# EVALUATION OF FACTORS INFLUENCING THE USE OF COMPUTER FOR TEACHING AND LEARNING PROCESS: IMPLICATIONS FOR MANAGEMENT OF SECONDARY SCHOOLS IN ANKPA LGA, KOGI STATE, NIGERIA

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**Abstract:** The researchers evaluate factors influencing the use of computers for the teaching and learning process and its: implications for the management of secondary schools in Ankpa LGA., Kogi state, Nigeria with the purpose of preferring plausible strategies to be adopted in their use for actualizing educational objectives in schools. Two research questions guided the study. A descriptive survey was adopted for the study. A sample of 120 computer teachers from 23 government-owned secondary schools was randomly selected for the study. Factors Affecting the Use of Computer for Education Questionnaire (FATUCEQ) served as an instrument for data collection. The data collected were analyzed with the aid of the mean. and standard deviation. The results revealed that the factors militating against the effective use of computers for teaching and learning in public secondary schools in Ankpa LGA of Kogi State are lack of skills, cost of the facilities, weak infrastructure, lack of relevant software, limited access to the internet, poor power supply and poor government policy; the strategies to be adopted include computer training for teachers, procurement of hardware facilities, curriculum development, software development, maintenance of computer system, adequate funding, increase in government allocation to computer studies and provision of internet facilities. It was recommended amongst other things that qualified teachers who are skilled in computer technology should be posted to various secondary schools in the state. Computer technology should be integrated into the school curriculum without further delay and be made an examinable subject at the secondary school level and the State Ministry of Power should work towards stabilizing the power supply in the state.
**Keywords:** Factors; Computer; Teaching and learning; Management; Secondary schools

## 1 INTRODUCTION

It is indisputable and hard to deny that the use of computers for teaching and learning has taken a prominent role in modern society in our secondary schools. From the smartphones in our pockets to the smart devices controlling our appliances at home and everything in between, computer technology is everywhere. It should come as no surprise that the use and impact of computers in teaching and learning have been steadily increasing and in many ways have revolutionized the traditional form of education in our Secondary schools.

Secondary school is the education children receive after primary education and before the tertiary stage. Achuonye is of the opinion that secondary education, as the name implies, comes second; that is, the second level of the three-tier system of education in Nigeria[1]. The broad aims of secondary education are preparation for useful living within society and preparation for higher education [2]. Secondary school is the bridge between the primary and tertiary levels. It is the springboard from where all the students of higher education take off and all primary school leavers must pass through to become useful to themselves and society. Improved secondary education is essential to the creation of effective human capital in any country [3].

The need for computers in Nigerian secondary schools cannot be overemphasized. In this technology-driven age, every secondary school requires ICT competence to survive. Organizations are finding it very necessary to train and re-train their employees to establish or increase their knowledge of computers and other ICT facilities [4]. This calls for the early acquisition of computer skills by students and teachers in secondary schools. The ability to use computers effectively in secondary schools has become an essential part of everyone in the field of education.

New instructional techniques that use computers provide a different modality of instruments. For secondary school students, computer use allows for increased individualization of learning. In secondary schools where new technologies are used, students have access to tools that adjust to their attention span and provide valuable and immediate feedback for literacy enhancement, which is currently not fully implemented in the Nigerian secondary school system [5]. Computer application and use will prove beneficial in improving Nigeria's educational system and giving students a better education in secondary schools. A technologically advanced workforce will lead to ICT growth in secondary schools in Nigeria, with the potential to improve technology and telecommunications, media communications, and skilled Information and Communication Technology (ICT) professionals who will be well-

equipped to solve computer problems in Nigeria schools and other parts of the world [6]. Therefore, the use of these Computers is paramount to the existence of secondary schools.

The use of computers has brought changes in teaching and learning in secondary schools. The importance of computers in the field of teaching and learning cannot be overemphasized. Onuigbo and Onuigbo assert that the world is moving through the information super main road with the arrangement of computers that facilitate one to obtain relevant information for specific purposes[7]. Through computers, teachers in secondary school have contact to remarkable quality and reliable information in all areas of education. It serves as a platform for the acquisition and knowledge transfer between individuals, groups, students, and teachers in secondary schools [8]. Computers are one of the most valuable resources in a classroom because they serve so many useful functions. With computers and the internet, students today have a wealth of information at their fingertips that can help them develop their research and communication skills while preparing them for a future career in a workforce that is increasingly reliant on computer technology [9]. Computers have revolutionized the teaching profession in multiple ways. Teachers use computers to record grades, calculate averages, manage attendance, and access data on student performance in online programs and assessments. Computers have also made it easier for teachers to vary their instructional delivery. Instead of teaching at the front of the room for an entire class period, teachers can incorporate technology into their lessons to keep students engaged while appealing to a variety of learning styles. From using computers to create presentations on a topic to showing video clips that complement the lesson at hand, technology helps teachers make the content easier for students to understand [9]. Students who use computers gain a deeper understanding of complex topics and concepts and are more likely to recall information and use it to solve problems outside the classroom [10]. Effective use of these facilities brings about good teaching and learning.

Teaching and learning in the context of this study is the use of computers in secondary school for the purpose of the classroom situation in imparting knowledge to the students by the teacher. The teaching and learning process can be defined as a transformation process of knowledge from teachers to students. It is referred to as the combination of various elements within the process where a teacher identifies and establishes the learning objectives develops teaching resources and implements the teaching and learning strategy. Learning is a cardinal factor that a teacher must consider while teaching students. Learning can be considered as change that is permanent in nature because change is brought into students by a teacher through techniques like developing specific skills, changing some attitudes, or understanding specific scientific laws operating behind a learning environment [11]. It is the process of acquiring new or modifying existing knowledge, behaviours, skills, values, and preferences. However, in order to be an active learner in higher education, each student expects to be treated as an adult learner who has some right over the learning ambiance in the form of asking questions and clearing doubts [12]. That is, students expect to have ownership over the learning session [13].

Teaching is the act, practice, or profession of a teacher. It is the process of giving shape to one's thoughts and actions through instructions and/or performing practices that lead to new behaviour and capacity in the students. Teaching can be conducted using several methods based on the nature of the subject and customized according to students. Promoting inclusive teaching and learning through different pedagogical approaches may not be enough without the use of computers. It is essential to ensure that the use of computers in teaching the subject in secondary schools is encouraged. Using computers in the classroom gives teachers an opportunity to teach digital citizenship skills that demonstrate ways to use technology correctly and responsibly. Computers also help maximize student engagement. Modern students are regularly exposed to technology outside the classroom. Most use and enjoy smartphones and other mobile devices, which is why they are more likely to engage in the learning process if it involves something to which they are already accustomed and enjoy [9]. The benefits of using computers in the classroom go beyond more efficient assessment and opportunities for online learning. Computers and other technologies are an inevitable part of secondary schools.

Secondary schools in the Ankpa Local Government area of Kogi State presently and in all ramifications appear to have computer-related problems in terms of use. It is sad to hear the often negative opinion of most members of the public, especially the computer-literate class about students not using computers for teaching and learning. In addition, observation shows that the use of computer resources in secondary schools in Ankpa Local Government Area (LGA) of Kogi State was very low probably as a result of inadequate computer facilities or lack of it. The consequence is that it would affect the teaching and learning of students. It is on this premise that this work is set to assess the factors affecting the effective use of computers for teaching and learning and its implications for the management of secondary schools in Ankpa LGA of Kogi State.

Secondary schooling in Kogi state and past in Nigeria is regulated via the Ministry of Education (MOE). Teaching Service Commission (TSC) and Science Teachers' Education Board (STEB) are parastatals underneath MOE in Kogi state. The Teaching Service Commission (TSC) takes care of all the government-established secondary schools and grant-aided community and missionary secondary schools. In contrast, STEB takes care of all the science-based secondary schools in Kogi state. Secondary school administration in Kogi state can be examined underneath TSC and STEB [14]. The administration crew of secondary school beneath TSC encompass the chairman, member 1, 2, and 3, Permanent secretary of administration, Director of Administration and Finance (DAF), Director of Examinations, Director of Project Monitoring (DPM), Director of Sports, Director of Planning, Research and Statistics. Management of Secondary school under STEB consists of an Executive Director, part-time chairman, Permanent secretary 1, 2, and 3, everlasting secretary administration, Director of Administration and Finance (DAF), Director of Examinations, Director of Project Monitoring (DPM), Director of sports, Director of Planning, Research and Statistics. Both TSC and STEB are answerable to the Ministry of Education the place Hon. Commissioner for Education is the head of Kogi state.

Principals of all secondary schools function in micro-level administration features in Kogi state. Other individuals through prolonged administration encompass board individuals which have Zonal Directors, Principal Officers, senior teachers, Representatives of the community, and the Chairman, of the Parent Teachers' Association (PTA) [14]. They are all accountable for producing educational substances to enhance students' educational overall performance and increase secondary education though still face some challenges that hinder educational attainment in Nigeria.

There are several obstacles assumed to affect the use of computers in teaching and learning in Nigerian secondary schools. These impediments hinder the successful use of computer technology in secondary schools in Nigeria. Some of them are:

a. **Cost**: The price of computer hardware and software continues to drop in most developed countries, but in developing countries, such as Nigeria, the cost of computers is several times more expensive. Apart from the basic computers themselves, other costs associated with peripherals such as printers, monitors, paper, modems, and extra disk drives are beyond the reach of most secondary schools in Nigeria. The schools cannot also afford the exorbitant Internet connection fees [15].

b. **Weak Infrastructure**: In Nigeria, a formidable obstacle to the use of computer technology is infrastructure deficiencies. Computer equipment was made to function with other infrastructure such as electricity under "controlled conditions". For the past fifteen years, Nigeria has been having difficulty providing a stable and reliable electricity supply to every nook and cranny of the country without success. Currently, there is no part of the country, which can boast of an electricity supply for 24 hours a day except probable areas where government officials live. When the electricity supply is not stable and constant, it is difficult to keep high-tech equipment such as computers functioning, especially under extreme weather conditions as obtained in Nigeria. In rural Nigeria most inhabitants do not have access to electricity, thereby denying rural secondary schools the opportunity to benefit from the use of computer technology. The little internet access available in Nigeria is found in urban centres.

c. **Lack of Skills**: Nigeria does not only lack computer technology infrastructure, it also lacks the human skills and knowledge to fully integrate computer technology into secondary school education. To use computer technology in secondary schools in Nigeria, the need for locally trained workers to install, maintain and support these systems cannot be over-emphasized. There is an acute shortage of trained personnel in application software, operating systems, network administration and local technicians to service and repair computer facilities. In Nigeria also, most secondary school teachers lack the skills to fully utilize technology in curriculum implementation hence the traditional chalk-and-duster approach still dominates in secondary school pedagogy. Information transfer using computer technology is minimal or non-existent in secondary schools in Nigeria [16]. Teachers need effective tools, techniques, and assistance that can help them develop computer-based projects and activities specially designed to raise the level of teaching in required subjects and improve student learning.

d. **Poor ICT Policy/Project Implementation Strategy**: The Nigerian Federal Government's 1988 National policy on Computers, introduced computer education to secondary schools [17]. The only way this policy was implemented was through the distribution of computers to federal government high schools, which were never used for computer education of the students. No effort was made to distribute computers to state schools or private schools. Although the government planned to integrate ICT into the school system and provide schools with infrastructure, concerted efforts have not been made to provide facilities and trained personnel. Thus, most schools do not yet offer ICT training programmes [6].

e. **Lack of Relevant Software**: There is no doubt that the ultimate power of computer technology is the content and the communication. Though software developers and publishers in developed countries have been trying for a long to develop software and multimedia that have universal applications, due to the differences in education standards and requirements, these products do not integrate into curricula across countries. Software that is appropriate and culturally suitable to the Nigerian education system is in short supply.

f. **Limited Access to the Internet**: In Nigeria, there are few reputable Internet providers which render reliable services, and charge high fees thus limiting access to the use of the Internet. Secondary schools in Nigeria are not given adequate funds to provide furniture, requisite books, laboratories and adequate classrooms let alone being given adequate funds for high-tech equipment (computers) and Internet connectivity. Nigeria is lagging behind other African countries such as Uganda, Senegal and South Africa which are already helping secondary school students in those countries to become better information users. All Internet service providers in Nigeria are based in urban areas.

The state of computer learning and teaching in African countries, including Nigeria is minimal compared to other developed countries. In order to have computer training successfully implemented in Africa, there is a need to consider the cost, human capabilities, and infrastructure among others [18]. Unfortunately, African countries especially Nigeria lacks the funding and capacity to effectively implement computer training in secondary schools, Philip and Josiah noted that inadequate computer in the schools and lack of computer literacy and sponsorship of computers/IT training program are the major challenges encountered in Nigeria[19]. Poor service caused by capacity constraints of the communication network, lack of infrastructure to support technology hardware and software, scarcity of financial resources, and an unreliable electric supply in Nigeria hinders computer usage in Nigeria [20]. The basis for the worry in this study is the factors affecting the use of computers for effective teaching and learning in public secondary schools of Ankpa LGA of Kogi state that are yet to be known.

With reference to strategies adopted by the management for enhancing the effective use of computers for teaching and learning in Kogi state, Philip and Josiah stated the modalities and the strategies for achieving the objectives of information and computer technology in today's society to include[19], training teachers and associated personnel,

procurement of hardware facilities, curriculum development, software developments, and evaluation as well as maintenance of hardware and peripherals. Adequate funding is expedient for ensuring proper improvement of computer studies at primary and post-primary schools in Nigeria. According to Ayogu [21], computer study is costly. Many strategies have to be put in place to finance computer studies. Ayogu however emphasized that such strategies for raising funds for computer studies could come from the government, private sectors, community, and or endowments. The world is growing so complicated in science and technology that we need to buckle up to the challenges in this digital age he concluded. The worry is, that these strategies are effective elsewhere, and yet to be known if they are effective in Ankpa LGA of Kogi state.

Another strategy according to Barnett and Eric was that administrators and policymakers must ensure that comprehensive strategies[22], as well as programs to recruit, train, and retain teachers, are in place. They should also include new financial incentives, improved working conditions, and better support for teachers in secondary schools. According to them, money is not enough; teachers need to feel supported, prepared, and justly rewarded to put in their best in the teaching and learning process. Nwangwu however noted that teaching and learning can be actualized in this information age through information literacy[23]. It has no barrier, for it cuts across every discipline, learning experience, and all levels of education. According to Nwangwu, information literacy helps learners to master content and expand their horizon of investigation, become more focused, and more condiment in their learning. To be in line with this information age, it, therefore, becomes imperative to refocus the quality of both teaching and learning. To refocus teaching and learning, Nwangwu argued that electronic delivery learning (e-learning) is required. This discourse boosts the interest of the researchers to carry out this research to reiterate and recommend the purchase of such electronic devices in schools to ease the actualization of educational objectives in Kogi state. In furtherance of strategies, Onuoha is of the view that alternative sources of revenue should be designed[24]. This means that educational institutions should take measures to increase their internally generated revenue. According to this researcher, through an increase of funds allocated to secondary schools, the establishment of business centres, allowing businessmen who are interested in the institution to develop and pay rents to schools at the end of the school term or year, encouraging good relationships/links with the institutions' old boy/girls-associations to enable them to pay back to the institution through endowment, grant or donation, etc. The researcher went further to state that investment in cash/ICT facilities received from ICT competitions or debates as well as making schools that offer computers pay the extra fees can be a strategy. The researcher directed that levies can be imposed on students when collecting their certificates and reiterated the increase in government allocation to computer studies. These strategies may or may not be effective in the present area of study due to variations in location and perceptions.

Some strategies suggested by Omoniyi involve the training of personnel of schools even on distant education[25], purchase as well as the connection of computer gadgets to the Internet, and reduction of cost of Internet connection by the Federal Government. Other suggestions proffered include an extension of emphasis on computer technology to cover other less sophisticated computer gadgets and the electrification and provision of some steady electricity supply, especially in communities where the Universities are located. Aliyu, recommends that the government of the federation should provide scholarship awards and donation of computer equipment to secondary schools[26]. These will make training in computer skills easier and enhance academic excellence. Still, On the provision of funds, Chisenga observed that central and local governments should provide adequate funding to secondary school services if they are to deploy appropriate Information and Communication Technology (ICT) and play an active role in the provision of access to global information resources[27]. Ugwu, F. N. and Ezeani school authorities can solicit assistance from corporate bodies, philanthropists, and friends of the library[28]. According to Okebukola [17], the problem of inadequate awareness of the use of computers could be addressed through planned public relations programmes,  study tours, user education programmes, exhibitions, organization of seminars, symposia, and workshops, awards night, making contact with the staff and improve communication links with the latter. However, strategies to be adopted by the management for enhancing the effective use of computers for teaching and learning and its implications for the management of secondary schools in Ankpa LGA of Kogi are yet to be known.

## 2 PURPOSE OF THE STUDY

The main purpose of this study was to examine factors affecting the effective use of computers for teaching and learning in secondary schools in Ankpa LGA of Kogi State. Specifically, the study sought to:
I.Examine the factors influencing the effective use of Computer in Teaching and Learning in Secondary Schools in Ankpa LGA of Kogi State
II.Ascertain the plausible strategies to be adopted for enhancing the effective use of computers for teaching and learning in Secondary Schools in Ankpa LGA of Kogi State.

## 3 RESEARCH QUESTIONS

The following research questions guided the study:
I.What are the factors affecting the effective use of computers for teaching and learning in secondary schools in Ankpa LGA of Kogi State?
II.What are the strategies to be adopted for enhancing the use of computers for teaching and learning in secondary schools in Ankpa LGA of Kogi State?

## 4 RESEARCH METHODS

The study adopted a descriptive survey design. This is because the design does not aim at discovering new phenomena, but is concerned with the description of conditions that exist. This method, therefore, facilitates the easy collection of data. The design was considered appropriate for the study because the researchers do not have any intention to manipulate the study's variables, but to study them as they occur naturally. The area of study was Ankpa LGA. Ankpa Local Government Ankpa was purposively selected for the study. The choice of Ankpa for the study was informed by the observed backwardness in the results of computer examination which geared the interest of the researchers to carry out the research on the factors affecting the effective use of computers for teaching and learning in secondary schools of Ankpa LGA of Kogi state. The study population involves all 23 public secondary schools which comprised senior secondary school teachers totaling 1,204 in Ankpa LGA of Kogi state. The choice of this population was based on the fact that they are the subjects of the study and can provide accurate data needed for the study. The sample used for this study was one hundred and twenty (120) teachers. These were selected from the population of the study identified above using a simple random sampling method. The teachers were randomly selected from seventeen (17) secondary schools across the nine districts. Each of the districts was sampled.

The instrument for data collection was a self-developed questionnaire titled The Use of Computer for Education Questionnaire (FATUCEQ). FATUCEQ consists of two parts designed to elicit responses from respondents. Section "A" Sought background information about the respondents while section "B" of the FATUCEQ consists of the questions to answer by the respondents and was clustered into A and B with four-point response mode of Strongly Agree (SA) =4, Agree (A) =3, Disagree (D) =2 and Strongly Disagree (SD) =1. FATUCEQ was carefully read through by four experts. Two from the Computer Science Department, one expert from Educational Management, and one from Measurement and Evaluation, all from Federal University Oye-Ekiti, Ekiti state. This was aimed to ensure that all issues and questions were relevant and properly addressed in the research topic. To ensure reliability, the FATUCEQ was administered to twenty (20) selected staff outside the study area to ensure the internal consistency of the instrument. Their responses were analyzed on the SPSS with the Cronbach Alpha method and yielded 0.82 and 0.81 with the overall index being 0.81 indicating that the instrument is 81% reliable for use. Copies of the questionnaire were administered by the researchers to the respondents (teachers) in the districts of Ankpa LGA of Kogi state. This was to enable the researcher to get first-hand information from the respondents on the subject. Two research assistants were enlisted and trained on how to administer and retrieve the questionnaire. The researchers visited the various secondary schools with the aid of those assistants and administered the questionnaires which were used to obtain accurate information from respondents. In analyzing the data collected, the researchers made use of mean and standard deviation to determine the factors affecting the effective use of computers for teaching and learning in secondary schools of Ankpa LGA of Kogi state. The cut-off point for determining the acceptance and rejection was put at 2.50. Any item with a mean of 2.50 above was meant for acceptance while an item with a mean score less than 2.50 was a rejection.

## 5 RESULTS

**Research Question 1:** What are the factors militating against the effective use of computers in Teaching and Learning in Secondary Schools in Ankpa LGA of Kogi State?

**Table 1** Mean Responses on the Factors Militating Against the Effective Use of Computer in Teaching and Learning in Secondary Schools in Ankpa Local Government Area of Kogi State

| S/NO | ITEMS | SA | A | D | SD | TOTAL | X | DECISION |
|------|-------|----|----|----|----|-------|----|----------|
| 1 | Lack of skills | 47 | 61 | 7 | 5 | 3.25 | 1.80 | Accepted |
| 2 | Cost of the facilities | 74 | 38 | 6 | 2 | 3.53 | 1.87 | Accepted |
| 3 | Weak infrastructure | 51 | 49 | 16 | 4 | 3.22 | 1.79 | Accepted |
| 4 | Lack of relevant software | 55 | 41 | 13 | 11 | 3.03 | 1.74 | Accepted |
| 5 | Limited access to the internet | 57 | 47 | 16 | 0 | 3.34 | 1.82 | Accepted |
| 6 | Poor power supply | 74 | 22 | 14 | 10 | 3.33 | 1.82 | Accepted |

| 7 | Poor government policy | 58 | 32 | 15 | 15 | 3.10 | 1.76 | Accepted |
| | **Overall mean** | | | | | **3.25** | **1.80** | |

Source: Field work 2022

Table 1 above shows the mean responses of respondents on the factors militating against the effective use of computers in Teaching and Learning in Secondary Schools in Ankpa Local Government Area of Kogi State. The table shows items that 1, 2, 3, 4, 5, 6, and 7 were rated as 325, 3.53, 3.22, 3.03, 3.34, 3.33, and 3.10 with their corresponding standard deviation to be 1.80, 1.87, 1.79, 1.74, 1.82, 1.82 and 1.79 showing acceptance to all the items as factors affecting the effective use of computer for teaching and learning in secondary schools of Ankpa LGA of Kogi state. The overall mean of 3.25 with a corresponding standard deviation to be 1.80 was also significant meaning that the respondents agreed with the items of investigation as the obvious factors affecting the effective use of computers for teaching and learning among secondary schools in the area.

**Research Question 2:** What are the strategies needed for enhancing students' use of Computers in Teaching and Learning in Secondary Schools in Ankpa local government area of Kogi State?

**Table 2** Means Responses on the Strategies Needed for Enhancing Students' Use of Computer in Teaching and Learning in Secondary Schools in Ankpa Local Government Area of Kogi State

| S/NO | ITEMS | SA | A | D | SD | X | SD | DECISION |
|------|-------|----|----|---|----|------|------|----------|
| 8 | Computer training for teachers | 66 | 29 | 13 | 12 | 3.24 | 1.80 | Accepted |
| 9 | Procurement of hardware facilities | 59 | 51 | 4 | 6 | 3.35 | 1.83 | Accepted |
| 10 | Curriculum development | 65 | 31 | 11 | 3 | 2.57 | 1.60 | Accepted |
| 11 | Software development | 44 | 54 | 13 | 6 | 3.08 | 1.75 | Accepted |
| 12 | Maintenance of computer system | 60 | 31 | 12 | 17 | 3.11 | 1.76 | Accepted |
| 13 | Adequate funding | 37 | 47 | 29 | 7 | 2.95 | 1.71 | Accepted |
| 14 | Increase in government allocation to computer studies | 47 | 66 | 7 | 0 | 3.33 | 1.82 | Accepted |
| 15 | Provision of internet facilities | 51 | 49 | 16 | 4 | 3.22 | 1.79 | Accepted |
| | **Overall mean** | | | | | **3.10** | **1.76** | |

Source: Field work 2022

Table 2 shows the mean responses of respondents on the strategies needed for enhancing the use of computers for teaching and learning in secondary schools in Ankpa LGA of Kogi State. The table shows that items 8, 9, 10, 11, 12, 13, 14 and 15 were rated as 3.24, 3.35, 2.57, 3.08, 3.11, 2.95, 3.33 and 3.22 with their corresponding standard deviation of 1.80, 1.83, 1.60, 1.75, 1.76, 1.71, 1.82 and 1.79 showing acceptance to all the items as strategies to be adopted to enhance the effective use of computer for teaching and learning in secondary schools in Ankpa LGA of Kogi state. The overall mean of 3.10 with a corresponding standard deviation of 1.76 reveals that respondents agree to those items of investigation as the obvious strategies needed for enhancing the use of computers for teaching and learning in Secondary Schools in Ankpa LGA of Kogi State.

## 6 DISCUSSION OF FINDINGS

The first findings on factors that could influence the effective use of computers for teaching and learning in secondary schools in Ankpa LGA of Kogi State revealed that lack of skills, cost of the facilities, weak infrastructure, and lack of relevant software, limited access to the internet, poor power supply and poor government policy are factors discovered to affect the ineffective use of computers for teaching and learning in schools. This finding is possible considering the observed poor funding of the education sector resulting in poor attention of the Kogi state government in the area. This finding is in accordance with the findings of Philip and Josiah who noted that inadequate computers in the schools, cost of the computer facilities[19], lack of computer literacy, limited access to the internet, poor power supply, and sponsorship to computers/IT training program are the major challenges encountered in Nigeria secondary schools. On the same issue Tayo, Thompson, and Thompson[20] also found that Poor service caused by capacity constraints of the communication network, lack of infrastructure to support technology hardware and software, scarcity of financial resources, and an unreliable electric supply in Nigeria hinders computer usage in Nigeria schools

The second finding of the study revealed the strategies needed for enhancing the effective use of computers for teaching and learning in secondary schools in Ankpa LGA of Kogi State, which is an organization of quality computer training for teachers; procurement of hardware facilities, curriculum development; software development, maintenance of computer system; adequate funding; increase in government allocation to computer studies and provision of internet facilities. This finding is in line with the finding of Philip and Josiah who stated that the modalities and the strategies for achieving the objectives of the impact of information and computer technology on today's society include[19], training

teachers and associated personnel, procurement of hardware facilities, curriculum development, software developments and evaluation as well as maintenance of hardware and peripherals. In support of this Ayogu also asserted as part of the strategies[21], that training of teachers, development of the curriculum, sufficient funding of secondary schools, and maintenance of computers should be adopted for effective teaching and learning in secondary schools.

## 7 IMPLICATIONS OF FINDINGS TO THE MANAGEMENT OF SECONDARY SCHOOLS

The first finding revealed a lack of skills, cost of the facilities, weak infrastructure, lack of relevant software, limited access to the internet, poor power supply, and poor government policy as the factors militating against the effective use of computers for teaching and learning in secondary schools in Ankpa LGA of Kogi State This finding implies that knowledge could be poorly and manually imparted into the learners by the teachers which may lead to poor actualization of educational objectives in school. The implication of this finding is that quality education may not be guaranteed and the products of the schools in the area may not be able to compete favourably with their counterparts in other schools where these facilities are sufficiently available with much blame on the part of the management of schools. The second finding revealed that organization of computer training for teachers, procurement of hardware facilities, curriculum development, software development, maintenance of computer systems, adequate funding, increase in government allocation to computer studies, and provision of internet facilities as strategies adopted for enhancing the use of computer in teaching and learning in secondary schools in Ankpa LGA of Kogi State. This implies that the management of schools requires that the adoption of these strategies is the sine qua non for the actualization of educational objectives in their schools. The implications of this finding to the management of secondary schools are that the performance of students in school and after graduation may be credited to the management team of the college. Besides, secondary schools in such areas may be patronized by people from far and near which boosts the institution's revenue and facilitates developmental stride in the area.

## 8 CONCLUSION

Based on the findings, the study concluded that the factors influencing the effective use of Computer for teaching and learning in secondary schools are lack of skills, cost of the facilities, weak infrastructure, lack of relevant software, limited access to the internet, poor power supply and poor government policy. Furthermore, it was concluded that organization of computer training for teachers, procurement of hardware facilities, curriculum development, and software development, maintenance of computer systems, adequate funding, an increase in government allocation to computer studies, and provision of internet facilities should be used as strategies to enhance effectiveness in the use of computer for teaching-learning process.

## 9 RECOMMENDATIONS

The following recommendations were made based on the findings of the study:
i.Government should provide funds to procure computer facilities for schools or better still, directly procure computer facilities for the use of the schools.
ii.Computer training should be organized for the in-service teachers to equip them with the knowledge, skills, attitude, and capability. This will make them effective in the use of computers for teaching and learning all school subjects.
iii.The Parent- Teachers' Associations (PTAs) are encouraged to get involved in building computer laboratories in schools. They should also blaze the tail by procuring and  equipping such rooms with computer facilities necessary for the teaching of school subjects
iv.Computer software, supporting devices, and support staff should be provided in schools not only to encourage teachers in the use of computers in teaching but also to assist them in acquiring the skills themselves.
v.Qualified teachers skilled in computer technology should be posted to various secondary schools in Nigeria. This will bring about the effective actualization of educational objectives in school.
vi.Computer technology should be integrated into the school curriculum without further delay and become examinable subjects at the secondary school level. This forms the basis for providing a sound background for the study of computer technology in tertiary institutions.

## COMPETING INTERESTS

The authors have no relevant financial or non-financial interests to disclose.

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