

EDUCATION AND TECHNICAL MANPOWER DEVELOPMENT IN TERTIARY INSTITUTIONS. A CASE STUDY OF THE INDUSTRIAL TRAINING FUND IN BAYELSA STATE.

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Abstract

The need for continual production and replacement of industrial and technological manpower development cannot be undermined, since it will enhance the sustainable industrial and technological advancement and security for national growth and development. One important indispensable programme that can produce demand driven for sustainable industrial and technological advancement and national development is SIWES. The study examines Education and Technical manpower development in Tertiary Institutions. A case study: the industrial training fund in Bayelsa State. A descriptive survey design was adopted for the study. The study was guided by (3) research objectives and (3) research questions. The population of the study comprises of two studies in related discipline and institution in Bayelsa State. The sample size consist of 97 students from the Niger Delta University, Amassoma Bayelsa State, Federal University Otuoke, Bayelsa State and Isaac Jasper Boro College of Education, Sagbama, Bayelsa State, who were randomly selected and had previously participated in the SIWES programme. And 18 item questionnaire was used to collect data. The questionnaires was validated and out of 100, 97 were returned. The data collected was analysed using percentages, findings were made based on the research questions and recommendations were given so as to make the government improve in the implementation and funding of the scheme for a better training of manpower development in Bayelsa State.

Keywords: Education, Technical Manpower Development, Tertiary Institutions, Industrial Training Fund.

Introduction

Discussions with various people on the impact of those who have graduated from the Universities and their influence on society led to this research. It is widely accepted that education creates improved citizens and helps to upgrade the general standard of living in a society, thus resulting in its heavy investment. According to Olaniyan & Okemakiude (2008), they belief that education is an engine of growth which rests on the quality and quantity of

education in any country. There is no doubt that the various universities produce the quantity but what about the quality? Dike (2003) says:

Nigeria has enormous potential for growth and development with its vast oil and gas resources, rich and expansive agricultural land, solid minerals and abundant human resources. Despite these factors the Nigerian Economic Summit Group (1993) says the successive governments have not done enough to put the

nation's resources to effective productive use. Consequently, the economy is performing below its potential, with rising unemployment, inflation, poverty, misery, crime and insecurity in the society.

So there seems to be an issue with regards to the quality. One can see in the development of manpower that man is the most important asset to society. Thus Wenig & Wolanski (1983) states in Adenle and Oke (2007) that the most common goal of human power development is training and education, which solves a number of problems. Such as turnover and growth in personnel, changes in the knowledge and skills required by or made available to a company and its employees and the need to improve the skills and performance of the results of employees in their present jobs. Thus, poor performance has affected the industrial economic sectors in the areas of refining, construction and manufacturing. Hence the need to strategically involve the industries to have in-house training to correct the unskilled manpower. Though the involvement of the industry in the human power development is not a recent phenomenon, it has not been fully realized because of lack of capable technical human powers with entrepreneurial, managerial and relevant technical skills. Adenle (1996) in Adenle and Oke (2007) declared that it is in the interest of the industry to participate in the structuring of a process for teacher training so that the realities of the businesses are fully perceived by teaching. The purpose of this relationship should be to make the efforts of the schools, which train students for careers, more in touch with reality at the work place.

Let us briefly look at the students' industrial work experience scheme (Siwes) as stated in The Industrial Training Fund (1971); The government's decree No. 47 of 8th October, 1971 as amended in 1990, highlighted the capacity building of human resources in industry, commence and government through training and retraining of workers in order to effectively provide the much needed high quality goods and services in a dynamic economic as ours. This decree led to the establishment of Industrial Training Fund (ITF) in 1973/1974.

The growing concern among other industrialists that graduates of our institutions of higher learning, lack adequate practical background studies preparatory for employment in industries, led to the formation of Students

Industrial Work Experience Scheme (SIWES) by ITF in 1993/1994 (Information and Guideline for SIWES, 2002). ITF has as one of its key functions; (1) to work as cooperative entity with industry and commerce where students in institutions of higher learning can undertake mid-career work experience attachment in industries which are compatible with students area of study (Okorie 2002).

The students Industrial Work Experience Scheme (SIWES) is a skill Training programme design to expose and prepare students of Agriculture, Engineering, Technology, Environmental, Science, Medical Sciences and pure and applied sciences for the Industrial work situation which they are likely to meet after graduation. The duration of SIWES is four months in Polytechnics at the end of NDI, four months in Colleges of Education at the end of NCEII and six months in the Universities at the end of 300 or 400 levels depending on the discipline.

Objectives of SIWES

The objectives of SIWES among others includes to:-

- Provide an avenue for students in institutions of higher learning to acquire industrial skills and experience in their approved course of study;
- Prepare students for the industrial works situation which they are likely to meet after graduation.
- Expose students to work methods and techniques in handling equipment and machinery not available in their institutions;
- Provide students with an opportunity to apply their knowledge in real work situation thereby bridging the gap between theory and practices;
- Enlist and strength employers' involvement in the entire educational process and prepare students for employment in Industry and Commerce (Information and Guideline for SIWES, 2002).

Bodies Involve in the Management of SIWES

The bodies involved are: Federal Government, Industrial Training Fund (ITF), other

supervising Agencies are: National University Commission (NUC), National Board for Technical Education (NBTE), & National Council for Colleges of Education (NCCE). The Functions of these agencies above include among others to:

- Ensure adequate funding of the scheme;
- Establish SIWES and accredit SIWES unit in the approved institutions;
- Formulate policies and guideline for participating bodies and institutions as well as appointing SIWES coordinators and supporting staff;
- Supervise students at their places of attachment and sign their log-book and ITF Forms;
- Vet and process students log-books and forward same to ITF Area office;
- Ensure payment of Allowances for the students and supervisors. Therefore the success or otherwise of the SIWES depends on the efficiency of the Ministries, ITF, Institutions, Employers of labour and the general public involved in articulation and management of the programme. Thus, the evaluation of SIWES in tertiary institutions in meeting up with the needs for the establishment of the programme is necessary.

Statement of the Problem

With changes in technology and the labour market occurring at such a rapid pace in Nigeria, there is a need to emphasize and anticipate future manpower needs and patterns of employment, in order to reduce the deterioration of manpower development. There can be no significant Industrial growth in any country without adequate manpower development. Hence the need for training and retraining programmes within the industries to ensure quality manpower. In this paper the researcher intends to determine the practical exposure that students have in relation to their field of expertise and this will be achieved by understudying the Industrial training programme in Bayelsa State.

Objectives of the Study

1. To investigate how often the supervision staff of the Training programme visited the students on attachment;

2. To explore whether students involved in the programme were given orientation courses prior to their attachment.
3. To examine how often allowances are being paid to the students on attachment.

Theoretical frame work

Human capital Development Theory:

This study is based on the human capital development theory which was first formulated by Theodore Schutz in 1960 and later developed by Gary S. Becker in 1962 (Obasi,2010). The capital theory is the idea that people spend on themselves in various ways not only for the sake of present enjoyment but also for the sake of future pecuniary and non-pecuniary returns.

The human capital theory refers to the stock of knowledge, habits, social and personality attributes, including creativity, embodied in the ability to perform labour so as to produce economic value. The subject is closely associated with the study of human resources management as found in the practice of business administration and macroeconomic. Human capital theory is a collection of trait-all the knowledge, talents, skills, abilities, experiences, intelligence, training, judgement, and wisdom possessed individually and collectively by individuals in a population.

The human capital theory is adopted for the study because the study Education and Technical Manpower Development in Tertiary Institutions; a case study the Industrial Training Fund in Bayelsa State. Thus, from the theory viewpoint, individuals with more or higher human capital achieve higher performance when executing tasks. Entrepreneurship skills, motivations and traits are also human capitals that are required to enhance company results.

Diffusion of information (DOI) Theory According to Rogers (2003), theory seeks to explain how, why and at what rate new ideas and technology spread through cultures. This theory was developed and popularized by F.M Rogers (1962) in his book, diffusion of Innovations. He opines that diffusion is the process by which an innovation is communicated through certain channels over

time among the members of a social system or specific population. Rogers (2003) explained the process of innovation diffusion as one which is dictated by uncertainty reduction behaviour amongst potential adopters during the introduction of technological innovations. Innovation Diffusion Theory (IDT) consists of six major components: innovation, characteristics, individual user characteristics, adopted distribution over time, diffusion networks, innovativeness and adopted categories, and the individual adoption process. Arguably, the most popular of the six components of IDT centers on the characteristics of the innovation itself. After analyzing a variety of previous innovation diffusion studies,

rogers singled out the five characteristics of innovations that consistently influence the adoption of new technologies.

Research Questions

The following research questions will be considered to obtain the findings or results of the stud.

1. How often do the supervision on staff of the Training Programme visit the students on attachment?
2. To what extent were students involved in the programme given orientation courses prior to their attachment?
3. How often were allowances paid to the students on attachment?

S/	ITEM	TOTAL	%A	%DA
1	Where the instructions received in school related to the practices in the industry?	266	72	26
2	The equipment used in school where they a replica of the ones found in the industry?	194	28	71
3	Did the schools personal attitude to work compare favourably with that of personnel in the industry?	227	40	60
4	Was the management of the firm very receptive?	315	93	5
5	The contact made with the industrial personnel of the industrial staff, was it cordial?	260	65	35
6	Were you visited up to 2-3 times by the cooperation of the industrial staff, was it cordial?	193	40	60
7	What you experienced was it acceptable and encouraging?	336	93	7
8	Was working with people in the structural setting alright with you?	326	91	9
9	Was working under strict supervision ok with you?	297	86	12
10	The quality of work you were exposed to was it high?	304	78	20
11	Do you have a love for routine and uninterrupted task?	288	78	19
12	Do you have initiative and can you work independently?	319	90	9
13	Do you enjoy recognition for a job well done?	355	92	7
14	Was the duration of stay in a particular work station satisfactory?	295	80	20
15	Were your impressions of the industry in consonance with your experience in the industry?	269	69	29
16	Did the officers/supervisors sign the students logbook at their place of attachment?	311	84	16

17	Does ITF provide students on attachment with insurance cover?	151	14	86
18	Students that are part of the ITF programme are they being paid their allowances?	182	39	60

Source; Fieldwork 2024.

RESEARCH METHODOLOGY

Descriptive survey design was adopted for this study, the population for the study was made up of students from Agriculture, Engineering technology, Environmental Science, Medical sciences, and Pure and Applied Science disciplines and institutions in Bayelsa State. The sample consisted of 97 students from the NDU, Federal university Otuoke and Isaac Boro College of Education, Sagbama, who were randomly selected and had previously participated in the SIWES programme. An 18item questionnaire was used to collect data. The questionnaires was validated and out of 100, 97 were returned. The data collected was analyzed using percentages.

Administration of Instrument and Data Analysis

On administration of instrument, the researcher used the simple random sampling method to select units from the study population. The questionnaire was personally distributed and retrieved from the respondents. To effectively do this, the researchers employed the services of some of the respondents in each school.

Data Analysis: Datafrom primary sources generated from questionnaire and key information was analysed in percentages.

Research Question

From the tableit can *be* seen that SD, DA, A and SA were merged into agreed (A) and disagreed (D). Here 50% was used as a cut off mark from which 50% and *above* were deemed approved. This method of using percentage to analyze the merged response was adopted by Ezeudu (1994) and for this sample study, this technique was also used to answer the research questions.

Analysis of Results

Research Question 1

To what extent did supervision staff of the training programme visit students on attachment? In relation to the students responses 40% stated that they were not visited up to 2-3

times by the cooperation of the industrial staff, which goes to show the poor supervision during the programme. Yet 65% agree they met with some staff, 93% affirm to the receptiveness of the management, 86% confirm working under strict supervision, 78% testify to being exposed to a high level of work experience and 84% agree to their logbooks being signed at their place of attachment. This goes to show that some form of monitoring the students was in place. Even though the industrial staff showed poor attendance, the students were being guided by others which is confirmed by the 78% agreeing to the quality work they were exposed to, 86% confirming strict supervision and 80% being satisfied with the duration of their stay.

Research Question 2

To what extent were students involved in the programme given orientation courses prior to their attachment.

With 72% attesting to the instructions received in school as being related to the practices in the industry, and in comparism with 28% stating that the equipment used in the school was not a replica of those found in the industry, it goes to say the orientation courses seem to border on being theoretical while 40% goes to show the personal attitude found in the school set up is low unlike the personal attitude found in the work place. Hence students though given orientation courses, these courses were more theoretical than practical. This is based on the fact that 28% state a lack of equipment in the schools which would result in a lack of exposure in these areas.

Research Question 3

How often were allowances being paid students. With 60% saying they have not been paid, and 86% stating there is no insurance cover in case of a mishap, it goes to show that very few people have been paid.

Discussion of Findings

Findings in research question 1 revealed that 40% stated that they were not visited up to 2-3 times by the cooperation of the industrial staff, which goes to show the supervision during the programme. Yet 65% agree they met with some staff, 93 affirmed to the receptiveness of the management 80% confirmed working under strict supervision, 78% testify to have being exposed to a high level of work experience and 84% agree to their log books – beings signed at their place of attachment. This goes to show that some monitoring of the students was in place. Even though the industrial staff showed poor attendance, the students were being guided by others which is confirmed by the 78% agreeing to the quality of work they were exposed to 86% confirming strict supervision and 80% being satisfied with the duration of their stay. Findings in research questions 2 revealed 72% attesting to the instructions received in school as being related to the practice in the industry and in companism with 28% stating that the equipment used in the school was not a replica of those found in the industry. It goes to say that orientation courses lay more emphasis on theoretical aspect while 40% goes to show the personal attitude found in the school set up is low unlike the personal attitude found in the work place. Hence students though given orientation courses, these courses were more theoretical than practical. This is based on the fact that 28% state a lack of equipment in the schools which result in a lack of exposure in these areas.

Finding in research question 3 revealed that 60% attesting to the fact that they have not been paid, and 86% stating there is no insurance cover in case of a mishap, which show that very few people have been paid

CONCLUSION

This study indicates that majority of the students taking part in the students industrial work experience scheme (SIWES) are aware of the objectives for which it was established, primarily on issues of relating theory to practice. They were usually eager to take part in the scheme; with many considering their experience and time spent in the training as rewarding. Much of what they learned in theory became more real when they themselves practiced it. SIWES could therefore be seen as a tool for bringing harmony

in technical/vocational education. However, this study reveals that school equipment were not found replicating those in the industry and that the school personnel attitude to work does not compare favourably with that of personnel in industry. A situation where school workshop and laboratory equipment are ill-maintained or not replaced for years with modern outfit does not augur well for the development of technical vocational education. To improve on the implementation of the scheme, the institutions should be helped by governments and industrialists to sufficiently equip their laboratories and workshop to reach minimum international standard in Bayelsa State.

RECOMMENDATION

- 1) Government should try and improve in the implementation of the scheme in Bayelsa State.
- 2) Government should help the various institutions and industries to equip their laboratories and workshop to meet up with international standard in Bayelsa State.
- 3) The institutions should have a good maintenance culture so as to make the workshop and laboratory equipment more durable for use in Bayelsa State.
- 4) Government should fund the scheme for a better training manpower development in Bayelsa State.

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