ICT Needs Assessment of Higher Education Women:
A Case study of Lagos State University (LASU) Women Academics, Ojo Campus, Nigeria

By:

Bosede Oyeteju AMOO (Mrs.) B. Sc Ed. (Chemistry), M. Ed. (Educational Technology)
Ag. Director, Educational Technology Centre,
Lagos State University, Ojo, Nigeria

Abstract

It is now a well-understood fact that without progress towards the empowerment of women, any attempt to raise the quality of lives of people in developing countries would be incomplete (Nath, 2001). *Currently in Nigerian Universities, 15.7% of the academics are women (NUC-VIHEP,2004), and among the female staff, only a small proportion are Professors, Vice-chancellors, Provosts or Principal officers of institution. Dean of Faculties and Head of Departments are predominantly males. Critically looking at the male: female enrolment proportion and leadership positions in the LASU academic circle, it has been established that women are under-represented. While a number of factors have been established for these anomalies, it is high time women academics of LASU are empowered to take up their rightful position in various aspects of teaching and leadership positions effectively. ICT accessibility is one of the tools that can enhance such development since academic promotion is based on publication of relevant and meaningful research reports. The ICT knowledge will enhance their research activities especially in the area of reviewing literature and updating their skills on the latest methods of carrying out research through the internet.*
This paper intends to report a survey study on the women academics of Lagos State University (LASU), Nigeria, in terms of their Basic knowledge and Applications of ICT to enhance their professional skills of teaching and research. It will also submit a report on the specific ICT training needs of the population under study based on the data collected from the study.

Introduction

As far back as 14 years ago, there has been the outcry of the wide gap between women and men in terms of communications technology. Royes (1990) states that:

> the field of international communication is changing. The developing countries must catch up with the rest of the world. And women in both developed and developing countries must move on to catch up with rest of the field.

It has been established for a long time that women should be empowered with information and skills because they are:
- economic agents
- farmers
- key agents of environmental protection
- key agents of human development.

Nath (2001) is still stressing this same issue that in order to raise the quality of lives of people in developing countries, women should be empowered. Every woman at all levels in the society is faced with some problems, which militate against their enhancement in the position they found themselves. The women in the service of the institutions - academic and administration - even have a lot of challenges to cope with in order to rise to higher levels in their careers. They include:

(1) Social and cultural demands on their time, making it extremely difficult for them to devote the kind of time required for excellence in research and scholarship.
(2) Choice between family and career.

(3) Inability to satisfy the promotions criteria of Universities, many of which are based on strong research and publication records especially if the spouse is not supportive (source: excerpts from Makhibu (1998) in www.nucvihep.net April 2004)

It is obvious that an academic woman who is having a young growing family would be faced with two major challenges – home and career. These two are vital for her existence and none can be played down for the other. If need be, she would prefer her home to career. With the level of technology growth available, it is a thing of joy that a woman with access to instruments of Information and Communications Technology will excel in her profession and still maintains a good home.

Lagos State University (LASU) is a non-residential state institution. The institution houses some of the academic staff on the campus but majority of the staff are living within the city. Lagos has her peculiar problems which is an added factor to the one highlighted above against the survival of women in the academic circle. It is the nerve-center of business in Nigeria hence the large population of her residence. This leads to high rate of traffic congestion everyday, especially the three main routes leading to the campus. A non-resident academic woman after waking up early to ensure that the family is well taken care of would come driving herself on the road to the campus and might be on the wheels for more than the targeted time. This as a daily occurrence tends to destabilize and de-motivate a woman from being effective in the class and research work.

It is glaring therefore that there should be alternative way that will still make home and career vibrant for an academic woman in Lagos. ICT can play this role.

Information and Communication Technology (ICT) as defined by Nath (2001) are diverse set of technological tools and resources to create, disseminate, store, bring value-addition and manage information. It is also an established fact that ICT does not only include the internet but quoting Nath it is

a gamut of other tools which could be used individually or in convergence with each other to catalyse the process of change in a manner which reduces the skew in knowledge distribution between……… men and women.

The convergent technologies include community radios, internet radio, local area networks, tele-centres, information kiosks, mobile phones and WAP applications. These are enhancement to the reach and penetration of the ICT. The inception of ICT has opened a window for lifelong learning for women. Internet and Television broadcast opens up avenues for women to continue with their education at their own pace. ICT is also a vital instrument to help the women break from the stereotypical structures and narrow outlooks of the society and from the hegemony of male dominated societal structures.

The questions now are how many of the academic women are taking advantage of these new technologies? Are they skilled to perform simple operations on the PC? Can they even access information on the Websites? Have they PC to work with? Do they have e-mail addresses? Are they interested to learn these skills?

These are the questions this research work intends to answer as it pertains to LASU staff women.

Method

The sample population is LASU women in the academics across the faculties in Ojo Campus. The instrument for the survey research is a questionnaire generated from a

pool of Computer Skills Checklists on the web. The questionnaire was designed to inquire about:

(1) Basic Essential Computer Skills which include basic operations, the use of general commands on the Computer, application of disks, folders and documents and housekeeping (routine operations)

(2) Specific Computer Skills – a breakdown of the basic skills above to ensure that they give accurate information about the skills they are experienced with. These include:

  a. Keyboard. mouse and related skills
  b. Desktop Competencies i.e. Windows competencies, Writing and Word processing competencies as well as presentation competencies
  c. Internet Competencies i.e. Communications Competencies, Data retrieval and Manipulation competencies

In addition, the general information gave an overview of the type of computers they have acquired, their e-mail addresses and the frequency of checking their mails on the website.

The questionnaire was personally distributed to the female academics on campus and was collected on the spot.

Findings

The data was analysed using the mean percentage of the frequency counts for each option. The following are the results:

General information

From the analysis 90% of the women have Personal Computers, about 5% have Laptops, while 5% have none and about 17% have both PC and Laptops. 90% of them have e-mail addresses while the rest have none. Also, it is interesting to find out that 10% of the women check their mails everyday, 38% twice a week, 33% check their mails occasionally while 19% cannot check their mails on their own. This shows that even though most of the women have purchased computers, some are yet to even learn how to use it to perform simple operations. In discussing with the women while they were filling the questionnaire, some of them mentioned that they were either assisted by their children or their husbands to operate the computer and to check their mails.

Essential Computer Skills

The findings on the basic computer skills of the LASU women academics are shown in Tables 1 & 2 and Figs. 1& 2 below.

Table 1: Mean Responses (%) on Basic Computer Skills

	Basic Operations	General Commands	Disks/Folders/Document	Housekeeping
Want to learn	4.8	15.5	25.7	32.5
No Experience	9.5	16.0	12.4	13.5
Have some Experience	30.9	25.6	23.8	26.2
Experienced	54.7	42.8	38.1	27.8

Fig. 1: Bar Chart showing the Mean Responses(%) of Options on Basic Computer Skills
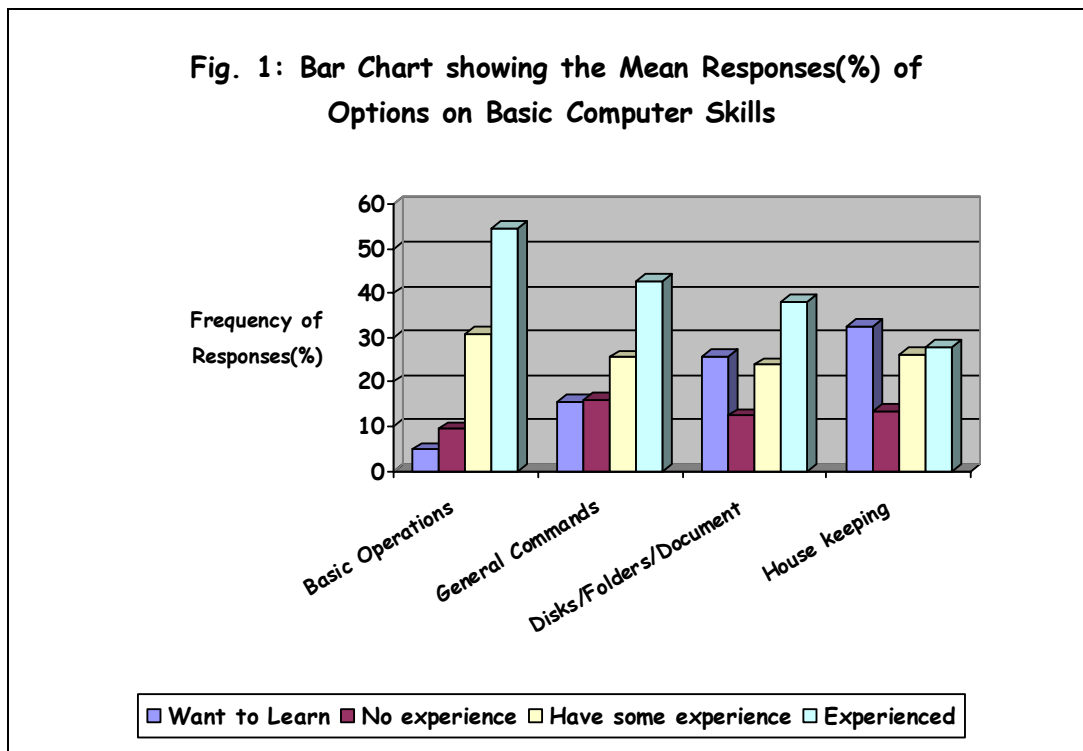
From Fig.1 above the bar chart shows that only few of the women academics (between 10% and 16%) have no experience in the various skills. The interesting aspect of this research is that there is a gradual fall in the percentage of women with experiences in the basic skills as one moves from the simple operations to more advanced ones and the graph also shows a gradual rise in the percentage of women who would like to learn the skills as one moves from the basic operations to the more advanced levels of the basic skills.

It is assumed that the respondents who marked that they are inexperienced definitely require training while those with some experiences can be grouped with the experienced ones and they require little or no training. Therefore, Table 2 below shows a pooled analysis of Table 1. The table shows the percentage of women with experiences in the various levels of computer skills operations and those who should be trained.

Table 2: Pooled Mean Responses (%) on Basic Computer Skills

	Basic Operations	General Commands	Disks/Folders/Document	Housekeeping
No Experience	14.3	31.5	38.1	46.0
Experienced	85.6	68.4	61.9	54.0

Fig 2: Pooled Mean Responses(%) for Basic Computer Skills
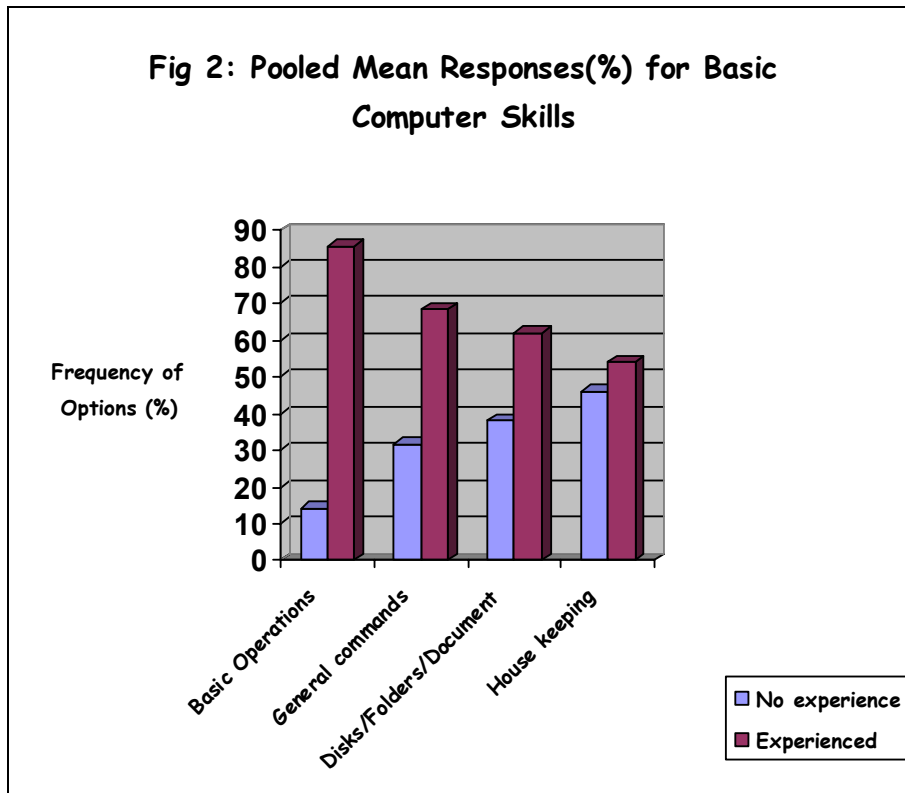
From figure 2 above, the bar chart confirms the findings earlier discussed in figure 1. About 46% of LASU women academics will require training in the basic computer applications.

Specific Computer Skills

The findings on the specific computer skills of LASU women academics are as shown in Tables 3 & 4 as well as Figs.3 & 4 below.

Table 3: Mean Responses (%) on Specific Essential Skills

	Keyboard, Mouse & related Skills	Windows Competencies	Writing & Word Processing Competencies	Presentation Competencies	Communications Competencies	Data Retrieval & Manipulation Competencies
Want to learn	3.8	26.8	15.0	36.9	28.6	29.8
Can't do it again	7.1	9.0	9.5	9.5	9.5	11.9
Might do it	12.4	11.5	10.2	8.3	14.3	11.9
Could figure out how to do it	23.8	16.3	13.6	17.9	14.3	16.6
Could easily do it	52.8	36.3	51.7	27.4	33.3	29.8

Fig 3: Bar Chart on Mean Responses(%) for Specific Computer Skills
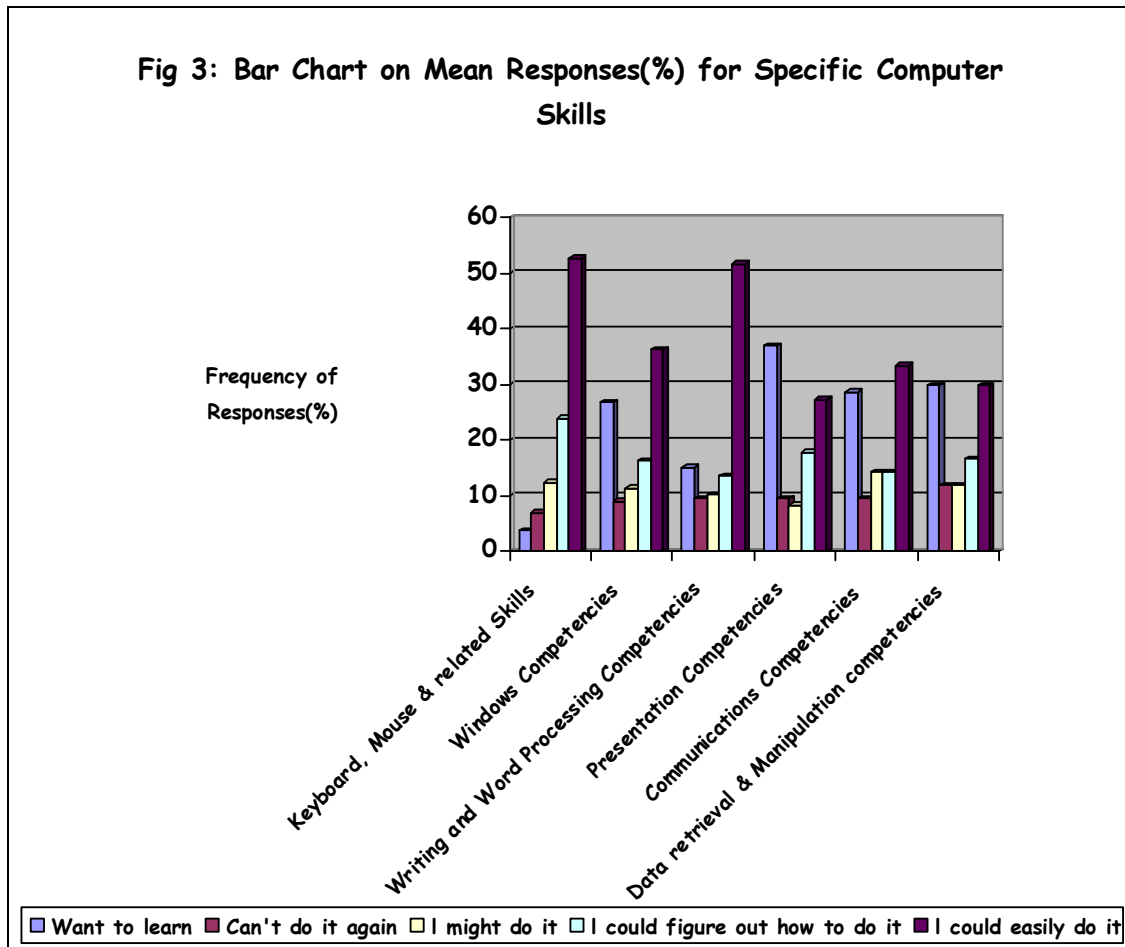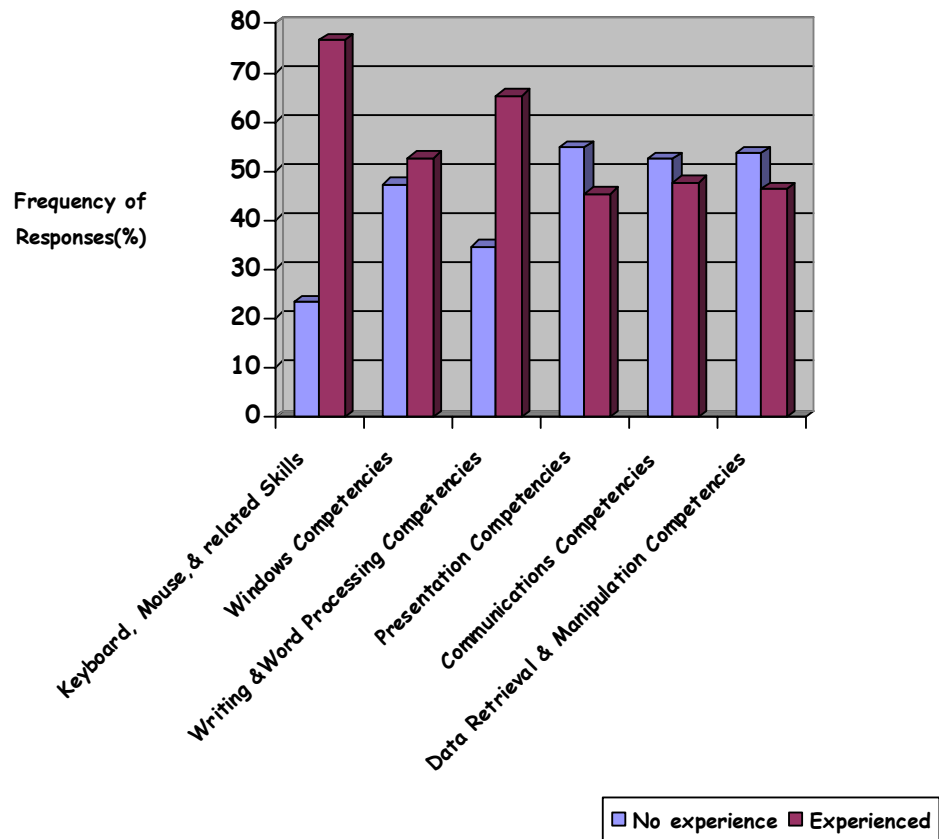
Table 4: Pooled Mean Responses (%) on Specific Skills

	Keyboard, Mouse & related Skills	Windows Competencies	Writing & Word Processing Competencies	Presentation Competencies	Communications Competencies	Data Retrieval & Manipulation Competencies
No Experience	23.3	47.3	34.7	54.7	52.4	53.6
Experienced	76.6	52.6	65.3	45.3	47.6	46.4

Fig 4: Bar Chart on Pooled Mean Responses (%) for Specific Computer Skills

From figure 3 above, the bar chart shows that there is a high percentage of LASU women academics (about 53%) with experiences in keyboard, mouse and related skills followed by Writing and Word processing competencies, then Windows and Communication competencies, while about 37% are eager to learn about Presentation and Internet competencies. In figure 4, the bar chart on the pooled Mean responses for specific computer skills also shows that the percentage of women academics in LASU with experiences in keyboard, mouse and related skills, windows, writing and word

processing competencies are more than the inexperienced ones. Reverse is the case for Presentation and Internet competencies. There are more inexperienced women in Presentation and Internet competencies. This also is a confirmation of the findings in figure 3.

Discussions and Recommendations
This study has conducted a needs assessment study on LASU women academics with a focus on the identification of their training needs. The followings are the findings from this research study:
    (1) Most of the women can perform basic computer operations
    (2) The women are inexperienced with Presentation and Internet competencies as well as the technical applications of Windows programme.
    (3) They are eager to be trained in the skills where they are deficient
    (4) Almost all of them have their personal computers but not all of them can operate them.
    (5) Some of the women academics do not have e-mail addresses while some who have are being assisted to check their mails.

It is glaring from these results that the women academics in LASU have not been using some of the new technologies to update their skills and knowledge and to enhance teaching and learning of the higher education students. It is obvious that rote learning activities are what would be operating in most of their classes. This also confirms what operates in the Educational Technology Center of LASU when some of them come for academic browsing on the Internet as some will need assistance to check their mails.
The Nigerian policy on education expects teachers at various levels of the educational system to be versatile in the teaching-learning activities. The policy expects teachers to apply new technologies during classroom interactions.

In order to enhance the implementation of this, the National Universities Commission of Nigeria organized an on-line in-service training programme of 9 modules in 2003/2004 to enhance higher education teaching competencies of the University teachers. One of the modules trained on application of old and new technologies for teaching. Only two of the women academics in LASU participated fully in the programme. Apart from the busy schedule of some of the academics especially those who are saddled with administrative responsibilities, the power supply is not regular to motivate the application of these new technologies.

In LASU, the Internet facilities available are not owned by the University. It is privatized and is being run by a company. At times the facilities are not available for months. Even when the women are on the campus, they do not have regular access to Internet facility. Recently, the University is providing fund to reactivate the academic roles of the Educational Technology Center. Thus the center has been able to procure a lot of equipment and materials for teaching and learning as well as for presentation of seminars and workshops. The center also has internet facility for use by the academic staff of the University. The problem of the center now is inadequate computers to provide the services. About 5 of the women academics are regularly in the center to check their mails and only two out of them are really using it for academic browsing. Some of these women are requesting for training programme on computer operations. With the outcome of this result, it is pertinent that the

Educational Technology Center of the University should be challenged to provide such academic services of training the women in the application of ICT for teaching, learning, and research.

To make training effective and empowering for women, Kindervatter gave five keys for creating training programmes that will motivate women to attend and will result in concrete changes in their standards of living and status:
   (1) Training must be appropriate in content and to the context of women's lives
   (2) Development of materials should be rooted in the field
   (3) Participatory methods are most effective hence the need for more computers to train the women
   (4) Select trainers for their sensitivity to women's needs and train them on the job
   (5) Link programmes to other resources and services

The University should also be ready to provide funds for the establishment of a functional cyber café which will accommodate large number of people at a time.

The International organizations like African IT Education Trust can also assist in the donation of computers to the Educational Technology Center to enhance the training of women in ICT skills within LASU. This will encourage the head of the center who is a woman and thus enhance her performance as she would be able to play a role model of enhancing the skills of other women to learn the ICT applications. There are some women within LASU who have acquired Internet facility and are maximally using it but the number of those women who are yet to operate the basic skills are more and we need to train them. We can discuss ICT and women globally but we will also need global support and appropriate networking to implement locally.

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