

COMPUTER SKILLS AND COMPUTER ANXIETY AS PREDICTORS OF INTERNET USE BY DISTANCE LEARNING STUDENTS IN UNIVERSITY OF IBADAN, NIGERIA

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Abstract

The study investigated the extent to which computer skills and computer anxiety predict Internet use among distance learning students in University of Ibadan, Nigeria. The descriptive method of correlative type was used for the study and the sample comprised of one hundred and thirty four (134) distance learning students of the University of Ibadan. selected across eighteen (18) departments while the major instrument of data collection for the study was a structured questionnaire. Findings from the study revealed that the level of computer skills possessed by distance learning students in University of Ibadan, Nigeria was high while their computer anxiety level was low. Also, the major purposes of Internet use by the distance learning students were writing CBT examination and test, writing continuous assessment and printing course registration. Also, computer skills and computer anxiety were found to jointly predict Internet use by the distance learning students though computer skills contributed more to Internet use than computer anxiety.

Key Words: *Computer skills, Computer anxiety, Internet use, Open and distance learning students*

Background to the Study

Internet use is spreading rapidly into daily life directly affecting people's ideas and behaviour and also increasing significantly the processes of learning, teaching, research and management in educational institutions. The revolution brought about by Internet is exerting profound effects on education because of the vast information resources available to support teaching, learning, training and research. Regardless of location; Internet enables easy communication among students, teachers, and researchers in sharing ideas, knowledge, experiences, and cultures by preparing them to launch into the society.

Researchers such as Adogbji and Ukporthonor (2005) and Ajayi and Aramide (2012) have identified the impact of the Internet on education by highlighting that the Internet is able to provide access to large amount of information resources across boundaries, while Kamara (2010) supports the fact that the Internet is exposing both teachers and students to current trends and resources in their field of studies. The Internet is therefore adjudged as being a

global collection of different types of computers and computer networks interconnected together for the purpose of communication, information transfer and resource sharing (Eyitayo, 2008).

In addition, there is a growing interest in the integration of internet and other related facilities into classrooms activities as well as out of classroom activities in form of open and distance learning which in turn offers a wider spectrum of valuable benefits for teaching and learning as it enhances students' skills and capabilities through its successful integration into educational institutions. Internet has brought positive impact on higher education by heralding the development and implementation of new and innovative teaching strategies in higher education institutions. Educators who advocate technology integration in the learning process believe it will improve learning and prepare students to effectively participate in the 21st century workplace.

Moreover, Internet use has become a way of life for the majority of university students including those operating in open and distance learning mode all around the world. For most university students the Internet is a functional tool, one that has greatly changed the way they interact with others and with information as they go about their studies. They use the Internet to accomplish a wide range of academic tasks including preparation course assignments, making study notes, tutoring themselves with specialised multimedia as well as processing of data for research. Also, most students exchange e-mails with faculty, peers, and remote experts, keep up to-date in their fields on the Internet, accessing newsgroups, bulletin boards, listservs, and web sites posted by professional organisations. Usun (2003) cited in Sokoya (2016) mentioned that Internet is appealing to higher education for a number of reasons such as; reducing the time lag between the production and utilisation of knowledge, promoting international co-operation and exchange of opinions, further the sharing of information, and promoting multidisciplinary research.

However, to benefit from the huge resources on the Internet, students must have positive attitude towards the use of computer and also have personal confidence that would assist them educationally to enable them to have potentials to alter the traditional ways in which education is being delivered in Nigerian secondary schools. Thus, students' efficacy in the use of computer to access the Internet is of great importance for better academic performance. As developed by Bandura (1986, 1991, 1997), self efficacy is the belief in one's capability to organise and execute course of action that is required to carry out specific exercise that has influence over events that affect one's life. According to Popoola (2009), self efficacy is based on four sources of information that have to do with personal perception of one's capability level as influenced by previous experiences, observation of others' experiences, cognitive, verbal persuasion / selective processes and affective arousal sources. All these explain that personal conviction of one's self capability to carry out a task will influence the outcome of such set goal. In addition, self efficacy is a personal belief in one's capability to organise and execute the course of action that is required to successfully complete a task in order to accomplish set goal.

Therefore, computer self-efficacy has been identified as a specific efficacy which is an important determinant of computer-related tasks such as computer and Internet usage (Robertson and Al-Zahrani, 2012). Johnston, (2005) computer self-efficacy has been

shown to play a significant role in an individual's decision to use computers and related technologies. A personal decision to use computer effectively will determine how long one can go in making use of computer related technologies in any giving situation. However, an individual whose personal thinking is influenced by other people's negative experience on the use of computer will likely have little confidence in their ability to use computer. This also involves how confident learners are in performing assigned learning tasks in technologyrelated environments. However, computer self-efficacy of students may be influenced by their level of anxiety towards computer use, otherwise known as computer anxiety. Computer anxiety refers to a situation where an individual experiences fear of the unknown, feeling of frustration, possible embarrassment, failure and disappointment towards computer usage (Achim and Al-Kassim (2014).

It is, therefore, expected that people who have medium to high levels of computer anxiety would perform less than those with low level of computer anxiety in activities involving the use of computer such as computer-based assignments and examination. Moreover, computer anxiety can be considered as an affective response which may be mediated by beliefs about lack of ability to use a computer. Therefore, computer anxiety is likely to influence individual's choice of learning about computers and achieving a realistic level of competency in computer and related technologies usage. It could also be positive anxiousness to use computer; eagerness to use technology facilities Kanlaya (2013). Computer anxiety directly relates to general perception of use of computer or the fear of computers when using one, or experience of other people's negative experience or fearing the possibility of using a computer (Venesky, 2001 cited in Laosethakul and Leingpibul, 2010). Therefore such experience can influence the use of computers or computer related tasks like the Internet utilisation.

Computer anxiety is described as an effective response of an emotional fear of potential negative outcomes such as damaging the equipment or looking foolish when using computer. Thus, the performance of students with high computer anxiety might be poorer than those with little or no computer anxiety. Although some students are enthusiastic about computers, others may be apprehensive or reluctant (Sushma Mishra, 2014) and this will affect individual student in their personal perception on the use of computer and eventual use of the Internet. However, students may feel comfortable or anxious on the role and use of computers in their lives, thus all students must be familiar with and be competent in using computers and computer related technologies to enable them access and share knowledge for better academic performance. Competency in computer use will also enable students to have a place in their environment as technology dominates all avenues of their societal as well as personal lives. The use of computer for examination purposes is now obtainable everywhere in the world as part of steps to work on students' attitude towards computer use in order for them to be relevant in the society.

Internet integration in open and distance learning education has brought tremendous development into global access to higher education by students as it is being used as a tool for students and facilitators to communicate and share several form of resources to expand their knowledge base (Ajayi and Aramide, 2012) Though, Internet may have some drawback as privacy problem, difficulty to search and to find relevant information, yet, it is more informative, relatively fast and accessible 24 hours a day which make it more

relevant for open and distance education. The use of Internet (if maximized) plays a major role in helping university student access large number of materials from different parts of the world (Ifeoma, 2010). With its advent, lecturers and students in open distance learning education can work together without physical interaction between each other and achieve the same objective with that of traditional way of studying in the universities. Lecturers exchange ideas and communicate effectively since teaching, learning and research is now made easy with the Internet.

The widespread use of Internet have made open and distance learning education easier and faster, and today virtual schools and virtual universities deliver full curricula online. The capacity of Internet to support voice, video, text and immersion teaching methods made earlier distinct forms of telephone, videoconferencing, radio, television, and text based education somewhat redundant (Penny, 2006). However, many of the techniques developed and lessons learned with earlier media are used in Internet delivery. Open and distance education has a long history, but its popularity and use has grown exponentially as more advanced technology has become available. Internet forums, online discussion group and online learning community can contribute to an efficacious open and distance learning education experience.

However, regardless of the positive and interesting revolution brought into higher education as well as its unending uses, especially in open and distance education, studies on Internet usage for teaching, learning and research such as Penny (2006), Simon (2008), Nwokedi (2011) among others have revealed that some students still lack the relevant and requisite skills and competencies as well as abilities of searching the Internet, which could be attributed to their level of computer self-efficacy and anxiety. It should be noted that low self efficacy in Internet could influence low sense of the use of Internet than is expected of any student in this computer age. Nwokedi (2011) reiterated that Internet has the potential to complement, reinforce, and to enhance the educational process for better learning.

Although some students are enthusiastic about computers and related technologies such as Internet, others may be apprehensive or reluctant (Arani, 2001; Doyle, Stamouli, & Huggard, 2005). However, whether they feel comfortable or anxious regarding the role and use of computers and related technologies in their lives, all students, especially open and distance learning students are expected to be familiar with and even competent in using these technologies in all avenues of their societal as well as personal life. However, getting such a competence or skill may not be easy for many reasons.

It is predicted that the more people use computers in their daily lives, the less such people will face difficulties with Internet usage (Beckers & Schmidt, 2001). Among other factors, computer anxiety may be a serious barrier against usage of Internet for learning. On the other hand, although it has been studied for a long period of time, there is no clear-cut consensus regarding the definition and full scope of computer anxiety. Maurer (1994) cited in Sokoya (2016) defined computer anxiety as the fear and apprehension felt by an individual when considering the utilisation of computer technology or when actually using it. Chua, Chen, and Wong (1999) also defined computer anxiety as a fear of computers when using one or fearing the possibility of using it when needed. According to

these definitions, computer anxiety is characterised as an affective (to some extent emotional) response. It is different from negative attitudes toward computers that entail personal beliefs and feelings about computers rather than one's emotional reaction towards using computers (Sam, Othman, & Nordin, 2005).

Computer anxiety has been conceptualized as a multi-dimensional construct which according to Torkzadeh & Angulo (1992) comprises of three major dimensions of psychological, operational, and sociological. To be more concrete, psychological dimension includes attitudes toward computers, computer skill, personality types, avoidance, and self-perceptions. Operational dimension usually results from computer nature experiences acquired in using computers, the extent of experiences with the computer, and owning a personal computer. Sociological dimension is related to factors of age, gender, nationality and socio-economic status. Beckers and Schmidt (2001), on the other hand, suggested a six-factor computer anxiety model viz: computer literacy of basic computer skills, self-efficacy on learning how to use computers, physical awareness while using computers such as breathing or sweating, attitudes toward computers, positive belief regarding the benefits of computers to society, and negative beliefs on effects of computers. However, research tends to support that more experiences with computers reduce the level of anxiety. This is particularly true when students start using computers at early ages, owning a personal computer at home, use of computers more frequently in daily life, and their academic major.

Furthermore, researchers have proposed that lower computer anxiety and higher computer skill may be important factors in learning computer and employing them effectively and efficiently. On the other hand, some students may feel confused or even lost when they encounter computers as a result of negative perceptions of their own personal capabilities. This phenomenon, which is two-faceted with both negative and positive ends, is directly related to the concept of self-efficacy. Kinzie, Delcourt, and Powers (1994) defined self-efficacy as an individual's confidence in his/her ability to perform a task for producing specific outcome, which may impact personal engagement, effort, and persistence. Within this context, computer skill is a specific type of skill referring to a belief of one's capability to use the computer. The amount of mental efforts that students make for acquiring computer skills or performing computer-related tasks may interact with their perceived skill in the computing field (Karsten & Roth, 1998). If they think that they know enough or they can learn how to use computers easily, their anxiety may be low; alternatively, when they know little or think that it is difficult to learn/use computers, they may be more anxious (Konerding, 2007; Sam, Othman, Nordin, 2005). Sokoya (2016) demonstrated that computer skill has been positively related to performance during computer training. Zhang and Espinoza (1998), on the other hand, found that the less confident a student feels about computer use, the more he/she desires to learn about computer technology. Harrington, McElroy, and Morrow (1990) supported that a high level of computer anxiety has been negatively related to acquiring computer skills. Torkzadeh and Angula (1992) suggested that students with higher level of computer anxiety exhibited more resistance to the use of computers.

There are also studies reporting that males on average have better computer skill and greater computer anxiety than females (McIlroy, Bunting, Tierney, & Gordon, 2001;

Torkzadeh & Koufteros, 1994). Several studies have even investigated female students' choice of courses and careers, and skill turned out to be a crucial predictor. Females had significantly lower computer skill than males in math related areas including computer science (Hackett, 1985). However, controlling for computer experience, males and females had similar interest toward computers (Badagliacco, 1990). Recently it has been suggested that the contemporary male and female students alike are more pragmatic so that there may not be differences between genders and generalizations in terms of computers. Shaw and Giacquinta (2000) reported that two commonly held beliefs that older students show more resistance than younger students toward computing for academic purposes and that males are more interested and skilled in the use of computers than females, are no longer accurate. Taken together, these results suggest that computer anxiety and computer skill can have an important effect on computer use, internet use and ability to learn how to use computers.

In open and distance learning education, Internet integration in the learning process was believed to improve learning and better prepare students to effectively participate in the 21st century workplace. Indeed, teaching and learning process in recent years has been facilitated by the combined use of a variety of technological, instructional, and pedagogical approaches (Bonk & King, 1998; Marina, 2001; Ajayi and Aramide, 2012). In distance learning education, results in computers based assessment and test process, have been traced to students' computer skills and computer anxiety levels which is of important factors in helping students to pass the examinations. Experiential evidence indicates that many university students, including open and distance learning students, have some sort of computer related phobia. Computer anxiety to some extent may be determined by the computer skill of the students such that students with high computer skills may have low computer anxiety as compared to students with little or no computer skills.

Furthermore, computer skill entails the ability of the student to operate a computer with proficiency (Kinzie, Delcourt and Powers, 1994; Kamara, 2016). It is also the students' knowledge of the system and the ability to utilise such knowledge to keep the system running, recover from full or partial failures, or save jobs in progress without resorting to full restart and/or data restoration procedures. The student's alertness, speed, and accuracy of judgment in determining what should or should not be done are crucial requirements for ascertaining the computer skill acquired by a student thereby influencing their Internet use. The lack of computer skills can increase anxiety among students, perhaps reducing their sense of self confidence and, as a result, their academic success.

Exploring this complex relationship has led researchers to examine quality of the experiences with computers, suggesting that certain types of computer skill (e.g. applications vs. programming), environments (e.g. lab vs. lecture setting), and teaching strategies (e.g. responsive, hands-on, relevant) are related to changes in computer anxiety over time (Gardner, Discenza, & Dukes, 1993; Leso and Peck, 1992; Kamara, 2016). Negative experiences with computer are likely to increase computer anxiety, whereas positive experiences are likely to reduce them thereby increasing their Internet use. Computer skills such as word processing application, graphics, spreadsheet and database

has aided internet explorations and decrease computer anxiety. In summary, computer anxiety is related to computer skill but Internet use is not merely a function of time, but related to computer skill.

Internationally, reports abound in literature on Internet use by University students. Robinson (2005) examined Internet use among African/ American college students in US historically Black Colleges and Universities. The findings showed that most of the students (76%) had used the Internet for more than three years, access points being at school for 49% or at home for 47%, an average of two hours per day was spent online and the main purpose of Internet use was to learn and find school resources. Also, Kaur and Manhas (2008) conducted a survey on the use of Internet services and resources by students and teachers in the engineering colleges of Punjab and Haryana states of India and found that all the respondents make frequent use of the Internet because they gained access from either college or at home. More than 75% of the respondents use the Internet services for educational and research purposes.

Malik and Mahmood (2009) conducted a study on web search behaviour of students of University of the Punjab. The study found that 59.5% of the students used the Internet to search the materials for their information needs at home, 25% at university, 15% at both home and University and 0.5 % at some other places. The majority of the students (67.5%) used the Internet daily; 72.5% of the population used the Internet for research, 76.5% for education, 68% for entertainment, 18.5% for sports and 6% for shopping purposes. Google was the most frequently used search engine by 97%, followed by Yahoo (72%). Thus, the use of the computer and internet is rapidly becoming a key component among the university students in many parts of the world. The level of computer skills among the students has been found to influence their use of Internet. In a study carried out in Nigeria (Ajuwon, 2003), only 43% of the sample could use the computer. The relatively lower proportion of those who could use the computer may be a reflection of a limited access to computers among first year health sciences students in Nigeria. Similar studies in Finland and Malaysia also showed that there is higher proportion of university students using computer for their studies (Nurjahan, 2002).

The increased use of Internet technology, particularly in open and distance education has allowed universities who are constrained by both time and space, to provide more educational opportunities. As online education gains in popularity, it becomes more important to recognize the inherent advantages offered by this medium. Online education is more than education that occurs over the Internet. It can be viewed as a complex system of knowledge presentation that occurs in an environment devoid of the personal presence of an educator. For example, the online class is structured differently due to the lack of a physical classroom and there are differences in communication channels between student and educator as well as between students. Previous research in computing education has identified several personality traits that have an influence on student internet use. Two traits that have consistently shown to be influential on internet use are perceptions of computer skill and computer anxiety. Although the results are mixed, most studies agree that computer anxiety influences computer skill while computer skill directly influences students' internet use. A number of studies have examined the relationship between computer anxiety and a variety of variables. Some researchers investigated the

relationship between computer experience and computer anxiety, others looked into relationship to gender, age, or personality traits. It is on the basis of the foregoing that this study investigated the extent to which computer skills and computer anxiety predict the use of Internet among open and distance learning students of University of Ibadan, Nigeria.

The following research questions were formulated to guide this study:

1. What is the level of computer skills possessed by distance learning students in University of Ibadan, Nigeria?
2. What is the level of computer anxiety among distance learning students in University of Ibadan, Nigeria?
3. What are the purposes of Internet use among distance learning students in University of Ibadan, Nigeria?
4. To what extent would computer skill and computer anxiety jointly predict University of Ibadan distance learning students' use of the Internet?
5. What is the relative contribution of computer skills and computer anxiety towards Internet use by distance learning students in University of Ibadan, Nigeria?

Literature Review

History of Distance Learning in University of Ibadan

The idea of distance education was conceived by the Department of Adult Education of the University of Ibadan in 1972. The proposal for the commencement of the various programmes was presented to the Senate of the University in 1976. Later, the National Universities Commission also gave its approval on the condition that it would be a self-financing programme. Hence, the present-day Distance Learning programme started first as External Degrees and later changed to External Studies programme of the Department of Adult Education in 1988, with courses from the parent department (Adult Education) and two other departments, Guidance and Counseling and Teacher Education.

By 1993, four more departments; Special Education, Library Science, Educational Management and Physical and Health Education had joined the original three departments to offer courses leading to the award of the Bachelor of Education (B. Ed) degree. In 1998, the programme was extended to the Faculty of Agriculture. In order to keep pace with global developments, the name of the centre was changed from Centre for External Studies to Distance Learning Centre in 2002. Since inception, the centre has graduated over 4,000 students. The Distance Learning Centre's programme of studies is the same as that offered for full-time students of the University of Ibadan. The only difference is that it is designed primarily to suit those in the working class, whose schedules, distance, financial condition and other situations may not permit them to undergo full-time studies at the university. These students read their study-packs at their convenience, communicate with their lecturers on-line from time to time, and only come into residence six weeks in a year for revision and examination.

The distance learning centre of University of Ibadan has been able to operate effectively and efficiently in their educational operations, also able to communicate effectively with their students through the use of the internet. The Internet allows greater flexibility in working hours and location for the distance learning centre, especially with the spread of

unmetered high-speed connections. The Internet can be accessed almost anywhere by the distance learning students by numerous means, including through mobile Internet devices. Mobile phones, datacards, handheld game consoles and cellular routers allow distance learning students to connect to the Internet wirelessly. Within the limitations imposed by small screens and other limited facilities of such pocket-sized devices, the services of the Internet, including email and the web, may be available. Service providers may restrict the services offered and mobile data charges may be significantly higher than other access methods.

In University of Ibadan distance learning centre, all academic operations were carried out with the use of the internet (i.e via the Internet), hence the student cannot but try to overcome their computer anxiety and capitalise on their computer skills for continued use of the internet in order to achieve their academic pursuit. The Distance Learning centre of the University of Ibadan hosts a website on which all the academic transactions takes place. The website address is www.dlc.ui.edu.ng. Once the website is accessed on the internet through any internet search engines; it displays the site and needed information about the centre for students who wants to be a part of their academic programme.

Various operations that can be performed on the University of Ibadan distance learning centre website through the use of the internet includes, advertisement for admission, application for admission (all admission processes from obtaining, filling and processing of application form to admission list, issuance of admission letter and printing), payment of school fees and printing of receipt, students' registration to obtain matriculation number, setting up of students' profile on the portal, course registration and printing of registration form, downloading and printing of educational materials, Medical and Library registration and printing of authorisation forms, printing of student's identity card, downloading and submission of continuous assessments, writing of computer based test and examination (CBT tests and examinations) and e-mail for effective communication between the students, facilitators and the distance learning management.

Also, through the use of the internet, the open and distance learning students are able to access scholarly literature through the likes of Google Scholar which help with homework and other assignments, examinations, self-guided learning, whiling away spare time, or just looking up more detail on an interesting fact. Although, it has never been easier for the open and distance learning students to access educational information at any level from anywhere but the Internet in general and the World Wide Web in particular are important enablers of both formal and informal education.

The open and distance learning centre of University of Ibadan creates a conducive and an enabling environment which makes life easy, convenient and stress-free for their students in all ramifications of their daily transactions and interactions with the institution by establishing a student support centre which the students can easily reach online by mail or through telephone calls to give instant technical support, advice and instructions to students who encounter one problem or the other in the course of their educational transaction on the internet. This has really encouraged the students' academic pursuit on the Open Distance Learning platform of the University of Ibadan distance learning programme.

Internet Use among University Students

In a survey of Internet usage of the students of an American Agricultural College, Rhoades et al. (2007) found that most of them used Internet at their homes and used a search engine when online. The majority of students tended to indicate seeing the Internet as good, easy to understand, important, beneficial, believable, credible, and accurate. In a study of Omani university students, Asan and Koca (2006) found that majority of the students had positive attitudes and they concentrated on positive and consciousness about Internet. Great percentage of students was thinking that Internet is a universal digital library, provides easy life, and is a fastest way to reach knowledge. A study of the students of a Nigerian university by Anunobi (2006) revealed that 81% used Internet for academic purposes as compared to 15% who used it for entertainment purposes. A survey of the Indian medical students by Sharma, et al. (2006) revealed that above 80% used Internet to get information or for research work. Most of them preferred Internet because they perceived it a source of latest knowledge. A large majority used Google search engine. In a study, conducted by Hong, Ridzuan and Kuek (2003), Malaysian university students showed a positive attitude toward using the Internet as a teaching and learning tool.

Jagboro (2003) found that Internet was the fourth most important resources for materials among the postgraduate students with respondents using the Internet to access research materials and for email. Omotayo (2006) studied Internet use by students of Obafemi Awolowo University, Ile Ife, and found that 89.9% of the students used the Internet. Ojokoh and Asaolu (2005) studied the internet access and usage by students of Federal University of Technology, Akure and found that only 3.4% of the respondents were not using the Internet. Anasi (2006) investigated the pattern of Internet use by students of the University of Lagos and found low use of Internet among students from Law and Education, though Internet use had very high impact on their academic career. Mishra (2009) studied the use of Internet at the University of Maiduguri, Nigeria. The findings showed that Internet was very important for 60.8% of the respondents, with 74.6% using the Internet for research; 71.5% mentioned Google as their preferred search engine and concludes that necessary facilities should be put in place for faculty and students to make optimal use of information resources available on the Internet. The low cost and nearly instantaneous sharing of ideas, knowledge, and skills have made collaborative work dramatically easier for open and distance learning students, with the help of collaborative software while using the Internet.

Internet Use for Distance Learning Education

Internets are loose amalgamation of computer networks interconnected worldwide through several backbone networks (Adomi, 2008). It emerges as the educational tool by being a good source of getting the right information and solution to problems in an academic environment. Core research findings have been traced to the universities and application of these innovations has resulted in tremendous gains to country's economy according to Awoloye, Siyanbola & Oladipo (2008). No wonders, a number of universities in Nigeria are now making emphatics moves to improve on their information and communication policies most especially universities running distance learning education mode.

Internet appearance in open and distance learning education was being used as a tool for students and facilitators to communicate and share project data. Though, it has some drawback as privacy problem, difficulty to search and to find relevant information. Yet, it is more informative, relatively fast and accessible 24 hours a day. Internet has a wide base that allows access to an enormous range of research information either as full publications, reports, summaries or abstracts (Penny, 2006). The use of Internet (if maximized) plays a major role in helping university student access large number of materials from different parts of the world (Ifeoma, 2010). With its advent, lecturers and students in open and distance learning education can work together without physical interaction between each other and achieve the same objective with that of traditional way of studying in the universities. Lecturers exchange ideas and communicate effectively since teaching, learning and research is now made easy with the Internet.

The widespread use of computers and the internet have made distance learning education easier and faster, and today virtual schools and virtual universities deliver full curricula online. The capacity of Internet to support voice, video, text and immersion teaching methods made earlier distinct forms of telephone, videoconferencing, radio, television, and text based education somewhat redundant. However, many of the techniques developed and lessons learned with earlier media are used in Internet delivery. Open and Distance Learning education has a long history, but its popularity and use has grown exponentially as more advanced technology has become available.

The modern use of electronic educational technology (also called e-learning) facilitates Distance Learning education and independent learning by the extensive use of Information and Communications Technology (ICT), replacing traditional content delivery by postal correspondence. Instruction can be synchronous and asynchronous online communication in an interactive learning environment or virtual communities, in lieu of a physical classroom. The focus is shifted to the education transaction in the form of virtual community of learners sustainable across time. One of the most significant issues encountered in the mainstream correspondence model of distance education is transactional distance learning. Transactional distance learning results from the lack of appropriate communication between learner and teacher. This gap has been observed to become wider if there is no communication between the learner and teacher and has direct implications over the learning process and future endeavours in distance learning education. Distance Learning education providers began to introduce various strategies, techniques, and procedures to increase the amount of interaction between learner and teacher. These measures e.g. more frequent face-to-face tutorials, increased use of Information and Communication Technologies including teleconferencing and the Internet, were designed to close the gap in transactional distance learning education.

Computer Skills of University Students

The use of the computer and Internet is rapidly becoming a key component among the university students in many parts of the world. The level of computer skills among the students has been found to influence the use of Internet. In a study carried out in Nigeria (Ajuwon, 2003), only 43% of the sample could use the computer. The relatively lower proportion of those who could use the computer may be a reflection of a limited access to

computers among first year health sciences students in Nigeria. The relatively high cost of this product within the country is one of the primary reasons for this situation. Increased funding to Universities by government and Non-Governmental Agencies (NGA) is likely to solve this problem. This would enable Nigerian universities to set-up computer laboratories in various faculties where students can have full access to Internet services as it is done in other countries including America. Similar studies in Finland and Malaysia also showed that there is higher proportion of students using computer for their studies (Nurjahan, 2002).

Distance learning students are expected to have basic computer skills such as being able to operate a computer; navigate and use the internet to conduct and complete academic and administrative transactions electronically due to the nature of their studies which is conducted on-line. For example, internet web-based applications such as registration, payments of fees, download of course materials, etc. The recent increased usage of web-based instruction in distance learning education have increased the distance learning management's expectations of students possessing a minimum computer skill to participate in the programme. To make internet use effective, operational computer skills are essential. The basic level is the learning of keyboard. This level must be learned to make entries, encoding, processing, and retrieval of information into a computer. Keyboard use for computers requires knowledge of typing. It also forces people to perform keyboard activities that have an association of a low-status work performed by powerless people (Galgan, 1983). According to Wentling (1990), keyboarding is an act of placing information into a computer by using a typewriter-like keyboard, placing fingers on designated keys, and moving the fingers as needed to depress other keys. The use of touch-keyboarding accelerates the computers operation on the internet and enhances productivity. Student with adequate keyboarding skills can concentrate on problem solving rather than on the mechanics of typing. This aspect of computer skill can greatly equipped the distance learning students to be able to use the internet effectively by surfing the internet to access information, use various Internet resources on the World Wide Web, use a web browser, use a web browser to access a specific web site and to perform a specific web search, type the URL of sites to be able to find information on these sites, use a web browser to perform a keyword search for specific information, create, delete, organize, use, and save favourites and pages, change the web page to be use as the home page in browser, download information from the World Wide Web, copy or save images from a web page, save a web page, etc.

Computer Anxiety of University Students

Computers have now been accepted unconditionally as an integral part of our entire educational system. The increase in computer usage is rapid and has also generated new challenges. In fact, one of the most dynamic and innovative areas of growth in education is the utilisation of computer technology. For university students to remain competitive it also must adapt to these changes and be innovative with its use of computer with access to information through the internet. However, computer anxiety of university students has been associated with decreased use and worse avoidance of computer and related technologies usage. Avoidance can seriously affect some students' academic progress, lower performance in examinations and ultimately affect career opportunities (Brown &

Vician, 1997). Those who have high computer anxiety may experience fear of the unknown, feeling of frustration, possible embarrassment, failure and disappointment (Fajou, 1997). Deloaghry (1993) stated that increased computer use may not necessarily eliminate anxiety from all computer anxious users.

Computer anxiety also manifests in students irrespective of their level of education. Glaister (2009) found that students who reported medium and high levels of computer anxiety performed less well than those with low level in an examination involving the use of computer. However, Tekinarslan (2008) reported there is no significant difference between male and female student computer anxiety. He further indicated that while students' computer experience and skill increase, computer anxiety level decreases. University students with high computer anxiety are likely to remain in that state of high computer anxiety in the future, and experience greater anxiety with repeated exposure to computers. They are at risk for “resisting the use of computer technology” and “an inability to gain learning benefit over the anxiety cost of an e-learning environment” (Fuller et al., 2006). Studies have found that demographic and situational variables, personality variables, and cognitive style influence learner computer anxiety and further influence their attitudes toward computers (Igbaria & Chakrabarti, 1990; Igbaria & Nachman, 1990). Computer anxiety can affect learner acceptance of computer-based training support tool (Wagner & Flannery, 2004).

Methodology

This study adopted survey design of the correlation type. The population for the study comprises all the 2668 (two thousand, six hundred and sixty-eight) 400 level students of the Distance Learning Centre of University of Ibadan spread across four faculties and eighteen departments accredited for various courses in the distance learning education of the University of Ibadan as at 2014/2015 academic session. The simple random sampling technique was used in selecting five percent (5%) of the total population of the distance learning 400 level students in each of the departments from faculties selected for the study which gave a total of one hundred and thirty four. The sample size is in line with the recommendations of Simon and Goes (2013) that for a population which is in thousands, a sample of 5% to 20% is suitable.

Table 1: sample size for the study

S/N	Department	Number of student	Sample size (5% of total Population)
1	Agriculture	0	0
2	Adult education	27	2
3	Communication and language art	132	7
4	Economics	625	31
5	Education management	92	5
6	English	69	3
7	French	10	1
8	Guidance and Counselling	311	16
9	Human kinetics and health education	40	2
10	Library archival and information studies	103	5

11	Linguistics	106	5
12	Philosophy and public affairs	83	4
13	Political science	195	10
14	Psychology	364	18
15	Social work	112	6
16	Special education	55	3
17	Statistics	164	8
18	Teacher education	160	8
	Total	2668	134

Data Analysis and Discussion of Findings

Copies of questionnaire collected were scrutinised to ensure adequate capturing of relevant data and all were found useful with useable data. Thus all the 134 copies of questionnaire administered were analysed and results are presented in this section.

Table 2 presents information on the demographic information of the respondents.

Table 2: Demographic Information of Distance Learning Students, University of Ibadan

Demography Information		Frequency	Percentage
Faculty	Social science	63	47.0
	Education	45	33.6
	Arts	18	13.4
	Science	8	6.0
	Total	134	100.0
Age range	12-20yrs	4	3.0
	21-30yrs	53	39.6
	31-40yrs	64	47.7
	41-50yrs	13	9.7
	Total	134	100.0
Gender	Male	66	49.3
	Female	68	50.7
	Total	134	100.0
Years of Internet use	1-5yrs	10	7.5
	6-10yrs	83	61.9
	11-15yrs	33	24.6
	16-20yrs	6	4.5
	21yrs and above	2	1.5
	Total	134	100.0

Results from Table 2 revealed that 63 representing 47.0% of the respondents were from faculty of Social Sciences, 45 (33.6%) were from faculty of Education, while only 18 (13.4%) and 8 (6.0%) respondents were from faculties of Arts and Science respectively. This implies that majority of the distance learning students which constitute the respondents were from faculty of Social Sciences and Education. Results of analysis on the age range of respondents revealed that majority of the respondents (117 or 87.3%) falls within the age

range of 21-40 years. Overall, it can be deduced that most of the distance learning students are within the age range of 21-40 years.

The distribution of the respondents based on gender revealed that there were more female (68 or 50.7%) than male (66 or 49.3%) among the respondents *which may mean that there are more female than male among the distance learning students of University of Ibadan. Results on the internet use experience of respondents revealed that majority of the respondents (116 or 86.5%) have Internet use experience of between 6 - 15 years. This implies that the Internet use of most of distance learning students in University of Ibadan fell within 6 - 15 years.*

Research question 1: What is the level of computer skills possessed by distance learning students in University of Ibadan, Nigeria?

Table 3: Level of Computer Skills Possessed by Distance Learning Students in University of Ibadan, Nigeria

Computer skills	SA	A	D	SD	Mean	Std Dev
	Frequency/Percentage					
Getting helps for problems in the computer	89 66.4%	44 32.8%	1 0.7%	0 0.0%	4.66	.492
Using the computer to organise information	93 69.4%	36 26.9%	4 3.0%	1 0.7%	4.65	.579
Booting and shutting down then computer	84 62.7%	50 37.3%	0 0.0%	0 0.0%	4.63	.485
Moving the cursor around the monitor screen	83 61.9%	51 38.1%	0 0.0%	0 0.0%	4.62	.487
Deleting files when they are no longer needed	89 66.4%	37 27.6%	7 5.2%	1 0.7%	4.60	.627
Escaping (exiting) from the program (software)	78 58.2%	55 41.0%	1 0.7%	0 0.0%	4.57	.541
Using word processing (Microsoft word)	77 57.5%	57 42.5%	0 0.0%	0 0.0%	4.57	.496
Calling up a data file into/from disc	70 52.2%	64 47.8%	0 0.0%	0 0.0%	4.52	.501
Copying/retrieving file into/from disc	77 57.5%	51 38.1%	5 3.7%	1 0.7%	4.51	.669
Storing files correctly	76 56.7%	51 38.1%	7 5.2%	0 0.0%	4.51	.597
Using computers to surf the internet	66 49.3%	68 50.7%	0 0.0%	0 0.0%	4.49	.502
Using a printer to make hard copy of my work	64 47.8%	67 50.0%	2 1.5%	1 0.7%	4.43	.631
Organizing and managing files	70 52.2%	58 43.3%	2 2.2%	4 3.0%	4.41	.815
Entering and saving data into a file	57 42.5%	76 56.7%	1 0.7%	0 0.0%	4.41	.538
Handling storage devices correctly	60 44.8%	71 53.0%	3 2.2%	0 0.0%	4.40	.615

Getting software up and running	50 37.3%	84 62.7%	0 0.0%	0 0.0%	4.37	.485
Adding and deleting information from a data file	49 36.6%	84 62.7%	1 0.7%	0 0.0%	4.36	.497
Using spreadsheet (Microsoft excel)	69 51.5%	55 41.0%	8 6.0%	2 1.5%	4.35	.878
Using presentation software (power point)	69 51.5%	55 41.0%	7 5.2%	3 2.2%	4.34	.902
Weighted Mean = 4.49						

Table 3 presents information on the level of computer skills possessed by distance learning students in University of Ibadan, Nigeria. Topping the list of computer skills possessed by distance learning students of University of Ibadan as revealed from results of the analysis are, getting helps for problems in the computer ($\bar{x} = 4.66$), using the computer to organise information ($\bar{x} = 4.65$), booting and shutting down then computer ($\bar{x} = 4.63$), and moving the cursor around the monitor screen($\bar{x} = 4.62$). Overall, the weighted mean of 4.49 was greater than the criterion mean of 2.50 set for high computer skills which implies that distance learning students in University of Ibadan have high computer skills.

Research Question 2: What is the level of computer anxiety possessed by distance learning students in University of Ibadan, Nigeria?

Table 4: Level of Computer Anxiety Possessed by Distance Learning Students in University of Ibadan, Nigeria

Statement	SA	A	D	SD	Mean	Std Dev
	Frequency/Percentage					
The challenge of learning about computers is exciting	47 35.1%	53 39.6%	10 7.4%	24 17.9%	3.72	1.428
I look forward to using a computer for my assignments and examinations	40 29.9%	55 41.0%	11 8.2%	28 20.9%	3.51	1.506
If given the opportunity, I would like to learn more about and use computers more	42 31.3%	42 29.1%	12 8.9%	41 30.6%	3.24	1.673
I have avoided computers because they are unfamiliar and somewhat intimidating to me	40 29.9%	11 8.2%	17 12.6%	66 49.3%	2.59	1.791
I am afraid that if I begin to use computer more, I will become more dependent upon them and lose some of my reasoning	34 25.4%	7 5.2%	11 8.2%	82 61.2%	2.25	1.750
I do not feel at ease when it comes to inserting tables, graphs, photographs in documents	11 8.2%	19 14.2%	44 32.8%	60 44.8%	2.10	1.331
It scares me to think that i could cause the computer to destroy a large amount of information by hitting the wrong key	7 5.2%	13 9.7%	40 29.9%	74 55.2%	1.86	1.209
I hesitate to use a computer for fear of making mistakes that I cannot correct	5 3.7%	7 5.2%	42 31.4%	80 59.7%	1.66	1.040
I fear computer can cause electric shock	10 7.5%	8 6.0%	12 9.0%	104 77.6%	1.58	1.240
I always get scared with computer	3 2.2%	4 3.0%	42 31.3%	85 63.4%	1.50	.847

I am afraid computer virus can affect Human being	1 0.7%	1 0.7%	44 32.8%	88 65.7%	1.38	.611
I feel apprehensive about using computers	6 4.5%	3 2.2%	40 29.8%	85 63.4%	1.55	.970
Weighted Meam = 2.25						

Results in Table 4 on the level of computer anxiety of the respondents revealed a low computer anxiety level among the distance learning students of University of Ibadan. This conclusion is affirmed by lower value of weighted mean of 2.25 that is lower than the criterion mean of 2.50 set for high level of computer anxiety of the students. The disagreement of majority of the respondents with statements supporting computer anxiety such as 'I have avoided computers because they are unfamiliar and somewhat intimidating to me' (83 or 61.9%). 'I am afraid that if I begin to use computer more, I will become more dependent upon them and lose some of my reasoning' (93 or 59.4%), and 'I hesitate to use a computer for fear of making mistakes that I cannot correct' (122 or 91.1%) further affirmed the low level of computer anxiety among the distance learning students.

Research question 3: What are the purposes of Internet use among distance learning students in University of Ibadan, Nigeria?

Table 5: Purpose of Internet Use by Distance Learning Students In University Of Ibadan, Nigeria.

Purpose Internet Use	SA	A	D	SD		Std Dev
	Freque	ntage				
CBT examination and test	106 79.1%	26 19.4%	1 0.7%	1 0.7%	4.75	.568
Continuous assessment	103 76.9%	29 21.6%	1 0.7%	1 0.7%	4.73	.577
Fill and print admission form	93 69.4%	39 29.1%	2 1.5%	1 0.7%	4.67	.561
Pay school fee	90 67.2%	41 30.6%	2 1.5%	1 1.5%	4.63	.621
Print Payment receipts	89 66.4%	42 31.3%	2 1.5%	1 0.7%	4.61	.648
Print ID card	87 64.9%	44 32.8%	2 1.5%	1 0.7%	4.60	.626
Entertainment	78 58.2%	53 39.6%	1 0.7%	1 0.7%	4.54	.596
Fill and print medical form	73 54.5%	58 43.3%	1 0.7%	1 0.7%	4.49	.691
Games	77 57.5%	52 38.8%	4 2.9%	2 1.5%	4.49	.702
Product and service information	71 53.0 %	59 44.0%	3 2.2%	1 0.7%	4.48	.646
Course Registration	72 53.7%	60 44.8%	2 1.5%	2 1.5%	4.47	.585
Downloading Educational material	73 53.0%	59 38.8%	6 4.5%	2 1.5%	4.42	.701

Games	66 49.3%	63 41.0%	2 1.5%	1 0.7%	4.39	.718
E-mail	68 50.7%	60 44.0%	3 2.2%	3 3.0%	4.37	.786
Examinations revision	64 47.8%	64 47.8%	5 3.7%	1 0.7%	4.31	.725
Newsgroups	49 36.6%	77 57.5%	7 5.2%	1 0.7%	4.28	.676
Downloading software	63 47.0%	59 44.0%	6 4.55	6 4.5%	4.28	.945
Shopping	72 53.7%	47 35.1%	11 8.2%	4 3.0%	4.28	.977
Social (Chat, facebook, Whatsapps, etc.)	67 50.0%	52 47.0%	12 9.0%	1 0.7%	4.28	.741
Online library use	55 41.0%	59 44.0%	15 11.2%	5 3.7%	4.11	1.026
Online discussion groups	66 49.3%	42 31.3%	20 14.9%	6 4.5%	4.10	1.175

Table 5 shows results on the purposes of Internet use among distance learning students in University of Ibadan. It revealed CBT examination and test ($\bar{x} = 4.75$), doing continuous assessment ($\bar{x} = 4.73$), filling and printing of admission form ($\bar{x} = 4.67$), payment of school fee ($\bar{x} = 4.63$), and printing of payment receipts ($\bar{x} = 4.61$) as topping the list of purposes for which the distance learning students in University of Ibadan make use of Internet. The implication to be drawn from this is that distance learning students in University of Ibadan make use of Internet majorly for the purposes of CBT examination and test, continuous assessment, printing and filling of admission form and course registration, payment of school fees as well as printing of payment receipts.

Research question 4: To what extent had computer skills and computer anxiety jointly predict University of Ibadan distance learning students' use of the Internet?

Table 6::Summary of Regression Analysis of the Joint Prediction of the Computer Skills and Computer Anxiety on Internet Use by Distance Learning Students of University of Ibadan.

R	R square	Adjusted R Square	Std. Error of the Estimate
.223	.050	0.035	12.570

SUMMARY REGRESSION ANOVA

Model	Sum squares	Df.	Mean square	F	P	Remark
Regression	1085.752	2		3.435	0.035	
Residual	20701.741	131				
Total	21787.493	133				

Table 6 reveals the extent to which computer skills and computer anxiety jointly predict the use of Internet by distance learning students, University of Ibadan. It shows a coefficient of multiple correlations $R = 0.223$ and a multiple R square of 0.050 ($R^2 = 0.050$).

This means that computer skills and computer anxiety jointly predicts Internet use to the extent of 5.0%. This implies that computer skills and computer anxiety accounted for 5.0% of the total variance in the use of Internet by distance learning students in University of Ibadan. Hence, University of Ibadan distance learning students? computer skills and computer anxiety jointly predicts their Internet use.

Research question 5: What is the relative contribution of computer skills and computer anxiety to Internet use by distance learning students in University of Ibadan, Nigeria?

Table 7: Relative Contribution of Computer Skills and Computer Anxiety to Internet Use by Distance Learning Students of University of Ibadan, Nigeria

Variables Model	Unstandardized coefficient(B)			Standardized coefficient		
	(B)	Std.Error	Beta	T	Sig.	Remark
Constant	83.021	26.546	-	3.127	.002	
Computer skills	.461	.176	.227	2.621	.010	Sig.
Computer anxiety	.064	.126	.044	0.508	.613	Not sig

Table 7 presents the relative contribution of the independent variables (computer skills and computer anxiety) to the dependent variable (Internet use) expressed as beta weights. It revealed that computer skills contributed more to Internet use ($\hat{\alpha} = 0.227$; $t = 2.621$) than computer anxiety ($\hat{\alpha} = 0.044$; $t = 0.508$). Therefore, computer skill is the leading contributor to Internet use by distance learning students, in University of Ibadan. It can also be deduced that level of computer skills of distance learning students would determine their level of Internet use such that students with high level of computer skills would use Internet more than their counterparts with low level computer skills.

Discussions of Findings

Finding on the level of computer skills possessed by distance learning students in University of Ibadan showed that the level of computer skills possessed by distance learning students in University of Ibadan was high. This result supports the views that the amount of mental efforts that students make for acquiring computer skills or performing computer-related tasks may interact with their perceived skill in the computing field (Karsten & Roth, 1998). Hence, if they think that they know enough or they can learn how to use computers easily, their anxiety may be low; alternatively, when they know little or think that it is difficult to learn/use computers, they may be more anxious (Konerding, 2007; Sam, Othman, Nordin, 2005). Furthermore, it was observed that lack of computer skills can increase anxiety among distance learning students, perhaps reducing their sense of self confidence and, as a result, their appetite towards Internet use. Also, University of Ibadan distance learning students lacking basic computer skills may find their unpreparedness as a barrier to their education. Sax, Ceja and Teranishi (as cited in Kaminski et al., 2003) contended that the failure to address computer skill deficiencies could compromise a students ability to succeed to the fullest extent in the university.

Also, findings on the level of computer anxiety possessed by distance learning students in University of Ibadan showed that the level of computer anxiety possessed by distance learning students in University of Ibadan was low. This supports the view that the fear of computers is especially debilitating for students (Cleveland, 2001; Dolman, 1996; Egan,

1992; Mellon, 1989; Morner, 1995). Even, distance learning students are no exception. Estimates range from 25 to 58 percent of higher education students feel or have felt some level of computer anxiety (Ayersman 1996; Brosnan 1998a; DeLoughry 1993; Heinssen, Glass, and Knight 1987; Rosen, Sears, and Weil, 1987). However, this result opposes the research view that more experiences with computers reduce the level of anxiety.

Furthermore, findings on the purposes of Internet use among distance learning students in University of Ibadan showed that the major purpose of Internet use by distance learning students in University of Ibadan include CBT examination and test, Continuous assessment and Print course registration. This result is in contrasts with the finfindings of Ajayi and Aramide (2012) that University students browse the Internet to have access to educational materials for research, instruction, and literature searching. Since, Internet has become an important part of students' life, most especially distance learning students whose academic career revolves round the internet, these students finds the Internet inevitable..

On the relative contributions of computer skills and computer anxiety to Internet use, finding from the study revealed computer skills as the leading contributor to Internet use. The contribution of computer skills was also significant as oppose to computer anxiety whose contribution was found not to be significant. It can further be deduced from the study that computer skills was actually determinant of the reinforcement in these independents variables. That is, Computer Skills is the most potent contributor to the prediction, while computer anxiety has no relative contribution to the prediction. This result supports the views according to Tekinarslan (2008) who indicated that while students' computer skill increases, computer anxiety level decreases and their Internet use increases since all internet based activities are performed on the computer. Therefore, computer skills influence the computer anxiety and internet use of distance learning students.

Further findings from the study showed that University of Ibadan distance learning students' computer skills and computer anxiety jointly predicted students' use of Internet. This result supports the views that there is direct relationship between computer skills and computer anxiety seems clear (Bohlin & Hunt, 1995; Chen, 1986; Hadfiedl, maddux, & Love, 1997; Heinseen, Glass, & Knight, 1987; Maurer, 1994; Reed, Ervin, & Oughton, 1995; Yang, Mohamed, & Beyerbach, 1999). Much research indicates that as time passes and distance learning students become more familiar with computer technology, their anxiety decreases. Studies found that with increased computers skill, anxiety decreased (Chen, 1986; Heinssen, Glass, & Knight, 1987; Howard & Smith, 1986; Loyd & Gressard, 1984). Hence, increase in internet use. However, that is not always the case. In some reports anxiety increases with more skills and in others it stays the same (Gos, 1996; Mehmound & Medewitz, 1989; Rosen, Sears, & Weil, 1987). Furthermore, Weil, Rosen and Sears (1987) supports this result and argued that, during repeated exposure to the computer (increase computer skills), the computer-phobic is being reconditioned at increased levels of anxiety which, in turn, increases discomfort and anxiety (increase anxiety level) thereby reducing the Internet use level.

Conclusion

Based on the findings of the study, it can be concluded that computer skills and computer anxiety are major predictors of Internet use among distance learning students in University of Ibadan though level of computer skills possessed by the students was found to contribute more to Internet use than computer anxiety. Therefore, computer skills and computer anxiety should be given adequate attention in the effort of distance learning authority to integrate the use of Internet in facilitating teaching and learning among lecturers and students. Hence, it was apparent that distance learning students of University of Ibadan, Nigeria, needed computer skills and overcome any form of fear associated with computers which may result in computer anxiety in order to increase their level of Internet use for effective and efficient operations in the Open Distance Learning Mode.

Recommendations

As a result of the findings of this research and conclusion made above, the following recommendations are hereby suggested:

1. The management of University of Ibadan Distance Learning Centre should provide an effective computer training programme suitable to meet students' computer related needs which will increase their knowledge, enhance their computer skills and ability which ultimately drives the use of the Internet. Also, students should be encouraged to participate gainfully in the programme.
2. The management of University of Ibadan Distance Learning Centre should include compulsory computer courses in their curriculum of study for students. This will provide a suitable learning platform that will make it easier for the students to learn more about computer and its related technology in order to increase the students' computer skills and alleviate any form of fear associated with usage of computer and related technologies such as Internet as well as increase their proficiency in Internet use.
3. The lecturers serving as facilitators of open and distance learning should emphasise the flexibility and wide application of Internet in teaching and learning processes..
4. The management of University of Ibadan Distance Learning Centre should make computer knowledge part of the admission criteria for students applying into the distance learning education.
5. The management of University of Ibadan Distance Learning Centre should ensure that every aspect of their operations are fully computerised with proper documentation and all transactions related to the distance learning programme are done on-line except for written examinations which have to be conducted on-site. This would leave the students with no choice than to improve their computer skills and get acquainted with the use of Internet and maximise its potential their learning activities.
6. Students of distance learning centre, University of Ibadan should embrace paradigm shift of technology-mediated teaching and learning on which the University of Ibadan Open and Distance Learning Education is now based. This would motivate them to improve their computer skills, eradicate fear and increase their internet use.

7. Students of distance learning centre, University of Ibadan should do away with lackadaisical attitude of not using the computer on which their skills, anxiety and internet use revolves in connection with their studies. That is, students should develop interest in computer on which the basic prerequisite other information technology stands and imbibe the use of the computer and its related technologies to increase their skill, be more conversant with computer and increase their frequency of internet use for a successful academic programme and better opportunity in the labour market afterwards..
8. Lastly, the management of University of Ibadan Distance Learning Centre in conjunctions with its Information Technology department (IT department) should collaborate with other IT or information technology services organisation to launch an awareness campaign and lectures for students of the open and distance learning centre on the need to be computer skilled, eradicate computer anxiety and increase internet use. This will serve as an eye opener to the students and also encouraged them in their operations and internet based activities.

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