COMPUTERIZATION OF STRENGTH OF ASSOCIATION BETWEEN ENTRY REQUIREMENT AND ACADEMIC ACHIEVEMENT A CASE STUDY OF F.C.E. KONTAGORA.

BY

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DEDICATION

This project work is dedicated to my wife ----------------- Funke Ajinuhi

APPROVAL PAGE

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PROJECT SUPERVISOR   DATE

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MR. L. N. EZEAKO

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EXTERNAL EXAMINER   DATE

ACKNOWLEDGEMENT

I want to start by giving thanks to the Almighty God for sparing my life and guiding me throughout this course work.

Special thanks to my understanding and helpful supervisor Mal. Audu Isah. I wish to express my gratitude to the Head of Department Maths/Computer Science Federal University of Technology, Minna and the entire staff of Maths/Computer Science Federal University of Technology, Minna. The following people must not be left out Rev. and Sis. Ojaleye, Architect Simeon, Rev. and Sis. Yisa, Bro. Kemiki, Mr. and Mrs. Sodiya, Mr. and Mrs. Luka, Sunday Ajinuhi, Femi Bello, Bukky and Olubunmi, Mr. and Mrs. Fowoyo, Mr. and Mrs. Ayeduso, Mr. Peter, Mr. Saka and a host of others who have contributed to my success.

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ABSTRACT

The computerization of students' entry requirement and academic achievement with particular focus on FCE Kontagora was carried out. A sample of 200 graduating students for a 10 years period was used (1990 – 1991). The results were analysed using the Person Product Moment Correlation Coefficient (PPMC) as well as the T-test statistics. The test reveals that there is no significant correlation between entry qualification and academic achievements.

CHAPTER ONE

1.0   General Introduction

A computer is a group of electronic devise connected into a unit cable of processing, storing, retrieving, editing, manipulating data with high degree of accuracy.

According to shelly (1986), though the uses of computer are many, computer perform only a limited number of operations: 1) input; 2) Arithmetic; 3) logical; 4) output, 5) storage. Computers are capable of performing these operations with both speed and reliability making the computer a very powerful tool.

It is necessary to state that computers are applicable over a wide area of human endeavor ranging from the simplest operations to the most complex operations beyond human imagination.

The historical development of the computers dates back to the use of the ABACUS around 500 BC mostly in China, Japan, and some part of Europe.

Overtime Charles Babbage developed the ANALYTICAL ENGINE with features which the today computer still has; things like the "MILL" or "processor"," store","memory".

Overtime we have generations of computer, (1st to 5th) with each succeeding generations performing better than the previous. Latest development in computers shows that more computing power has been successfully packed on a single chip. As a result of this, we now have laptop, notebook, and pocket microcomputers.

Doubtless, as computers technology (hardware and software) keeps improving, we can be sure that even the sixth and subsequent generations will be produced with time and as anticipated, with better and wider applications.

Computer Technology

The historical development of the computer dates   back to the use of ABACUS around 500 BC. The computer is not an abstract concept, it is a tangible, concrete devise made of physical components. Some of the components include the monitor, mouse, keyboard, system units e.t.c.

The computer hardware performs the processing of data. According to Shelly (1986) among the units classified as computer hardware are 1) input units 2) the processor units consisting of main memory and the central processing unit (CPU); 3) Output units which make information available for use; 4) Auxiliary storage units that are use to store data and instructions for future reference.

There is hardly any aspect of the human life that the computer is not being used today. Thus, it will be too voluminous to detail all such areas as well as detail of any of the application that will be mentioned subsequently. Computer now are used for everything from guarding houses to helping sales people to be more convincing. They are used to pick mates and have been used to assist in marrying couples when the bride, the groom, and the minister were geographically separated. They control aircraft and venture into space. They monitor bio feed back and help people learn how to relax. It would be impossible to compile an exhaustible list of all the different computer applications today. It is also been used in the following areas: research, medicine, sports, education, industry, business, government security, banking just to mention but a few.

The benefits of the use of computer application programs are;

1.   **SPEED:** The computer can perform more calculation and data processing more quickly than manual method. The work that will take many years to complete manually can be accomplished with computer within a minute. Hundreds of millions of arithmetic operations can be performed in a second using a computer.

2.   **ACCURACY:** Computer does a job with a very high degree of accuracy. Computers do not make mistakes except there is human error.

3.   **RELIABILITY**: The computer is capable of working twenty-four hours a day and operates reliably with little or no equipment failures.

4.   **ECONOMY:** The advantage of the speed and accuracy brings about reduced cost of production and timesavings.

1.1   BACKGROUND OF THE STUDY

Academic achievement is strongly tied to some motivational factors beside intelligence. Intelligence quotient (IQ) has been said to be an important determination of academic achievement.

Motivation is the term used for relieving tension, to remove any disturbing condition or problem. It inspires, incites and promote learning, Adeyemo, (1985).

Learning on the other hand is seen as a change in behavior that depends upon special condition of a situation.

Entry qualification is often viewed as a determinant factor of academic achievement, that is, to say a positive relationship existed between entry qualification and academic achievement. To this end a good result at secondary school lead to good performance academically at the post secondary school level.

1.2   Statement Of The Problem

Many people are of the view that academic achievement is dependent on entry qualification into the tertiary institution; in addition academic achievement is strongly tied to some motivational factors like the home background, the school, environment, peer group and the role of the teacher.

The problem now is determining whether achievement in academic at tertiary institution is a function of (i) entry requirement (ii) motivational factors or both.

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1.3 Research Hypothesis

As this study is set out to investigate then strength of association between entry requirement and achievement; using the federal college of education Kontangora as a case study; therefore the hypothesis that will be tested in this study is:

H_0: there is no significant difference between the students' entry qualification and academic achievement at the NCE level

H_1: there is significant difference between the students' entry qualification and academic achievement at the NCE level.

1.4 Objective Of The Study

The research work will investigate students' qualification alongside their academic achievement at the federal college of education Kotangora.

The objectives include the following;

1. Finding out motivational factors that may directly or indirectly enhance students performance academically

2. Investigate possible correlation in students' entry qualification and achievement.

3. Provide useful information that may serve as guide to students' success in their various fields of study.

4. Provide useful information to authorities, parents, guidance, and teachers for decision-making.

5. To suggest appropriate requirement for enhancing performance for the overall development of the nation.

1.5 Significance Of The Study

According to investigations carried out so far this study is unique and its findings will be very important to the federal college of education Kotangora, as well as the Federal Republic of Nigeria.

Since this study involves investigating relationships that exist between entry qualification and achievement at NCE level the findings would be useful to the following:

(a) The ministry of education in the Federal Republic of Nigeria.

(b) Educational Institution such as schools at all levels

(c) The general public comprising of the parents, teacher, proprietors of schools, students, school administrators.

(d) The result will also influence students to perform better as factors that could enhance performance will be highlighted.

1.6   Scope Of The Study

This study is limited to the federal college of education Kotangora, Niger state due to time and finance. The study is limited to test results for 10 years (1990-1999).

CHAPTER TWO

2.0   LITERATURE REVIEW

2.1   Introduction

In this chapter, the works of authors, researchers relating to motivational factors that enhanced achievement are reviewed; these motivational factors determine the success of a student academically, they include:

- The home and parent' background.

- The school environment and the teachers

- The social or peer group and

- The self-concept of learners.

2.2   The Home

Majasan (1997) contends that learning is affected by social situations, the home condition of a pupil and the attitude of parents towards school works have an important effect on the child's readiness and eagerness to learn. He argues further that where the home influence is such that it encourages interest in learning and in schoolwork generally, the child learns better.

It has been pointed out that the social status and financial positions of parents affect greatly the education of their children as social and environmental condition like poor ventilation, lightning of the home, amount of work that has to be done at home, the distance that has to be walked when coming to school go a long way in determining the pupils success in school. To this effect Odediran (1990) in his studies on having an efficient learning, observed that unsuitable accommodation, poor feeding will have serious effect on a child's progress in school. In the same vein Oladele (1984) writes on harshness or uncaring attitude of parents, the emotional atmosphere prevailing at home, things like scolding of a child, lack of love, inadequate nutrition, or poor feeding can affect negatively the academic performance of the child.

Chauhan (1978) shares the view of Iwe above and pointed out that good home environment and early childhood training help in vocational development, but polygamous lead to emotional disturbance. Okoye (1992), Nwabisi ;(1992) contend that the influence of parents remove reduce social misbehavior that could act as an impediment to the social adjustment of children at home and school. They recommended peculiarity, intimate relationship, love and care, social and emotional training coupled with encouragement from parents.

The role played by the home cannot be overemphasized as Bolarinwa (1996) argues that the financial position of parents, social status, marital conditions will go a long way in determining pupils success in school as much money is needed for fees, books, school materials, feeding. The argument of Aliyu (1995) is quite in line with Bolarinwa (1996) for he pointed out that some parents (especially the educated ones) go the extent of employing auxiliary teachers at home. He contends that children from such interested and Stimulating homes are likely to be more successful learners and perform better academically than those from illiterate and poor homes.

As convincing as the argument above (regarding rich parents) may seems to be, Bajah (1986) in an early study has contrary opinion, that those from rich family perform poorly at school, as for him, he recommends encouragement from home.

Taking into consideration the above points, opinions and arguments, one cannot but conclude that the home has a major role to play as far as the success of a child at school is concerned.

2.3   The School Environment

The school environment has to do with the physical environment, the infrastructure, and the teachers or instructors and their influence or role as far as learning is concerned. In this regard Odediran (1990) in his studies on having an efficient leaning, he observed that unsuitable buildings, inappropriate equipments and facilities, inadequate materials for learning and teaching and inefficient

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teachers can have just as serious effects as physical mental and emotional causes. He suggests that a teacher must do all within his power to overcome the problems through prompt and appropriate action to deal within adverse environmental factors.

Adeyemo (1996) identifies the quality of teachers and availability of infrastructural materials as factors that influence academic performance. Also, Aremu (2000), Adeyemo (1990) identify environmental factors as adequate teaching materials, well organized, fully equipped school, standards library and laboratory, good student teacher relationship as against teachers been too harsh, students creating hatred towards teachers thereby eroding students interest towards learning.

On the part of teachers Bajah (1983) pointed out inexperienced and unqualified teachers as a major factor militating against students academic achievement. Also, a carefree attitude on the part of the teacher, laziness or lack of total devotion and commitment. To this end Adeyemo (1990) Aremu (1997) talk on poor remuneration for teachers.

The negative role of teachers is further portrayed by Manguwat (1997) as teachers' leniency and cheapness in term awarding undeserved grades and marks to students in order to be praised or termed "Mr. Good". On the contrary Aremu (1997) pointed out reinforcement and rewards as encouraging to students performance but it could not be carried too far at the detriment Of standard. Though naturally students prefer teachers who award undeserved marks to them and considered those who are firm as "mean".

From the above it seems that most blame are levied on the teachers, but Oladele (1984) pointed out that if teachers are competent, ready to work, strict, effective, efficient and marking ahead of each lesson, but if students are not ready to work or learn, there is no amount of motivation that can impact knowledge by force, one may agree with such a beautiful submission as this; just as the old adage that you can force a horse to the river side but "you cannot

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force the horse to drink water". The role of the teacher and the entire school environment goes a long way in enhancing students' academic achievement.

2.4 The Social Or Peer-Group

Peers influence on various aspect of life such as dresses, sexual behaviors standard, entertainment and attitude towards constituted authority, figure and academic pursuit. Peer group can create a learning climate that either enhance or deter academic success or depression. Peer group can induce fighting, examination malpractice, stealing immorality. There is a saying that "show me your friend and I will tell you who you are". In line with this, it is commonly believed that if an average student keeps company with talented students the average student is bound to do better academically; on the other hand if an average student keep company with a poor student the average students is bound to draw back academically.

Durotolu (1994) listed some factors responsible for students academic performance among such factors is the influence of peer group. Aremu (2000) is of the view that peer group has a great influence on academic performance as people tend to dance to the tune dictated by the peer group he belong to. In line with this it is advisable for students to cultivate the habit of keeping company with fellow students who are serious, clever, attentive in class, those that are ready to work, intelligent, not truant, morally debased, cheaters, the proud or those fond of examination misconduct.

2.5 Self Concept Of Learners

Though the factors enumerated prior to this one are very important but the "SELF" matters a lot. Intelligence is said to be inherited of which we can neither increase or decreases it. High IQ (intelligence quotient) in some pupils is found responsible for their high academic success and low IQ is responsible for some pupils' low academic success. Some researchers object to this that even pupils with low IQ still succeed academically if well motivated. According to Ofuokwu (1984) high IQ does not mean high achiever automatically and vice versa. He

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talks much on development of potential; students should not just give up with flimsy excuses like "I'm naturally poor" "I'm not good in science or mathematics". He recommended hard work and diligence (1997), identifies inferiority complex as some students are afraid to ask questions; lack of reading culture, some read few weeks to examination; not reading over examination scripts before submission.

2.6 Entry Requirement Into N.C.E And Credits Requirement For The Graduation

The general requirement for admission into the three year N.C.E course states as follows:

Admission into three year N.C.E programmes as per jamb guidelines

I. S.S.C.E or G.C.E 'O' level with passes in five subjects including English language, three of which musty be at credit levels in the same sitting or (4) credits at two sittings

II. A grade two teachers certificate with or merit in three subjects.

III. Successful candidates in the pre-NCE final examination who also take and succeed in a selection examination organized. by an accredited body.

Minimum Credit Required For Graduation

A student must earn a minimum of 126 credits to graduate.

Education – 36 credits.

Two major subjects – 36 credits

Or

A double major subject   – 72 credits

Teaching practice   – 6 credits

General studies   – 12 credits

Total   _ 126 credits

Source : students' information handbook of federal college of education Kotangora Niger state Nigeria (May 1997).

CHAPTER THREE

RESEARCH METHODOLOGY

3.0   Introduction

This project is a correlation study designed to investigate relationship between students 'O' level entry and their achievements at NCE levels at the Federal College of Education Kotangora, Niger state.

3.1   Data Collection

The population for this study was drawn from the final year students of F.C.E Kotangora. The data used included the grade of the students at GCE/WAEC/GRADE II and their corresponding final grades obtained from the college academic office.

3.2   Sample

A total sample of 200 graduating students out of a total of 1,600 (12%) students over a period of 10 years (1990-1999) were used in the conduct of this research work.

3.3   Data Analysis

The researcher used the Pearson's product moment correlation coefficient to find the strength of the relationship between students entry qualification at O/level and the final performance at the NCE level.

A correlation coefficient is an index that shows us to what extent two things are related and to what extent variation in one goes with variation in the other.

A correlation can vary from +1, a perfect positive correlation through o, (no correlation) to −1, a perfect negative correlation.

A correlation coefficient greater than zero which is also statistically significant denotes some degree of relationship between two variables if the

coefficient is small, but significant it means that the measurement situation is contaminated by some factors uncontrolled, or not held constant.

The Pearson's' product moment correlation coefficient is used for this study; though Spearman Rank order correlation coefficient formula may be used for this study but the researcher used the Pearson's product moment correlation coefficient formula because of the following reasons:

PPMC is moiré convenient to use when the number of variables is greater than 30. the PPMC yields a more accurate result.

The Pearson's product moment correlation coefficient formula is given as:

$$r = \frac{N\Sigma xy - \Sigma xy}{\sqrt{n\Sigma X^2 - \Sigma(x)^2} \ \times \ N\Sigma Y^2 - (\Sigma Y)^2}$$

where:

r   = correlation co-efficient between the variables X and Y

x   = entry requirement

y   = academic performance

Σ = sum or total of

Σxy = sum of the products of x and y

Σx^2 = sum of the squares of x

Σy^2 = sum of the squares of y

Σx = sum of the scores of x

Σy = sum of the scores of y

N =   numbers of pairs of variables

In the statistical analysis entry requirements is qualified with 'x' and 'y' is used for Academic performance. In further analysis, the grade of students in mathematics at the GCE/WAEC were qualified as follows:

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GRADE GCE/WAEC	VALUE OR POINTS
A1	8
A2	7
A3	6
C4	5
C5	4
C6	3
P7	2
P8	1
F9	0

Also those of GRADE II were qualified as follows:

GRADE II	VALUE OR POINTS
A	7
B1	6
B2	5
B3	4
C	3
P	2
F	0

Academic performance at NCE level were graded as follows:

GRADE	VALUE OR POINTS
Distinction	5
Credit	4
Merit	3
Pass	2

Data Presentation And Analysis (Manually)

The outcome of the entry qualification and performance of 200 students for 10 years in presented. The Pearson product moment correlation coefficient in calculated as well as the t – value.

S/No	X	Y	XY	X^2	Y^2
1	6.4	3.8	24.32	40.96	14.44
2	4.0	3.3	13.2	16.0	10.89
3	3.6	3.3	11.88	12.96	10.89
4	2.6	4.0	10.4	6.96	16.00
5	3.6	4.5	16.2	12.96	20.25
6	3.0	3.5	10.5	9.0	12.25
7	4.2	4.5	18.9	17.64	20.25
8	3.6	3.5	12.6	12.96	12.25
9	3.6	4.0	14.4	12.96	16.0
10	3.4	4.0	11.9	11.56	12.25
11	3.6	3.3	11.88	12.96	10.89
12	3.4	3.5	11.9	11.56	12.25
13	2.4	2.8	6.72	5.76	7.84
14	4.8	4.3	20.64	23.04	18.49
15	5.6	4.3	24.08	31.36	18.49
16	5.6	3.3	18.48	3.36	10.89
17	4.0	3.8	15.2	16.00	14.44
18	3.8	3.3	12.54	14.44	10.89
19	2.0	3.5	7.0	4.0	12.25
20	3.0	3.5	10.5	7.00	12.25
21	2.8	3.3	9.24	17.84	10.25
22	3.2	3.3	10.56	10.24	10.89
23	5.2	2.3	11.96	27.04	5.29
24	3.4	3.3	11.22	11.56	10.89
25	5.4	3.3	17.82	29.16	10.89
26	3.0	3.0	9.0	9.0	9.0
27	1.0	3.3	3.3	0.1	10.89
28	7.2	2.8	20.16	51.84	7.84
29	3.4	3.3	11.22	12.92	10.89
30	2.8	3.3	9.24	7.84	10.89

The outcome of the entry qualification and performance of 200 students

31	4.0	4.0	16.0	16.0	16.0
32	4.6	4.0	18.4	20.25	16.0
33	3.4	3.3	11.22	11.56	10.89
34	4.0	3.3	13.2	16.0	10.89
35	3.8	2.3	8.74	14.44	5.29
36	4.6	3.0	13.8	20.25	9.0
37	4.6	4.0	18.4	20.25	16.0
38	3.8	3.3	12.54	14.44	10.89
39	3.0	3.0	9.0	9.0	9.0
40	3.8	3.3	12.54	14.44	10.89
41	3.4	3.5	11.9	11.56	12.25
42	4.0	3.8	15.2	16.0	14.44
43	3.0	3.8	11.4	9.0	14.44
44	2.4	3.5	8.4	5.76	12.25
45	4.0	3.5	14.0	16.0	12.25
46	2.8	3.0	8.4	7.84	9.0
47	5.4	3.5	18.9	29.16	12.25
48	3.2	4.4	14.08	10.24	19.36
49	3.2	4.4	12.54	14.44	10.89
50	3.6	3.5	12.6	12.96	12.25
51	4.4	3.3	14.52	19.36	10.89
52	3.6	3.5	12.6	12.96	12.25
53	2.6	3.3	8.58	6.76	10.89
54	2.4	3.3	7.92	5.76	10.89
55	6.4	4.3	29.52	40.96	18.49
56	4.2	3.3	13.86	17.64	10.89
67	2.6	3.3	8.58	6.76	10.89
58	3.2	4.0	12.8	10.24	16.0
59	4.4	3.5	15.4	19.36	12.25
60	4.4	2.8	12.32	19.36	7.84
61	3.2	3.5	11.2	10.24	12.25
62	4.4	3.8	16.72	19.36	14.44
63	3.4	3.8	12.92	11.56	14.44
64	4.2	4.5	18.9	17.64	20.25
65	6.4	2.3	14.72	40.96	5.29
66	3.8	3.8	14.44	14.44	14.44
67	6.0	4.0	24.0	36.0	16.0

68.	4.8	3.0	13.8	21.16	9.0
69.	2.4	3.3	7.92	5.76	10.89
70.	3.6	4.0	14.4	12.96	16.0
71.	2.6	3.3	8.58	6.76	10.89
72.	4.2	3.6	15.12	17.64	12.96
73.	4.6	3.8	17.48	21.16	14.44
74.	2.6	3.5	9.1	6.76	12.25
75.	3.5	3.8	12.92	11.56	14.44
76.	3.4	3.5	11.9	11.56	12.25
77.	2.8	3.0	8.4	7.84	9.0
78.	3.6	3.5	12.6	12.96	12.25
79.	6.4	4.2	26.88	40.96	17.64
80.	3.0	3.0	9.0	9.0	9.0
81.	3.4	3.5	11.9	11.56	12.25
82.	2.6	3.3	8.58	6.76	10.89
83.	3.2	4.4	14.08	10.24	19.36
84.	4.0	3.3	13.2	16.0	10.89
85.	4.6	4.0	18.4	21.16	16.0
86.	3.2	3.5	11.2	10.24	12.25
87.	2.2	1.5	3.3	4.84	2.25
88.	3.6	2.8	10.01	12.96	7.84
89.	3.3	2.5	8.3	10.89	6.25
90.	2.6	2.0	5.2	6.76	4.00
91.	2.7	1.7	4.6	7.29	2.89
92.	2.8	2.7	7.6	7.84	7.29
93.	2.1	2.0	4.2	4.41	4.00
94.	2.7	2.3	6.2	7.29	5.29
95.	2.6	2.0	5.2	6.76	4.00
96.	2.8	2.7	7.6	7.84	7.29
97.	2.8	2.7	7.6	7.84	7.29
98.	2.5	1.7	4.3	6.25	2.89
99.	2.5	2.0	5.2	6.76	4.00
100.	2.6	1.7	4.4	6.76	2.89
101.	3.2	3.0	9.6	10.24	9.00
102.	2.5	2.7	6.8	6.25	7.29
103.	2.2	2.0	4.4	4.84	4.00
104.	2.3	1.3	3.0	5.29	1.69

105.	2.7	1.7	4.6	7.29	2.89
106.	3.2	1.7	8.6	10.24	7.29
107.	2.2	2.5	5.5	4.84	6.25
108.	2.2	2.8	6.2	4.84	7.84
109.	4.5	2.8	12.6	20.25	7.84
110.	2.5	2.3	5.8	6.25	5.29
111.	3.5	2.3	8.1	12.25	5.29
112.	3.0	2.5	7.5	9.00	4.00
113.	3.0	2.0	6.0	9.00	4.00
114.	1.5	2.0	3.0	2.25	4.00
115.	4.0	2.3	9.2	16.0	5.29
116.	3.5	2.3	8.1	12.25	5.29
117.	2.2	2.5	5.5	4.84	6.25
118.	1.8	2.3	4.1	3.24	5.29
119.	2.0	1.8	3.6	4.00	3.24
120.	1.7	2.0	3. 4	2.89	4.00
121.	2.1	2.3	4.8	4. 41	5.29
122.	3.8	2.8	10.6	14. 44	7.84
123.	1.8	3.0	5.4	3.24	9.00
124.	2.7	2.7	7.3	7.29	7.29
125.	2.2	1.3	2.9	4.84	1.69
126.	2.2	2.0	4. 4	4.84	4.00
127.	2. 4	2.0	4.8	5.76	4.00
128.	2.3	2.5	5.8	5.29	6.25
129.	3.0	2.3	6.9	9.00	5.29
130.	1.7	2.0	3. 4	2.89	4.00
131.	2.1	2.0	4.2	4. 41	4.00
132.	2.6	2.3	6.0	6.76	5.29
133.	1. 4	2.3	3.2	1.96	5.29
134.	4.0	2.3	9.2	16.00	5.29
135.	2.3	2.2	5.1	5.29	4.84
136.	3.3	2.0	6.6	10.84	4.00
137.	2.3	2.3	5.3	5.29	5.29
138.	1.8	1.3	2.3	3.24	1.69
139.	2.3	2.0	4.6	5.29	4.00
140.	2.8	2.5	7.0	7.84	6.25
141.	1.5	2.3	3.5	2.25	5.29

142.	1.5	3.0	4.5	2.25	9.00
143.	3.1	2.0	6.2	9.61	4.00
144.	2.7	2.0	5. 4	7.29	4.00
145.	2.7	1.8	4.9	7.29	7.24
146.	3.3	3.0	9.9	10.89	9.00
147.	3.2	2.0	6. 4	10.24	4.00
148.	2.7	1.8	4.9	7.29	3.24
149.	2.5	1.8	4.5	6.25	3.24
150.	2.6	1.8	4.7	6.76	3.24
151.	2.6	1.8	4.7	6.76	3.24
152.	3.1	2.0	6.2	9.61	4.00
153.	3.0	3.0	9.0	9.00	9.00
154.	2.2	1.5	3.3	4.84	2.25
155.	2.5	2.3	5.8	6.25	5.29
156.	3.0	2.5	7.5	9.00	6.25
157.	2.8	2.0	5.6	7.84	4.00
158.	3.1	2.5	7.8	9.61	6.25
159.	2.5	2.3	5.8	6.25	5.29
160.	2.5	2.3	5.8	6.25	5.29
161.	2.5	1.8	4.5	6.25	3.24
162.	2.0	1.3	2.6	4.00	1.69
163.	2.1	2.5	5.3	4. 41	6.25
164.	3.0	2.5	7.5	9.00	6.25
165.	3.3	2.3	7.6	10.89	5.29
166.	2.5	2.7	6.8	6.25	7.29
167.	2.0	2.3	4.6	4.00	5.29
168.	3.8	2.8	10.6	14. 44	7.84
169.	3.8	2.8	10.6	14. 44	7.84
170.	2.0	2.8	5.6	4.00	7.84
171.	2.5	2.0	5.0	6.25	4.00
172.	1.3	2.6	3. 4	1.69	6.76
173.	3. 4	3.0	10.2	11.56	9.00
174.	2.3	2.0	4.6	5.29	4.00
175.	2.7	2.0	5. 4	7.29	4.00
176.	2.2	2.3	5.1	4.84	5.29
177.	2.8	2.3	6. 4	7.84	5.29
178.	4.5	3.0	13.5	20.25	9.00

179.	1.1	2.3	2.5	1.21	5.29
180.	2.8	2.0	5.6	7.84	4.00
181.	2.1	2.0	4.2	4. 41	4.00
182.	3.8	3.3	12.5	14. 44	10.89
183.	3. 4	3.5	11.90	11.56	12.25
184.	2.8	3.3	9.24	7.84	10.89
185.	3.0	3.6	10.00	9.00	12.96
186.	3.2	3. 4	10.88	10.24	11.56
187.	4. 4	3.9	17.16	19.36	15.21
188.	2. 4	3.0	7.3	5.76	9.00
189.	3.5	3.8	13.3	12.25	14. 44
190.	5.2	4.3	22.36	27.04	18. 49
191.	3.3	2.9	10.89	8. 41	9.57
192.	3.6	3.7	13.32	12.96	13.69
193.	2.8	3.0	8. 4	7.84	9.0
194.	3.0	2.9	8.7	9.00	8. 41
195.	5.6	4.8	26.88	31.36	23.04
196.	2.3	3.2	7.36	5.29	10.24
197.	3. 4	3.3	9.24	11.56	10.89
198.	3. 4	4.0	13.6	11.56	16.00
199.	3.6	3.8	13.68	12.96	14. 44
200.	4.0	3.3	13.2	16.0	10.89
	691.9	673	2072.52	2282.56	1793.96

Calculation of the coefficient of correlation (r)

$$r = \frac{N\Sigma xy - \Sigma x \Sigma y}{\sqrt{n\Sigma X^2 - \Sigma(x)^2 \times N\Sigma Y^2 - (\Sigma Y)^2}}$$

$$= \frac{200\,(20072.52) - (691.9)\,(673)}{\sqrt{200\,(2282.56) - (691.9^2 \times 200\,(1793.96) - (693)^2}}$$

$$= \frac{414504 - 465648.7}{\sqrt{(456512 - 478725.61) \times (358792 - 480249)}}$$

$$= \frac{-51144.7}{\sqrt{2697998430}}$$

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r = -0.98465

To take into consideration the level of significant of "r", the t – value was calculated based on the following formular.

$$T-value = r\sqrt{\frac{N-2}{1-r^2}}$$

$$= -098465\sqrt{\frac{200-2}{1-0.98465^2}}$$

$$= -0.98465\sqrt{\frac{198}{1-0.03046}}$$

$$= 0.98465\sqrt{\frac{198}{0.03046}}$$

$$= 0.98468\sqrt{6500.33}$$

$$= 0.98465 \times 80.63$$

$$t = -79.387$$

Test Of Hypothesis

Ho: There is no significant relationship between students' entry qualification and academic achievement at the NCE level

Hi: There is significant relationship between students' entry qualification and academic achievement at the NCE level

The 'r' calculated is negative (-0.98465) to show that a relationship between entry qualification and academic performance at NCE level does not exist.

Also the calculated t – value (-79.387) is less than the tabulated t-value at 0.05 level of significant and 198 degree of freedom (1.645). Therefore the hypothesis that there is no significant relationship between entry qualification and academic performance is confirmed.

Therefore the first hypothesis is uphold.

CHAPTER FOUR

Computer Programme

4.0 Introduction

The computer programme was done using the visual Basic Programming Language.

Visual Basic Programming Language is one of the most widely used programming Language due to its simplicity, unambiguity and easy understanding.

The investigator decided to use this programming language to test relationship; using the Pearson product Moment correlation formula.

4.2 Testing Of Programme.

The data analyzed manually were tested using the computer programme and there was no difference between manual calculations and the written programs.

For further testing, the investigator used small sample to test the computer programme using the data below.

S / No	X	Y	XY	X^2	Y^2
1.	6.4	3.8	24.32	40.96	14.44
2.	4.0	3.3	13.2	16.0	10.89
3.	3.6	3.3	11.88	12.96	10.89
4.	2.6	4.0	10.4	6.76	16.00
5.	3.0	3.5	10.5	9.0	12.25
	19.6	17.9	70.3	85.68	64.47

$$r = \frac{N\Sigma xy - \Sigma x \Sigma y}{\sqrt{n\Sigma X^2 - \Sigma(x)^2 \times N \Sigma Y^2 - (\Sigma Y)^2}}$$

$$= \frac{5 \times 70.3 - 19.6 \times 17.9}{\sqrt{5 \times 85.68 - (19.6)^2 \times 5(64.47) - (17.9)^2}}$$
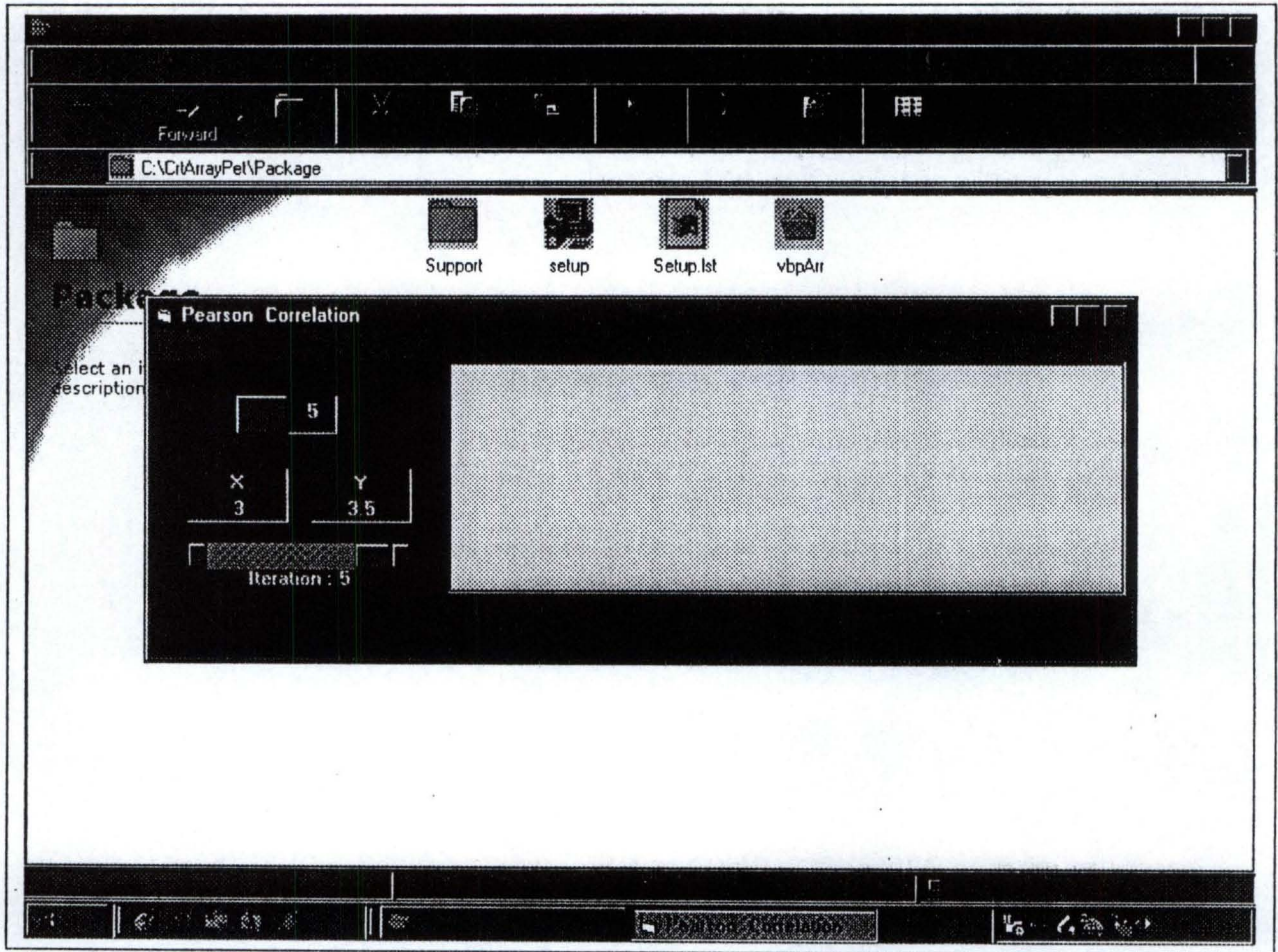
r = 0.07124

$$t - value = \frac{r \sqrt{N-2}}{1 - r^2}$$

$$= \frac{0.07124 \sqrt{5-2}}{1 - 0.07124^2}$$

t = 0.1237086

The result shows that there is no significant relationship between entry qualifications and academic achievement at NCE Level.

Also there is no difference between the result gotten using the computer programme and the result gotten manually.

Forward

Support   setup   Setup.lst   vbpArr

Pack...

Select an i...
description...

Pearson Correlation

5

X   Y
3   3.5

Iteration : 5

22 A

Pearson Correlation

5				

X	Y
3	3.5

Iteration : 5

	X	Y	X^2	Y^2	XY
	6.4	3.8	40.96	14.44	24.32
	4	3.3	16	10.89	13.2
	3.6	3.3	12.96	10.89	11.88
	2.6	4	6.76	16	10.4
	3	3.5	9	12.25	10.5
Sum	19.6	17.9	85.68	64.47	70.3

If frmArray Is Nothing Then Exit Sub

22 B

CHAPTER FIVE

5.1 Limitation

Despite the fact that every researcher would love to have an idea condition for him research, but unfortunately an ideal situation does not exist anywhere in the world in line with this there were certain limitations that had their effect on the research findings

1) Entry qualifications may not reflect the true test of student ability academically; a situation where a bright student performing poorly at o kevel due to circumstances beyond him control.

2) The case of student cheating at ordinary level exams to get a good grade

3) The possibility of motivational factors setting in to enhance performance.

5.2 Conclusion

Entry qualification in often viewed as a determinant factors of academic achievement, that is to say that a positive relationship existed between entry qualification and academic achievement; from the analysis carried out it is clearly seen that there is no relationship between academic achievement and entry qualification. From literatures reviewed a lot motivational factors determined achievement; such motivational factors include the home, the teacher, the role of the government and the peer group. The role played by these motivational factors cannot be over-emphasized thereby enhancing achievement; though the entry qualification may not be quite outstanding.

Also, the fact that a good result at secondary school may not always reflect or show the true academic prowess of the processor as cases of cheating, certificate forgoing and racketeering is rampant in the present day Nigeria. Based on this one can not but conclude that there is the possibility of a student entering into higher institution with a poor result and performs brilliantly and the possibility of a student with good entry qualification to perform poorly at NCE level in view of the above analyzed factors.

5.3   Recommendation

Since academic performance is proved to depend not only on intelligent quotient and the fact that a possessions of poor entry qualification into higher institution can come out with an outstanding result if well motivated the researcher therefore made the following recommendations,

1.   All stake holders in the successful education of a child should play her own role as expected i.e. the teachers, the school, the government and the parents.

2.   Emphasis should be placed on the training and retaining of the teachers to ascertain their suitability and competence.

3.   The school environment should be made conducive enough to enhance learning; provision of infrastructures, laboratory well equipped with modern equipment and suitable buildings.

4.   The government should embark on proper funding of schools.

5.   Anti-social behavior should be curbed among students and such impediments to a successful academic career like cultism; drug abuse should be curbed in our schools.

6.   Parents and guardian should provide financially for their wards for enhanced performance

7.   There is the need for the professionalisation of teaching to get competent and committed teachers.

8.   At higher institutions, admission of students should not be based only on their 'O 'level performance rather additional test be conducted.

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```vb
Dim x As Single, y As Single
Dim smx As Single, smy As Single
Dim squaX As Single, squaY As Single
Dim SmsquaX As Single, SmsquaY As Single
Dim proXY As Single, smProXY As Single
Dim NSumOfXY  As Single
Dim NSumX_2 As Single, NSumY_2 As Single
Dim SmXSqure As Single, SmYSqure As Single
Dim UpperTotaComp As Single, LowerTotaComp As Single
 Dim r As Single, t_value As Single
'


    rt.SelText = vbTab & "X" & vbTab & "Y" & vbTab & "X^2" & vbTab & "Y^2" & vbTab
& "XY" & vbTab & vbCrLf
    rt.SelText = String(40, "_") & vbCrLf
    '

    'Exit Sub

    For k1 = 1 To Val(txtN.Text)
        '

        proXY = Val(txtX(k1).Text) * Val(txtY(k1).Text)
        smProXY = smProXY + proXY
        '

        smx = smx + Val(txtX(k1).Text)
        smy = smy + Val(txtY(k1).Text)
        '

        squaX = (Val(txtX(k1).Text)) ^ 2
        squaY = (Val(txtY(k1).Text)) ^ 2
        '

        SmsquaX = SmsquaX + squaX
        SmsquaY = SmsquaY + squaY
        '

        rt.SelText = vbTab & txtX(k1).Text & vbTab & txtY(k1).Text & vbTab & squaX &
vbTab & squaY & vbTab & proXY & vbCrLf

    Next k1
    rt.SelText = String(40, "_") & vbCrLf & vbCrLf
    'rulling comes...
    rt.SelText = "Sum" & vbTab & smx & vbTab & smy & vbTab & SmsquaX & vbTab &
SmsquaY & vbTab & smProXY & vbCrLf
    rt.SelText = String(40, "_") & vbCrLf & vbCrLf
    'rulling comes...
     NSumOfXY = Val(txtN.Text) * smProXY
    SmXY = smx * smy
    NSumX_2 = Val(txtN.Text) * SmsquaX
    NSumY_2 = Val(txtN.Text) * SmsquaY
    SmXSqure = smx ^ 2
    SmYSqure = smy ^ 2
    '
```

```vb
Private Sub cmdNo_Click()
    txtX(0).Visible = False
    txtY(0).Visible = False

    For k = 1 To Val(txtN.Text)
        Load txtX(k)
        Load txtY(k)
        '
    Next k
    '

End Sub


Private Sub Form_Load()

End Sub

Private Sub Hscr_Change()
    Hscr.Max = Val(txtN.Text)
    Hscr.Min = 1
    lblD.Caption = "Iteration : " & Hscr.Value
    '
    For u = 1 To Val(txtN.Text)
        txtX(u).Visible = False
        txtY(u).Visible = False
        '
        With txtX(Hscr.Value)
            .Visible = True
            .SetFocus
        End With
        '
        With txtY(Hscr.Value)
            .Visible = True
        End With
        '
    Next u

End Sub

Private Sub mnmuEx_Click()
    Unload Me

End Sub

Private Sub mnuComp_Click()
```

```vb
        UpperTotaComp = NSumOfXY - SmXY
        LowerTotaComp = Sqr((NSumX_2 - SmXSqure) * (NSumY_2 - SmYSqure))
        r = UpperTotaComp / LowerTotaComp
        t_value = (r * Sqr(Val(txtN.Text) - 2)) / (Sqr(1 - (r ^ 2)))
        '

        rt.SelText = vbTab & "N" & Chr(163) & "XY= " & NSumOfXY & vbCrLf
        rt.SelText = vbTab & Chr(163) & "X" & Chr(163) & "Y" & SmXY & vbCrLf
        rt.SelText = vbTab & "N" & Chr(163) & "X" & Chr(178) & "= " & NSumX_2 & vbCrLf
        rt.SelText = vbTab & "N" & Chr(163) & "Y" & Chr(178) & "= " & NSumY_2 & vbCrLf
        rt.SelText = vbTab & Chr(163) & "X" & Chr(178) & "= " & SmXSqure & vbCrLf
        rt.SelText = vbTab & Chr(163) & "Y" & Chr(178) & "= " & SmYSqure & vbCrLf
        rt.SelText = vbTab & "r = " & r & vbCrLf
        rt.SelText = vbTab & "t_value= " & t_value & vbCrLf

End Sub

Private Sub mnuPr_Click()
On Error Resume Next
    If frmArray Is Nothing Then Exit Sub

    With CommonDialog1
        .DialogTitle = "Print"
        .CancelError = True
        .Flags = cdlPDReturnDC + cdlPDNoPageNums
        If rt.SelLength = 0 Then
            .Flags = .Flags + cdlPDAllPages
        Else
            .Flags = .Flags + cdlPDSelection
        End If
        .ShowPrinter
        If Err <> MSComDlg.cdlCancel Then
            rt.SelPrint .hDC
        End If
    End With
End Sub
```