to a pool of potential job applicants, tendency to have applicants with needed skills, knowledge and abilities to make the organization achieve its aims and objectives. While the disadvantages include: - high cost of selection and training, lack of familiarity with the new environment and uncertainty about the performance of new employees. Other problems include unavailability of skills needed, dilapidated learning institution structures in Nigeria as a whole (Geisinger, 2007).

In any society; developed, underdeveloped or the developing, there are certain things that are considered as values. Each society drives some means to meet the needs and aspirations of such societal values and education has been a means of preserving the societal values since time immemorial in Nigeria. In the traditional Nigerian societies before the coming of the westerners (Europeans) with their western system of education, certain virtues were considered as values. Some of these values were: -Respect for elders, dedication to work, religious practices, handicraft and many more (Omengala, 2001).

In an attempt to preserve the Nigerian traditional societal values, the Nigerian traditional education curriculum which was the popular education then covered all the aspects of the life that are greatly cherished by Nigerians. The areas of this curriculum among others are moral and character training, self-survival, community participation, training for experimentation, training for life adjustment, training for physical devotion and vocation (Fajana, 2009). The acquisition of education in the above areas made the Nigerian child in the past a good citizen in the society.

It is clear nowadays that there is a widespread interest in technology education across the world. In Nigeria, the Polytechnic is a post-secondary technology institution of higher learning; created mainly to provide a wide range of intermediate and higher level technology and technologists. In view of this, (Ijaiya, 2009), wrote that the decision of the Federal government of Nigeria to get up Polytechnic education was predicated in the decision to revolutionize the Nigerian societies technologically, this government decision copiously spelt out the objectives of Technical and Vocational Education in the National policy on Education 2004. These objectives are: - 1.To provide trained manpower in applied sciences, technology, commerce and industry. 2.To provide technical knowledge and vocational skills necessary for agricultural, industrial, commercial and economic emancipation and development among others.

Okoro (2006), explained that the polytechnics also called colleges of technology, are the highest vocational and technical institutions in Nigeria. They are essentially post-secondary institutions that offer a two year course leading to the award of the National Diploma (ND) and an additional two year course leading to the award of the Higher National Diploma (HND). The two diploma courses are usually separated by a period of work experiences. The Polytechnics offer many technological courses, notably: Auto-mobile Technology, Building Technology, Electrical/Electronic engineering, Mechanical Engineering, Civil Engineering, Food Technology and many more.

The normal entry requirement include: - SSCE, NABTEB, WAEC, C&G of London Institute or their equivalent, with not less than five (5) credit passes in science subjects including English language and mathematics. The Polytechnics in Nigeria fill the needs for highly skilled technical personnel that can supervise and implement engineering designs and may even assist the professional engineer in the design process of jobs and the polytechnics Teachers are expected be university-trained engineers or technologists with a minimum of first degree qualification with a period of relevant industrial experience (Jen, 2002).

(Umar et.al, 2015) wrote that with all these expectations from polytechnics in Nigeria, unfortunately, the polytechnics in Nigeria have certain problems that threatens their existence and activities. Such problems include: Misappropriation and misapplication of funds, poor inter-personnel relationship, poor supervision and staffing, absence of team work in most cases, Lack of effective control and Co-ordination, Poor planning, Rigidity in the approach to personnel and students problems, examination malpractices, Admission racketeering, strikes, downright stubbornness of some officials. All these problems had affected the professional qualities of the workers, most especially the teaching staff. As a result of these problems and many others, the quality of the products (students) graduated by the polytechnics in Nigeria is poor. According to them, over the years, the Federal Government and polytechnics authorities has been trying their possible best to tackle these issues. Some of the measures taken were the establishment of an anti-corruption law by the Federal Government, Suspension from the office and Termination of appointments. Based on observations, experiences and relevant literatures, these measures were not effective due to bureaucracy involvement in their enforcement.

Methodology

Research Design

Descriptive survey research design was used for the study. This research design enables the researchers to use questionnaire and personal observations.

Area of the Study

The study areas were all the Federal Polytechnics in North-Eastern Nigeria, comprising: -The Federal Polytechnic Mubi, The Federal Polytechnic Bauchi, The Federal Polytechnic Damaturu, and The Federal Polytechnic Bali.

Population of the Study

The study targeted technology teachers and administrators in the areas of the study. Proportionate stratified random sampling techniques were adopted for the study with a total population of 200 respondents, 50 respondents from each of the Federal Polytechnics in the areas of the study. A sample of 80 respondents was used for the study.

Instrument for Data Collection

Structured questionnaire, known as Technology Teachers and Administrators Questionnaire on the Constraints and Causes of the constraints of Professional Technology Teachers Selection and Retention in North-East Federal Polytechnics, Nigeria, developed by the researchers, was the instrument for data collection. The Instrument was made up of twenty (20) items in all and it was divided into two (2) sections of ten (10) items each. Thus, sections **A&B**; section **A** sought information on the Constraints to the Selection and Retention processes of Professional Technology Teachers in the Federal Polytechnics in North-Eastern Nigeria. Section **B** dealt with items on the causes of the Constraints to the processes of Selection and Retention of the Professional Technology Teachers in the Federal Polytechnics in North-Eastern Nigeria. The structured questionnaire was constructed on the five-point Likert scale, with numerical values as shown below:

Strongly Agree (SA)	-	5 points
Agree (A)	-	4 points
Undecided (UD)	-	3 points
Dis-agree (D)	-	2 points
Strongly Disagree (SD)	-	1 point

Method of Data Analysis

The data was subjected to analysis using mean and standard deviation to identify the prevalent Constraints and Causes of the Constraints to the Selection and Retention of Professional Technology Teachers in the Federal Polytechnics in North-Eastern Nigeria. The interpretation of analysis used a decision rule with a cut-off point having upper and lower limit of the 5 point liker scale. An item with mean score that falls below 3.0 was rejected.

Research Question 1

What are the Constraints to the selection and retention of professional Technology Teachers in The Federal Polytechnics in North-Eastern Nigeria?

Table 1: Mean and Standard Deviation on the Constraints to the Selection and Retention of Professional Technology Teachers in the Federal Polytechnics in North-Eastern Nigeria.

S/N	Items	Mean (\bar{X})	SD	Value	Remarks
1.	Inadequacy of skills needed	3.60	0.83	2.70	Accepted
2.	Dilapidated schools' infrastructure	3.64	0.76	3.10	Accepted
3.	Need for connections and informal contacts	3.54	0.80	2.61	Accepted
4.	Use of tribalism	3.40	0.90	2.43	Accepted
5.	Social insecurity in the area of the study	3.60	0.83	2.70	Accepted
6.	Demand and collection of kickbacks before employment	3.54	0.80	2.61	Accepted
7.	Misappropriation of the institutions funds	3.61	0.82	2.41	Accepted
8.	Activities of Boko-Haram in the area of the study	3.60	0.83	2.70	Accepted
9.	Use of regional differences	3.50	0.84	2.71	Accepted
10.	Use of religion differences	3.52	0.75	2.51	Accepted

Data presented on table 1 Shows that the mean of all the ten items in the table were Constraints to the Selection and Retention of Professional Technology Teachers in The Federal Polytechnics in North-Eastern Nigeria. Among the Constraints were;-dilapidated schools' infrastructure with a mean (x) of 3.64, Activities of Boko-Haram terrorists in the areas of the study with a mean (x) of 3.60, Demand and collection of kickbacks before employment with a mean (x) of 3.54 among others.

Research Question 2

What are the causes of the Constraints to the Selection and Retention of Professional Technology Teachers in The Federal Polytechnics in North-Eastern Nigeria?

Table 2: Mean and Standard Deviation of the Causes of the Constraints to the Selection and Retention of Professional Technology Teachers in the Federal Polytechnics in North-Eastern Nigeria.

S/N	Items	Mean (\bar{X})	SD	Value	Remarks
1.	Lack of position classification	3.54	0.80	2.61	Accepted
2.	Poor social environmental influence	3.60	0.83	2.70	Accepted
3.	Rigidity in the approach to personnel and students problems	3.60	0.83	2.70	Accepted
4.	Political environmental influence	3.60	0.83	2.70	Accepted
5.	Poor planning for selection and recruitment processes	3.60	0.83	2.70	Accepted
6.	Lack of central employment agent(s)	3.54	0.83	2.61	Accepted
7.	Lack of equal right in employment processes	3.60	0.83	2.70	Accepted
8.	Lack of transparency in employment processes	3.64	0.76	3.10	Accepted
9.	Injustice in selection processes	3.54	0.80	2.61	Accepted
10.	Employment opportunities were not advertised on medias	3.61	0.82	2.62	Accepted

Table 2 analysis showed that the mean of all the ten items in the table were causes to the Constraints of the Selection and Retention of Professional Technology Teachers in the Federal Polytechnics in North-Eastern Nigeria. Some of these causes of the Constraints among others are lack of position classification with a mean (\bar{x}) of 3.54, Rigidity in the approach to personnel and students problems with a mean (\bar{x}) of 3.60, Lack of central employment agent (s) with a mean (\bar{x}) of 3.54, Lack of transparency in employment processes with a mean (\bar{x}) of 3.64.

Summary of Discussions of Findings

The findings of the study showed that the Federal Polytechnics in North-Eastern Nigeria were faced with a lot of constraints that had affected their academic activities and students performances. The study showed that the constraints affecting selection and retention of professional technology teachers in the Federal Polytechnics in North-Eastern Nigeria were as a result of increasing pressure for employment from applicants, emphasis on connections and informal contacts, lack of proper use of sources of selection, differences in tribe, religion and section. Other constraints identified by the study include bribery, corruption and injustice. These constraints were as a result of some causes such as: lack of position classification, Poor social environmental influence, Rigidity in the approach to personnel and students problems, Political environmental influence, Poor planning for selection processes, Lack of central employment agent(s), Lack of equal right in employment processes among others. All these have created difficulties for the Federal Polytechnics authorities in North-Eastern Nigeria to conduct a free, fair and just selection exercise based on the principles of merit and equal opportunities for all Nigerian citizens. The study showed that with these happenings in the system, suitable qualified Technology Teachers were not selected and retained in the Federal Polytechnics in North-Eastern Nigeria.

Conclusions

Based on the findings of the study, it was shown that the inability of the Federal Polytechnics authorities in North-Eastern Nigeria to select professional technology teachers effectively were due to increasing pressure for employment from applicants, emphasis on connections and informal contacts, lack of proper use of sources of selection, differences in tribe, religion and section as well as bribery, corruption, injustice and Boko-Haram issue. As a result, it made the Polytechnics in North-Eastern Nigeria to have too many constraints in their system which resulted to poor academic activities and students performances in the Institutions.

Recommendations

Based on the study findings and conclusions, the researchers recommended the followings:-

1. The Federal Polytechnics in North-Eastern Nigeria should formulate guideline that will reduce the employment pressures and emphases be placed to discourage all kinds of subjective and informal contacts in their selection of professional technology teachers'.
2. Reliable and valid selection instrument should be devised and adhered to strictly by the Federal Polytechnics in North-Eastern Nigeria.
3. Sources of personnel selection such as internet, professional organizations, agents and unions should be adequately utilized by the Federal Polytechnics in North-Eastern Nigeria.
4. The selection instrument used by the Federal Polytechnics in North-Eastern Nigeria to select and retain professional technology teachers should not be underutilized and all workers selections into the various sections in the Polytechnics should be conducted at as when due and should strictly be based on merit and justice based on rule of law.
5. Finally, the remuneration of workers in the Federal Polytechnics under study should be increased by authorities concern, particularly for academic staff that are the yard stick that can be used to measure the success and failure of academic achievements in the institutions under study.

The aim of it all is to attract as many professional technology teachers as possible, select and subsequently appoint the best through a more objective procedure so as to upgrade the images as well as the standards of the Federal Polytechnics in North-Eastern Nigeria.

Further research study on understanding the problems and prospects of personnel job satisfaction in the Federal Polytechnics in North-Eastern Nigeria was suggested by the researchers.

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