

A SURVEY OF THE FACILITIES FOR TEACHING WOODWORK TECHNOLOGY IN GOVERNMENT TECHNICAL COLLEGES FOR ENCOURAGING ENTREPRENEURIAL SKILL DEVELOPMENT IN NIGER STATE

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Abstract

This paper surveys the facilities for teaching woodwork technology in some selected technical colleges for encouraging entrepreneurial skill development in Niger State, Nigeria. It examined the state of woodwork equipment and facilities, the problems encountered by teachers and students is due to inadequate supply of equipment and facilities in the technical schools. The information considered was gathered by the use of questionnaire. The results obtained shows that majority of the technical colleges in Niger State have woodwork workshop. However, they are ill-equipped. Time allocation for teaching of the subject is inadequate. In some colleges, teachers have no free access to the available equipment and facilities. It is also revealed that absence of the equipment and facilities is a militating factor against students, excellent performance in the subject. The Parent Teachers Association always contribute their quota to the success of the subject. While, principals remain passive in the provision of teaching materials on the ground that ministry of education does not provide allocation for the purchase of such materials. Lastly, lack of qualified teachers in the schools under study affect the teaching and learning of the subject. Base on the findings and conclusion, it recommends that: Government should intensify effort in the provision of equipment and facilities for teaching woodwork, parents, the entire community and industries must be involved in the provision of equipment and facilities. Woodwork workshop should be made available and functional to all Technical Colleges.

Introduction

Vocational and technical education is an integral part of general education, a means of preparing for an occupational and entrepreneurial aspect of continuing education. The content of vocational and technical education must be related to the requirements of the labour market (FRN, 2004). Agbenta (1984) pointed out that the main purpose of studying these VTE courses is to enable the students acquire skills which could be useful to them if they decide to stop their formal education at this level.

Wood technology is one of the most important aspects of vocational technical education (VTE) courses. However, students interest in woodwork technology is very low compared to other VTE courses. Lack of interest in the subject is one of the major reasons, which could be traced to the fact that adequate facilities for the taking off of the subject are not provided.

The future of the developing countries like Nigeria depends on continue technological development, and this can only be achieved when our technical colleges students show keen interest towards technological subjects and the motivation of these students rest mainly on the quality of the facilities and teachers. The future development of Nigerian as a nation depends on the scientific and technological strengths for advancement and this can only be implemented by improving the standard of science and technology teaching in our technical colleges.

The national policy on education (FGN, 2004) emphasizes equal distribution of essential resources to our schools yet many of our schools are under equipped or not equipped at all. The woodwork technology equipments are still kept in their various containers in some technical colleges without being installed while other schools have no workshops. Agusiobo (1991) emphasized the importance of industrial laboratory as a vital requirement for an effective programme which requires a well defined instructional programme, a qualified teacher and sufficient instructional and consumable materials. Fafunwa (1992) reported that the lack of adequate facilities in schools is a major concern for ministry of education. Sushila (1981) found

out that there is strong and direct relationship between school resources and achievement. The number and size of classrooms and workshops, the availability of library, the percentage of graduate teachers correlate quite substantially with academic achievement. Folorunsho (2002) emphasized that the provision of adequate learning equipment is a vital to the production of well educated mind. In addition, Oladimeji (1999) reported that equipment in teaching makes learning interesting and comparatively easy. Fafunwa (1992) found that the physical facilities of the school which includes the buildings, furniture, instructional materials, workshops among others have great influence over academic performance in VTE. They found that schools with a shortage of these physical facilities will surely perform poorly academically when compared to schools with adequate supply of these physical facilities.

The mass failure always recorded in woodwork technology in the National Business and Technical Examination Board (NABTEB) can be traced to lack of facilities for teaching and learning of the VTE subject. Hence, there are needs for the survey of woodwork technology facilities in some technical colleges in Niger State.

Statement of the Problem

The state of woodwork equipment and facilities, the problems encountered by teachers and students is due to inadequate supply of equipment and facilities in the technical schools. They are ill-equipped. Time allocation for teaching of the subject is inadequate. In some colleges, teachers have no free access to the available equipment and facilities. The absence of the equipment and facilities is a militating factor against students' excellent performance in the subject. The Parent Teacher Association contribution is not significant to the success of the subject. While, principals remain passive in the provision of teaching materials on the ground that ministry of education does not provide allocation for the purchase of such materials. Lastly, lack of qualified teachers in the schools under study affects the teaching and learning of the subject. This study surveys the facilities for teaching woodwork technology in some selected technical colleges for encouraging entrepreneurial skill development in Niger State, Nigeria.

Research Questions

- (i) Are there enough equipments and facilities for teaching of woodwork technology in Niger State technical colleges that will encourage entrepreneurial development?
- (ii) Are the equipments and facilities available adequately used for teaching and learning of woodwork technology that will enhance entrepreneurial development?
- (iii) What influence does workshop facilities have on students' performance in woodwork technology subject for entrepreneurial skills?
- (iv) Are the available woodwork technology facilities and equipments enhancing teachers' performance in the teaching of the subject?

Methodology

The target population for the study comprises of all technical colleges students and teachers in Niger state. Fifty students and fifteen woodwork teachers were used for the study. Five technical colleges in Niger State that offer woodwork technology subject in their schools were selected.

The instruments used for collecting data was 'Teachers' and 'Students' Woodwork Facilities Questionnaire', which consist of fourteen and seven items for Teachers and students respectively. The teachers' questionnaire was designed to collect information on the type of workshop and equipment in their various schools. It also, investigate the importance and the role of woodwork facilities in technical colleges and whether shortage of woodwork teachers affects teaching and the learning of the subject as well as enhancing entrepreneurial skill development. It also find the information on the attitude of teachers' towards teaching of woodwork technology in the situation of inadequate tools, equipment and facilities and finally the attitudes of principals and parent teachers association towards promoting woodwork in the schools to encourage entrepreneurial skill development. The students questionnaire was basically designed to collect information from students on their view on the effect of shortage of woodwork facilities, as it

affects the students performance in technical colleges final examination and skill aquisition. It also finds out whether well equipped workshops enhance teaching and learning in principle and practice. The questionnaires were administered to all the selected woodwork technology teachers in the colleges.

Decision Rule

To determine the acceptance, a mean score of 2.5 was selected as the deciding point between agree and disagree. In other words any response with a mean of 2.5 and above is considered as acceptable while response below 2.5 was considered being rejected. Results

Research Question 1: Are there adequate equipments and facilities for teaching of woodwork technology in Niger State technical colleges for encouraging entrepreneurial skill development?

Table 1: Response on availability of adequate equipment and facilities for teaching woodwork technology for encouraging skill development

S/No	Questionnaire Item	Respondents				Mean	Decision
		HA	A	IA	HIA		
1	There is woodwork workshop in your school for conducting practicals	9	3	1	2	3.3	Agree
2	The woodwork shop is adequately equipped with tools and equipments for practicals	4	3	2	6	2.3	Disagree
3	The machines in the woodwork workshop are functioning to provide practical skills	2	3	2	8	1.9	Disagree
4	The time allocated for practical teaching of woodwork is adequate	3	2	7	3	2.3	Disagree
5	There is source of power in your school workshop to operate the machines(practicals)	-	-	-	15	4.0	Agree
6	The woodwork workshop have adequate basic hand tools for skills acquisition	-	3	2	10	1.5	Disagree

- Highly Adequate HA
- Adequate A
- Inadequate IA
- Highly Inadequate HIA

Table 1 shows that with a computed mean of 3.3 of the respondents as agreed majority of technical colleges in Niger State are provided with woodwork workshop while is quite obvious that all the workshops are ill-equipped with the mean score of 2.3 for meaningful practical in skill development.

The Table 1 also revealed that the machines in most of the schools under survey are not functioning with mean score of 1.9. The table exposed the poor time allocation for practical teaching of woodwork technology in technical colleges in Niger State. Majority of the respondents which represent a mean score of 2.3 agreed to it, while very few respondents are of the opinion that there is enough time allocation for teaching of woodwork practicals. It is noted from the table that, all the technical colleges in the state under study, have source of power to their school workshops with mean score of 4.0 which can enhance practical skills.

Finally the table shows that the woodwork technology workshops are not equipped with adequate hand tools. The above analysis therefore indicated that there is no adequate equipment and facilities for teaching woodwork technology technical colleges in Niger State for enhancing entrepreneurial skill development after graduation as a source of earning a living.

Research Question 2: Are the equipments and facilities adequately used for teaching and learning of woodwork technology?

Table 2: Response on utilization of available of equipment and facilities for teaching woodwork technology

S/No	Questionnaire Item	Respondents				Mean	Decision
		HA	A	IA	HIA		
7.	Principal always make fund available for the purchase of practical materials	3	2	3	7	2.1	Disagree
8.	You have access to the available equipment whenever they are needed for practicals	7	3	2	3	2.9	Agree
9.	The parent teachers association (P.T.A.) shows much concern on the provision of woodwork equipment and facilities in your school for practicals	8	2	3	2	3.1	Agree
10.	The available equipment, tools and instrument are always put into use whenever you have woodwork shop practice	7	2	4	2	2.9	Agree

From Table 2 above, it can be seen that majority of the respondents disagreed that principals always make fund available for the purchase of materials for practical teaching. There were no adequate funds for woodwork shop practice like other areas. The little allocation provided by the ministry is shared between all the departments to purchase priority items. This can be seen in the mean response of 2.0

The table also revealed that the respondents have access to the available equipment in the workshop whenever they need them with mean score of 2.9. However, some respondents disagreed with the statement, with the following reasons.

The table 2 also shows a computed mean of 3.1 that, the parent teacher Association (PTA) always shows much concern on the provision of woodwork technology equipment and materials. Finally, the table revealed that the available equipment, tools and instruments are used whenever the need arises with the mean score of 2.9. Hence, the analysis showed that, principals are handicapped of providing materials for the teaching of the subject practical. However, the parents always show their concern for the provision of the materials and facilities. The analysis also shows that equipment and facilities are available for teaching of woodwork technology in Niger State Technical colleges for encouraging skill acquisition and entrepreneurial skill development in Niger State.

Research Question 3: What influence does workshop facilities have on students' performance in woodwork technology for skill acquisition.

Table 3: Response on the influence of workshop facilities on students' performance in Woodwork practice

S/No	Questionnaire Item	Respondents				Mean	Decision
		HA	A	IA	HIA		
11.	Lack of facilities affect student performance in woodwork in your school.	6	5	3	1	3.1	Agree
12.	Shortage of qualified woodwork teachers	8	1	3	3	3.1	Agree

	affects the teaching and learning of the practicals in your school.						
13.	Teachers are more interested in teaching woodwork when equipment and facilities are adequately made available.	5	7	1	2	3.0	Agree
14.	Teachers perform better when they are well equipped with the necessary equipment and facilities.	4	5	4	2	2.7	Agree

Table 3 shows that respondents agreed to the opinion that lack of facilities affects the students performance in learning woodwork subject. They also agreed that shortage of woodwork teachers affects the teaching and learning of the subject with mean score of 3.0 and 2.7 respectively.

The table also revealed that teachers are more enthusiastic in teaching woodwork with equipment and facilities being made available.

The table also revealed with mean score of 3.0 that teachers are more enthusiastic in teaching woodwork technology with equipment and facilities being made adequately available, and that teachers performed better when they are well equipped with necessary equipment, a mean score of 2.7 testify to the statement.

From the table 3 above, it can be analyzed that inadequate facilities and shortage of qualified teachers affects both performance of the students and teaching of the subject. Also teachers are stimulated towards teaching of woodwork and performed better when they are well equipped with the necessary facilities for skills acquisition and entrepreneurial development

Research Question 4: Are the available woodwork technology facilities and equipments enhancing teachers' performance in the teaching of the subject?

Table 4: Response on the influence of workshop facilities on teacher' performance in teaching the subject

S/No	Questionnaire Item	Respondents				Mean	Decision
		HA	A	IA	HIA		
15.	Teachers are more interested in teaching woodwork technology when equipment and facilities are adequately available.	35	5	3	7	3.7	Agree
16.	Teachers perform better when they are well equipped with the necessary equipment and facilities.	27	11	8	4	3.2	Agree
17.	The school authority is usually concerned on the provision of woodwork equipment and facilities.	11	7	24	8	2.1	Disagree
18.	The Parent Teachers Association (P.T.A.) shows much concern on the provision of woodwork equipment and facilities.	25	10	11	4	3.1	Agree
19.	Absence of woodwork technology facilities makes many students to fail woodwork in their NABTEB examination.	17	20	10	3	3.1	Agree
20.	A well equipped woodwork technology enhances the teaching and teaching of the subject in your school.	16	18	10	6	2.9	Agree
21.	Adequate equipment and facilities encourage teaching of woodwork technology programme	14	16	12	8	2.7	Agree

The Table 4 revealed that teachers show much interest in teaching woodwork technology when the equipment and facilities are adequately available with a mean score of 3.7. Also with a mean score of 3.2 the respondents agreed that teachers perform better when they are well equipped with the necessary equipment and facilities.

The table 4 also revealed that the school authority is not usually responsible for the provision of woodwork technology equipment and facilities with a computed mean of 2.1 that, however, the Parent Teachers Association shows much concerns on the provision of woodwork technology facilities and equipment. A mean score of 3.1 justify the statement. Majority of the respondents agreed that absence of woodwork technology facilities contribute a lot to the failure of students in the subject in their final NABTEB examination also with mean score of 3.1.

Finally, the table shows that a well equipped woodwork technology workshop with adequate facilities enhances the teaching and learning of the subject mean score of 2.9 and 2.7 respectively indicate the respondents agreement.

The analysis, clearly shows that availability of woodwork technology facilities and equipment stimulate teachers performance in the teaching of the subject as well as students in learning the students.

Discussion of findings

The discussion for this study is based on the preceding results obtained in table 1, 2, 3 and 4. From the results of the survey it has been revealed that, all the technical colleges in Niger State have woodwork technology workshop. However, the survey also indicates that the workshops are ill-equipped. The survey revealed that in spite of the inadequate source of power supply, the available machine in the workshop are not functioning and that time allocated for practical teaching of woodwork technology are not sufficient for the effective and efficient teaching of the subject. The findings also indicated that there are no adequate tools for the woodwork technology.

The survey reveals that principals are handicapped of making fund available for the purchase of materials for practical teaching. However, the PTA shows much concern on the provision of woodwork technology equipment and facilities. It also reveals that the available equipment, tools and facilities if adequately used will enhance teachers performance and that teachers perform better when they are well equipped with the necessary equipment and facilities. Why lack of it and shortage of qualify wood work technology teachers hinder the effective teaching and learning of the subject.

Finally, the survey indicates that absence of woodwork technology facilities is a contributing factors to the failure of students in the subject. It can therefore be concluded that woodwork technology workshop, equipment and facilities are of great importance in imparting technological concepts to the students. Hence the provision of the equipment and facilities for the technical colleges is imperative and the necessity cannot be over emphasized.

Conclusion

The following conclusions were drawn on the basis of the findings from this study: That there are many factors militating against teaching and learning of woodwork technology in technical college in Niger State covered by the study. These factors include lack of enough equipment and facilities, for teaching woodwork technology, inadequate time allocation for teaching of the subject, inaccessibility to the available equipment and facilities in some schools. While in some schools the PTA shows it concern for the provision of woodwork technology equipment and facilities, parents of few other colleges developed poor attitudes towards the subject. Though all the schools under survey have source of power, but not all machines have been installed. Some machines were still kept in the container.

Recommendations

Based on the findings and conclusion in this study, the following were recommended:

- (i) Government should intensify efforts in the provision of equipment and facilities for teaching of woodwork technology so that students can benefit greatly from laudable programme of 6-9-4 which is the basis for the nation technological development as well as skill acquisition for self reliance.
- (ii) Parents, the entire community and industries who enjoy the output of the schools must be involved in the provision of woodwork technology equipment and facilities in technical colleges, so that the graduates would be more productive to the society.
- (iii) Enough time should be allocated for the teaching of both theoretical and practical aspect of the subject to acquire skills for entrepreneurial development.
- (iv) Woodwork technology workshop should be made available and functional to all students and teachers for practice and skill acquisition as the saying "practice makes perfect"
- (v) Woodwork technology teachers should be given free accessibility to the available equipment and facilities to improve themselves on the practicals before impacting to the students.
- (vi) Workshops/seminars should be organized regularly for principals, parents and teachers to create awareness of the importance of woodwork technology as the bases for entrepreneurial skill development.
- (vii) Efforts should be intensified in building standard woodwork technology workshop in technical colleges that have no workshop and install all the machines kept in containers.
- (viii) More qualified woodwork technology teachers should be employed.
- (ix) Woodwork teachers usually make special request for some of the equipment and tools from the principal through the head of department, before they could lay their hands on them whenever they need them. In most cases, the bureaucracy inhibits effective use of this equipment. It is also gathered that most of the equipment, tools and instruments are locked up in special stores for security purpose. Therefore, woodwork teachers should have access to these equipment and tools as at when due.

Finally, it can be concluded that if the recommendations are strictly implemented the low performance and failure of students in woodwork technology will become an issue of the past. Also teachers effectiveness would be enhanced to acquire more skills for self reliant.

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