Mechanisms for Improving the Provision of Facilities for Wood Workshops in Colleges of Education in the North Central Zone of Nigeria

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Abstract
The study was designed to determine the mechanisms for improving the provision of facilities for wood workshops in colleges of Education in the North central zone of Nigeria. Three research questions were postulated to guide the study. A descriptive survey research design was adopted for the study. A structured questionnaire was used to gather data from the population of seventy one respondents that were within the zone. Mean and standard deviation were used to answer the research questions while t-test statistics was used to test the hypotheses at the 0.05level of significance. Kuder Richardson k – R 21 formula was used to determine the reliability of the instrument. The reliability coefficient of the instrument was found to be 0.84. The major findings of the study were: Involving Technical Education Students Association in constructing woodwork benches for practical and money generated through sales of items produced by the department be used for purchase of consumable materials for practical. Involve Parents that are technical workers in the construction of wood workshops. Recommendations were made based on the findings of the study which include internally generated revenue of the department should be used for providing consumable materials for students’ practical pending the subvention from the government. Administrators of Colleges of Education should utilize these mechanisms for providing facilities for wood workshops instead of relying on government subvention alone.

Keywords: consumable, equipment, facility, mechanism, woodwork, technical education

INTRODUCTION
Woodwork technology education requires ample provision of facilities for effective instruction. It is evident that woodwork technology education as a course of study cannot be successful if facilities are sparsely provided. The essence of offering woodwork technology as a course in technical education programme is to help learners acquire skills that will enable them to be enterprising and self reliant. Umar and Ma’aji (2011) explained that Colleges of Education in Nigeria train people to acquire a particular skill in order to earn a living. This training qualifies them for jobs in public and private sector of economy. In the course of production training, students master the knowledge and skills required in the given occupation by using modern equipment and the latest working methods (http://encyclopediaz.thefreedictionary.com/vocational – technical+education). Dorothy (2001) cited in Akinbileje (2006) stated that inadequate training facilities has made teachers to take to oral exposition which has forced learners to adopt memorization as their method of learning at the expense of understanding and possessing required competencies. Therefore, during lessons teachers are forced to improvise instructional materials that are within their ability. The Parent Teachers Association is made up teachers of a school and parents or guardians of students in that school and they respond towards the provision of infrastructure in some secondary schools (Magit & Pam, 2000). Okwori (2002) explained that Technical Education Students Association is an association made of Students in technical education department. It exists only in tertiary institutions such as College of Education, Polytechnic and university. The objective of the association is to foster unity among students of the department, share ideas that can lead to professional growth and contribute to the development of technical education in Nigeria. Therefore, they can assist in facility provision for wood workshops. A study was conducted on strategies for improving facility provision for workshops in technical education with less reliance on government grant and it was discovered that individuals and private agencies could be used for that purpose (Mamman, 2006). In the same vain, Daudu (2006) identified other ways of improving facilities for workshops in technical education departments without relying on government and such sources include involving community where the school is located and using Associations. He mentioned that these associations can be asked to support by donating tools and machines. Edache (2001) stressed that diversifying means of improving
facilities in technology education workshops is essential since it will be a mirage for any country to develop economically without the programme (technology education). Colleges of Education in the North central zone require workshops, equipment and consumable materials in order to improve the practical skills of woodwork students. The mission of woodwork technology education as an essential educational programme with structured practical courses has not been fully realized due to inadequate facilities in wood workshops (Makama & Pondu, 2006).

It may be necessary for administrators of Colleges of Education in the North central zone to be creative especially in the use of various mechanisms for improving the provision of facilities for wood workshops instead of relying on government alone. Availability of facilities in wood workshops will eventually lead to the improvement in the teaching and learning of woodwork especially in the aspect of acquisition of practical skills by woodwork students. The present situation of wood workshops in Colleges of Education in the North central zone of Nigeria is pathetic. The decay of teaching/ learning facilities in Colleges of Education in Nigeria has greatly rendered the system in active (Akinbileje, 2006). The most disturbing phenomenon is that lecturers in these Colleges of Education borrow tools, machines and materials from works department of their colleges and woodworkers in the town to teach students. At times these people feel reluctant to release these facilities. Inadequate training facilities make students not to acquire practical skills that would enable them get useful employment after graduation. This problem occurs as a result of over reliance on government. Federal and state government alone cannot cope with the demands of technology education so other avenues has to used to support government effort (Okworl, 2002).When different mechanisms are utilized for improving the provision of facilities for wood workshops, the problems of inadequate training facilities would be greatly reduced if not totally solved.

PURPOSE OF THE STUDY
The purpose of the study is to ascertain mechanisms for improving the provision of facilities for wood workshops in the department of technical education of colleges of Education in the North central zone. Specifically, the study sought to:

1. Determine the ways Parent Teachers Association could assist towards improving the provision of facilities for wood workshops in Colleges of Education.
2. Find out ways Technical Education Students Association in the department could aid in improved facilities provision for wood workshops in Colleges of Education.
3. Find out how internally generated revenue of the colleges could assist in facilities provision for wood workshops.

Research Questions
The following research questions were used for the study.

1. What are the ways Parent Teachers Association could assist in improving facilities for wood workshops in Colleges of Education?
2. What kind of assistance could Technical Education Students Association of the department render in improving facilities provision for wood workshops in Colleges of Education?
3. In what way could internally generated revenue of the colleges assist in improving facilities provision for wood workshop?

METHODOLOGY
The study adopted descriptive survey research design due to the nature of the problem investigated. The study was carried out in the North central zone which comprised of Benue, Plateau, Nasarawa, Niger, Kogi and Nasarawa State. The Colleges of Education that were involved in the study within the zone include College of Education, Ankpa, Kogi State; College of Education, Akwa, Nasarawa State; College of Education, Katsina- Ala, Benue State; College of Education (Technical) Lafiagi in Kwara State; College of Education, Minna, Niger State; College of Education, Oju, Benue State and Federal College of Education, Pankshin, Plateau State.

There were ten Colleges of Education in the North Central zone and seven colleges out of them offered woodwork education. The population for the study was drawn from the seven colleges of Education that offered woodwork education. The population for the study comprised of provosts of colleges of Education; Dean of school of vocational and technical education; Heads of departments of technical education and woodwork lecturers in the North Central Zone. Therefore, seventy three respondents were used for the study. This was the total population of the respondents within the zone and all was used for the study. The information regarding the population for the study was received from each school by the researcher through personal visit and two research assistants were used. The choice of the respondents was based on the familiarity of the respondents with the methods of acquisition of facilities for wood workshops in Colleges of Education. There was no sampling since all the people (respondents) involved in the study were used. This was because the respondents were few within the zone.
The instrument was face validated by three experts in the department of Industrial and Technology Education, Federal University of Technology, Minna, Niger state, Nigeria, to structure and arrange the items. A corrected version reflecting the experts’ advice was used to draft the final copy.

A pilot testing of the questionnaire was carried out with fifty respondents (woodwork teachers and administrators) of the colleges of Education in eastern Nigeria using test–retest. To check the reliability of the instrument, Kuder Richardson KR-21 formula and was used to test the reliability of the instrument and a reliability Coefficient of 0.84 was obtained.

The questionnaire was used for the study and it contained sixteen items. Section A had five items on Parent Teachers Association. Section B contained information on Technical Education Students Association of the department and it had five items. Section C contained information on internally generated revenue and it had six items. Each statement on mechanisms for improving facilities provision for workshops had five rating scale of strongly agree (SA) 5 points; Agree (A) 4 points; Moderately Agree (MA) 3 points; Disagree (DA) 2 points and Strongly disagree (SD) 1 point.

In order to ensure timely and maximum return of the copies of the questionnaire, the instrument was administered by the researcher himself and two research assistants. This was to ensure effective administration and retrieval of the instrument. Out of seven three questionnaires given out, seventy one were returned i.e; 97% return rate.

The research questions were answered using mean and standard deviation while t-test statistics was used to test the null hypothesis at the .05 level of significance. The items with mean score of 3.5 and above were regarded as acceptable while items with mean score below 3.5 were rejected. The items with 3.5 and above was regarded as acceptable because 3.5 is the lower limit of agree when 5 points rating scale is used. Hypotheses were accepted when t-calculated were less than the t-table value of 1.64 while hypotheses were rejected when t-calculated were more than t-table value of 1.64.

**RESULTS AND DISCUSSION**

<table>
<thead>
<tr>
<th>S/NO</th>
<th>STATEMENT</th>
<th>M</th>
<th>SD</th>
<th>DECISION</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>PTA levy for improving facilities for wood workshops.</td>
<td>4.00</td>
<td>0.98</td>
<td>Agree</td>
</tr>
<tr>
<td>2</td>
<td>Individual parent to undertake project such as building spraying unit for wood work section.</td>
<td>2.94</td>
<td>0.78</td>
<td>Disagree</td>
</tr>
<tr>
<td>3</td>
<td>Involve PTA to donate tools and machines to wood workshops.</td>
<td>4.34</td>
<td>0.84</td>
<td>Agree</td>
</tr>
<tr>
<td>4</td>
<td>Involve Parents that are technical workers in the construction of wood workshops.</td>
<td>4.01</td>
<td>0.95</td>
<td>Agree</td>
</tr>
<tr>
<td>5</td>
<td>Involve PTA in the supply of consumables for practical lesson.</td>
<td>3.82</td>
<td>1.30</td>
<td>Agree</td>
</tr>
</tbody>
</table>

Note. N= 71

The result shows that all the items had mean score greater than 3.5 except item 2 which means individual parent should not undertake building of spraying unit for wood workshops. The data disclosed that respondents agreed with item 6, 7, 8 and 10 and disagreed with item 9. Therefore, responses received discourage technical education students Association from fuelling college vehicle and cater for other charges for excursion.

<table>
<thead>
<tr>
<th>S/NO</th>
<th>STATEMENT</th>
<th>M</th>
<th>SD</th>
<th>DECISION</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>Donating generating plant to wood workshop.</td>
<td>4.31</td>
<td>0.89</td>
<td>Agree</td>
</tr>
<tr>
<td>7</td>
<td>Donating vehicle to wood workshop.</td>
<td>4.06</td>
<td>0.96</td>
<td>Agree</td>
</tr>
<tr>
<td>8</td>
<td>Donating hand tools and machines to wood workshop.</td>
<td>4.06</td>
<td>1.01</td>
<td>Agree</td>
</tr>
<tr>
<td>9</td>
<td>Building wood workshops.</td>
<td>2.97</td>
<td>1.19</td>
<td>Disagree</td>
</tr>
<tr>
<td>10</td>
<td>Constructing work benches for practical.</td>
<td>3.70</td>
<td>1.34</td>
<td>Agree</td>
</tr>
</tbody>
</table>

Note. N= 71

With reference to the responses received in table 2, respondents agreed with all the items except item number 9, this means Technical Education Students Association shouldn’t build wood workshop for the department.

It was discovered from the analysis of the data that respondents agreed with items 11, 12, 13, 15 and disagreed with item 14. This means the interest on college bank deposit should not be used for providing equipment for wood workshops.
Testing Hypotheses: Two hypotheses were tested as part of the study. The data collected for the study were used for testing the hypotheses.

Hypothesis 1: There is no significance difference in the mean responses between lecturers in federal college of Education and State college of Education with respect to ways philanthropists/philanthropic organizations assist in improving the provision of facilities for wood workshops. The result revealed that the calculated for item number 1 to 3 (PTA levy for improving facilities for wood workshops, individual parent to undertake project such as building spraying unit for wood work section and involve PTA to donate tools and machines to wood workshops) were less than the table value ($p<0.05$) which disclosed that there is no significant difference while the $t$-calculated for item number 4 and 5 (Involve Parents that are technical workers in the construction of wood workshops and supply of consumables for practical lesson) were more, which means that there is significant difference. The null hypothesis was rejected. Data verifying the above hypothesis is contained in Table 4.

Hypothesis 2: There is no significant difference in the mean responses between lecturers in Federal College of Education and States College of Education in relation to the assistance rendered by Technical Education Students Association for improving facilities provision for wood workshops. Data verifying the hypothesis are contained in Table 5.

### Table 3: Means and standard deviations of the responses on internally generated revenue of the college

<table>
<thead>
<tr>
<th>S/NO</th>
<th>STATMENTS</th>
<th>$M$</th>
<th>$SD$</th>
<th>DECISION</th>
</tr>
</thead>
<tbody>
<tr>
<td>11</td>
<td>Generating money through consultancy services to buy tools and machines.</td>
<td>4.47</td>
<td>0.91</td>
<td>Agree</td>
</tr>
<tr>
<td>12</td>
<td>Generating money through sales of items produced by the department for purchase of materials for wood workshops.</td>
<td>4.53</td>
<td>0.5</td>
<td>Agree</td>
</tr>
<tr>
<td>13</td>
<td>Organizing launchings/ appeal fund by Colleges for purchase of equipment for wood workshops.</td>
<td>4.17</td>
<td>1.02</td>
<td>Agree</td>
</tr>
<tr>
<td>14</td>
<td>Use interest on college bank deposit to provide some equipment for wood workshops.</td>
<td>3.16</td>
<td>1.07</td>
<td>Disagree</td>
</tr>
<tr>
<td>15</td>
<td>Generating money through social activities such as technical week, conferences, workshops, etc. for providing materials needed in wood workshops.</td>
<td>4.03</td>
<td>0.99</td>
<td>Agree</td>
</tr>
<tr>
<td>16</td>
<td>Use of tuition fee to provide equipment for wood workshops.</td>
<td>3.63</td>
<td>1.23</td>
<td>Agree</td>
</tr>
</tbody>
</table>

Note. $N=71$

Individual parent to undertake project such as building spraying unit for wood work section and involve PTA to donate tools and machines to wood workshops were less than the table value ($p<0.05$) which disclosed that there is no significant difference while the $t$-calculated for item number 4 and 5 (Involve Parents that are technical workers in the construction of wood workshops and supply of consumables for practical lesson) were more, which means that there is significant difference. The null hypothesis was rejected. Data verifying the above hypothesis is contained in Table 4.

### Table 4: Summary of $t$-test on ways Parent Teachers Association could assist in improving the provision of facilities for wood workshops

<table>
<thead>
<tr>
<th>Statement</th>
<th>Federal College of Education</th>
<th>State Colleges of Education</th>
<th>$t$</th>
<th>$p$</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>4.83 16 0.38 4.5 57 0.50</td>
<td>1.27 0.05</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>4.5 16 0.55 4.07 57 0.69</td>
<td>1.34 0.05</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>4.67 16 0.52 4.12 57 0.89</td>
<td>1.25 0.05</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>4.67 16 0.52 4.09 57 0.96</td>
<td>1.76 0.05</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>4.5 16 0.55 3.66 57 0.97</td>
<td>2.55 0.05</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note. Key: $t$-table value = 1.64, $N1=$ Number of respondents in Federal College of Education = 16
$N2=$ Number of respondents in State College of Education = 57.
Level of significance $p<0.05$, $df=71$

The data shows that $t$-calculated for item number 9 and 10 (Building wood workshops and constructing work benches for practical) were less than $t$-table value ($p<0.05$).

There is no significant difference. The null hypothesis was accepted but the $t$-calculated for item number 6, 7 and 8 (Donating generating plant to wood workshop, donating vehicle to wood workshop and building spray unit for wood workshop) were more than $t$-table value ($p<0.05$) which shows that there is significant difference. The null hypothesis was rejected.

### Table 5: Summary of $t$-test on assistance rendered by Technical Education Students Association wood workshops

<table>
<thead>
<tr>
<th>Statement</th>
<th>Federal College of Education</th>
<th>State Colleges of Education</th>
<th>$t$</th>
<th>$p$</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>4.83 0.38 16 4.01 0.89 57</td>
<td>2.93 0.05</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>5.00 0.00 16 4.19 0.89 57</td>
<td>1.80 0.05</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>4.67 0.52 16 3.93 0.75 57</td>
<td>2.31 0.05</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>3.00 1.41 16 2.97 1.21 57</td>
<td>0.06 0.05</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>3.83 0.91 16 3.76 0.94 57</td>
<td>0.17 0.05</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note. Key: $t$= Table value = 1.64

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FINDINGS

Below are the findings of the study.

1. PTA levy for improving facilities for wood workshops.
2. Involve PTA to donate tools and machines to wood workshops.
3. Involve Parents that are technical workers in the construction of wood workshops.
4. Involve Parents that are technical workers in the construction of wood workshops.
5. Involve PTA in the supply of consumables for practical lesson.
6. Donating generating plant to wood workshop.
7. Donating hand tools and machines to wood workshop.
8. Constructing work benches for practical.
9. Generating money through sales of items produced by the department for purchase of materials for wood workshops.
10. Organizing lauchings/ appeal fund by Colleges for purchase of equipment for wood workshops.
11. Generating money through social activities such as technical week, conferences and workshops for providing materials needed in wood workshops.
12. Use of tuition fee to provide equipment for wood workshops.

DISCUSSION

Based on the data generated in this study, it was discovered that if these mechanisms are employed for improving facilities provision for wood workshops then, there will be abundant equipment and consumable materials for students practical. There is a need wood workshops are adequately equipped so that students can acquire practical skills expected in the labour market. It has become apparent that the oil boom has gone an it is left for individual institutions to scout for alternative sources of improving facilities provision for wood workshops such as commercializing research results of schools for purpose of purchasing facilities for schools is essential Edache (2001). In the same vain, Nwoye (1998) disclosed levies and sales of application forms are also sources of revenue for colleges of Education which can be used in providing facilities of their wood workshops. The gap in educational development between the southern and northern part of Nigeria will continue to be widened if a move to check the situation is not initiated. Daudu (2006) disclosed other ways of improving facilities for workshops in technical education departments without relying on government and such sources include involving community where the school is located and using Associations. Therefore, the efforts of educational administrators in the north is very vital if education in the North has to change (Atiku, 2002). Colleges of Education in the North central zone of Nigeria should strive to produce men and women who can use their hands and brains with equal dexterity and pride. This can be achieved with effective training from school which can not take place without equipment and materials necessary for teaching and learning.

CONCLUSION

Based on the data generated in this study, the conclusion was made that Parent Teachers Association has to contribute to woodwork education in terms of providing facilities so that their children would benefit from education especially with regards to practical skills acquisition to enable them to be self-reliant or take up employment with government or industries. There is a need to utilize the internally generated revenue of the colleges for purchasing simple hand tools and consume materials for practical purpose so that students can benefit from the training they received in school. Technical Education Students Association can assist in donating some tools to wood workshops through annual dues collected. This can boost the equipment in the workshop. Bendet (2001) postulated that the youth employment and vocational skills acquisition are part of the core programmes of the present administration in Nigeria. These programmes are targeted at alleviating the scourge of mass unemployment in Nigeria. They are also meant to inculcate the ethos of self-employment which is a stand in Nigeria’s tripod of economic reconstruction, self-reconstruction, self-reliance and social justice. The nation will swim or sink depending on our individual contributions. Technology education programme especially woodwork education must be encouraged and sustained. Any college of Education that neglects the development of woodwork education does it at the detriment of the students and the society in general since it will make the country to lack workforce in that area.

RECOMMENDATIONS

Based on the results of this study, the following recommendations were made:

1. Colleges of Education should organize lauchings/ appeal fund from time to time, for instance, every five years to provide facilities for wood workshops.
2. Technical Education Students Association should be involved in providing facilities for wood workshops so that the students can benefit from the training they are receiving in terms of practical skill acquisition.

\[
N' = \text{Number of respondents in Federal College of Education} = 16 \\
N'' = \text{Number of respondents in State Colleges of Education} = 57 \\
df = 71, \text{Level of Significance} = P < 0.05
\]
3. Internally generated revenue of the department should be used for providing consumable materials for students practical at the beginning of each semester pending the subvention from the government.

4. Administrators of colleges of Education should utilize these mechanisms for providing facilities for wood workshops instead of relying on government subvention alone.

REFERENCES


