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TECHNICAL TEACHERS' AND INDUSTRIAL MANAGERS' RATING OF TEACHERS' AND STUDENTS' ACTIVITIES TO IMPROVE PRACTICAL SKILLS ACQUISITION BY TECHNICAL COLLEGE STUDENTS IN KWARA STATE

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Abstract
Practical skills deficiency among technical college graduates is responsible for the alarming rates of unemployment. This study aims to find out, from the rating of technical teachers and industrial managers, the strategies that could improve practical skills' acquisition in technical colleges in Kwara State. Two research questions and one hypothesis guided the study. The population comprised of 127 technical teachers and 71 industrial managers. The population were considered manageable hence; there were no need to employ any sampling. Out of the 205 copies of the instrument sent out, 198 copies were analyzed. The instrument for data collection was a structured questionnaire. The instrument was strategies for improving practical skills' acquisition by students in Technical Colleges (QERSIPSASTC) which was validated by three experts from the Department of Technology and Vocational Education, Nnamdi Azikiwe University, Awka. Reliability co-efficient value yielded 0.85. The instrument was a five-points Likert scale type with six sections. Mean statistic was used to answer the research question and t-test statistic was used to test the hypotheses at a 0.05 significance level. Results from the analysis of data showed that demonstration method impart practical skills to students. Results also revealed that government should always recruit qualified technical teachers to teach technical subjects. Result of t-test showed that there was a significance difference in the mean ratings of technical teachers and industrial managers on the teaching activities that could improve practical skills acquisition by technical students.
Keywords. Industrial Managers; Practical Skills Acquisition; Technical Colleges; Technical Teachers.

Introduction

Technical colleges according to Abdulrauf (2012) are institutions where specific knowledge and practical skills required for specific trade, employment or professional craftsmen, technicians or similar level in business and industry are imparted or taught. One of the prime objectives of vocational and technical education as stated in the National Policy on Education (Federal Republic of Nigeria, 2013) is to give training and impart the necessary skills leading to the production of craftsmen, technicians and skilled personnel who will be enterprising and self-reliant; and technical teachers are responsible for the inculcation of these requisite skills.

According to Ndomi (2008), Technical colleges are expected to produce graduates that will be both educationally and technically equipped with practical skills that will enable them standout in the world of work without the need for pre-employment training. Ishaya and Haliru (2016), the ultimate goal of vocational technical education training is for the acquisition of knowledge, attitude and practical skills for sustainable development. Such practical skills are acquired during workshop

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practice. Workshop practice is a common practical class for acquisition of practical skills in technical education programmes (Chukwuedo & Ainetor 2015).. Nwauzi, Azubuike & Kingsley 2021) defined skill acquisition as the method by which individuals are anticipated to be taught and continuously carry out a particular task till the trainees become competent in the operation and can perform them when the need arises.

However, industrial managers are complaining that the Nigerian labour market seems to be saddled with excess of unproductive technical college graduates with skill deficiency. For instance, Ehiimen and Ezeora (2018) observed that graduates of technical colleges who are supposed to be employers of labour are now job seekers due to skills deficiency. Uzoagulu (2010) opined that the bane of the Nigeria economy was lack of the needed skills and those who were certified to possess these skills were half-baked or ill-prepared.

Perhaps, the low or premature skills acquisition is due to occurrence of a defective learning environment. Obierika (2017) reported that most technical colleges in Nigeria have actually recorded low performance due to inadequate and poor maintenance of the required facilities in the workshops for effective training which has affected the acquisition of practical skills for proficiency by students of technical colleges.

In technical colleges in Kwara State for instance, the methods of teaching for long appear to be such that technical teachers are more concerned with the delivery of the theoretical contents of the subject matter thereby relegating practical learning approaches to the background. Skills acquisition requires competent and resourceful technical teachers who understand the problems of learning, the organization and functions of contemporary industries, and who have technical skills and "know how" of teaching as well as the ability to relate well with students to impart the appropriate knowledge. Based on the above discussions, it is pertinent to find out the technical teachers' and industrial managers' rating of teachers' and students' activities that could improve practical skills acquisition by students in technical colleges in Kwara State.

Statement of the Problem

Technical education as it exists today does not provide students with enough skills for entrepreneurship. For instance, technical college graduates still roam the streets in search of employment opportunities (Ehimen & Ezeora 2018). In spite of the various strategies developed to improve practical skills acquisition in technical education programme, little or no performance change was achieved. It is possible that not all the developed strategies are useful in Kwara State. This study therefore aims to find out from the ratings of technical teachers and industrial managers on the activities of teachers and students that could improve practical skills acquisition by students in technical colleges in Kwara State of Nigeria.

Purpose of the Study

The purpose of this study was to find out the technical teachers' and industrial managers' rating of technical teachers' and students' activities that could improving practical skills acquisition by students in technical colleges in Kwara State. Specifically, the study sought to determine the subjects' ratings of:

1. Teachers' activities that could improve practical skills' acquisition by students in Technical Colleges in Kwara State.
2. Students' activities that could improve practical skills' acquisition by students in Technical Colleges in Kwara State.

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Research Questions

The following research questions guided the study.

1. What are the teachers' activities that could improve practical skills' acquisition by students in Technical Colleges in Kwara State?
2. What are the students' activities that could improve practical skill's acquisition by students in Technical Colleges in Kwara State?

Hypotheses

The null hypothesis below was tested at a 0.05 level of significance.

1. Technical teachers and industrial managers do not differ significantly in their mean ratings of teaching activities that could improve practical skills' acquisition by students in technical colleges in Kwara State.

Method

The design of this study was a descriptive survey. A descriptive survey research design was considered appropriate for the study because the study examined current situations affecting practical skills acquisition of students in technical colleges and it involved the use of a structured questionnaire to elicit information, which was later analyzed.

The population consisted of 127 technical teachers teaching technical subjects in the five technical colleges (Government Technical College, Pategi; Government Technical College, Esie/Iludun; Government Technical College, Ilorin; Government Technical College, Erin-Ile and Government Technical College, Amodu- Asungbolu) in Kwara State and 71 industrial managers in industries that employ technical college graduates in Kwara States, bringing the total number of subjects to 198. The entire population of technical teachers and industrial managers were used for the study; hence there was no sampling procedure.

The instrument for data collection was a structured questionnaire designed by the author and titled "Questionnaire on Expert Rating of Strategies for Improving Practical Skills' Acquisition by Technical College Students" (QERSIPSATCS). To ensure that the items in the instrument were valid, three experts in the Department of Technology and Vocational Education, Nnamdi Azikwe University, Awka conducted the face and content validity of the instrument. The reliability of the instrument was established using a Cronbach's alpha method. The author administered 24 respondents drawn from Government Technical College, Mopa and Abuja Electricity Distribution Company; Kabba both in Kogi State for the pilot study.

Results

Research Question 1. What are the teaching activities that could improve practical skills' acquisition by students in Technical Colleges in Kwara State?

Table 1.

Mean Ratings of Teachers' Activities that could Improve Practical Skills' Acquisition

SN	To what extent do teachers:	Mean	Remarks
1	Ensure proper integration of technical theory with practice	4.39	GE
2	Supervise their students during theory and practical lessons	4.49	GE

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3	Use demonstration method in teaching technical subjects	4.63	VGE
4	Make lesson interesting and lively by carefully selecting and utilizing teaching aids.	4.14	GE
5	Develop a check list of practical activities to be performed by the students	3.95	GE
6	State the purpose of planned activities clearly and specifically	3.86	GE
7	Make sure that the environment is conducive for teaching and learning activities	4.47	GE
8	List references which may be of value as resource materials	3.98	GE
9	Check students' progress and understanding by asking questions	4.13	GE
10	Correct any situation that is not getting across	4.04	GE
11	Use check- list or rating scale to observe students' ability to apply knowledge	3.16	GE
12	Make the degree of the test appropriate for the level of the class.	3.94	GE
13	Ensure that assignments done are submitted for marking and corrections	4.10	GE
14	Make students evaluation to reflect cognitive, affective and psycho-motor domains	3.83	GE
15	Provide activities which evoke learners' participation in the teaching- learning process	3.83	GE

The data in Table 1 showed that items 1,2,3,4,5,6 and 7 have mean rating values that are over 3.5. Others with mean rating above 3.5 are items 8, 9,10,12,13,14 and 15, with item 3 having the highest mean rating of 4.63. The mean ratings of these items are well above 3.5, they are therefore accepted. On the other hand, item 11 has mean rating of 3.16. This is less than 3.5 and it is therefore rejected as a teaching activity that could improve practical skills' acquisition.

Research Question 2. What are the students' activities that could improve practical skill's acquisition by students in Technical Colleges in Kwara State?

Table 2.
Students' Activities that could Improve Practical Skills' Acquisition

SN	To what extent do students:	Mean	Remark
16	Total involvement of students in both theory and practices	4.41	GE
17	Students co-operating together to do group assignments.	3.94	GE
18	Students exhibiting seriousness and devotion during SIWES programme to industries	4.35	GE
19	Students obeying school rules and GE regulation and have respect for authority	4.16	GE
20	Students asking questions for clarity	4.16	GE
21	Students having patience when faced with difficulties.	3.18	GE

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All the six items of students' activities were rated "Great Extent (GE)". The highest rated was item number 55 with 4.41 mean rating. The least rated was item number 60 with 3.81 mean rating. Because all the items have mean rating values of over 3.5, they are therefore accepted as students' activities that could improve practical skills' acquisition.

Hypothesis 1. Technical teachers and industrial managers do no differ significantly in their mean rating of teaching activities that could improve practical skills acquisition by students in technical colleges in Kwara State.

Table 3.
The t-test of Technical Teachers' and Industrial Managers' Rating on Teaching Activities

Respondents	N	Mean	SD	Df	t-cal	t-crit	Decision
Technical teachers	127	4.20	0.32	196	3.40	1.96	Reject
Industrial managers	71	4.00	0.43				

Table 3 showed that the mean for technical teachers was 4.2 and 4.0 for industrial managers. The standard deviations were 0.32 and 0.43 for technical teachers and industrial managers respectively. The degree of freedom was 196. The t-calculated value was 3.4 while the t-critical value was 1.96 at 0.05 level of significance. Since the t-calculated is greater than the t-critical value, the null hypothesis is therefore rejected and alternative accepted. This mean that there is a significant difference in the mean ratings of technical teachers and industrial managers on the teaching activities that could improve practical skills' acquisition by students in technical colleges in Kwara State.

Discussion

Based on the result obtained from the presentation and analysis of data, discussion of the major findings of the study are organized and presented to correspond with the research questions and composite hypotheses.

Respondents rated the use of demonstration method to teach technical subjects "Very Great Extent (VGE)". This finding agreed with Nwauzi, *et al,* (2021) who stated that 'opportunities must be provided for students to perform that skill they are taught in a setting that is related to the job skill learnt'. Also, Ogbuanya *et al,* (2017), revealed that most of appropriate teaching methods for teaching vocational technical education subjects were not used to teach students in the technical colleges. It is certain that without demonstration, only the intellect of the students would be developed to the neglect of the use of their hands, hence no practical skills would be acquired.

For a meaningful transfer of skills in technical colleges, the teachers should make sure that the environment is conducive for teaching and learning activities. Alexander (2013), observed that a conducive and healthy school environment shapes the attitudes which children develop toward the school as well as promotes teaching and learning.

Students should totally be involved in both theory and practice of the content. This is in agreement with Mendenhall (2007) who revealed that classroom success is only achieved by "learning into practice and practice to learning" Prasanna, (2016) also pointed out that content expertise and active teaching and learning will provide students the opportunity to become engaged learners and dynamic thinkers. Students asking questions in class plays an important role in the teaching and learning process. The process of asking questions by students allows them to resolve puzzlement and to articulate their current understanding of a topic. This is in agreement with

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Parkinson and Whitty (2022). they found out that the use of "tag questions" significantly aided student understanding of the material.

The t-calculated value was 3.4 while the t-table value was 1.960 at 0.05 (5%) level of significance. Because the t-calculated was greater than the t-table value, therefore the null hypothesis was rejected and the alternative accepted. Thus, there was a significant difference in the mean rating of technical teachers and industrial managers in the teaching activities that could improve practical skills' acquisition by students in technical colleges in Kwara State. What this ordinarily mean is that the industrial managers viewed the teaching activities as presently programmed as not enrich enough to saddle the technical college students with the necessary practical skills that are needed in the industries, hence their complaints.

Conclusions

This descriptive study is an eye opener for the technical teachers to always emphasize practical activities in imparting and acquiring practical skills. Demonstration method will help in improving practical skills of both technical teachers and students. Hence, school management should stock the technical college workshops and libraries with adequate modern facilities, materials, related text -books, journals and equipment operational manuals.

Recommendations

Based on the findings of this study, the following recommendations were made.

1. Technical college management should equip Technical College workshops and libraries with modern facilities, materials, journals and manuals.
2. Technical college administrators should emphasize to technical teachers the need to use demonstration method during practical lessons.

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