

Strategies for Improving the Provision of ICT Resources in Office Technology and Management Programme the Polytechnics in Delta State, Nigeria

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Abstract

This study determined the strategies for improving the provision of Information and Communication Technology (ICT) resources in Office Technology and Management (OTM) programme in the polytechnics. Thirty-five OTM lecturers who lecture in the polytechnics comprised the population and there was no sampling because of its manageable size. Instrument used for data collection was a structured questionnaire. Data were analyzed using mean and standard deviation. The hypothesis was tested with t-test statistics. Data analysis revealed that the improvement strategies listed in the questionnaire as source of providing ICT resources for OTM programme were agreed with by the respondents. The findings show that, there was no significant difference between the mean responses of male and female lecturers on the strategies for improving the provision of ICT resources in OTM programme. It was recommended among others that Tertiary Education Trust Fund (TETF) should assist OTM programme in funding ICT resources in OTM programme.

Key Words: Strategies, ICT, Resources, OTM, Improvement, Funding

Introduction

The success of any programme is a function of the availability of resources to carry-out the programme. Office Technology and Management (OTM) programme, as an academic programme that is ICT-based, can only be effectively implemented with adequate ICT resources (Ugwuanyi and Eze, 2008). Rodriquez and Wilson (2000) define ICT as the set of activities or materials facilitated by electronic means for the processing, transmission and display of information.

Economic and Social Commission for Asia and the Pacific (ESCAP, 2000) refers to ICT as technologies people use to share, distribute and gather information and to communicate through computers and computer networks. In the view of Akunyili (2006), ICT is the ability to use electronic means to capture, process, communicate and store information. In the context of this study, ICT is any electronic device/resource that can be utilized by people to enhance or improve teaching and learning process together with the administrative activities required for implementation of the OTM programme standard in polytechnics in Delta State. To implement OTM programmes with the desired standard in the polytechnics in Delta State of Nigeria, ICT resources are invaluable.

In mastering and understanding ICT basic skills that are involved in OTM programme, there is the need to know the ICT resources that are involved in the teaching and learning of OTM curriculum that is ICT-based. Agwumezie (1999) stated that resources are the things that stimulate a learner and bring about the understanding of the curriculum content of any programme. ICT resources are the important aids which are needed for the implementation of OTM programme in the polytechnics that is ICT-based. These include hardware, software and telecommunications in the form of personal computers, scanners, digital camera, phones, faxes, modem, teleconferencing, compact disk, digital video disk player, recorders, radio and television and programs such as database systems used in education (Onah and Okoro, 2010).

The Federal Government of Nigeria has made some effort to enhance ICT resources in teaching and learning in its tertiary institutions of learning. Two of such efforts are the partnering with Afrihub-Zinox to provide ICT sustainable intervention, and the Commissioned Digital Awareness Programme (DAP) in tertiary institutions in Nigeria (Ndukwe, 2007). This programme involves the provision of ICT resources in as many educational institutions as possible across Nigeria. Under the programme, the selected institutions were equipped with computer laboratories; fully installed with computers and computer networks, furniture and internet facilities. These facilities were backed-up with structural renovation of buildings and supply of air conditioners and power generators.

The provision of adequate and appropriate learning experiences which generate effective or meaningful learning requires adequate resources in the implementation of such learning (Ugwuanyi, 2012). Ironically, many tertiary institutions were not beneficiaries of the partnering. Ojukwu and Ojukwu (2006) attributed this lack of not reaching all the tertiary institutions with this programme of ICT resources provision to poor funding of the programme.

Office Technology and Management is an academic programme designed at National Diploma (ND) and Higher National Diploma (HND) levels in Nigeria's polytechnics. The knowledge, attitudes and skills expected of the ND graduates, according to the curriculum objective is to enable the graduates to fit in properly into the office of any organization and perform professionally, the functions of the modern secretary. This is because the curriculum is ICT-based and tailored towards the need of the modern office. At the HND level, the students are expected to acquire an in-depth knowledge of Office Procedures, ICT Office Administrative and Management. Graduates are also expected to be familiar with office concepts and office procedures, ICT office applications, management information systems, advanced web page design, professional career and professional ethics and social responsibility (Ugwuanyi, 2012).

On the other hand, strategy, according to Onyesom and Umoeshiet (2013), is the technique or mechanism put in place to maintain the degree of excellence of a product or service. Okwuanaso and Nwazor (2000) positioned strategy as tactics for achieving an objective. Similarly, Osuala (1998) argued that strategy is a broad and basic plan of action by which an organisation intends to reach its goals. Oxford Advanced Learner's Dictionary of Current English (2000) defined strategy as a means for doing something or to do something; a plan that is intended to achieve a particular purpose or the process of planning something or carrying out a plan in a skilful way. As applies to improving the provision of ICT resources in OTM programme in polytechnics, strategy is a method or plan chosen to bring about a desired future of OTM programme, such as achievement of the goals or solution to the problem of inadequate ICT resources in OTM programme in the polytechnics in Delta State, Nigeria.

The mandate of OTM programme is to train modern secretaries. The OTM programme is ICT-based and cost-intensive. The funds to meet up with these cost-intensive resources are always inadequate to meet up with the installation of the required equipment/facilities as resources for teaching and learning in OTM programme. Therefore, there is the need to come up with some strategies to augment what the government and the institutions can afford. This study is, therefore, set out to determine the strategies for improving the provision of ICT resources in OTM programme in the polytechnics.

Research Question

What are the strategies for improving the provision of ICT resources in OTM programme in the polytechnics in Delta State of Nigeria?

Hypothesis

There is no significant difference in the mean responses of male and female lecturers on the strategies for improving the provision of ICT resources in OTM programme in the polytechnics.

Research Method

A survey design was adopted for the study since it involved the collection of data from a given population to sample their opinion and belief. The population comprised 35 lecturers who lecture in the polytechnics in Delta State. The population constituted the sample, because of its manageable size. The polytechnics include: Ozoro Polytechnic, Otefe-Oghara Polytechnic and Ogwashu-uku Polytechnic, in Delta State of Nigeria.

Instrument used for the study was a structured questionnaire made up of two sections. Section 'A' sought the demographic data of the respondents, while section 'B' is a 15-item questionnaire which the respondents were requested to indicate their views and opinions on a 5-point scale of 'Strongly Agree' = 4 points, 'Agree' = 3 points, 'Disagree' = 2 points, 'Strongly Disagree' = 1 point and 'No Opinion' = 0 point.

The instrument was administered to the respondents personally with the help of two trained research assistants. Out of the 35 copies of the questionnaire distributed, 31 copies were returned and considered valid. Data were analyzed using mean and standard deviation while the t-test statistics was used to test the null hypothesis at 0.05 level of significance. The decision rule was that any item with a mean score of 2.00 and above was taken as agreed while items with mean score below 2.00 were regarded as disagreed. The decision rule for testing the hypothesis was that if the calculated t-value is less than the critical t-value, the hypothesis will be accepted. On the other hand, if the calculated t-value is greater than the critical t-value, the hypothesis will be rejected.

The instrument was subjected to face validation to determine its adequacy, appropriateness for the study and for its proper wordings. This was done by presenting it to three experts, one in Curriculum Studies, Educational Technology and Measurement and Evaluation. Based on their comments and suggestions, the instrument was modified to suit the study.

In order to ascertain the reliability of the instrument for the study, it was trial-tested in Federal Polytechnic, Auchi, Edo State of Nigeria. Ten copies of the instrument were administered to lecturers of OTM Department. The result obtained after the trial testing was subjected to the test of internal consistency using Cronbach Alpha procedure to measure its reliability before it was used for the study. The test yielded a coefficient of 0.87, indicating that the instrument was quite reliable for the study.

Presentation and Analysis of Results

Research Question

What are the strategies for improving the provision of ICT resources in OTM programme in the polytechnics in Delta State of Nigeria?

Table 1: Mean Responses of Respondents on the Strategies for Improving the Provision of ICT Resources in OTM Programme

Sex/Number = 31		Male = 18			Female = 13		
S/N	Improvement Strategies	Mean	SD	Remarks	Mean	SD	Remarks
1	ICT development levy to be paid by students	3.79	0.89	Agreed	3.99	0.87	Agreed
2	Appeal for donation of ICT equipment by successful alumni members of the department	3.88	0.91	Agreed	3.87	0.76	Agreed
3	The department should run a Business Centre and raise money internally to assist in procuring ICT facilities	3.86	1.03	Agreed	3.83	0.75	Agreed
4	Consideration of supplementary admission for few students whose parents/guardians/sponsors can donate ICT equipment for the department	3.83	0.85	Agreed	3.80	0.82	Agreed
5	Appeal to corporate organizations to install laboratory with fully equipped computer and name the laboratory after the organization	3.78	1.19	Agreed	3.78	0.88	Agreed
6	Philanthropists to sponsor building and equipping computer laboratory and name after them	3.76	0.83	Agreed	3.77	1.13	Agreed
7	Polytechnic management should encourage direct bulk purchase of computer thus dispensing with agency charges and obtaining generous discounts	3.76	0.83	Agreed	3.76	0.65	Agreed
8	Encourage sharing of facilities with other nearby institutions of learning by cooperative scheduling and joint-financing	1.98	0.96	Disagreed	1.76	0.90	Disagreed
9	Encourage Students Associations to undertake projects of providing some ICT facilities from Association dues	3.23	0.51	Agreed	3.00	0.36	Agreed
10	Encourage students to join Alumni Association on graduation so as to contribute their quota in the provision of ICT facilities	3.64	0.72	Agreed	3.54	0.63	Agreed
11	Use vendor-financing option whereby students pay subscription of a specified amount for the use of ICT resources installed by ICT vendors	3.16	0.61	Agreed	2.95	0.51	Agreed
12	Tertiary Education Trust Fund (TETF) authorities should be approached to include OTM programme in their priority area of assistance in the provision ICT resources	3.70	0.53	Agreed	3.56	0.51	Agreed
13	Private entrepreneurs should be encouraged to register for ICT training in the polytechnic which can be of assistance to OTM programme with ICT resources	3.64	0.72	Agreed	3.63	0.48	Agreed
14	Students should be encouraged to provide their personal computer at the point of their registration on admission	3.45	0.48	Agreed	3.30	0.58	Agreed
15	Private internet providers such as GLO, MTN, among others, should be encouraged to partner with OTM Department by providing internet facilities	3.69	0.86	Agreed	3.60	0.97	Agreed
Grand Mean/Standard Deviation		3.54	0.80		3.48	0.72	

Keys: SD = Standard Deviation, S/N = Serial Number

Source: Field Survey Conducted, (2013).

Table 1 revealed the strategies for improving the provision of ICT resources in OTM programme. Fourteen items had mean responses of between 2.95 and 3.99 signifying that the respondents agreed on those identified strategies for improving the provision of ICT resources in the polytechnics. The respondents likewise disagreed with Item 8 of the strategies that the polytechnic should encourage sharing of facilities with other nearby institutions of learning by co-operative scheduling and joint-financing with the mean score of 1.98 of the male lecturers and 1.76 of their female counterparts.

Hypothesis Testing

Hypothesis:

There is no significant difference in the mean responses of male and female lecturers on the strategies for improving the provision of ICT resources in OTM programme in the polytechnics.

T-test Analysis of the Mean Opinion of Male and Female Lecturers on the Strategies for Improving the Provision of ICT Resources in OTM Programme

Status of Respondents	N	X	SD	Df	t-cal	t-crit	Decision
Male Lecturers	18	3.54	0.80	29	0.22	1.96	Accepted
Female Lecturers	13	3.48	0.72				

Table 2 presents the t-test analysis of the mean opinion of male and female lecturers on the strategies for improving the provision of ICT resources in Office Technology and Management programme in the polytechnics. The finding shows that the calculated t-value of 0.22 is less than the t-critical value of 1.96. Therefore, the null hypothesis is accepted, suggesting that there is no significant difference between the mean opinion of male and female lecturers on the strategies for improving the provision of ICT resources in OTM programme in Delta State polytechnics. This implies that the respondents have similar opinion on the strategies for improving the provision of ICT resources in the implementation of the new OTM programme which is geared towards ICT application in practical work.

Discussion of Findings

The purpose of this study was to determine the strategies for improving the provision of ICT resources for OTM programme in the polytechnics in Delta State Table 1 revealed that of the 15 strategies for improving the provision of ICT resources in OTM programme listed in the questionnaire, fourteen items had mean responses score of between 2.95 and 3.99, signifying that the respondents agreed on those identified strategies for improving the provision of ICT resources in the polytechnics. The respondents likewise disagreed with Item 8 of the strategies that the polytechnic should not encourage sharing of facilities with other nearby institutions of learning by co-operative scheduling and joint-financing. The finding in Table 1 agreed with the suggestions of Ojukwu and Ojukwu (2006) on the strategies for tackling the problem of funding the provision of ICT infrastructure. Ojukwu and Ojukwu hinged lack of ICT infrastructure and facilities to poor funding.

Table 2 presents the t-test analysis of the mean opinion of male and female lecturers on the strategies for improving the provision of ICT resources in Office Technology and Management programme in the polytechnics. The finding shows that there was no significant difference between the mean opinion of the male and female lecturers on the strategies for improving the provision of ICT resources in OTM programme in Delta State polytechnics. This implies that the respondents have similar opinion on the strategies for improving the provision of ICT resources in the implementation of the new OTM programme which is geared towards ICT application in practical work. This is in line with the findings of Mudhai (2004) who revealed that the co-operative funding is a strategic management function that works as a synergy to the success of any organization. Ndukwe (2007) buttressed this view as he stated that the Public Private Partnership (PPP) strategy programme involves no direct government funding.

Conclusion

The success of any programme is affected by the resources available to carry out the implementation of the programme. Office Technology and Management, as an academic programme, can only be effectively implemented when all resources needed, especially the material resources of ICT are adequately provided.

The problem of adequate provision of ICT resources in general and particularly in OTM programme in polytechnics in Delta State of Nigeria has always been poor funding of the programme. Therefore, this study is of the view that there is need for alternative source of funds as stated in the questionnaire items to augment government subvention in the provision of ICT resources for OTM programme.

Recommendations

Based on the findings and conclusion, the following recommendations are made:

1. Office Technology and Management students should pay a small amount of money as ICT resource development levy. This will help to improve the provision or augment ICT resources in the programme.
2. Office Technology and Management Department in the polytechnics should run a Business Centre so as to generate money internally to assist in procuring ICT resources for the programme.
3. The OTM department should establish linkages with its successful Alumni members, corporate organizations and philanthropists who are kind to assist in equipping ICT laboratories in OTM department.
4. The OTM department should also name any laboratory equipped by someone after the person's name or the name of the organization that assisted in this regard to motivate them to do more or to attract others.
5. Association of Business Educators of Nigeria (ABEN), in collaboration with heads of OTM Departments should make an appeal to Tertiary Education Trust Fund (TETF) to include OTM programmes as priority areas for assistance, because OTM programme is capital intensive that deserves special consideration by TETF.

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