



AN EVALUATION OF STUDENTS' GENERAL INTEREST IN COMPUTER STUDIES AND ITS IMPACT ON SUBJECT PERFORMANCE IN ADO LOCAL GOVERNMENT AREA OF EKITI STATE, NIGERIA

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ABSTRACT

This research work examined the effect of attitudes on performance of pupils in computer studies in Ekiti State Secondary Schools. The research work critically examined whether there is any correlation between the attitudes of students and their performance in computer studies. The research instrument that was used in the study was the questionnaire for both the students and the teachers in the selected secondary schools which was validated by the researcher's supervisor. Chi-square was used to analyze the data collected. The sample consisted of one hundred and fifty students and ten teachers from five carefully selected secondary schools from Ado Local Government Area of Ekiti State Nigeria . The result of the analysis showed that attitude is one cogent factor that influences performance, that there is no gender discrimination in the attitude of students towards computer studies, that teacher's qualification and instructional materials available also influence the attitudes of students. Based on the findings of this study, recommendations were made. The government should organize seminars to upgrade and update teachers knowledge. The use of instructional materials is emphasized to motivate students and also the teaching methods must be reviewed so that there will lasting impression on students. There should be no gender discrimination in providing opportunities and scholarships for further studies in computer science and related disciplines.

Keywords: . Evaluation, Students, Interest, Computer Studies, Subject and Performance.

1. INTRODUCTION

Every society, whether simple in terms of its infrastructural, cultural and ethnic diversity or complex with regard to its technological advancement and quest for modernization has a system of education. Education according to Fafunwa (1974) is "The aggregate of all the processes by which a child or young adult develops the abilities, attitudes and other forms of behavior which are of positive value" Kneller (1963) also believe that education is "the process by which society through schools, colleges, universities and other institutions deliberately transmit its cultural heritage from one generation to the other". However the objectives and method of education may be different from one society to the other.

But whatever may be the method of organization, it is design to achieve the content of a specified curriculum, which is a reflection of how the goals, norms, cultures of the society can be effectively and productively transmitted. Curriculum which according to tanner and tanner (1975)"is a planned and guided learning experiences and intended learning outcomes formulated through the systematic reconstruction of knowledge and experience under the auspices of the school, for the learners continuous and willful growth in personal social competence", has been broken down in to smaller units in descending order of

magnitude beginning with the syllabus. The syllabus can be described as a condensed outline of statement of the main topic of a subject. Among the subject is the recently introduced one which is computer studies in our secondary schools. Therefore, computer studies being a new subject in the secondary school curriculum needs to be given due recognition because of its unquantifiable significance to the entire world. It is therefore important, at this juncture to give a brief meaning of what computer is. Computer is an electronic device which accepts data in a well prescribed form, process the data and give out result in a desired form (output). According to Omole (1996)'computer science is the study of the theory, design, use and analysis of computer devices. This entails knowing the computer itself, its operation, what it can do, how it can do it and why it's doing it.



The general objectives of teaching computer studies in the secondary school are as follows:

- (a) To expose the student to the basic rudiment of computer and it's workings
- (b) To lay solid foundation in computer science at early stage of educational exposure
- (c) To encourage and stimulate the interest of the students toward computer science.
- (d) To pave way for easy application of computer knowledge in other disciplines.
- (e) To ensure literacy in computer science at secondary school level.
- (f) To meet the demand of our time to keep up with changing strides in technological development.

These are some of the driving forces behind this research work. Students are bound to have different attitudes towards computer studies as a subject. However, the concern of the researcher was to find out the effect of the attitudes of the students on their academic performance in computer studies.

1.1 Statement of the Problem

Problem is the gap between an existing situation and the ideal situation. It can also be anything that brings a state of inconvenience and needs to be attended to or an obstacle to be removed. There is seemingly general decline in student performance in many subjects in the secondary schools, including computer studies. There are many factors contributing to this phenomenon, the paramount of which is attitude. The major problem which this research work looked at is finding out whether there is any correlation between the attitudes of students and their performances in computer studies.

1.2 Purpose Of The Study

The purpose of this study is to investigate the attitudes of the students towards computer studies and the long term effect on the society. This can however, be inferred from their performance.

It is no exaggeration to assert that there are wrong perspectives towards the study of computer in the secondary schools.

This is due to a combination of different factors most of which are beyond the control of the students .This study therefore looked into these different factors, the end point of which is to recommend ways of developing positive attitudes of students towards the study of computer in our secondary schools.

1.3 Research Questions

1. Is there any relationship between the attitude of students towards computer and their academic performance?
2. Is there any relationship between the attitudes of the males and females in computer studies?
3. Is there any relationship between teachers' qualification and student's attitudes to computer studies?
4. Is there any relationship between students interest and their performance in computer studies
5. Is there any relationship between the instructional materials available and the attitudes of students?

1.4 Research Hypotheses

1. There is no significant relationship between the attitudes of student towards computer and their academic performance
2. There is no significant relationship between the attitudes of males and females in computer studies.
3. There is no significant relationship between teachers' qualification and students attitude s in computer studies
4. There is no significant relationship between students interest and their performance in computer studies
5. There is no significant relationship between instructional materials available and the attitudes of students

1.5 Significance Of The Study

Computer studies is a very important subject in our secondary schools because of its numerous and widespread application in addressing individual, oraganisational and societal problems. A computer study is however a very broad discipline and that makes it absolutely impossible for an author to have the entire topic treated in a single book. Nevertheless, efforts have been made to cover the essentials of the subject at various levels if only to satisfy the learning's of the students.

Many have generated a lot of negative thoughts towards computer studies because they have taken the subject to be a hard one. But in actual fact, this research will not only find out the effect of attitudes on performance in computer studies, it also went a long way in developing competence in the basic skills and understanding in the use of computer. This could change the mindset of both students and teachers towards the subject of computer at the secondary school level. This study will also help in developing intellectual independence towards the use of computers



This study also pointed out the reliability and authenticity of computers in terms of its numerous features such as speed, accuracy, storage capacity and other benefits it offers the students.

1.6 Operational Definition of Terms

Computer: This is an electronic device or machine that is capable of receiving information (data), process the data, store the information and give out a direct output under the control of some stored programs.

Computer studies: This is the study of the basic principles and rudiments behind the operation and effective usage of the computers.

Learning: This is a relatively permanent change in behavior of an individual brought about by exposure to tasks or activities over a period of time.

Attitudes: This refers to our varied reactions towards events that we encounter in our daily lives

Performance: Refers to the outcome of the evaluation of an event, a learning task etc.

Effect: A change produced by an action or cause. It can also be described as the constructive or destructive impact of one variable over another over a period of time.

2. RELATED LITERATURE

Computer studies as a subject in the Nigerian secondary schools is still in process of being fully established. This chapter therefore take an in depth review of related literature on the steps the government has taken through the formulation of policies to fully establish the subject and have it integrated into the Nigerian educational system. attitudes of the students towards the study of computer which is a major obstacle to the progress of the subject.

The literature is reviewed under the following headings.

1. Definition of computer education.
2. The national policy on computer education.
3. The concept of computer education.
4. The problems militating against the effective teaching and learning of computer in the secondary schools.
5. The significance of computer education

2.1 Definition of Computer Education

Computer education is defined according to (Oke and Bukola 1990) as the process of equipping learners with the skills that will enable them to make effective use of computers. Makinde (1996) also defined computer education as the broad term that covers teaching about computer or the use of computer in teaching other subjects. Therefore computer education at the secondary school level is designed to enlighten the students on the basic rudiment of computer and the use of computer in solving day to day problems.

2.2 National Policy on Computer Education in Secondary Schools

The researcher at this point gives a brief history of computer education in Nigeria which consequently necessitated the formulation of the national policy on computer education in the secondary schools.

The Nigeria experience of computer started inching its way into Nigerian homes in early 80s. By 1985, the situation changed remarkably, as many individuals and companies had computer in use. On the 14th of December 1987, the government inaugurated a national committee on computer education. The committee was charged with the responsibility of drafting a policy on computer education and to also give guidelines for starting computer education on a pilot scale in federal unity colleges. The guide was presented in an interim report in March 1988 while the draft of Nigerian policy on computer education was prescribed to the government in September the same year.

According to John S Roger (1995) following the 1995 introduction of computer literacy education into the country's education system, the first national conference was held in 1985 at the university of Lagos .The conference discussed mainly the introduction of computer software and hardware. Following the inauguration of the committee for national policy in the 14th December, 1987, the federal minister of education (professor Tubic Aminu) identified the goals of computer education in Nigeria as follows

1. That clear strategies and terminologies to be used in computer education is to be developed by the government so that Nigeria could become a computer literate society by the end of mid 1990s
2. That Nigerian children at various levels of education must be brought into contact with computer so that they can use it, appreciate its potential, understand how it works and learn how to apply it to bring about a computer literate society by mid 1990s
3. To catch up with the rest of the world.



4. To be able to land on job demanding computer knowledge
5. To enhance efficiency and management and to open a wide scope of endeavor and above all to regulate the proliferation of microcomputer and its integration within the educational system.

In august 1988, the committee on the national policy on computer education in the secondary schools was constituted. The report was broad and based on specific activities at the secondary schools. The policy specified two objectives in tow folds viz:

- i. General objectives
- ii. Specified objectives

2.3 General objective

- i. To help meet with the demand of our time and technological development
- ii. To help expose the rudiment of the computer and its workshop to the pupils.
- iii. It helps to lay a solid foundation in computer science education at the early stages of the pupils.
- iv. It helps to encourage and stimulate the interest of the pupils to computer education.
- v. It paves way for easy application of computer education in other discipline
- vi. It ensures literacy in computer education at the secondary school level.

The specific objectives for teaching computer in the secondary school curriculum are:

- i. To develop competence in the basic skill and understanding of dealing with computer.
- ii. It helps to develop the habit of effective and direct thinking involving analytical data basic concept.
- iii. It helps to develop the habit of effective and intellectual independence with regard to computer.
- iv. To develop necessary computer educational background for further education.
- v. It helps to create a technologically based education at the secondary school level.

The policy also specifies the hardware and software requirements for the level specification for curriculum development. The report advises on strategies and modalities for introducing computer education in federal government unity secondary schools. It also sought to identify the most suitable available hardware option, determine the optimum number of computers to be used in the secondary schools and specify the environment within which the computers would function well.

It was recommended that each pilot school should be provided with eight (8) computer systems. This number is in a ratio of one computer to five students against the ideal ratio of one computer to one student. This ratio of one to one which is the deal ratio has not been achieved because of the economic situation prevailing in the country. Finally the report contains secondary school computer studies curriculum which had further been broken down into junior secondary syllabus and senior secondary school syllabus.

2.4 The Concept of Computer Education

Earlier in this chapter, a brief definition and introduction to computer education was made. Here I would like to highlight some of the idealologies or principles behind the formation of computer education. This will entail looking at the various areas where computer is applicable and of course the history of computer itself will not be left out.

Our national policy on computer education was launched in 1988 and the policy promises to equip all learners with computer literacy at all level. Certain objectives, requirements and activities for computer education and literacy program were specified to expose learners to:

1. Knowledge of computer and their use in everyday life.
2. Use of computer to facilitate or enhance their learning process.
3. Acquire and develop rudimentary skills in data processing, word processing, record keeping and financial analysis. So the national programme has received massive national support as a welcomed technological innovation in educational practices in our institutions.

It is generally designed and planned to improve the quality of teaching in schools, aiding technological and socio-economic development. The then new system of education of the form 6-3-3-4 has brought the inclusion of some additional subjects into the curriculum among which is computer science. Due to the technological advancement in Nigeria, the 6-3-3-4 system of education has been introduced which lays more emphasis on the teaching of science for economic recovery.

In Nigeria today, most industries have incorporated the idea of using computer and as such, the advancement of computer education in our present society cannot be emphasized.



2.5 Applicable Area of Computer

Fisusi (2000) said it will be an arduous if not impossible task to list all the area of application of computers. The application areas are however, categorized into two namely:

- i. Business data processing
- ii. Scientific data processing

Business data processing is used to distinguish those operations relating to management control of business from other application areas such as those relating to science e.g. pay roll, air reservation, computation of results, office automation etc. business data processing is characterized by the need of establish, retain and process files for producing useful information that would aid further decision in the company. It involves the following:

- I. Large volume of input data
- II. Limited automatic operation

Now take a look at some of the common application areas in which computers are being applied.

Computer science and engineering: The greatest asset of the computer is its ability to compute accurately and at high speed. While human can perform operation in minutes, the computer can perform more complex calculation in the order of 10.7 seconds. It also has the ability to take decisions at very fast speed by comparing data base containing thousands of names in a speed as that of light to determine whether a name is in the data base. Scientists and researchers take advantages of these characteristics by applying the computer in the theory or hypothesis development. He can store his data in the computer and then harness the accuracy and high speed of computation offered by the computer to test all possible hypotheses on the data in order to configure a theory relating to the data, Fasusi (2000)

Statistical analysis of data can also be done fast and accurate by applying the computer as against manual analysis which may involve hours and days of calculation

Also certain problem that cannot be represented in mathematical form or those whose mathematical form cannot be solved by any known analytical method can be solved by simulation techniques. This would involve building a mathematical model to approximate the problem. The simulation of the solution can be applied on the computer using generated data and thereby determine whether the solution will be a good one or not.

Medical And Health Services: computers are used for keeping medical records in hospitals. Community health workers also require the use of computers in records and monitoring epidemic D diseases and community health programs.

Industry and Technology: The community has a wide range of industrial applications in production process; the computer has become very useful. Computers are also used in industry for the control of machinery as robots (computer aided manufacturing), launching of spaceship and satellites into orbits cannot be achieved with the desired accuracy without the aid of computers.

Education and literature: At all levels of education primary, secondary and tertiary computers are now used as instructional aids. Computer can be used in education as a teaching tool through the use of computer assisted learning (CAL).

Computer Assisted Learning (CAL): computer is hereby being used to assist in learning and instruction. This involves the development of software that can be used as a learning tool by the students. The computer would present a lecture for the students to learn and would also test their mastery of the subject matter. This it does by asking questions, the response of which determines the progress or other wise of the students the computer program would proceed to the next lecture depending on the accuracy of the answers supplied by the students.

Computer Assisted Learning has the following advantages

- a) Students can learn at their own pace. It eliminate the slow learners delaying the brighter students
- b) Learning takes place at the students own convenient.
- c) It is devoid of distractions such as noise etc

Some of the disadvantages are

- a) Students-teacher interaction is not guaranteed.
- b) Lack of learning aid
- c) Computer has no human feeling, hence lectures are not humorous and lively

2.6 Problems militating against the effective teaching and computer in secondary schools

Before an attempt is made to discuss some of these problems, the researchers would like to give a reasonably clear meaning of teaching and learning. Seweje and others (2002) describe teaching as series of goals oriented interaction between the teacher and the learner in order to impart knowledge. The further explained teaching as a cluster of activities which involve imparting knowledge, attending to and organizing learning outcomes, preparation of lesson plans, evaluating learning outcomes, general supervision and guidance, classroom management, keeping school records etc. teaching is seen as a deliberate attempt to impart knowledge.

The teaching of computer science involves all the activities above to impart knowledge of computing skills in the recipient. Meanwhile, owuamanam (2004) described learning as a relatively permanent change or modification in behavior brought about by activity, practice, experience or exposure to conditions in the environment. Permanent change in behavior means that the change must persist for some time. There are various challenges facing the teaching and learning of computer studies in the secondary school in Ekiti state. These shortcomings go a long way in affecting the attitudes of students towards the subject which is the object of concern in this research work. Some of these problems are listed below and will be carefully explained in details.

- Inadequate funding as observed by the researcher of the few available computer laboratories
- Problem of accessibility
- Lack of adequate personnel and instructional materials
- Power supply and maintenance problems of computer centre
- Absence of properly developed curricula for teaching of computer
- The approaches or methods used in teaching computer studies.

Inadequate funding

Inadequate funding is one of the numerous problems facing the teaching learning of computer studies in our secondary schools in Ekiti state. These are financial constraints facing the school act as a major hindrance or obstacle in providing adequate facilities and equipment for teaching computer. The fund allocated to most of these secondary schools cannot cater for the entire running of the school system and this constitute the reason why we have very few or no computer in most of the secondary schools. Three you will see a computer laboratory if at all there is without a single computer system.

The problem of accessibility

Abimbade (1995) clearly explain that the majority of the students do not have access to the use of personal computer. This problem could be traced to the socio-economic background of the learners. In the same vein, Adeoye (2004) also observed that the cost of computer system is high and considering the present state of our economy, it cannot be affordable by many parents.

This constitutes some of the reasons why most secondary schools teach computer studies as a subject without computers. Every computer lesson is supposed to be a practical class. But directly opposite is the exact case of what we have in our secondary schools. This fosters in the students the notion that computer is a magic box which can only be talked about or drawn on paper but not easily accessible.

Lack of personnel and instructional materials

The quality of performance of any teacher is a measure of some crucial elements. These include his personality, previous experience, the instructional materials at his disposal, his chosen methods techniques used in passing information across to the students. The school authorities and the government therefore, have the moral responsibility to provide these vital instructional needs which can facilitate effective achievement of teachers/students interaction.

Most of the secondary schools do not have computer teachers. You find a situation whereby someone who has no good knowledge of computer is being employed to teach computer studies. This limits the level of knowledge imparted to the students and restricts their ability to access existing knowledge and generate new idea.

On the other hand, a teacher shows more commitment to teaching where there is a well-equipped laboratory with audio-visual materials for effective teaching. The encyclopedia of educational research (1950) stressed the importance of instructional materials as follows. It makes learning more permanent and offers reality of experience which stimulates self-activity on the part of the students. The use of instructional materials makes learning more effective and gives factual information.

Sands (1986) also asserted that “students learn more easily through the use of instructional materials than by verbal explanation alone”. They learn more by what they see than what they merely listen to. This agrees with the saying that seeing is believing. A teacher therefore shows commitment to teaching when he has all the necessary aids and instructional materials needed to carry out the teaching. This will go a long way in shaping the attitude of the students towards computer studies.



Power supply and maintenance

Instability in electricity supply is observed to have posed a major setback in the few available computer laboratories. Many secondary schools are not connected to public power supply. Therefore setting up computer laboratories in such schools is bound to suffer setback. This will incur additional cost as any installation has to be supported by a generator or an alternative power supply system (UPS). There is need for high air conditioning and above all, a dust free environment. Sometimes when power supply cut off, students have to stop what they are doing without hope of restoration of light and when this happens, it cuts them off from what they are actually learning.

Coupled with this is the problem of maintenance of our computers. In most secondary schools that are privilege to have computers in their laboratory, most of the systems are not functioning well and little or nothing is done to reinstate to normal functioning condition.

According to Gloria (1991), maintenance is the process of supporting the system often as it is implemented. In the same vein, in a hand book on software engineering, it is described as any work done to change the system after it is in operation. It involves upgrading the existing system after it is in operation with the new parts. In addition to this, the oxford English dictionary sees maintenance as an action of keeping in effective condition, in working order, in a state of repair etc, of building equipment's through funds.

Most of the computer systems are left the way they were acquired. Some of the parts are not functioning in some instances like the keyboard for example, and nothing is being done to replace it with new ones. It's noteworthy to point out that maintenance does not only involve replacing the old parts with new ones alone, but it also takes care of the installation, environment, the furniture in the laboratories etc, and other equipment that allows work to be possibly done on the computer system. But when these things are not in place, it hinders learning, thereby creating negative attitudes towards computer studies.

Absence of properly developed curricular for computer science teaching

Tanner and tanner (1975) defined curriculum as the planned and guide learning outcome formulated through the systematic reconstruction of knowledge and experience under the auspices of the school, for learners continuous and willful growth in personal and social competent. The curricula issue as described by the writer above bothers on the acquisition of learning experiences.

Despite the efficacy of having a properly developed curricula in teaching computer studies in our secondary school, Howell and Linda (2000) notice that there is absence of properly develop curricula for teaching computer skills

The approaches (methods) used in teaching computer science

Approach refers to the strategies and the various teaching methods that could be adopted to impart knowledge and disseminate necessary information for effective teaching and learning. Teachers are considered as the master of their own subject who should be able to direct student towards the right direction in the teaching of any subject. Silvius and john, as quoted by Adebute (1992) described lecture method as being used by the teacher for imparting information and stimulating critical thinking largely by the verbal message. It can be used to describe machine tools, technology, and invention in science and technology design and devices that cannot be shown in the class. Sometimes the lecture is accompanied by some instruction materials such as projection, models, drawings, and various machine, spare part collections and tools among others.

Workshops and laboratories serve as instructional techniques integrating many methods like lecture, discussion and demonstration among others but all these are subordinates to the individual activities of the students which actually occupy the greater part of the time allocated to workshop practice.

However, Bandele (2000) stressed that there is no best teaching method. From the contribution of the authors above, it can be deduced that some methods enhances the effective teaching and learning of computer science more than others. It is therefore, the sole responsibility of the teacher to identify and make effective use of a collection of teaching methods that will best bring the achievement of the instructional objectives.

The Significance of Computer Education

Fisusi (2000) stated the importance of computer education as follows:

1. It helps to develop competence in the basic skills and understanding of dealing with computers.
2. It helps to develop the habit of analytical data base concept.
3. It helps to effectively utilize the computer in solving problems.
4. It helps to develop necessary background in computer science to enhance further education.
5. It helps to create a technological based education at the secondary school level.



3. RESEARCH METHODS

This study investigated the effects of the attitudes of students on their performance in computer science in secondary schools. A case study of Ado Ekiti local government area was sited.

This chapter presents the methods used in this research work. It described the research design, population, and sample and sampling techniques, the description of the research instrument used, validity of the instrument used, data collection and procedure for data analysis.

3.1 Research design

The research in this study is an inferential one which apart from giving a systematic description of event in a factual and accurate manner, also make assertions and generalizations based on the tested hypotheses.

For the purpose of this study, the research instrument employed was the questionnaire method. It was considered appropriate because it allow the respondent to express their views and opinions with regards to their attitudes towards computer studies and how it affects their performance.

3.2 Population

The population for this study consisted of the secondary schools of Ado Ekiti local government area of Ekiti state. The whole population was however represented by students and teachers from the five secondary schools in the local government.

3.3 Sample and sampling procedure

The sample consisted of 150 student and 10 teachers from the selected secondary school. The schools were selected using simple random sampling, the student were selected using multistage random sampling while the teachers were selected using purposive sampling techniques.

3.4 Research instrument

Instruments in research refer to the tools used in collecting data. This was designed for both the student and the teachers. The questionnaires comprises of two sections each. The teachers questionnaire consisted of section A and section B. section A was designed to seek information about teacher personal data while section B consist of item designed to seek for the response of teacher to certain question based on their attitudes towards the teaching of computer studies. The student's questionnaire also consisted of section A and B was all about the biodata of the student while section B seeks their opinion and attitude towards computer studies as a subject. The item of the questionnaire investigated negative and positive responses based on the subject matter.

3.5 Validity of the instrument

The validity of an instrument refers to the extent to which it measures what it purport to measures. The questionnaire was validated using face and content validity. To achieve this, some fiends colleagues for their observation and suggestions. The supervisor was also provided with a copy for his assessment and endorsement after necessary corrections

3.6 Reliability of the instrument

Reliability of an instrument refers to the degree to which a test yields consistent results when administered over a period of times. A test-retest method was applied and the questionnaires were administered on representative sample twice a week. The results were then correlated and a coefficient of reliability was obtained using person product moment correlation method

3.7 Administration of the instrument

The question was administered directly by the researcher to both the teacher and student with the cooperation of the principals of each of the schools concerned. The performance of the student in their last exam was also taken through the schools registrars. In the process of administration, verbal explanation was given to the respondents and they were also assured of confidentiality of all the information supplied. The questionnaire was successfully administered and were duly completed and returned to the researcher.

3.8 Data Analysis

The chi-square analysis was used in this research work to analyze the data collected. This is because it was considered appropriate by the researcher for testing significant differences between two variables

4. RESULT AND DISCUSSION

4.1 Results

As earlier started, the study was carried out to find out the effect of the attitudes of students on their performance in computer studies in junior secondary schools. This chapter shows the analysis of the data collected.

Five hypotheses were generated and tested in order to investigate the subject of this study.

Hypothesis 1: There is no significant relationship between the attitudes of students towards computer studies and their performances.

Table 1: Chi-square analysis of the effects of attitudes on performance with respect to all the items of the questionnaire

	Attitude	Performance	Totals	X^2_c	X^2_t
Positive	120(108.5)	97(108.5)	217	8.82	3.84
Negative	30(41.5)	53(41.5)	83		
Totals	150	150	300		

The chi-square calculated is greater than the table value. This necessitates the rejection of the null hypothesis, which means that there is a significant relationship between the attitudes of students and their performance.

Hypothesis 2: There is no significant relationship between the attitudes of males and females towards computer studies.

Table 2: Chi-square analysis of the attitudes of males and females towards computer studies.

	Positive Attitudes	Negative Attitudes	Totals	X^2_c	X^2_t
Males	27(28.62)	26(24.38)	53	0.31	3.84
Females	54(52.38)	43(44.62)	97		
Totals	81	69	150		

The chi-square calculated is less than the table value. Therefore the null hypothesis is accepted which means that there is no significant relationship between the attitudes of males and females.

Hypothesis 3: There is no significant relationship between teacher qualification and the attitudes of student in computer studies.

Table 3: Chi-square analysis of teacher qualification against student attitudes

Qualification	BSc	BEd	NCE	Total		
Attitudes					X^2_c	X^2_t
Positive	49(47.6)	54(47.6)	16(23.8)	119	16.73	5.99
Negative	11(12.4)	6(12.4)	14(6.2)	31		
Totals	60	60	30	150		

The Chi-square calculated is greater than the table value. This means that there is a significant relationship between teacher qualification and attitudes of students.

Hypothesis 4: There is no significant relationship between the interest of student and their performance.

Table 4: There is no significant relationship between the interest of student and their performance.

Item	Responses		Performance		Totals	X ² c	X ² t
	Yes	No	Positive	Negative			
Computer studies is very interesting	150(124.3)	0(25.67)	97(85)	53(65)	300	52.74	12.59
It will not advice anybody to study computer science	110(124.3)	0(25.67)	97(85)	53(65)	300		
I'm willing to spend a full day studying computer	113(124.3)	37(25.67)	77(85)	73(65)	300		
Total	373	77	225	195	900		

The null hypothesis is rejected since X^2_c is greater than X^2_t . this means that there is a relationship between student interest and their performance.

Hypothesis 5: There is no significant relationship between instructional materials available and the attitudes of students

Table 5: A chi-square analysis of instructional materials against the attitudes of students

Items	Responses		Attitudes		Total	X ² c	X ² t
	Yes	No	Positive	Negative			
Instructional materials are available in my school	96(85.33)	54(64.67)	104(93)	46(57)	300	14.82	12.59
My school computer laboratory is well equipped with adequate facilities	87(85.33)	63(64.67)	94(93)	56(57)	300		
There are enough computers in my school	73(85.33)	77(64.67)	81(93)	69(57)	300		
Total	256	194	279	171	900		

The table value is less than the calculated value. This necessitates the rejection of the null hypothesis which means that there is a significant relationship between the instructional materials available and the attitudes of students.

4.2 DISCUSSION

According to Dun and Clark (1998), whenever the table value is less than the calculated value in statistical analysis, the null hypothesis is to be rejected and vice versa. The principle forms the bane of the researcher's decision regarding each of the five hypotheses.

From table 1, the hypothesis which was based on attitudes and performance was rejected. This affirms the fact that there is a significant relationship between attitudes performance. This goes on to explain the phenomenon that "your input determines your output". So a positive attitude facilitates understanding and the tendency is that a positive performance is assured. Also, a negative attitude brings about no understanding and failure is inevitable most of the times in such a situation.

From table 2, the hypothesis tested the relationship between the attitudes of males and females towards computer studies. The null hypothesis was accepted and this affirms that there is no relationship between the attitudes of males and females. Therefore, there is gender discrimination regarding attitudes to computer studies.

From table 3, the result of the analysis necessitated the acceptance of the null hypothesis. This affirms that there is a relationship between teacher qualification and the attitudes of students. Teacher qualification usually influences their expertise in the discharge of their duties. Also the manner of presentation of any course of study contributes either positively or negatively in shaping the attitudes of the recipients towards such a course. Teacher must therefore, be provided with the opportunity for further studies in the form of in-service training to upgrade their knowledge and improve their competency in the subject matter.



The purpose of the in-service training is to equip the teachers with updated knowledge, new attitude and needed skills. Table 4 however, took a precise look of the analysis of data regarding the interest of students and their performance. The null hypothesis was reject, meaning that a relationship exist between interest and performance. Interest is very important on any worthwhile adventure. This is because interest brings about commitment, and where commitment is ensured, performance is usually assured. No one possesses what he/she is unwilling to pursue. This is why pupils hardly excel in any subject they have no interest in.

Also, the research raised a hypothesis that tested for the significant relationship between the instructional materials available and the attitudes of students towards computer studies. This analysis was shown in table 5. The analysis necessitated the rejection of the null hypothesis which implies that there is indeed a relationship between instructional materials and attitudes of student. Computer study is a subject that cannot be taught effectively in abstraction. Therefore, where instructional materials are not available, the students are taught in abstraction which could be very boring thereby fostering negative attitudes in the students towards the subject.

5. SUMMARY & RECOMMENDATIONS

5.1 Summary

This study was carried out to investigate the effect of the attitudes of students towards computer studies and their performance. Some schools selected from Ado Local Government Area of Ekiti state were used as a case study. Relevant literatures were reviewed on the origin of computer education and how attitudes affect performance. Research questionnaires were used to obtain relevant information from both the teachers and the students from the selected schools. The sample that was used comprised of 150 students and 10 teachers from the schools.

The result of the analysis showed that: there is a significant relationship between attitudes and performance, there is no relationship between the attitudes of males and females, there is a relationship between teacher qualification and student attitudes, a relationship exist between interest and performance and finally that there is a relationship between the instructional materials available and the attitudes of students.

Based on the outcome of this research work, the researcher concluded that attitude has effect on performance. There is also no significant difference between attitudes of males and females. They both have favorable attitudes towards computer studies. Therefore, gender difference does not affect the attitudes and performance in computer studies.

Also, non-availability or inadequate of instructional materials available in schools affect the attitudes of students. The researchers also concluded that teacher's Qualification is a noteworthy factor that affects the attitudes of students. Finally, without adequate interest in any course of study, failure is inevitable.

5.2 Recommendations

Based on the finding of this study, the following recommendations were considered appropriate.

1. Computer science teachers in the secondary schools should undergo constant seminar and in-service programme to upgrade their knowledge.
2. The government should improve on the basic laboratory equipment, audio-visual aids, alternative power supply facilities etc
3. The use of instructional materials is highly important to motivate the student and also the teaching methods must be reviewed so that there would be lasting impressions on students.
4. The government should organize enlightenment programmes to enlighten parents on the needs to encourage and support their children to learn computer science in order to have better understanding towards this age of information technology.
5. There should be no gender discrimination in providing opportunities and scholarships to students for further studies in computer science.
6. Government should encourage both teachers and students by providing a better condition of service to teachers to arouse their interest and awarding scholarships to students who perform brilliantly in the subject matter.



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