



**AN APPRAISAL OF AVAILABILITY OF HUMAN AND MATERIAL RESOURCES
FOR TEACHING AND LEARNING OFFICE TECHNOLOGY AND
MANAGEMENT COURSES IN POLYTECHNICS IN ADAMAWA STATE,
NIGERIA**

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Abstract

The purpose of this study was to examine the availability of human and material resources for teaching and learning Office Technology and Management courses in polytechnics in Adamawa State. The study had two specific purposes from where two research questions were raised and two null hypotheses were formulated and tested. The design of the study was descriptive survey design. The population of the study was 57 lecturers and 363 students which were drawn from Federal Polytechnic Mubi and State Polytechnic, Yola in Adamawa State. A simple random sampling technique was used to determine the sample of 201 lecturers and students for the study. A structured questionnaire of 35 items was used to collect data and the data collected were analyzed using means and standard deviation to answer the research questions, the hypotheses were tested using t-test analysis at 0.05 level of significance. The major findings of the study among others there were very low human and material resources used in teaching and learning OTM Courses in both Federal and State polytechnics in Adamawa State. It was concluded that required human and material resources for teaching and learning office technology and management courses are not adequately available, and where they are available, they are under-utilized, while the available human resource are over-utilized. The researchers recommended that the government and management of Polytechnics should ensure that they make available adequate number of qualified human resources for both academic and non-academic staff. This can be achieved through adequate budgetary allocation for the provision of material resources.

Keyword: *Human, Material, Resources, Teaching, Learning, Office Technology and Management.*



Introduction

Office Technology and Management Programme (OTM) as a course of study in Polytechnics is recognized as a tool for economic and social empowerment of any nation. Section 1 of the Nigeria National Policy on Education (FGN, 2013) states that there is the need for functional education to be relevant, practical and built towards the acquisition of skills for the development of the entire society. This implies that teaching and learning, especially in Polytechnics have to be geared towards inculcating values, acquisition of skills and competencies necessary for social, cultural, economic and technological development.

Office Technology and Management Programme is the Office Education programme in the Polytechnic, which used to be Secretarial Studies Programme. The change was approved in 2004 by National Board for Technical Education (NBTE), which is the supervisory body of Polytechnics in Nigeria. This change necessitated a comprehensive review of the curriculum. The new objectives, theoretical and practical contents of the new curriculum were geared towards integrating students of OTM programme into the evolution of technology. The programme in Polytechnics could be seen as a curriculum response to the demand of changes in technology and indeed computerized workplace, which is aimed at the production of highly proficient breeds of office administrative personnel that would coordinate high office information systems, and provide technical skills in discharging their office duties. The introduction of the programme came in line with NPE (2013) that emphasizes the provision and acquisition of appropriate skills, abilities and competencies both mental and physical that will help individual to live and contribute to the development of the society.

Baba and Akaraha (2012) stated that a review was necessitated by the fact that the skills, attitude and knowledge previously acquired in the course of the study were inadequate to arm today's graduate secretaries or office technologist with the competencies needed to adjust to the rapidly changing needs of the office. The success of any school programme implementation depends on the teaching and learning capabilities of the department concerned and indeed the academic institution at large. Teaching can be seen as an attempt to help someone to acquire or change some skills, attitude, knowledge and idea. The teachers' task is to create



desirable changes in behaviour tendencies toward behaviour in students. The goal of teaching is to bring about the desired learning in students. According to Vin-Mbah, (2012) teaching is an all-purpose profession engaged in human resource development for individual and economic growth, teaching is always associated with learning.

Gidado, Abdullahi and Adamu (2015) opined that teaching and learning contribute toward generation, transmission and application of knowledge which are the focal point of nation's educational objectives. Gidado, Abdullahi and Adamu further stress that the productivity of teachers and the skills acquired by the learners also determine the country's educational standard. Learning is about a change, the change brought about by developing new skills, change in attitude for individual and societal development.

Ogaga, Igori and Egbodo (2016) viewed learning as a complex process, that can be defined as a change in disposition, a relatively permanent change in behavior overtime and that is brought about by experience. Learning can occur as a result of newly acquired skill, knowledge, perception, facts, principles, new information at hand, which can be achieved through adequate availability and utilization of human and material resources.

Availability of human and material resources in academic institutions such as polytechnics would contribute immensely in achieving the goals and objectives of teaching and learning of any programme of study. The utilization of the human and material resources in teaching and learning will also count a lot in achieving a successful implementation of any programme of study in the polytechnics such as Office Technology and Management. According to Uwaifo (2009), utilization of instructional materials makes teaching and learning of subjects more practical and effective. Utilization of human and material resources gives correct representation to the abstract ideas, thereby making their meanings clearer.

Going by the above observations one will deduce that Office Technology and Management Programme can only be effectively implemented with adequate availability of both human and material resources. However, it is observed that the



nation's polytechnics are struggling with limited resources and dilapidated or outdated teaching and learning materials coupled with inadequate qualified human resources. Acharu and Solomon (2014) support the above assertion that, one of the major challenges facing the Polytechnics is inadequate human resources, materials resources, infrastructural facilities and the continuous breakdown and deterioration of the few existing facilities for teaching of OTM courses which has affected students' academic achievement.

Ugwuanyi and Eze, (2013) observe that availability relates to how much teaching and learning materials are on hand, to which teachers and learners have access. It refers to the condition of being obtainable or accessible at a particular point in time. Equally, it expresses how resources can easily be gotten and used for a particular purpose. Human and material resources such as qualified lecturers/instructors, supporting staff, computers and other office technologies have been observed as a potent factor to qualitative and quantitative education. Owoye and Yara, (2011) stated that the importance of provision of Human and Material Resource for teaching and learning cannot be over-emphasized, as they constitute a strategic factor in programme functioning in the educational institution of learning.

It is based on the above background that the study was conducted to assess the availability of human and material resources for teaching and learning Office Technology and Management courses in Polytechnics in Adamawa State, Nigeria.

Statement of the Problem

More than anything else, human and material resources are very essential for the utmost realization of the goals of education. They are expected to be available in a reasonable state and should be properly utilized for teaching and learning of Office Technology and Management (OTM) courses in polytechnics Office Technology and Management programme is made up of a combination of courses inclined to the development of skills and competencies to learners.

The researchers observation and interactions with OTM stakeholders which included; lecturers, students, OTM graduates as well as employers of labour in Adamawa State in (2019), indicated that the performance of the OTM graduates in



the world of work are in below expectation. This could be the reason why many OTM graduates are still unemployed and those that are lucky to be employed are not performing as expected of them in their places of work. Soludo (2008) opines that Nigerian situation of unemployment is not a problem in Nigeria rather Nigerian graduates are not employable and they are misfit for today's work place. Similarly, Okolocha and Ihionkhan (2015) observed that many employers did not hide their dissatisfaction over the incompetence and ineffectiveness of OTM graduates in the use of information and communication technology gadgets in their places of work. Thus, all these may not be unconnected with inadequate availability of human and material resources, couple with improper utilization of the little available resources for teaching and learning of OTM courses in the Polytechnics.

It is as a result of the above observed problems that the study was made to examine the availability of human and material resources for teaching and learning Office Technology and Management courses in polytechnics in Adamawa State. This is in view of the seeming incompetence and ineffectiveness of the OTM graduates with the inevitable consequence of increased graduate unemployment, poverty and escalation of social vices.

Research Questions

Based on the specific purpose, two research questions were raised and answered:-

1. To what extent are human resources available for teaching and learning OTM Courses in Polytechnics in Adamawa State?
2. To what extent are material resources available for teaching and learning OTM Courses in polytechnics in Adamawa State?

Research Hypotheses

Based on the specific purpose, two hypotheses were formulated and were tested at 0.05 level of significance:

- Ho1: There is no significant difference between the mean responses of Federal and State Polytechnic on the extent of availability of human resources in teaching and learning OTM courses in Polytechnics in Adamawa State.
- Ho2: There is no significant difference between the mean responses of Federal and State Polytechnic on the extent of availability of material resources in teaching and learning OTM courses in Polytechnics in Adamawa State.



Method

The design of the study was a descriptive survey design. The descriptive survey design was appropriate because it is a design that a group of people are studied by collecting and analyzing data from such a group of people who are considered to be a representative of the population (Okwor, 2011). The population of the study was made up of 57 lecturers and 363 students in 2018/2019 academic session in polytechnics in Adamawa State who are the target of the study. A total of 201 lecturers and students were sampled randomly. The major instrument for data collection for this study was 35 structured questionnaire items for lecturers and students. In the questionnaire, the items were based on 4-point ratings scale, and weighed on the following scale:-Very High Extent (VHE) 4 points, High Extent (HE) 3 points, Medium Extent (ME) 2 points and Low Extent (LE) 1 point. 2.50 was the cut off point for decision rule. Test-retest method was used for the purpose of establishing the reliability of the instrument; the responses from the two administrations of lecturers and students were correlated using Pearson Product Moment Correlation (r) and the result of the analysis showed the correlation coefficient of 0.72. Thus, the instrument was considered reliable for gathering data for the study. The researchers and research assistants visited the two institutions and administered the research instrument at their respective premises. A total of 201 questionnaires were administered to lecturers and students and the whole questionnaires were returned. Mean and standard deviation were used to analyse the data collected to answer the research questions. The two null hypotheses were tested using t-test in determining the existence of the significance to retain or failed to retain the null hypotheses at 0.05 level of significance. In the test of hypotheses, if the p-value was less or equal to 0.05 ($p < 0.05$), the null hypothesis was failed to retain. However, where p-value was greater or equal to 0.05 ($p > 0.05$), then the null hypothesis was retained. All the two hypotheses were failed to retain.

Results

Research Question One

1. To what extent are human resources available for teaching and learning OTM Courses in Polytechnics in Adamawa State?
2. To answer research question one, the responses obtained from despondence was analysed using mean and standard deviation as shown below.

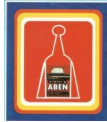


Table 1: Mean and Standard Deviation of Responses on the Extent of Availability of Human Recourses in OTM Courses in Polytechnics, N = 201.

S/N	Items/Statements	\bar{X}	SD	Remark
1.	There are enough lecturers for the teaching and learning of OTM courses in your department.	2.49	1.05	Low Extent
2.	Lecturers with skill in the use of new technologies for teaching OTM courses are available.	2.44	1.02	Low Extent
3.	Lecturers for non-departmental or general studies courses are available in our department.	2.47	0.85	Low Extent
4.	Technologists to assist lecturers with technical OTM courses are available in OTM department.	2.40	0.87	Low Extent
5.	Computer Technicians to maintain and undertake repairs of computers are available in OTM department.	2.11	0.90	Low Extent
6.	Library assistants to take care of departmental library are available in OTM department.	2.14	0.95	Low Extent
7.	Technical support staff for the maintenance of copier and duplicating machines is available in OTM department.	2.49	1.05	Low Extent
8.	Attendants for the model office, ICT and computer laboratories are available in OTM department.	2.63	0.91	High Extent
9.	Office technologist to support department administration and attend to students in the office is available in OTM Department.	1.67	0.69	Low Extent
10.	Clerical support staff are available in OTM department.	1.67	0.68	Low Extent
11.	Cleaners and messengers are available in OTM department.	1.72	0.71	Low Extent
Weighted Average		2.22	0.87	Low Extent

Source: *Field Survey, 2019.*

Table 1 revealed the respondents mean rating of the extent of human resources available for teaching and learning OTM Courses in Polytechnics in Adamawa State. The responses of item one to eleven in the questionnaire were analysed and the study revealed that there was low human resources available for the teaching and learning OTM Courses in Polytechnics in Adamawa State. (The grand weighted mean was 2.22, and the SD stood at 0.87).

Research Question Two

To what extent are material resources available for teaching and learning OTM Courses in polytechnics in Adamawa State?

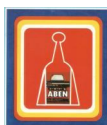


Table 2: Mean and Standard Deviation of Responses on the Extent Material Resources are Available for Teaching and Learning OTM Courses in Polytechnics, N = 201.

S/N	Items/Statements	\bar{X}	SD	Remark
12.	Computers in the laboratory of OTM department are available.	2.54	0.83	High Extent
13.	Fully equipped model office for teaching and learning are available in OTM department.	2.24	0.72	Low Extent
14.	ICT Centre are available in OTM department.	2.31	0.78	Low Extent
15.	Departmental library for use by students are available in OTM department.	2.29	0.92	Low Extent
16.	Class rooms with adequate furnishing are available in OTM department.	2.28	0.95	Low Extent
17.	Multimedia projectors for teaching are available in OTM department.	2.30	0.91	Low Extent
18.	Public address systems for teaching are available in OTM department.	2.60	0.92	High Extent
19.	Electronic boards (smart boards) are available in OTM department.	1.74	0.94	Low Extent
20.	Printers for printing of tasks are available in OTM department.	1.61	0.89	Low Extent
21.	Standby generators for laboratories, model office and staff room are available in OTM department.	3.59	0.73	Very High Extent
22.	Scanners for use in the laboratory are available in OTM department.	2.63	0.75	High Extent
23.	Digital cameras are available in OTM department.	1.49	0.64	Low Extent
24.	Radio cassette player are available in OTM department.	1.47	0.83	Low Extent
25.	Television set are available in OTM department.	2.11	1.09	Low Extent
26.	CD/DVD player are available in OTM department.	1.96	0.88	Low Extent
27.	Fax machines for learning purposes are available in OTM department.	1.24	0.63	Low Extent
28.	Stapling machines for the purpose of teaching and learning OTM courses are available in department.	2.97	1.06	High Extent
29.	Photocopying machines for practical are available in OTM department.	2.97	1.06	High Extent
30.	Bulletin Board System for teaching and learning OTM courses are available in OTM department.	1.98	0.68	Low Extent
31.	Shredding machine for the purpose of teaching and learning OTM courses are available.	1.44	0.68	Low Extent
32.	Franking machine are available in OTM department.	1.57	0.71	Low Extent
33.	Binding machine for the purpose of teaching and learning OTM courses are available in OTM department.	1.98	1.04	Low Extent
35.	Guillotine device for the purpose of teaching and learning OTM courses are available in OTM department.	1.36	0.68	Low Extent
Weighted Average		2.09	0.83	Low Extent

Source: Field Survey, 2019.

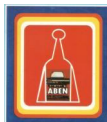


Table 2 revealed the respondents mean rating of the extent of material resources available for teaching and learning OTM Courses in polytechnics in Adamawa State. The responses of item twelve to thirty five in the questionnaire were analysed and the study revealed that there was low material resources available for teaching and learning OTM Courses in polytechnics in Adamawa State. (The grand weighted mean was 2.09, and the SD stood at 0.83).

Test of Research Hypotheses

The null hypotheses were tested at 0.05 level of significance. The summary of the test of research hypotheses are presented in Tables 3 and 4 as follows:

Table 3: Summary of t-Test of the Difference between the Mean Responses of Federal and State Polytechnic Lecturers and Students on the Extent of Availability of Human Resources for Teaching and Learning OTM Courses

Institutions	N	Mean	SD	t-cal	Df	P-value	Decision
Federal Polytechnic	83	1.03	0.41	10.959	199	0.00	Rejected
State Polytechnic	118	1.19	0.46				

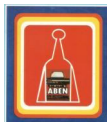
Source: Field Survey, 2019, $P < 0.05$.

The data in Table 3 revealed that the t-calculated (t-cal.) was 10.959 while the t-table (t-tab.) was 1.96. Thus, the t-calculated value was greater than the t-table value with degree of freedom at 199 and 0.05 level of significance, the null hypotheses which stated that there is no significant difference between the mean responses of Federal and State Polytechnic on the extent of availability of human resources in teaching and learning OTM courses in Polytechnics in Adamawa State was failed to retain. This means that significant difference exists in the mean scores of lecturers and students in

H₀₂: Federal Polytechnic and State Polytechnic on the extent of the availability of human resources for teaching and learning OTM courses in Adamawa State.

There is no significant difference between the mean responses of Federal and State Polytechnic on the extent of availability of material resources in teaching and learning OTM courses in Polytechnics in Adamawa State.

Table 4: Summary of t-test of the Difference between the Mean Responses of Federal and State Polytechnic Lecturers and Students on the Extent of Availability of Material Resources for Teaching and Learning OTM Courses



Group	N	Mean	SD	t-cal	Df	P-value	Decision
Federal	83	1.01	0.40	9.611	199	0.00	Rejected
State	118	1.08	0.43				

Source: Field Survey, 2019. $P < 0.05$.

The data in Table 4 reveals that the t-calculated (t-cal.) was 9.611 while the t-table (t-tab.) was 1.96. Thus, the t-calculated value was greater than the t-table value with degree of freedom at 199 and 0.05 level of significance, the null hypotheses which stated that there is no significant difference between the mean responses of Federal and State Polytechnic on the extent of availability of material resources in teaching and learning OTM courses in Polytechnics in Adamawa State was failed to retain. This means that significant difference exists in the mean scores of lecturers and students in Federal Polytechnic and State Polytechnic on the extent of the availability of material resources for teaching and learning OTM courses in Adamawa State.

Discussion of Findings

The research was carried out to examine the availability of human and material resources for teaching and learning of Office Technology and Management Courses in Polytechnics in Adamawa State, Nigeria.

Research question one revealed that the extent to which human resources are available for teaching and learning OTM Courses in Polytechnics in Adamawa state was low, the findings further revealed that there was significant difference between the mean ratings of Federal and State Polytechnic lecturers and students on the extent of availability of human resources for teaching and learning of OTM Courses ($t_{196} = 10.959$, $P < 0.05$). This implied that Federal and State Polytechnic lecturers and students differ in their responses regarding the extent of availability of human resources for teaching and learning of OTM Courses. Their responses showed that Federal Polytechnic lecturers and students rated the extent of availability of human resources higher than the State Polytechnic lecturers and students did. This finding agrees with Olajuwon (2010) who stated that there are no enough lecturers for the teaching and learning of OTM courses in most of the polytechnics in Nigeria. Samuel (2012) asserts that human resources use in OTM department is not enough to meet the minimum requirements of NBTE.



Research question two determines the extent to which material resources are available for teaching and learning of OTM Courses in polytechnics in Adamawa state. Revealed that the extent of availability of material resources for teaching and learning of OTM courses in polytechnics is low (mean = 2.09, SD = 0.83). The findings further revealed that there was significant difference between the mean ratings of Federal and State Polytechnic lecturers and students on the extent of availability of material resources for teaching and learning of OTM Courses ($t_{196} = 9.611, P < 0.05$). This implied that Federal and State Polytechnic lecturers and students differ in their responses regarding the extent of availability of material resources for teaching and learning of OTM Courses.

This finding is in line with Bongotons and Onyenwe (2010) who affirms that one of the pillars of a successful implementation of effective business teacher education (OTM inclusive) is the availability and adequacy of teaching and learning materials. These materials are in form of facilities and equipment needed to foster skill development and allow for standards and quality in products. In their view, availability of teaching and learning materials implies that they are easily, readily.

Conclusion

Based on the findings of the study, it was concluded that the required material resources for teaching and learning office technology and management courses are not adequately available, and where they are available, they are under-utilized, while the available human resource are over-utilized. This will however affect the effective delivery of teaching and will have adverse effect on the entire teaching/learning situation. Students are not likely to have clear and maximum understanding of the subject matter being taught since the needed resources to facilitate better understanding and the acquisition of the needed skill are not available and where they are available, they are not properly utilized. This clearly indicates that the OTM programme would be producing graduates who would not be able to function effectively in the 21st century world of work and who cannot contribute anything meaningful to the development of an economy driven by technological innovativeness.



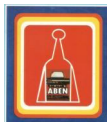
Recommendations

Based on the findings of the study, the following recommendations were made:

1. Polytechnics should ensure that they make available adequate number of qualified human resources for both academic and non-academic staff. They should also ensure that OTM department staff is given the opportunities for further studies; this will help to update their knowledge and skills which will go a long way in improving their capabilities in discharging their office responsibilities.
2. Polytechnic authorities should be committed to the provision of adequate material resources needed for teaching and learning of OTM programme. This can be achieved through adequate budgetary allocation for the provision of material resources.
3. The polytechnic authorities should employ more qualified human resources and they should also ensure that their capabilities are fully utilized, by so doing will reduce the excess work load on the few available staff.
4. There is the need to ensure proper and adequate utilization of material resources by the polytechnic staff. Where staff cannot use this material resources, they should be send on training and re-training programme so as to equip them with the necessary skills and capabilities to ensure effective utilization of material resources available for teaching and learning OTM courses in the Polytechnics.

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