

**RELATIONSHIP BETWEEN ENTRY GRADES AND  
ACADEMIC ACHIEVEMENT OF BUSINESS  
EDUCATION STUDENTS IN FEDERAL COLLEGE  
OF EDUCATION (TECHNICAL) GOMBE**

**BY**

**IBRAHIM SABIU**

**16/44049/D/GM/6**

**JUNE, 2021**

**RELATIONSHIP BETWEEN ENTRY GRADES AND ACADEMIC  
ACHIEVEMENT OF BUSINESS EDUCATION STUDENTS IN FEDERAL  
COLLEGE OF EDUCATION (TECHNICAL) GOMBE**

**BY**

**IBRAHIM SABIU**

**16/44049/D/GM/6**

**A FINAL PROJECT SUBMITTED TO SCHOOL OF UNDERGRADUATE  
STUDIES FEDERAL COLLEGE OF EDUCATION (TECHNICAL) P.M.B.  
060, GOMBE, GOMBE STATE IN AFFILIATION WITH ABUBAKAR  
TAFAWA BALEWA UNIVERSITY BAUCHI.**

**IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE  
AWARD OF B.TECH ( ED ) MANAGEMENT**

**JUNE, 2021.**

**TITLE PAGE**

**RELATIONSHIP BETWEEN ENTRY GRADES AND ACADEMIC  
ACHIEVEMENT OF BUSINESS EDUCATION STUDENTS IN FEDERAL  
COLLEGE OF EDUCATION (TECHNICAL) GOMBE.**

**BY**

**IBRAHIM SABIU**

**16/44049/D/GM/6**

**A FINAL PROJECT SUBMITTED TO SCHOOL OF UNDERGRADUATE  
STUDIES, FEDERAL COLLEGE OF EDUCATION (TECH.) GOMBE IN  
AFFILIATION WITH ABUBAKAR TAFAWA BALEWA UNIVERSITY  
BAUCHI IN PARTIAL FULFILMENT OF THE REQUIREMENT FOR  
THE AWARD OF BACHELOR DEGREE IN BUSINESS EDUCATION  
(MANAGEMENT).**

**JUNE, 2021**



## DECLARATION

I hereby declare that this work title "Relationship between Entry Grades and Academic Achievement of Business Education Students in Federal College of Education (Technical) Gombe" is the product of my own research effort, carried out under the supervision of **Dr. Umar Abdullahi** and has not been presented elsewhere for the award of a degree or certificate. All sources have been appropriately acknowledged.


Sign: \_\_\_\_\_

**IBRAHIM SABIU**  
16/44049/D/GM/6

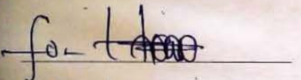
Date: \_\_\_\_\_

APPROVAL PAGE

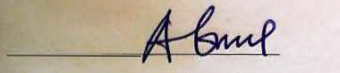
This project has been read and approved as meeting the requirement for the award of Bachelor Degree in Business Education (Management), Federal college of Education (Technical) Gombe in Affiliation with Abubakar Tafawa Balewa University (ATBU) Bauchi by;

  
\_\_\_\_\_  
Dr. Umar Abdullahi  
Project supervisor

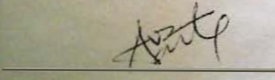
30<sup>th</sup> - 07 - 2021  
Date

  
\_\_\_\_\_  
Dr. Garba Tela  
Head of Department Accounting

02/08/21  
Date

  
\_\_\_\_\_  
Dr. Abubakar Adamu Kwami  
Dean School of Undergraduate Studies

05/08/2021  
Date

  
\_\_\_\_\_  
External Examiner

22/7/21  
Date

## DEDICATION

I dedicated this work to my dear mother Malama Amina Ibrahim who throughout her life has been contributing toward the success of my education and upbringings.



## ACKNOWLEDGEMENT

I am grateful to almighty Allah for his sustenance and guidance throughout this programme. I wish to express my profound gratitude my supervisor Dr. Umar Abdullahi who patiently read the whole manuscript and makes every necessary corrections possible and offers useful suggestions. It is difficult to forget your encouragement and valuable contributions.

I wish to express my sincere thanks and appreciation to my beloved parents, my immediate family relatives who rallied round me in all ramifications for the attainments of my goals. My thanks goes to all my lecturers in the School of Business Education, FCE (Tech) Gombe, especially Dr. Auwal Garba and our Exams Officer Dr. Said Abdullahi Doma, Mallam Jibrin Bappa, Mallam Umar Abdulkadir and other staff whose names carried a heavy load to be expressed as well as my course mates especially Adamu Muhammad Abubakar, Mustpha Muh'd, Imrana Adamu, friends and best wishers for their immense contribution towards the success of this research project.

## ABSTRACT

*This work is concerned with the Relationship between Entry Grades and academic achievement of business education students; a case study Federal College of Education (tech) Gombe. The study evaluated the relationship between entry grades and academic achievement of students and highlighted how entry grades influence academic achievement in school of business education Federal College of Education (tech) Gombe. Three research questions were set to guide the study as thus: what is the relationship between entry grades and academic achievement of business education students in Federal College of Education (tech) Gombe? what is the performance of business education students in Federal College of Education (tech) Gombe? what is the appropriate course combination into business education Department in Federal College of Education (tech) Gombe? Literature was reviewed under relevant sub topics related to the topic of the study. The study used historical research design where data was collected from administrative block and examination office. The population of the study consisted of 2090 students from which a sample of 322 students were randomly selected in the study, while mean, simple percentage and T-test were used in analyzing the data. The study found that there is cordial relationship between entry grades and academic achievement of business education students in Federal College of Education (tech) Gombe, the study revealed that the performance of business education students in Federal College of Education (tech) Gombe is average, also the study revealed that the appropriate course combination into business Education Department are: Accounting, Mathematics, Economics, and commerce. However in view of the above, the following recommendations were made; Educational institution should admit those students with a good grade to ensure high performance of business education students. Examination bodies such as WAEC, NECO should try to standardize their exam so that student will not have access to exam questions before it schedule time in order to improve the students grade and their performances. The authority concern should make sure that quality teacher are employed so that there will be efficiency and effectiveness in training students to higher standards. Government and community members should provide adequate equipment and gadget that will aid instruction for more students understanding.*



## TABLE OF CONENT

Cover page	-	i
Title Page	-	ii
Approval Page	-	iii
Dedication	-	iv
Acknowledgement	-	v
Abstract	-	vi
Table of Content	-	vii-ix

### CHAPTER ONE

1.1 Background of the Study	-	1 - 3
1.2 Statement of the Problem	-	3 - 4
1.3 Objective of the Study	-	4
1.4 Research Question	-	5
1.5 Significant of the Study	-	5
1.6 Delimitation of the Study	-	5 - 6

### CHAPTER TWO

Conceptual frame work	-	7
2.1 Entry Grade in Business Education Department	-	8 - 9
2.2 The Concept of Academic Performance	-	9 - 10
2.3 Relationship between Entry Grade and Performance of Business Education Students	-	10-12
2.4 Causes of Poor performance in Business Education	-	12 - 14
2.5 Appropriate Course Combination into Business Education Department	-	14 - 15
2.6 Historical Development of Business Education	-	15 - 16

2.6.1	Business Education	-	16-17
2.6.2	Business Skill	-	17-18
2.6.3	Classes of Business Skill	-	18
2.6.4	Challenges of Business Education	-	19
2.6.5	National Development of Business Education in Nigeria	-	19-20
2.7	The Concept of Business Education	-	20-23
2.7.1	Objective of Business Education	-	23-25
2.7.2	Importance/Relevance of Business Education	-	25-26
2.7.3	State of Business Education in Nigeria	-	26-27
2.8	Summary of Literature Reviewed	-	27-28

### CHAPTER THREE

	Research design and methodology	-	29
3.1	Research design	-	30
3.2	Population of the study	-	30
3.3	Sample and sampling technique	-	31
3.4	Instrument for data collection	-	31
3.4.1	Validity of the instrument	-	31
3.5	Procedure for data collection	-	31
3.6	Method for data analysis	-	31

### CHAPTER FOUR

4.0	Introduction	-	32
4.1	Demographic Information Analysis	-	32-33
4.2	Presentation of Data	-	33-36

## CHAPTER FIVE

5.1 Summary	-	37
5.2 Conclusion	-	38
5.3 Recommendation	-	38
References	-	39 - 41
Appendix I	-	42
Appendix II	-	43



## CHAPTER ONE

### INTRODUCTION

#### 1.1 Background of the Study

In Nigeria, the National Commission for Colleges of Education (NCCE) established on 17<sup>th</sup> January, 1989 by virtue of Decree No. 3 (Okebukola, 2010) is the primary regulatory body charged with the responsibility of determining and ensuring the minimum standard for quality NCE programme in any subject area including Business Education. The commission in its 12<sup>th</sup> minimum standard for NCE Business Education outlined the equality of students, teachers, managers, facilities, instructional material and other resources need for achieving the objectives of the programme. Also outlined in the minimum standard are the courses and topics to be studied and passed within the minimum of three years and maximum of five years programme before a student is qualified as NCE Business Education graduate. In detailed, minimum requirements for inputs dimension for NCE Business Education programme as outlined in the 12<sup>th</sup> minimum standard (NCCE, 2012) are as follows:

- Minimum requirement for student: Students option for Business Teacher Education at the NCE level must possess a minimum of 5 credits in English and Mathematics and any other three Business subjects (Accounting, Commerce, and Economics) to be achieved at a maximum of 2 sittings. Students must also undergo an interview process a part from sitting and passing Unified Tertiary Matriculation Examination (UTME) points.

**Entry Grade:** Is the performance of an individual or group on examination or test expressed by a number, letter or other symbol that enable person or group to enter into a particular college base on their requirement for admission. The entry grade into Business Education Department of Federal College Education (T) Gombe NCE level

are 5 credits which including English language, Mathematics, Economics, Accounting and Commerce in not more than two sittings.

**Academic performance** of students is a key feature in education (Rono, 2013). It is considered to be the centre around which the whole education system revolves. Narad and Abdullah (2016) opined that the academic performance of students determines the success or failure of any academic institution. Signhand Malik (2016), also argued that academic performance of student have direct impact on the socio-economic development of a country. Additionally, Farooq et al., (2011) emphasized that the top most priority of all educators is academic performance of students.

According to Narad and Abdullah (2016) academic performance is the knowledge gained which is assessed by marks by a teacher and/or educational goals set by students and teacher to be achieved over a specific period of time. They added that these goals are measured by using continuous assessment or examination results.

Business education is a branch of education that involves teaching the skills and operation of the business industry. It is primarily education for vocation, which is an integral part of Vocational and Technical Education. It is training systems that encourage the beneficiary to acquire skills that makes him/her fit in to the world of work. Business education encompasses attitude, knowledge and skills needed by all citizens to effectively manage their personnel business and economic system. Gordon, Jason, Bursuc, Vlad (2018).

Education in business has many forms, mainly occurring within classroom of a school. Internships are another way to receive this education. A business education has many components, as there are many different areas of the business industry as whole. An education in business varies greatly in its curriculum and popularity around the world. Career development is often an integral part of an education in business.

From the foregoing, it would be observed that business education represents a broad and diverse discipline that is included in all type of educational delivery system, elementary, secondary, and tertiary. It suffices therefore, to say that business education can be delivered at any level, it can be interrupted for varying period of time, it can be continued throughout the life span of an individual.

## 1.2 Statement of the Problem

School, colleges and university have noworth without students. Students are most essential asset for any educational institute. The social and economic development of the country is directly linked with student academic performance. The student performance (academic achievement) plays an important role in producing the best quality graduates who will become grade leaders and manpower for the country thus for the country's economic and social development (Ali et. al, 2009).

However, many students have good entry grade, some have five credit and even distention in their Senior Secondary Certificate Examination but they are not performing academically. School of Business is not exception, many students passed through SSCE with more than five credits and UTME with required cut off marks but they performed poorly academically, some are expelled from the College.

There has been a differences in performance of business education students. Some perform nicely while some are under achievers, who perform below average. Some of the factors that are responsible for higher and lower performance among students who will be of the same level are:

1. **Student Factors**, attitude, individual difference physical health and readiness and expectation (Ali 2013).
2. **Teacher factors**: Ganyaupfu (2013) asserted that combination of teacher and student centred method have positive effect on academic performance. Musili



(2015) added that teacher experience and professional training have significant impact on students performance.

3. Home, cultural and parental factors (Strauss,2016) liyod and pidgeon1970 ;Hansen, 2000) in which the motivation factors of the home background have been fiend to influence the learner academic achievement mre importantly then this fixed material on economic condition of the home.
4. Institutional factors, type of school population control, discipline, personnel into reaction admission and examination or evaluation policy etc (pidgeon 1970, Ali 2013).

The researcher wants to investigate whether entry grade has influence on the performance of students.

### 1.3 Objective of the Study

The main aim of the study is to identify the relationship between entry grade and academic performance of business education students in Federal College of Education (Tech), Gombe.

The specific objectives for the study are:

1. Determine the relationship between entry grades and academic achievement of student.
2. To examine the performance of students of business education in Federal College of Education (Technical) Gombe.
3. The appropriate course combination for entry grade into Business Education department of Federal College of Education (Technical) Gombe.

between entry grade and academic performance of Business education students in  
Federal College of Education (Technical) Gombe.

## CHAPTER TWO

### LITERATURE REVIEW

This chapter deals with the review of relevant literature to the current study and it is addressed under the following sub-headings.

#### **Conceptual frame work**

- 2.1 Entry Grade in Business Education Department
- 2.2 The Concept of Academic Performance
- 2.3 Relationship between Entry Grade and Performance of Business Education Students
- 2.4 Causes of Poor performance in Business Education
- 2.5 Appropriate Course Combination into Business Education Department
- 2.6 Historical Development of Business Education
- 2.7 The Concept of Business Education
- 2.8 Summary of Literature Reviewed



## 2.1 Entry Grade in Business Education

The evolution of College Entrance Examinations started over the last 150 years, one of the hallmarks of American education has been testing of increasingly large groups of people through processes of growing sophistication made possible by continuing advances in the technology of information processing. Much of this testing has been largely external to the instructional process, driven by the interests of policy makers and governments, especially vis-a-vis grades K-12, and has served various ends. A report of the office of Technology Assessment to congress, exploring the general history of educational testing in the United States, noted that;

- Since their first administration 150 years ago, tests have been used to assess student learning, hold schools accountable, and allocate educational opportunities for students.
- Standardized tests, including college admission tests, were perceived as instrument of school reform and a prod for student learning.
- Although generally viewed as instruments of fairness and scientific rigor, some educators believe that admission tests may have exceeded the limits of either the best thinking about how the mind works or the evolving normative goals for the inclusion of all students in the educational process (Johanek, M, C, 2012).

One of the dynamic changes currently occurring is that educators are trying to reclaim and reshape educational assessment, including admission testing, to serve purpose of teaching and learning as well as monitoring and accountability (Donald M. Stewart, 2012).

The National commission for College Education (NCCE) established on 17<sup>th</sup> January, 1989 by virtue of decree No. 3 (Okebukola, 2010) the minimum

teaching, socio economic background of another factor that is greatly considered to be a powerful predictor of student's academic performance in schools and colleges.

Robert and Sampson (2011), found that the member of educational board will be educated and their impact on school is positive, for professional development it is positive for professional development it is essential for student learning.

The students who are actively engage in the learning process are observed to have a positive correlation with CGP. A study effort from student and the proper use of the facilities provided by institution to the student, a good match between student' learning style and are positively affect the student's performance (Norhidayah Ali, et. al, 2019).

Young (1999), held the view that student performances are linked with use of library and level of their parental education. The use of the library positively affected the student performance.

The academic environment is the effective variable for students and has positive relationship with fathers' education and grade level (Kirmani & Siddiquah, 2008).

### **2.3 Relationship between Entry Grade and Student Performance of Business Education**

Many researchers have found significant positive correlation between the school academic performance/entry qualification and tertiary level scores of students. For example, Ogonnaya, Okpuruka, Iheanacho, and Ndu (2014) studied the correlation between the entry qualification and academic performance of university students and found a positive significant relationship between the two scores. Kapinga and Amani (2016) studied the correlation of entry qualifications and students' academic performance in undergraduate study programs in Tanzania and found a

significant positive correlation between the two. Chaturanga (2016) studied the previous academic qualification scores of students and their university Cumulative Grade Point Average (CGPA) in Srilankan context. This study did not find any correlation between the scores of primary level and university CGPA but it did find a significant positive correlation between O-level and A-level examination scores with university CGPA. Cyrenne and Chan (2010) studied the high school grades of students and their university performance in one university in Canada and found significant correlation between the two variables. Zwick (2013) in education testing service (ETS) report on high school grades and SAT tests in predicting students' achievement at tertiary level, illustrated three large scale studies carried out in US. It was noticed that high school grade point average scores of students were predicting (R<sup>2</sup>) 13% to 21% while SAT scores of students were predicting only 12-13% of their achievement at tertiary level. Combining the two types of tests i.e. high school grades and SAT scores showed prediction value of 21%-22%.

There are studies that have found low correlation values between entry qualification and university academic performance and hence low predictions from entry qualification scores. For example, Obioma and Salau (2007) have found that the entry qualifications of students measured by their grades from West African Examination Council (WAEC), National Examination Council (NECO) and Joint Admissions and Matriculation Board (JAMB) examinations had low correlation with their first and final year's performance in the universities and Colleges. House and Johnson (2002) studied the relationship of GRE scores with the students' achievement from different disciplines (degree programs) in university and found significant correlation but value of correlation coefficient to be ranging from weak to medium



strength for different degrees. The students who were high on GRE scores were also high on university scores.

Agbo (2003) conducted a study on different science subjects at university level and identified low correlation between entry qualifications and students' performance. Okonkwo (2000) discussed that there is often an inconsistency in entry point and achievement score of students in tertiary institutions. He pointed out that this made it difficult to predict final performance using entry qualification grades.

A number of studies on the relationship between entry qualification and academic performance indicate that students with high entry qualification scores often perform better than those with low entry qualification scores (Adedeji, 2001; Aderson, Benjamin & Fuss, 1994; Alias & Zain, 2006; Zezekwa&Mudavanhu, 2011).

It is important of note that so many people in academic and business education in particular have concern themselves with good academic qualification as criteria for giving admission into higher institution. College of education are no exception to this rule, there is no doubt that admission of the unqualified students creating problem for the school (and student) as they will find it difficult to cope in the school academic work.

#### **2.4 Causes of Poor Performance in Business Education**

According to Wikipedia (2013), academic performance is the outcome of education; it is the extent to which a student, teacher or institution has achieved their educational goals. Thus performance is characterized by performance on tests associated with coursework and the performance of students on other types of examinations (Kyoshiba, 2009).

Various studies have been carried out on the factors that affect students' academic performance or achievement in schools, colleges and universities. Some of the factors identified and reported to have affected the academic performance of students in these different settings are: student effort, previous or prior educational performance, self-motivation, the social-economic status of the parents, the age, number of hours of study per day, admission points, different entry qualifications, tuition trends and the students' area of residence (rural or urban) (Farooq, Chaudry, Shafiq & Berhanu, 2011; Ali, Haider, Munir, Khan & Ahmed, 2013).

Poor performances among students are caused by many factors:

According to Ali (2011), says "methodology uses materials in an instructional setting to send the principles (knowledge) which could be the cognitive, the affective and the psychomotor aspect of the school's curriculum." Ugwu (2012), emphasized the essentiality for a teacher to select most effective method amongst other for a given purpose, if he must satisfy the learners need to know and his desire to participate actively in the instructional process.

Nwarina (2011) said that the personality of teachers has significant influence on student's performance.

The interest and attitudes of teachers and students over teaching and learning of business education are of great effects.

Onyeji (2016), of his view that the teacher's attitude discourages and scares away students from studying the courses. This is so, if the students are not properly guided, they become scared of the teachers and the courses resulting in lack of interest

and the student's performance tend to be poor since effective teaching do not take place.

Umeh (2016) reported that one of the major causes of poor academic performance of the students of tertiary institutions in Nigeria could be attributed to inadequate infrastructural facilities. According to him, classroom buildings that will accommodate the students during and after lecture should be one of the priorities of every governmental administration

## **2.5 Appropriate Course Combination in Business Education**

In Nigeria, the National Commission for Colleges of Education (NCCE) established on 17<sup>th</sup> January, 1989 by virtue of Decree No. 3 (Okebukola, 2010) is the primary regulatory body charged with the responsibility of determining and ensuring the minimum standard for quality NCE programme in any subject area including Business Education.

The commission also outlined in the minimum standard the courses and topics to be studied and passed within the minimum of three years and maximum of five years programme before a student is qualified as NCE Business Education graduate. In-detailed, minimum requirements for inputs dimension for NCE Business Education programme as outlined in the 12<sup>th</sup> minimum standard (NCCE, 2012) are as follows:

Minimum requirement for student: Students option for Business Teacher Education at the NCE level must possess a minimum of 5 credits in English and Mathematics and any other three Business subjects (Accounting, Commerce, and Economics) to be achieved at a maximum of 2 sittings. Students must also undergo an interview process a part from sitting and passing Unified Tertiary Matriculation Examination (UTME) points.



According to the student handbook of Federal College of Education (Tech) Gombe successful candidate in the pre- N.C.E final examination who take and superseded in a selection examination organized by an accredited body are also qualified for admission before. And pre-N.C.E programme will last for one academic session of two (2) semester's.

N.C.E Admission to business education in Federal College of Education (Tech) Gombe, Senior secondary school certificate (SSCE) includes NECO/WAEC with passes in five subjects include English language. Three of which must to be at credit level in the same sitting of four credit at (2) sitting.

## **2.6 Historical Development of Business Education**

Business education like any other type of education has its origin from a traditional orientation.

Thus the apprenticeship system which is one of the oldest traditional systems of educational delivery was also applicable to business education under this system. The trainee was attached to a master relation or parent for a period of time training on successful completion of the period of apprenticeship or apprentice could remain with his master as a journeyman or may be initiated into guild and from that point establish his own business. During the period of apprenticeship, the training is geared towards the acquisition of the traditional skill, which were quite often restricted within the family. In other words the transfer of skill was restricted.

Another notable initiative in the development of the business education in Nigeria was its delivery through the correspondence college like rapid results colleges, Bennett college in Britain and some other in Europe and the after East. Many Nigerian enrolled with these colleges studied. Businesses courses like book keeping and accounting salesmanship, marketing management, management etc. closely

- b. General business education: a programme that provides students with information and competencies which are needed by all in managing personal business world (Osuala, 2012).

Business education is a field of training in business practices and in specific skills such as improving living standard for all the populace.

### 2.6.2 Business Skill

The aim of business skill is to inculcate in the young people the need to see business opportunities, ideas and act on them promptly in order to take advantage over others. However, this should not stop at imparting knowledge alone but ability to teach skills acquisition in various disciplines of study that a potential businessman might require, such as managerial skills, financial competencies, accounting skills, marketing and general business competencies. Business education is one of leadership training and health generation (Kurato, 2013).

According to Ihekwoaba (2000) in Shuaibu and Mbeagbu (2012), business skill occurs when an individual develops a new venture or new approach to an old idea or a unique way of giving the market place a product or service by using resources in a unique way of giving the market place a product or service by using resources in a new way under conditions of risks. In their views, Steinhoff and Burges (2003) in Shuaibu and Mbeagbu (2012) opined that business involves risk financial material and human resources in a new concept or opportunity with an existing firm. It is also the dynamic process of creating incremental wealth (Hasty and Readon, 2007).

However, Gana (2008) looks at business as the willingness, and the abilities of an individual to seek out investment opportunities in an environment and able to establish an enterprise successfully, based on the identified opportunities. Business skill is also the creation of an innovative, economic organization for the purpose of

growth under conditions of risks and uncertainties (Dollinger, 2015). It is a clear manifestation of effective manipulation of human intelligence as demonstrated in creative performance.

### 2.6.3 Classes of Business Skill

According to Paul (2005) business skill can be classified into the following occupations:

1. Mining and agriculture occupation: The business in this type of occupation is mainly on the provision of raw materials by extraction or basic preparation and selling of farm produce. Examples of such are those found in the quarry business, pot making, fishery, piggery, goatry, horticulture and cattle rearing.
2. Manufacturing/construction occupation: the educators engaged in this type of business make or grow crops to be sold or engage in construction works. Good examples of people here are soap makers, bakers, carpenters, furniture makers, upholsters, leather workers, shoe makers, boat makers, architects, painters, book publishers, book producers, etc.
3. Distribution occupation: the educators here move products from their point of origin to where they are needed. Examples here are wholesalers, retailers, commission agents, insurance brokers, bakers, importers, marketers, general merchandize, etc.
4. Service occupation: this occupation is made up of educators who have artists (i.e. musicians, actors, comedians, etc.) professional athletes, medical and health workers, hoteliers, caterers, dry cleaners, fashion designers, cosmetologist, typist, computer operators, hair dresser, advertisers, etc.



#### 2.6.4 Challenges of Business Education

According to Inegbenebor (2015) the following are the major challenges of business education which need to be addressed to attain the desired goals.

1. Orientation of school administration; it is important to state many school administrators are ignorant of the value and potential of business education in national competitiveness and development. Therefore, business education in such school may not have the level of support that it needs to gain acceptance among students and staff.
2. What to teach and to who? Most teachers or lecturers do not know what to teach and the people who are being taught. Inability to distinguish between business education and management will always pose a challenge to business.
3. Who is to teach? The skill business is seen by people to be an, all comer games. The population on the required preparation to jump into the train or bandwagon. Yet, the teaching required special training and experience.
4. Lack of teaching materials: the lack of teaching materials especially the right material that are suitable for the teaching of the skill in Nigeria school constitute a challenge in business education.
5. and weak institutional support for education. The government and its agencies responsible for business development have not addressed the problem of business education at the educational system.

#### 2.6.5 National Development of Business Education in Nigeria

1. Proper orientation of the students: there is the need for skill edict to have a significant promotional content that would stimulate and sustain the interest of the students in the programme. The issue of wage earner culture should be discouraged by encouraging a self-reliance culture.

2. Proper orientation of school administration: through intensified support, school administration should strive to educate them on education in order to be well equipped and help transform the country for sustainable development. The national university commission (UNC) and the national board for technical education (NBTE) should go beyond prescribing the minimum academic standard with report to education organizing seminar and workshop with the aim of enhancing the competence of school administrators.
3. Knowledge of what to teach and to whom: these should be a forum for educators to brain storm for the purpose of generating ideas for use by institution of higher learning. This is not to suggest that a standard programme should be force on them.
4. Competent teacher to handle entrepreneurship; the national university commission (NUC) and each university, polytechnic and college of education should build capacity in this area to have meaningful result. A good technique that can be useful in improving teacher interest is to encourage the educational institution involve to share resources, knowledge and experience in this areas through seminar, conference and workshop.
5. Provision for teaching materials; materials should be provided to match current demand of the society and the delivery of skill development programme.

## **2.7 The Concept of Business Education**

### **Introduction**

Business education represent a broad and diverse discipline that is included in all type of educational delivery system-elementary, secondary and tertiary institution

it includes education for office occupation, distribution. Marketing occupation, accounting and business management, typewriting secretarial education or studies

Business education is often time defined as education for and about business whose primary purpose is to prepare individual, for gainful employment in business occupation (Nwosu, 2013). The value of business education programme could be determine by its ability to adequately prepare and equip education programme could be determined by its ability to specific job or establish themselves upon graduation from school. It is programme of instruction that consist of office education: - for office carriers through initial refreshers and upgrading education leading to employability and advancement in occupation.

Business education is a field of training in business practice and in specific skill such as accounting management information processing, keyboarding, typewriting, record keeping, and shorthand.

#### **Concept of Business Education**

The concept of development has to do with improvement in the quality of life or wellbeing of the citizens of a country. According to Adegite (2010) economic development is more fundamental than economic growth as it goes beyond the mere rise in national income. To her under developed countries are characterized by abject poverty.

According to Paul (2015) business skill can be classified in to the following occupation.

1. **Mining and agriculture occupation:** the business in this tip of occupation is mainly on provision of raw material by extraction or basic preparation and selling of farm produce.



2. **Manufacturing/ Construction Occupation:**The education engaged in this type of business make or grow crop to be sold or engage in construction works good example of people here are soap makers, bakers, carpenters, furniture makers, leather workers etc.
3. **Distribution Occupation:**The educators here move product from their point of origin to where they are needed example here are wholesalers, retailers, commission agent insurance brokers, bakers, importers etc.
4. **Service occupation:**This occupation is made up of educators who have a note i.e. musician actors comedian etc.

Business education is primarily education for vocation. It is the type of education that provides for the learner the basic skills, attitudes and knowledge required for effective and efficient performance in the world of business. Ekula (2014) also opined that Business Education encompasses knowledge, attitude, and skills needed by all citizens in order to effectively manage the personal business and economic system. Aina (2000) remarked that it is an embodiment of vocational knowledge and skills needed for entry level employment and advancement in a broad range of business careers

Based on the above definition and concept, Business Education in its totality can be seen as education that trains a person to excel in any business career. It is also an aspect of vocational and technical education that emphasizes on job creation through self-employment and self-reliance. NCCE (2003) stipulated that Business Education programme should equip graduates with the right skills to engage in a life of work in the office as well as for self-employment.

Okpokwo's study (as cited in Esomonu 2000) stated that Business Education as a course is very comprehensive in nature. It is made up of many areas of study such

as office education, business skills and techniques, accounting, cooperative and distributive education and it includes a number of skills, which can only be taught and developed systematically. Business Education is a practical course and must be taught practically by making the teaching situation as real as possible. Aliyu (2011) stated that Business Education is made up of two distinct disciplines "Business" and "Education", that is, it does not only train people to specialize in the world of business, it also train would-be teachers to specialize in the field of teaching.

Okafor (2000) maintained that the success of any Business Education programme is being largely determined by the objectives of the programme, availability of equipment, adequate textbooks, a well-defined curriculum and availability of effective and efficient teaching staff (quality). The production of a quality teacher will provide the learner with the ability to play a major role in curriculum development, classroom teaching, measurement and evaluation, and consultancy services. Hence, proper funding of Business Education teacher programme will help to consolidate teacher production education.

### **2.7.1 Objective of Business Education**

Business education skills are needed to help the student from the starting stage of life to the technological development business education should provide not only the skills required for operating machines or doing any specific job, but also to provide such knowledge and skills required for self-reliance and sustainable development.

According to Akinola (2006) the following are the objectives of business education.

1. To prepare the students for employment after graduation
2. To meet the man power need of the society

3. To increase the option available to each student and serving as motivation in order to enhance all type of learning.
4. To present a laboratory in which student practice skills, knowledge and attitude to make the classes instruction more meaningful and relevant.
5. To help develop the high attitude needed toward both and the habit of mind conducive to the proper use of technology.
6. To provide the knowledge and skill necessary for industrial, commercial and economic development.
7. To provide who can apply scientific knowledge to the improvement/ solution and conveniences of man.
8. To give training and impart the necessary skill leading to the promotion of craftsmen, technician and other, skill personnel who will be enterprising and self-reliant.
9. To give the students background of training that would contribute to rapid advancement on the job.
10. To make students develop good working habits and attitude needed in the development of personality traits such as punctuality, responsibility, accuracy, fact, adaptability and service of responsibility that makes for efficient work.
11. It is also out to stimulate and encourage creativity and to enable our young and women to have an intelligent understanding of the increasing complexity of the society.

The objective of business education are not separated from those of technical education and are included in the national policy on education (2004) as to provide trained manpower in applied science, technology and commerce particularly at sub-professional grade to provide the technical knowledge and vocational slain necessary



for agriculture industrial, commercial and economic development. To provide people who can apply scientific knowledge to the improvement and solution of environmental problem for the use and convenience of man, to give introduction to professional studies in engineering and other technologies, to give training and impart the necessary skill leading to the production of craftsmen technicians and other skill personnel who will be enterprising and self-reliant and to enable our young men and women to have an intelligent understanding of the increasing complexity of technology.

### 2.7.2 Importance/Relevance of Business Education

Aluwong (2013) observed society obsessive concern with higher education as only preparation for works thus down grading the intrinsic lifelong value of education. Aluwong (2013) explain that secondary schools reflect this obsession by valuing only the college bound. Aluwong (2013) stated that in Japan 40% of high school graduate joined this workforce and about 30% of the Japanese Labour force to make up high school graduate one can only but assume that the percentage in Nigeria is certainly higher.

Below are some relevance of business education before and after graduation.

1. It will help the student to use modern machine in terms of communication and recording and storing of information.
2. It will help the student to interact and gain information which will help boost teaching and learning
3. The knowledge gained from business education can be used by the student to be able to flow effectively in the Labour market.
4. It encourages wealth creation which could lead to higher gross domestic production (G.D.P)

5. It would provide convince for people in the country
6. It helps to raise the standard of living of business beneficiaries and like most industrialized nation may survive in a complex society.
7. The knowledge of business education will help the students to be experts in the production of powder soap, setting up barbing salon, tailoring business/computer center, etc.
8. It will help the students to use modern machines in terms of communication and recording and storing of information.
9. Establishing printing publishing in the rural areas and will save the people there, the transport of going to the town to buy books and other stationeries.
10. Items will be sold at cheaper rates and would also get to the hand of the poor individuals at reasonable prizes.
11. The knowledge of skill will help the graduate of business education open up nursery/primary schools, secondary schools, extra mural lessons, etc. which will be useful to the society and enable them generate income as well, thereby bringing about sustainable development.

### **2.7.3 State of Business Education in Nigeria**

Nigeria as a nation state has been a country of education crises a nation at risk. The risk is that our society and its educational institution seems to have lost sight of the basic purpose of schooling and of the high expectation and discipline efforts needed to attain them. There is no doubt that there is a crisis of confidence in education graduate.

Our educational institution seen to be in the middle of a socio economic and political disruption, the political Bureau Report (1987) stated that mass

unemployment in this country is result of the student learning what is irrelevant to our stage of development. Yet there are few areas of Nigerian life as an important to our society, to our people and to our families as our educational institution. There is no question about the fact that knowledge, learning information, skill and intelligence are the new raw material of international commerce.

Among the numerous problems stated by Aliyu (2013) are:

#### 1. **Teachers**

- (a) Qualified teachers are in short supply their pre-service preparation curriculum is weighted heavily with courses in educational method at the expense of course in teaching subject.
- (b) Research evidence shows that too many teachers are drawn from the bottom quarter of graduating senior secondary school students the "cream" is always encouraged and guided to find their place in the science or academic.
- (c) Severe shortages exist in the field of shorthand typewriting, accounting and of recent, computer education. Those situations are further aggravated by high rate of teacher turn-over in those subject areas.
- (d) Discrimination: science teacher gets science allowance there is nothing like business teacher and that explain to student government policies such as indigenization scheme budget, SAP privatization and commercialization of public enterprises etc.

#### 2.8 **Summary of Literature Reviewed**

The chapter reviewed related literature and discussed some variables and objectives of the topic. The variables include Entry grade which means performance of an individual or group on examination or test expressed by a number, letter or other symbol that enable person or group to enter into a particular college base on their



requirement for admission. The chapter also reviewed Academic performance which means Narad and Abdullah (2016) opined that the academic performance of students determines the success or failure of any academic institution. Students' academic performance as defined by Afolabi (2001) is the process whereby student's educational activities are measured by examination within the context of a curricular.

It also reviewed the relationship between entry grade and performance of business education students. The chapter reviewed the causes of poor performance among Business Education students, the concept of Business education also reviewed.

## CHAPTER THREE

### RESEARCH DESIGN AND METHODOLOGY

This chapter presents the methodology that is used in gathering data. It is done under the following sub-headings:

- 3.1 Research design
- 3.2 Population of the study
- 3.3 Sample and sampling technique
- 3.4 Instrument for data collection
  - 3.4.1 Validity of the instrument
- 3.5 Procedure for data collection
- 3.6 Method for data analysis

### 3.1 Research Design

The research was adopted historical research design. Natalie Boyd (2019) defined historical research design which involves synthesizing data from many different sources. There are many types of historical research design, for the purpose of this research I choose correlation research design which is relevant to this research.

### 3.2 Population of the Study

The population of the study consists of all the 2090 NCE students of business education programme in Federal College of Education (Tech) Gombe (2018/2019 academic year). The breakdown of the population is present in table 3.2.1

**Table 3.1 Population for the Study**

S/N	Research Population	Number
1.	Pre NCE	142
2.	N.C.E I,	847
3.	N.C.E.II	497
4.	N.C.E. III	604
<b>Total</b>		<b>2090</b>



### 3.3 Sample and Sampling Technique

Using Krejcie and Morgan's (1970) table for determining sample size. A sample size of 322 respondents was determined using simple random sampling technique. The sample description is as follows:

**Table 3.2 Sample of the Study**

S/N	Research Level	Frequency
1.	Pre NCE	40
2.	N.C.E I	110
3.	N.C.E.II	74
4.	N.C.E. III	98
<b>Total</b>		322

### 3.4 Instrument for data Collection

Historical method is the instrument for data collection in this research. The researcher collected data from administrative block and examination office which involves students CGPA and their Entry grades.

#### 3.4.1 Validity of the Instrument

To ensure both the face and content validity of the instrument copies of the data from administrative block and examination office was analyzed by expert.

### 3.5 Procedure for Data Collection

Request of data from administrative block and examination office was used by the researcher.

### 3.6 Method for Data Analysis

Data generated from examination office and administrative block was analyzed using means and simple percentage. T-test was also be used in analyzing the data.

## CHAPTER FOUR

### DATA ANALYSIS AND PRESENTATION

#### 4.0 Introduction

This chapter presents and analyzed data on the research work titled "Relationship Between Entry Grades and Academic Achievement of Business Education Students in Federal College of Education (Tech), Gombe. For the purpose of this study, a historical survey research or method was used, the method enables data to be collected from the sample population of 322 students cumulative grade point average (CGPA) and entry grades. The presentation and analysis of this research work is based on the three (3) research question raised, and data were gathered through the use of historical survey from administrative block and exams office. Data gathered were analyzed using simple percentage based on each research question.

#### 4.1 Demographic Information Analysis

TABLE 4.1: Distribution of Students by Their Level

S/N	Level	Population	Percentage
1.	Pre NCE	142	7%
2.	N.C.E I	847	40%
3.	N.C.E.II	497	24%
4.	N.C.E. III	604	29%
	Total	2090	100%

Source: Examination office

Table 4.1 shows that there were Pre NCE 142 students representing 7%, N.C.E I had 847 students representing 40% while N.C.E II had 497 students representing 40%, where N.C.E III had 604 students representing 29%.

#### 4.2 Presentation of Data

The data gathered were presented and analyzed based on each of the three research questions. Tables were used for more understanding. A comprehensive summary of data supplied with respect to each of the research questions was analyzed as follows;

**Research question one (1):** What is the relationship between entry grades and academic achievement of business education students in Federal College of Education (Tech), Gombe?

**Table 4.2 Summary of Result using mean**

S/N	Level	Entry grade $\bar{X}$	CGPA $\bar{X}$	No. of Students
1.	Pre NCE	2.75	2.58	35
2.	N.C.E I	3.50	2.90	90
3.	N.C.E.II	2.50	2.87	50
4.	N.C.E.III	3.00	3.22	56
	<b>Grand mean</b>	2.94	2.89	231

**Source:** Examination office and Administrative block.

According to the findings in table 4.2 above, the students mean CGPA (2.58) was at (2.75) entry grades from 35 students out of 40 sampled population representing 88%, while mean CGPA (2.90) was at 3.50 entry grades from 90 students out of 110 sampled population representing (82%). Mean, CGPA of (2.87) was, at (2.50) entry



grades from 50 students out of 74 sampled which represents 68%. Also mean CGPA (3.22) was at 3.00 entry grades from 56 students out of 98 sample population which representing 57%.

Based on this analysis the grand entry grade of 2.94 of the entire 231 student indicated a CGPA of 2.89. Thereby revealing that entry grade determines academic achievement of students in school of Business education Federal College of Education (Tech), Gombe.

**Research question two (2):** What is the performance of business education students in Federal College of Education (Tech), Gombe?

According to the findings in table 4.2 and computation of data, the performance of business education students was average. since there is positive correlation between their CGPA and entry grades.

**Table 4.3 Summary of T-test result**

S/N	Level	Entry grade	CGPA	T-Test Result
		Mean ( $\bar{X}$ )	Mean ( $\bar{X}$ )	
1.	Pre NCE	2.75	2.58	0.17
2.	N.C.E I	3.50	2.90	0.6
3.	N.C.E.II	2.50	2.87	-0.37
4.	N.C.E. III	3.00	3.22	-0.22
	<b>Grand mean</b>	2.94	2.89	0.5

Based on T-test result Pre-NCE and NCE I students had 0.17 and 0.6 difference, between their Entry grades and academic achievement, which indicate that entry grades is greater than their academic achievement. While NCE II and III had -

0.17 and -0.22 difference, which indicated that students CGPA is greater than their entry grades. Grand mean indicated that entry grades is greater than academic achievement. Thus entry grades determine students academic achievement.

The findings also indicated that out of 40 Pre NCE students from sample population 35 have 2.58 CGPA with 2.75 entry grades, only 5 of the students have 1.00 and below, it also gathered that 90 students have 2.90 CGPA, 3.50 entry grades 2.50 entry and 2.87 CGPA, 3.00 entry grades and 3.22 CGPA for NCE II and NCE III respectively.

**Research question three (3):** What is the appropriate course combination for Entry grades into business education in Federal College of Education (Tech), Gombe?

Based on findings the appropriate course combination for Entry grades into Business education department in Federal College of Education (Tech), Gombe are: Accounting, commerce, economic and Mathematics. The researcher found that majority of students that are performing within average have those combinations in their entry grades.

### **Discussion of Major Findings**

Based on the above analysis, the following findings were made:

Table 4.1 indicated that 142 Pre NCE students representing 7% from the entire population, while 847 NCE I student representing 40%, 497 representing 24%, and 604 representing 29% NCE II and III respectively.

There is cordial relationship between students entry grade and academic achievement, this is because table 4.2 indicated that out of 332 students 231 students have positive relationship between their entry grades and their academic achievement, only 91 students fall within below average from the entire sample population.

However the findings revealed that the academic achievement of Business education student is average, this is because in table 4.2, 231 students have positive entry grades relationship with their academic achievement.

Findings also reveal that the appropriate course combination into business department Federal College of Education (Tech), Gombe are Accounting, Commerce, Economic and Business related subjects, this is because majority of the average students have those combinations in their entry grades.



## CHAPTER FIVE

### SUMMARY, CONCLUSION AND RECOMMENDATION

#### 5.1 Summary

The research study is targeted to the relationship between entry grade and academic achievement of business education students in Federal College of Education (Tech), Gombe. To carry out the study three research questions were formulated out of which four research questions were raised. The study is delimited to Federal College of Education (Tech), Gombe, under the topic of relationship between entry grades and academic achievement of business education students, the researcher has available data in hand for this research work.

The related literature reviewed highlighted the factors that determine student's performance, the concept of academic performance, causes of poor performance and appropriate course combination in Business education Department.

The design used to carry out the study was historical research design, the research comprises 2090 students of Business Education department of Federal College of Education (Tech), Gombe, 322 students were taken as sample using simple random sampling techniques, the instrument used to collect data was request letter to exams office (students CGPA) and administrative block (Students Entry grades) that enable the researcher to have accurate data, mean and simple percentage, correlation and T-test was used to analyze the data. The findings revealed that, there is positive relationship between students academic achievement and their entry grades.

## REFERENCES

- Adeshina, T.J (2007). *Understanding Business Education*, Zaria: Nigeria Esonaji Publishers.
- Admission Eligibility Criteria (2016-17). Prospectus for students of VU (2016-17). Virtual University of Pakistan: VUP.
- Aidoo-Buameh, J. & Ayagre, P. (2013). The Effect of Entry Grades on Academic Performance of University Accounting Students: A case of Undergraduates of Central University College. *Research Journal of Finance and Accounting*, 4(7), 198-206.
- Aina O. (2000 November). Nigerian Technical and Vocational Education in the Near Future Seminar Proceeding on Technical and Vocational Education in Nigeria, Vision and Action Abuja F.C.T.
- Akintola, C.I (2006). Business Education and Skill Development, ABEN, Book of Readings, Vol. 1 (5) p.30.
- Ali, S., Haider, Z., Munir, F., Khan, H., & Ahmed, A. (2013). Factors contributing to the students' academic performance: A case study of Islamia university sub-campus. *American Journal of Educational Research*, 1(8), 283-289.
- Alias, M. & Zain, A. F. M. (2006). Relationship between entry qualification and performance in graduate schools. *International Education Journal*. 7(3), 371-378.
- Aliyu M.M (2007). *Business Education in Nigeria (Trend and Issues)* Zaria A.B.U. Collins Shorter Dictionary (1995) Harper Collins Publishers Limited London.
- Cyrenne, P. & Chan, A. (2010). High school grades and university performance: a case study. Department of Economics working paper: 2010-02. The university of Winnipeg, Canada.
- Dollinger, M.J. (2005) *Strategies and Resources*, Singapore: Pearson's Educational, P.31.
- Ekula, I.O (2004). *Introduction to Vocational and Technical Education*, Kaduna: UNESCO Nigeria TVE Project Publication.
- Esomonu, N.P.M. (Eds) (2000). *the Imperatives of Vocational and Technical Education for a Developing Nation*, Onitsha: Cape Publishers Ltd.
- Hasty, R. & Readon, J. (2007). *Retail Management*, Boston: Irwin, McGraw Hill.

- Ingegnebor, A.U. & Igbinomwanhia, O.R. (2008). *Entrepreneurship in Development Society Center to Entrepreneurship Development of Benin Press.*
- Jayanthi, S. V., Balakrishnan, S., Ching, A. L. S., Abdul-Latiff, N. A., & A.M.A. Nasirudeen, A. M. A. (2014). Factors Contributing to Academic Performance of Students in a Tertiary Institution in Singapore. *American Journal of Educational Research*, 2(9), 752-758.
- Kapinga, O. & Amani, J. (2016). Determinants of students' academic performance in higher learning institutions in Tanzania. *Journal of Education and Human Development*, 5(4), 78-86.
- Kurato D.F (2003). Business Education Emerging Trend and Challenge for 21<sup>st</sup> Century <http://www.usabe.org/pdf/cwp2003kurato>
- National Commission for Colleges of Education (2003), *Minimum Standard for Nigeria Certificate of Education*; NCCE Publication.
- Nwosu, B.O (2003). *Business Education in the 21<sup>st</sup> Century. The Challenges of Technology: Business Education Book of Readings.*
- Obioma, G. & Salau, M. (2007). The Predictive validity of public examinations. A case study of Nigeria. Paper presented at the 33rd Annual Conference of International Association for Educational Assessment (IAEA), Baku, Azerbaijan, 16-21 September, 2007.
- Okafor, A.B (2000). Qualitative Business Education Programme in Nigeria. *Business Education Journal* Vol.2, No.3.
- Osuala, E.G (1987). *Foundation of Vocational Education*, 3<sup>rd</sup> Edition, Nsukka. Fullah Publishing Company.
- Paul, A.E (2005). Concept of development in Business Vocational Educational Enugu. *Modern Printer* p. 34 and 35.
- Shaibu, O.G and Mbaegbu, R.E.V (2012). Business Skills and Education: A Panacea for Secretarial Business Education Students in Nigeria. *Journal of Occupation and Training (JOT)*, Vol.5 (3), P.156, May.



Wambugu, L. N., & Emeke, E. A. (2016). Relationship between Entry Qualification and Academic Performance in Undergraduate Science Courses at the University of Nairobi, Kenya. Paper presented at Third International Conference of the African Virtual University (AVU) on Integrating Mobile Learning to Open up Access to Quality Education and Training Opportunities in Africa, Kenya.

Zezekwa, N., & Mudavanhu, Y. (2011). The effects of entry qualification on students' performance in university science courses: The case of Bindura University of Science Education. *African Journal of Education and Technology*, 1(3), 32-39.

APPENDIX I

School of Undergraduate Studies  
Federal College of Education (Tech)  
P.M.B 060 Gombe, Gombe State  
In affiliation with Abubakar Tafawa  
Balewa University, Bauchi.  
May, 2021

Dear Sir,

**APPLICATION FOR REQUEST OF STUDENTS CGPA AND  
ENTRY GRADES**

The researcher is a final year student of the above institution and currently carrying a research work on relationship between entry grades and academic achievement of Business Education students in Federal College of Education (Technical) Gombe.

I write for the above subject matter to request students CGPA and Entry grades for my research work.

I hope my application will be considered. Thanks.

Yours faithfully,

Ibrahim Sabiu

## APPENDIX II

Table 1: Table for Determining Sample Size for a Finite Population

<i>N</i>	<i>S</i>	<i>N</i>	<i>S</i>	<i>N</i>	<i>S</i>
10	10	200	140	1200	291
15	14	250	144	1300	297
20	19	240	142	1400	302
25	24	250	152	1500	306
30	28	260	155	1600	310
35	32	270	159	1700	313
40	36	280	162	1800	317
45	40	290	165	1900	320
50	44	300	169	2000	322
55	48	320	175	2200	327
60	52	340	181	2400	331
65	56	360	186	2600	335
70	59	380	191	2800	339
75	63	400	195	3000	343
80	66	420	201	3500	348
85	70	440	205	4000	351
90	73	450	210	4500	354
95	76	460	214	5000	357
100	80	500	217	6000	361
110	86	550	226	7000	364
120	92	600	232	8000	367
125	97	650	242	9000	368
130	103	700	242	10000	370
140	108	750	254	15000	375
150	113	800	260	20000	377
160	113	850	265	30000	379
170	118	900	269	40000	380
180	122	950	274	50000	381
190	127	950	278	70000	382
200	132	1000	285	100000	384
210	136	1100			

Note — *N* is population size *S* is sample size

Source Krejcie & Morgan 1970