PERCEPTION OF TECHNICAL TEACHERS TOWARDS REPOSITION OF TECHNICAL EDUCATION IN NIGERIA

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Abstract

The study investigates the perception of technical teachers towards repositioning of technical education. The study population was all the qualified technical teachers in technical Colleges in Imo State. Purposive sample of 60 teachers was used for the study. The installment used was researcher made. It consists of 55-item questionnaire termed Teachers Repositioning of Technical Education Questionnaire (TRTEQ). Two Research questions and one null hypothesis were formulated to guide the study. Data obtained were analysed using mean rating, standard deviation, and rank order. Results indicate that "adequate funding of technical education" is found to be the most significant repositioning factor, followed by "encouraging private sector participation in technical education", and availability of technical equipment and laboratories". The results also reveal non-significant factors to include "parental influence on career choice" and expansion of existing facilities in technical colleges". The findings of the study also showed that there was no significant difference in the perception of technical teachers towards repositioning of technical education based on years of service. It is recommended that greater participation of the private sector in the management of technical education be encouraged.

Introduction

The Oxford Advanced Learners Dictionary (1994),defines technical education as a college or school where courses in technical subjects are taught. It involves applied and industrial sciences. This means the aspect of education which utilizes the scientific knowledge in the acquisition j of practical and applied skills in the solution of technical problems. It is connected with execution of art work, examples include; wood works, electrical, mechanical, fabrics, building etc. NABTEB (1995) categorized technical education subjects into various trades to include Engineering Trades, Construction Trade and Miscellaneous Trade.

Apart from the universities, we have five types of technical education institutions namely, the pre-vocational, vocational, and technical colleges at post primary -school levels; the polytechnics and the colleges of technical education at the post-secondary school level.

The institutions train the students who on graduation have acquired skills in any of the mentioned fields. This means that such students might not need any other training to help them be fully integrated into the society. Technical education graduates are either electricians, builders, carpenters, fabric workers, tailors, engineers, architects, etc.

They become independent and productive citizens of the society. By so doing the issue of unemployment and job seeking will be avoided. The self-reliance will check youths unrest and vices resulting from joblessness. The National Policy on Education (2004), stated the aims of technical education to include:

a) To provide trained manpower in applied science, technology and commerce particularly at sub- professional grades,
b) To provide the technical knowledge and vocational skill necessary for agricultural, industrial, commercial and economic development.
c) To provide people who can apply scientific knowledge to the improvement and solution of environmental problems for the use and convenience of man.
d) 'To give introduction to professional studies in engineering and other technologies.
e) To give training and impart the necessary skills leading to the production of craftsmen, technicians and other skilled personnel who will be enterprising and self reliant.
f) To enable our young men and women to have an intelligent understanding to the increasing complexity of technology.

Regrettably, technical education seems not to gain popularity and interest among students in Nigeria. Perhaps certain factors are responsible for this ugly development.

Technical education was introduced in Nigeria to accelerate the technological development and respond to changing needs of the society. This became necessary since the products of the grammar schools alone cannot provide the needed skilled manpower to serve the available industries. Obiefuna (2003:), asserts that technical and vocational schools, trade centres were established in the various

regions of the country to serve the needs of the industries within the environment. He went further to observe that industrial establishment developed their technical schools in which they trained artisans in specific industries.

The products of our technical institutions constituted significant population needed to solve the nation's skilled manpower problem. Most of the technicians/ artisans produced remain self employed and in addition produce trained apprentices. This suggests that the nation's aspirations for technological development will not be feasible if the desired skilled manpower is in short supply. The solution however will be far fetched if technical education is not effectively pursued by students.

Realizing the inherent danger of shortage of skilled manpower, the government established the universities of science and technology, polytechnics, colleges of technology and other allied skilled training institutions in manpower development (Obiefuna, 2003; Ihirnodu, 1988).

The objectives of training in these institutions include to have a pool of skilled manpower who must be intellectuals with strong bias for industrial and technical skills. Adamu (1992) had contended that development depends not only on a few highly trained science specialists but also on the existence of a well- trained middle level manpower and on a science literate population, we wish to add that when most students shy away from technical education, Nigeria will eventually not have a large supply of both highly qualified, and middle level manpower.

Technical education is expected to effectively link class work with real life situations, mental and manual work, theory and practice. Technical includes panting, metal works, building, motor mechanics among others. Taiwo (1982), had earlier observed that the curriculum of trade centers'were inadequate and have failed to serve bigger industrial firms, some government departments and corporations. Enekwa (1998: 34), echoed same when he stated that:

> two major attempts have been made since I960 in the development of vocational technical education curriculum in Nigeria, but none of them was effective due to lack of proper application of systems approach.

The 6-3-3-4 system of education is expected to produce middle level technical manpower to bridge the gap between artisans and professional technicians like engineers. It is a common knowledge that it has failed to yield positive results in this direction. Implementation problems in the area of vocational technical education in the current National Policy on Education, have been reported (Enekwa, 1998; Nwaokolo, 1977).Technical teachers are expected to implement the content of National Policy on Education as it concerns vocational Technical education. Curriculum at the classroom level. The trust of this paper is to ascertain from the technical subject teachers:

The constraints to effective technical education

Their perception towards repositioning of technical education in Nigeria.

Methodology

The study is a descriptive survey designed to elicit information from technical teachers in Imo state on their perception towards repositioning of technical education. The study population consists of all the 60 teachers who are qualified in various technical trades/ subjects from fifteen technical colleges in Imo State The technical colleges used in the study were both government and privately owned.

Purposive sample of 60 teachers based on those with professional certificate in any technical discipline was used. The instrument used for the study was researcher's designed 55 items questionnaire called Teacher's Repositioning of Technical Education Questionnaire (TRTEQ). Two research questions and one null hypothesis were formulated to guide the researcher. They were as follows:

Research Questions

1. What are the constraints to effective technical education?
2. What are the perceptions of technical subjects teachers towards Repositioning of technical education?

Research Hypothesis

Hoi: There is no significant difference in the perception of technical subjects teachers toward repositioning of technical education based on years of service.

Results: The results of the study are indicated in the following tables according to research questions and hypothesis. A mean rating of 2.5 is accepted and considered significant while mean rating below 2.5 is rejected and considered non-significant.

Table 1: Mean Rating, Standard Deviation and Ranks for the Constraints to Effective Technical Education as Perceived by Teachers.

S/N	Items	Mean		Rank	
		Rating	SD	Remark	Order
1.	Inadequate trained technical manpower	3.78	0.71	Significant	1st
2	High cost of technical equipment	3.56	1.01	Significant	2nd
3.	Lack of interest in technical education by the student	3.52	0.84	Significant	3rd
4.	Poor administrative skills of some principals of technical colleges	3.34	0.66	Significant	4th
5.	insufficient equipment in various technical fields/trade	3.26	0.2)	Significant	5th
6.	Lack of maintenance culture	3.15	0.81	Significant	6th
7.	Technical education teachers are constrained fo emphasize theoretical work more than practical	2.88	0.93	Significant	7th
8.	Poor guidance counseling services	2.83	0.80	Significant	8th
9.	poor funding of technical colleges	2.79	0.06	Significant	9th
10.	None encouragement of indigenous technology	.2.66	0.78	Significant	10th
11,	Societal value system	2.57	0.50	Significant	1th
12.	poor implementation of the provision of NPE as it concerns technical education	2.53	0.75	Significant	2th
13.	Some flaws in the curriculum content	2.50	0.90	Significant	3th
14	Few technical colleges in Nigeria	.50	.00	Significant	4th
15.	parental influence on career choice of children	.43	0.88	•Jot Significant	5th

In Table 1, all the items on constraints lo effective technical education were accepted except one. fn terms of ranking, " inadequate trained technical manpower" (item 1) was found to be the most significant constraint followed by " high cost of technical equipment" (item 2), and "lack of interest in technical education by students" (item3). The least significant constraints are poor implementation of the provisions of NPE as it concerns technical education" in terms of ranking (item 12), followed by some flaws in the curriculum content" (item 13), and by few technical colleges in Nigeria" (item!4). The only item considered not significant by technical teachers is "Parental influence on career choice of children" (iteml5).

Research Question 2

This states:

What are the perception of technical .teachers towards repositioning of technical education ?

Table 2, shows the Mean Rating, Standard Deviation, and Rank for the repositioning of Technical education as perceived by Technical Teachers.

Table 2: Mean Rating, Standard Deviation, and Rank for the Repositioning of Technical Education as Perceived by Technical Teachers

S/N	terns	Mean		Rank	
		tilling	SI)	Remark	mler
1	Adequate funding of technical education	3.89	0.92	Significant	1st
2	Encouraging private sector Participation in Technical education	3.88	0.80	Significant	2nd
3	Availability of technical equipment and laboratories	3.88	0.87	Significant	3rd
4	Sensitization of the society on the need for Technical education	3.87	1.00	Significant	4th
5	Technical teachers to receive	3.87	0.95	Significant	4th
6	Sensitization of Technical staff through seminars and workshops for ^greater Productivity/ efficiency __	3.82	0.90	Significant	6th
7	Introduce the teaching of Technical subjects in primary schools	3.68	0.93	Significant	7th
8	Regular practical classes to commence early in the course to impart the required skills and competencies in the learners	3.68	0.68	Significant	7th
9	Co-curricular technical activities like inventions, technical seminars and college trade fair be mandatory organized -annually in every technical college	3.68	0.91	Significant	7th
10	Training and recruitment of more Technical teachers	3.58	1.10	Significant	10th

11	Availability of equipment, tools, and raw material required for practical work.	3.56	0.82	Significant	11th
12	Proper implementation of the provisions o: NPE as it concerns Technical education	3.56	0.87	Significant	11th
13	Inculcate the attitude for respect and appreciation for technical education at the primary level.	3.52	0.55	Significant	13th
14	Provision of Guidance counseling services in the colleges for students and teachers	3.38	0,83	Significant	14th
15	Development of skills in certain fields (clothe manufacturing, food technology, machine servicing etc) needed by Nigeria economy.	3.38	0.80	Significant	14th
16	Ensuring adequate practical training for self employment on graduation	3.36	1.02	Significant	16th
16	Encouraging our local/indigenous technology	3.36	0.78	Significant	16th
17	Adequate provision of different relevant teaching aids for technical teaching	3.31	0.63	Significant	18th
18	Technical staff to earn special allowance ant salary scale	3.30	0.91	Significant	19th
19	principals of JSS to ensure effective teaching of introductory technology	3.12	0.66	Significant	20th
20	"functional technical workshops to be provided in primary and secondary schools.	2.88	0.63	Significant	21st
23	Use of Technical equipment locally available in the market to teach Technical subjects in the school	2.87	0.80	Significant	22nd
22	Workable industrial attachment for students to be organized during training.	2.85	0.72	Significant	23rd
23	Books in Technical , subjects should include some emphasis in affective domain	2.82	0.74	Significant	24th
24	Development and inclusion of indigenous technology in the curriculum for technical education	2.80	.15	Significant	25th
25	Availability of adequate classroom, and enabling environment for effective teaching f technical subjects.	2.76	0.84	Significant	26th
26	Team work inter-dependence of technical Teachers or effective teaching advocated	.74	.68	Significant	27th
27	Adequate efforts to develop skills and introduce relevant innovations in various trades.	.71	.16	significant	28th

31.	Reordering of societal value system .	2.68	0.67	Significant	29th
32	Encourage and sponsor in service training of technical teachers	2.63	.04	Significant	30th
33	Functional arrangement for regular maintenance services of machines and tools used in the college	2.62	0.99	Significant	31st
34	Regular use of professional resources _persons to create awareness about technical subject/ trades	2.57	0.79	Significant	32nd
35	Identifying occupational groups and using them to create awareness on new techniques.	2.56	0.55	Significant	33rd
36	Improving the immediate and long term status of technicians. - — —	2.54	0.45	Significant	34th
37	Establishment of more technical colleges	2.52	1.61	Significant	35th
38	Technical teachers to be encouraged to write books in their various trades	2.52	0.86	Significant	35th
39	Special incentive/reward, such as scholarship to students in Technical colleges	2.50	0.50	Significant	37th
40	Approval to be given to technical colleges to establish and maintain commercial unit in the school	2.50	0.62	Significant	37th
41	Parental influence on Career choice of their children to be discouraged	2.43	0.21	Not Significant	39th
42.	Expansion of existing facilities in technical colleges	2.41	0.71	Not Significant	40th

Data on Table 2, reveal that all the items on the perception of Technical teachers towards repositioning of technical teachers towards repositioning of technical education are accepted. In terms of ranking "adequate funding of technical education" (item 1) was found to be the most significant repositioning factor, followed by "Encouraging private sector participation in technical education" (item 2), and " availability of technical equipment and laboratories" (item3). The non- significant items were:

1. Parental influence on career choice of their children to be discouraged (item 39).
2. Expansion of existing facilities in technical colleges (item 40)

Research Hypothesis This States

There is no significant difference in the perception of technical subjects teachers towards repositioning of technical education based on years of services.

Table 3: Chi-square (x^2) Test of Significant Difference in the Perception of Technical Subjects Teachers Towards Reposition of Technical Education Based on Years of Services

Years of Service	SA	A	D	SD	TOTAL	X^2('al	X^1 0.05	DF	Remark
5-12 13- and above	40 88	18 36	2 10	i 3	61 137				Significant
				- -		2.64	7,82	3	
Total	60	54	12	4	198				

From the x in Table 3, the critical value at 0.05 level of significance and 3 degrees of freedom is 7.82. Since the calculated X^2 value is less than the critical X^2 values, the null hypothesis that there is no significant difference in the perception of technical teachers towards repositioning of technical education based on years of service is not rejected. There is therefore no significant difference in the perception of technical teachers towards repositioning of technical education based on year of service.

Discussion

The results as shown in Table I reveal that the most significant constraint to effective technical education is "inadequate trained technical manpower" (item 1). The findings of this study are-consistent with those of earlier workers (Enekwa, 1998; Nwaokolo,1997).

The result is not surprising since the government did not make adequate arrangements for technical teachers and functional workshops before the introduction of technical education. Students lack of interest in technical education as observed in this study could be due to their attitude towards, the subject. Students attitude towards a subject influences them especially when critical decision on subject choices are to be made. (Onabanjo, 2000; Esen,1995). The possibility of selecting the subject will be narrow.

The finding in this study that "Parental influence on career choice of children" (item 15) is not; significant, is not in agreement with the report of Mkpa and Nwauboh (2004); Akinseide and Ariehrie, (2000). Mkpa and Nwauboh (2004:196), reported that, "parents desire to have their to have their children in their choice of university, job and professions and so can pay any price to get it done:." Akinseide and Ariehrie (2000), found that girls in Delta state shy aware from science and technology due to advice from parents.

In Table 2, this study also found that "adequate fund for technical education" (item 1) is the most significant factor for repositioning "technical education in Nigeria. This is followed by encouraging private sector participation in technical education" (item 2), and " availability of technical equipment and laboratories" (item 3).

Finances remain the key to the success of every enterprise. Private sector participation in technical education will- lead to qualitative effective and efficient service delivery and maximum production. This will help to provide technical equipment and laboratories following their profit maximization policy.

In Table 3, the study found that there is no significant difference in the perception of technical teachers towards repositioning of technical education based on years of service. This shows that the observed perception of technical teachers does not differ by years of service.

Recommendations

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

1. The government and the private sector should harmonize the funding of technical education to make it realizable and functional. This will equally help in equipping the existing technical colleges by the provision of equipment and machines to facilitate learning.
2. Government and their agencies should endeavour to enlighten the populace on the need for technical education as well as technical trades available.
3. Development of indigenous technology should be included in the National Policy on Education as it concerns technical education.
4. Vigorous implementation of technical education policy in all our secondary and tertiary schools is to be pursued by the supervisors and school Heads .
5. Memorandum of understanding which is geared towards exchange of experts and knowledge in technical education should be endorsed by the Government and other countries will afford

the students the opportunity for exchange programme and expose them to various applied technologies.

6. Adequate sensitzation programme meant for the public on the need for technical education should be mounted by the Federal Ministry of Science and Technology.
7. Staff and students of technical colleges should be motivated through in-service training, scholarship awards, special prizes and allowances as applicable .
8. Review of the curriculum for Technical education should include adequate affective skills.
9. Ensuring the existence of functional guidance and counseling services in technical colleges. This will help to stimulate the interest of our youths to technical education. Those who are technical inclined will be pulled together for effective technical education.
10. Principals of technical colleges should be given sufficient training in managerial skills.
11. Accreditation and certification of artisans / craftsmen should be pursued by the National Board For Technical Education.
12. Efforts should be made to encourage women to take courses in technical education.
13. The machines and tools used in teaching the students should reflect the type they will work with outside the school.

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