A STUDY ON THE MEANS OF ACQUIRING ICT COMPETENCIES AMONG ACADEMIC STAFF IN UNIVERSITIES IN BENUE STATE, NIGERIA

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Abstract
The study was carried out to find out the means through which academic staff acquire ICT competencies in universities in Benue State, Nigeria, and the difference in the means of acquiring ICT competencies on the basis of university types. The population of the study included academic staff at the University of Mkar, Mkar; Benue State University, Makurdi; and University of Agriculture, Makurdi. The descriptive survey design was adopted for the study, with a total population of 1, 537 academic staff. The universities were clustered in federal, state and private universities, while Simple random sampling was used for sample selection. A sample size of 306 academic staff was used, and questionnaire was used as the instrument for data collection. The instrument was validated by three experts, and the Cronbach reliability test was used in testing the result of the pilot study. A reliability index of 0.98 was obtained, which guaranteed the reliability of the instrument. In analyzing the data, charts, frequency counts and percentage were used. The findings revealed that academic staff in the universities acquire ICT competencies through private computer training, friends, family and colleagues; workshops, seminars and conferences; computer-assisted instructions, and Internet training or online learning. The two public universities in Benue State acquire ICT competencies through the above means more than their private counterpart. It was concluded that academic staff in the examined universities, majorly develop ICT competencies through individual strivings. It was therefore recommended that government at both federal and state levels should show more commitment to the development of ICT competencies of academic staff by making available ICT grants to them on annual basis, and university managements should sponsor ICT competent associates of academic staff at the workplace to train them in using ICT.

Keywords: ICT, Means, Competencies, Acquiring, Universities, Benue State

Introduction
Globally, universities are recognized as both the providers of knowledge and professionals, to be moved to society as added competitive advantages of the country. Premised on this universal fact, Nigerian universities depend on academic staff as key stakeholders in generating life-changing knowledge through research and equipping learners with knowledge, values, understanding, information and skills required in undertaking tasks that can upsurge the developmental standing of the nation. Bearing these lofty responsibilities in mind, academic staff need to be adequately prepared in such a fashion that they can successfully diffuse qualitative and quantitative amount of worthwhile knowledge to learners under their tutelage, and perform other allied academic activities.

Arising from the above, Akpan (2014) posits that for academic staff to carry out their job efficiently and effectively especially in this age of knowledge-based technology, the use of ICT becomes imperative. In the same line of thought, Kpolovie and Awusaku (2016) maintained that real success in today's rapidly changing and highly competitive world depends on ICT knowledge and skills. This, therefore, indicates that optimum job

performance of academic staff in this era requires an appreciable level of ICT competence. Moreover, productive use of ICT is an integral element in enabling academic staff to meet up with the demands of their job, which broadly take academic and administrative dimensions.

ICT consists of a diverse but cohesive set of computer-related technologies used in handling information, from its generation to ultimate dissemination. Kaware and Sain (2015) perceived ICT as the manipulation and communication of information by using electronic resources and tools, such as computers, the Internet, and broadcasting technologies. In the education perspective, it involves the use of digital tools in supporting and enhancing all aspects of academic endeavour. As a result, ICT embraces tools that are capable of creating, processing, storing, retrieving, transmitting, and concomitantly, receiving information conveyed electronically. However, full enjoyment of educational potentials of these tools is not automatic; proficiency in their use must become an experience of their users of which is the academic staff.

ICT competence is the ability of academic staff to manipulate a wide range of varying ICT tools such as the Internet, World Wide Web, computers, intranet and other associated technologies to accomplish tasks. Such tasks range from computing results, conducting research, delivering lectures, sending information, preparing course materials, browsing literature, to keeping records. Radloff (2001) states that ICT increases the skills and status of teachers for job performance. In the same vein, Danner and Pessu (2013) state that being able to use ICTs improves lecturers' teaching performance. Also, the use of ICTs by lecturers improves the process of obtaining and disseminating new information to students from multimedia technologies and the Internet (Mbengo, 2014). Considering these colossal benefits, Chukwuedo and Igbinedion (2014) stress the need for capacity building of the lecturers in ICT competencies to facilitate their duties concerning the teaching-learning process, conduction of research and administrative jobs.

The sensitive position of ICT competence in the workspace as a critical ingredient in stimulating effective job performance underscores the solemn truth that acquiring ICT competencies is not just necessary for academic staff but very sacrosanct. It is more so because demonstrating competence in using ICT is increasingly becoming a criterion for an effective and efficient way of discharging duties by every professional in this present century. To buttress this, Kpolovie and Awusaku (2016) aver that, this new development is a strong indication that the era of teachers without ICT competencies is gone. This implies that ICT use has turned out to be a critical basis of survival in today's educational system. Given this, academic staff are left with no better alternative than to acquire ICT competencies.

Means of acquiring ICT competencies involve various methods adopted in delivering training to academic staff to enable them apply ICT in their professional duties. These means of ICT skills acquisition take online and traditional dimensions in the modern digital age. Echols, Neely and Dusick (2018) pointed out that online training methods include online courses, webinars, self-study modules, and videos. While traditional methods of faculty training may include face-to- face courses, one-on-one sessions with an expert, on-the-job training, and mentoring by an experienced faculty member. Omotunde (2017) added workshops, self-instruction manuals, video cassettes and tutorial discs as some of the means of acquiring ICT skills. In their opinion, Rossing and Lavitt (2016) noted that each of the above outlined method has its benefits and weaknesses. However, these means of acquiring ICT competencies are not the same with all institutions; they differ across universities. It against

this backdrop that the researchers are spurred into studying further the various means academic staff in the universities in Benue State acquire ICT competencies.

Statement of the Problem

The penetrating influence of Information and communication technology has extended to all realms of human activities. Indeed, the field of education cannot be placed on the exemption list of human ventures that remain unaffected by ICT. This is to say, ICT has fundamentally reformed the way education is conducted, by provoking a transition from traditional practices and procedures to dependence on devices as a tool for educational tasks. Glaringly, this paradigm shift has brought about unprecedented and endless benefits to academic staff in Nigerian universities. Such benefits cut across administrative and academic lines. It is therefore worthy to note that the maximum realization of the educational value of ICT by academic staff is not spontaneous; they must acquire positive ICT perfections before reaping maximally from the benefits that accompanied it. However, a growing body of researches unearthed paucity of ICT competencies among academic staff in Nigerian universities (Archibong, Anijaobi-Idem & Ogbiji, 2010; Emeasoba & Ezenwafor, 2014; Omotunde, 2017). This creates uncertainty whether these academic staff have at their disposal ICT training opportunities for them to equip themselves with requisite ICT competencies. In order to find empirical answer to this, the need for this study heightened, to investigate the means of acquiring ICT competencies of among academic staff in the universities in Benue State, Nigeria.

Research Questions

(i) What are the means through which academic staff in the universities in Benue State acquire ICT competencies?

(ii) What is the difference in the means of acquiring ICT competencies on the basis of university types in Benue State?

Literature Review

ICT competencies acquisition is very necessary if academic staff must be increasingly relevant in their various branches of learning. It is becoming more and more so because technology which has become a dire necessity for every professional practice is constantly growing rapidly and updates come up now and then (Ojiegbe, 2010). Therefore, academic staff need to move along with the growing trend by constantly upgrading their competencies in the use of these technologies. Suleiman (2015) noted that organizations like the Nigerian Communications Commission (NCC) and the Tertiary Education Trust Fund (TETFund) have contributed immensely to the development of ICT competencies of academic staff in universities. This is achieved through grants for sponsorship and training.

In their study, Bassey and Ofre (2013) discovered that academic staff acquired skills in ICTs through personal effort rather than formal staff development process. With this result, they concluded that academic staff may not be in a position to actively embrace innovative uses of ICT in teaching and learning because of little or no formal training. In another related study, Sani *et al.,* (2016) unearthed that lecturers personally committed themselves to acquire ICT skills, to the extent of bearing the cost of training without any intervention from the authorities. Omotunde (2017) also discovered that the majority of the academic staff studied were not exposed to formal training on the use of ICT. They majorly acquire their ICT skills independently and out of the assistance of their friends and associates in their workplace. These researches do not clearly bring out the situation of means of ICT skills acquisition by academic staff in the universities in Benue State, thereby heightening the need to fill the gap in this present study.

Shidi (2011) stated that ICT competencies are mostly acquired through training, retraining and experience. Omotunde (2017) asserts that training of academic staff on the use of ICT devices can't be underestimated in this global age. He added that training is very essential in supporting academic staff contribute to their research output and also in their teaching and learning process. Through training, skills are taught and learnt by academic staff. Kunda, Chembe, Mukupa (2018) bared the fact that training lecturers on the use of ICTs e.g. email, PowerPoint presentations, electronic boards and its advantages is the most important incentive to motivate lecturers to incorporate ICTs in research and teaching**.** In a differing view, Onasanya *et al.,* (2010) discovered in their investigation that many lecturers lacked adequate training and competence in using the computer as a tool for effective teaching and research purposes. As a result**,** many university lecturers lack ICT skills to use the information available today **(**Akinnagbe & Baiyeri, 2013).

Okoro (2013) identified retraining of lecturers in ICT programme as one of the ways through which they will have more competencies. In a study conducted by Duhu and Ezugu (2017), they discovered that lecturers needed retraining on ICT skills considered. This implies that for academic staff to remain professionally relevant, thought must always be given to updating existing skills and learning new skills. Ojeniyi and Adetimirin (2016) stressed this by echoing that retraining of academic staff on various ICT skills provides them with the needed ability to meet the challenges of academic activities. Similarly, Olafare, Adeyanju and Fakorede (2017) recommended retraining of lecturers in ICT. This is because development in technology is dynamic and academic staff need to keep renewing themselves to avoid lagging in the use of fresh technological innovations.

Formal continuing education such as Masters programme, non-conventional schooling system (distance learning), self-study (learning by doing), training by suppliers, attending IT programmes and participation courses are platforms that improve lecturers' ICT competency (Ojiegbe, 2010). This explains the increasing interest noticed among academic staff in obtaining a certificate or Diploma in computer appreciations. Formal education can be internal, that is organized within the workplace, or externally, outside the workplace. Oyeronke and Fagbohun (2013) revealed in their study that the teachers studied have certification in computer programs such as Microsoft packages. Also, Oyedokun *et al.,* (2018) discovered that the majority of the staff studied agreed on personal workshop and seminars as sources of acquiring ICT competencies. Archibong *et al*., (2010) found that ICT skills acquisition undertaken by academic staff was mainly self-funded.

Internet and intranet-based training, study/sabbatical leave, academic conferences, panel discussions, interactive experiences, computer-assisted instructions (CAIs), classroom instruction, and one to one instruction are some of the means of trainings that have greatly improved the ICT competencies of lecturers (Gani, 2013; Suleiman, 2015; Omotunde, 2017). Coaching and Mentoring have been proposed as some of the ideal sources of acquiring ICT competencies (Ojiegbe, 2010). Coaching, according to Gani (2013) is the traditional practice of assigning a less experienced lecturer to work under the watchful eye of a superior and more experienced colleague. Similarly, mentoring is a process of using a lecturer with a lot of knowledge and experience in the area of ICT, to advise and guide the newly-employed hands on the use of ICT tools (Gani, 2013). These sources help in the cumulative development of the lecturer's skills in exploiting it. However, this can only be achieved when the trainees have confidence in the trainer.

Onasanya *et al.,* (2010) found that university lecturers acquired more ICT skills than their counterparts in polytechnics and colleges of education. He recommended that universities should encourage their lecturers to be computer literate by organizing conferences,

seminars and workshops. However, Chukwuedo and Igbinedion (2014) noted that academic staff need capacity building in the use of ICT for instructional, research and administrative purposes.

Methodology

The descriptive survey design was adopted for the study. It was adopted because it is best applicable to phenomena that can be expressed in terms of quantity. The population for this study constituted academic staff at Benue State University, Makurdi; University of Mkar, Mkar; and the University of Agriculture, Makurdi, which amounted to 1,537 academic staff (Universities Staff Record, 2018). The universities were clustered into federal, state and private universities, and simple random sampling technique was used for sample selection. The wisdom behind this choice was to give every academic staff chance to be part of the sample. According to Krejcie and Morgan (1970) table of determining sample size, the sample size for a population that falls within the range of 1500-1599 is 306. Therefore, the sample size for the total population of 1,537 was 306 academic staff; this comprised of 157 academic staff from the federal university, 120 academic staff from the state university, and 29 academic staff from the private university.

Questionnaire items were adapted from the pieces of literature reviewed; and it was used as the instrument for data collection. The questionnaire contained eight (16) statements on the means through which academic staff in the universities under study acquire ICT competencies, and the difference in the means of acquiring ICT competencies on the basis of university types. The second question was presented in a two-point modified Likert scale of yes and no. The instrument was validated by two experts in the field of Library and Information Science, and one from Computer Science. In order to establish the reliability of the instrument, a pilot study was carried out on ten (10) academic staff at Ahmadu Bello University, Zaria. The Cronbach alpha reliability test was used in testing the result of the pilot study, and a reliability index of 0.98 was obtained, which guaranteed the reliability of the instrument.

A total of 306 copies of questionnaire were personally administered to each of the universities with the support of clerical staff in the offices of the various Heads of Department (HOD) within a period of one month and a week. Two hundred and seventy-three (273) copies of questionnaire were returned and were used for the study. The data generated were analyzed using charts, frequency tables and percentages. For the first question, the benchmark of 50% was used for the decision. Any item that ranked from 50% and above was regarded as agreed/used; while anyone from 49% and below was regarded as disagreed/not used. Concerning the second question, a standard mean of 1.5 (i.e. No (1) +Yes (2) = 3/2= 1.5) was used to decide used or unused means of acquiring ICT competencies in federal, state and private universities. Any questionnaire item that attracted mean responses from 1.5 and above was considered used; while any item that received mean responses below 1.5 was considered unused.

Results

S/N	Means	University Types	Use	Not use	Mean	SDT.	Remark
		Federal	75	60	1.6	0.50	Used
1	Private computer training	State	60	50	1.5	0.50	Used
		Private	14	14	1.5	0.51	Used
3	Workshops, seminars & conferences	Federal	90	45	1.7	0.47	Used
42	Friends, family & colleagues	State	78	32	1.7	0.46	Used
5	Internet training or online learning	Private	12	16	1.4	0.50	Not used
		Federal	72	63	1.5	0.50	Used
7	Formal continuing education				50	18	Disagreed
8	Study & sabbatical leave				18	6	Disagreed

Table 1: Means of Acquiring ICT Competencies by Academic Staff
N=273

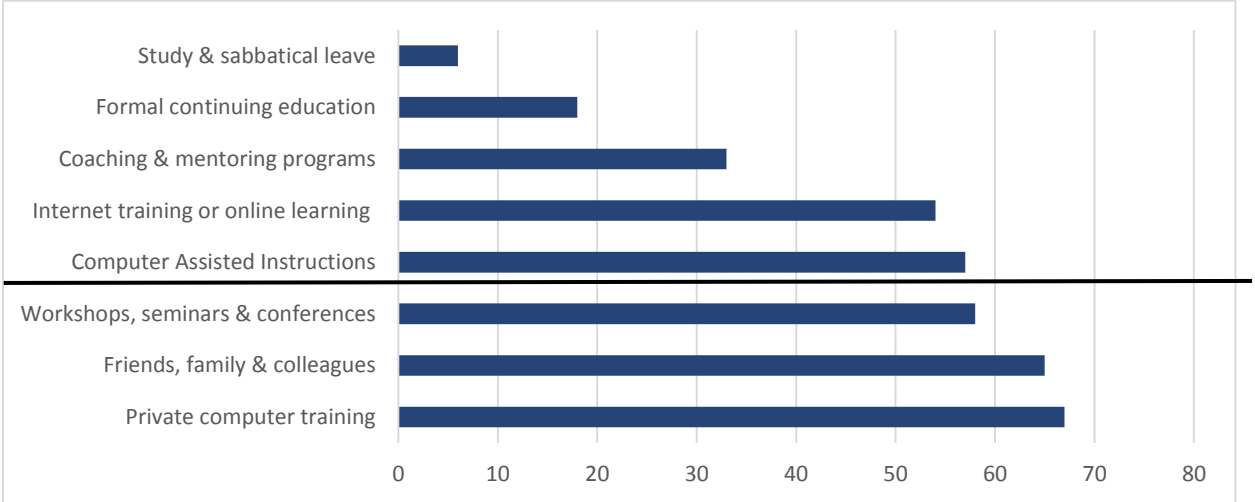

Figure 1: Means of Acquiring ICT Competencies by Academic Staff

Table 1 and Figure 1 plainly show the responses of academic staff on the various means through which they acquire ICT competencies in descending order. Based on the 50% benchmark, items ranging from 1 to 5 were agreed on as means of acquiring ICT competencies while items spanning from 6 to 8 were disagreed on as means of acquiring ICT competencies by academic staff in the universities under study. It can, therefore, be said that academic staff in the universities maximize the majority of the means outlined in this study to acquire ICT competencies.

3	Workshops, seminars & conferences	State	74	36	1.7	0.47	Used
		Private	11	17	1.4	0.50	Not Used
4	Computer assisted instructions	Federal	78	57	1.6	0.50	Used
		State	66	44	1.6	0.49	Used
		Private	12	16	1.4	0.50	Not Used
5	Internet training or online learning	Federal	75	60	1.6	0.50	Used
		State	60	50	1.5	0.50	Used
		Private	14	14	1.5	0.51	Used
6	Coaching & mentoring programs	Federal	51	84	1.4	0.49	Not Used
		State	36	74	1.3	0.47	Not Used
		Private	5	23	1.2	0.39	Not Used
7	Formal continuing education	Federal	27	108	1.2	0.40	Not Used
		State	18	92	1.2	0.37	Not Used
		Private	5	23	1.2	0.39	Not Used
8	Study & sabbatical leave	Federal	9	126	1.1	0.25	Not Used
		State	6	104	1.1	0.23	Not Used
		Private	3	25	1.1	0.31	Not Used

Table 2. Means of Acquiring ICT competencies on the basis of University Types N=Federal: 135, State: 110; Private: 28

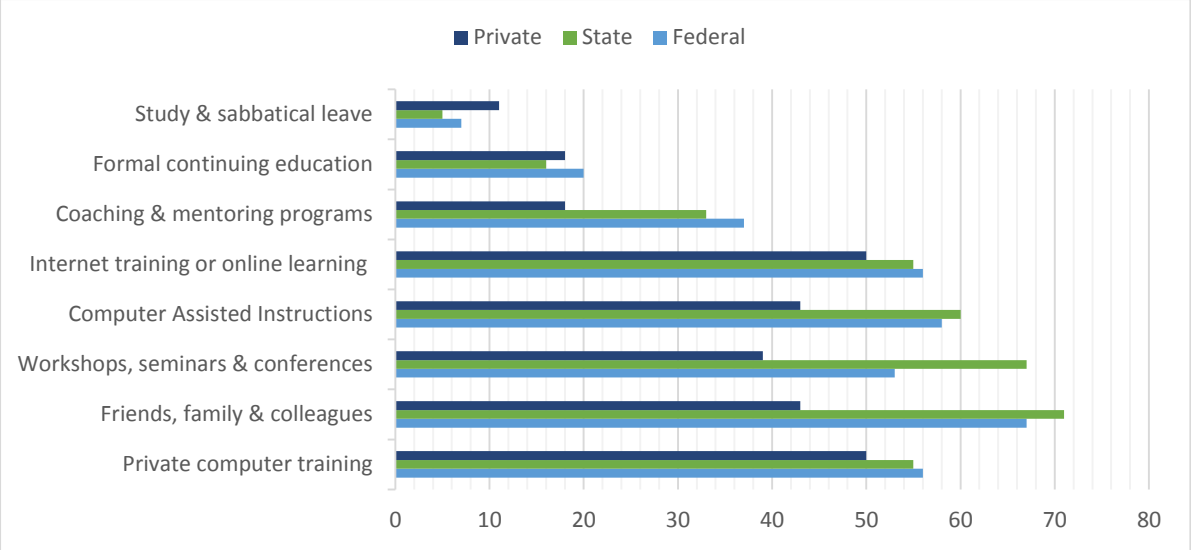

Figure 2: Means of Acquiring ICT competencies on the basis of University Types (%)

Table 2 and Figure 2 plainly show the responses of academic staff on the difference in the means of acquiring ICT competencies on the basis of university types in Benue state. The federal and state universities have common means of acquiring ICT competencies, which includes private computer training (M=1.6, M=1.5); friends, family and colleagues (M=1.7, M=1.7); workshops, seminars and conferences (M=1.5, M=1.7); computer-assisted instructions (M=1.6, M=1.6) and Internet training/online learning (M=1.5, M=1.5). The private university only shared private computer training (M=1.5) and Internet training/online learning (M=1.5) with the two public universities. However, the other items outlined from 6-8 are not engaged by any of the institutions. It is, therefore, evident that the three universities all converged on private computer training and Internet training/online learning as the commonest ICT training delivery methods in Benue State. The widest divergence on means of acquiring ICT competencies exists between the two government-owned (federal and state) universities and the private university.

Discussion

The study investigated means through which academic staff in universities in Benue state acquired ICT competencies. A look at Table 1 and Fig. 1 revealed that private computer training, friends, family and colleagues, workshops, seminars and conferences, computer-assisted instructions, and Internet training or online learning, are the means through which academic staff acquire ICT competencies in the universities in Benue State. This indicates that the academic staff principally develop their ICT competencies through self-effort or personal training, indicating their curiosity in acquiring ICT competencies. The outcome of this study is in the face with Sani *et al.,* (2016), who revealed that lecturers have personally committed themselves to acquire ICT skills, to the extent of bearing the cost of training without any intervention from the authorities. Also, the result is in line with the earlier finding of Omotunde (2017), who uncovered that academic staff acquire their ICT skills out of the assistance of their friends and associates in their workplace. By implication, academic staff would better develop their capacities in using ICT, if they begin to engage other means of acquiring ICT competencies that are currently unexploited. This would go a long way in enhancing their job tasks; and in the long run, influence Nigerian universities ranking at the global level because of increased productivity in the institutions.

The study also investigated the difference in the means of acquiring ICT competencies on the basis of university types in Benue state. The result as contained in Table 2. and Fig. 2 explicitly revealed that federal and state universities have common means of acquiring ICT

competencies, which includes private computer training, friends, family and colleagues; workshops, seminars and conferences; computer-assisted instructions and internet training or online learning. Whereas, the private university only shared private computer training and Internet training or online learning with the other two universities. This wide disparity between the public universities and the private university could be because the government-owned universities have a more enabling environment for ICT competencies acquisition by their academic staff than their private counterpart. With this result, academic staff from the public universities are in a more hopeful state of becoming ICT friendly than their colleagues from the private university since the former are engaging various platforms of developing ICT competencies. This study further affirms the standpoint of Chukwuedo and Igbinedion (2014), that academic staff need capacity building in the use of ICT for instructional, research and administrative purposes. By implication, the means of acquiring ICT competencies considered in this study are engaged majorly in the two public government universities, signifying that they are the major contributors to the cheering result obtained on means of acquiring ICT competencies by academic staff in the universities in Benue State.

Conclusion

Arising from the finding of the study, it was concluded that academic staff in the universities acquire ICT competencies through private computer training, friends, family and colleagues; workshops, seminars and conferences; computer-assisted instructions, and Internet training or online learning. The two public universities in Benue State acquire ICT competencies through the above means more than their private counterpart. With this result, academic staff can become more productive in discharging their statutory duties if more is done regarding their capacity building. However, this conclusion discloses the fact that at this instant, academic staff are individualistically upgrading their competencies in ICT use with little or no sponsor from the concerned authorities, thereby pointing toward negligence of duty on the part of their employers.

Recommendations

Following the findings of the study, the following recommendations were made:

(i) Government at both federal and state levels should show more commitment to the development of ICT competencies of academic staff by making available ICT grants to academic staff on an annual basis. This would enable them to overcome the funding challenge that usually hinders ICT training and development.

(ii) University managements should sponsor ICT competent associates of academic staff at the workplace to train them in using ICT. This would ensure practice-based and cumulative ICT proficiency development.

(iii) The staff development division of the private university should encourage academic staff capacity building through subsidized training cost as this would motivate them to take more advantage of ICT training programs.

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