

**RELATIONSHIP AMONG ACADEMIC STRESS, MOTIVATION AND ACADEMIC  
ACHIEVEMENT OF NCE STUDENTS OF FCT COLLEGE OF EDUCATION,  
ZUBA, NIGERIA**

**BY**

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ZARIA**

**MAY, 2019**

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**A DISSERTATION SUBMITTED TO THE SCHOOL OF POSTGRADUATE  
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OF THE REQUIREMENTS FOR THE AWARD OF MASTER OF EDUCATION IN  
EDUCATIONAL PSYCHOLOGY**

**DEPARTMENT OF EDUCATIONAL PSYCHOLOGY AND COUNSELING,  
FACULTY OF EDUCATION,  
AHMADU BELLO UNIVERSITY,  
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**MAY, 2019**

## **DECLARATION**

I Yakubu Danlami Jeremiah P15EDPC8172 hereby declare that this dissertation titled “Relationship among Academic Stress, Motivation and Academic Achievement of NCE Students of FCT College of Education Zuba, Abuja, Nigeria” was conducted by me in the Department of Educational Psychology and Counseling under the supervision of Prof. A. I. Muhammed and Dr. Y. Umaru. The information reviewed in the literature has been acknowledged accordingly in the text and in the reference list. No part of this dissertation has been presented for any other degree at any institution.

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**YAKUBU D Jeremiah**  
**P15EDPC8172**

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**Date**

## CERTIFICATION

This dissertation entitled “Relationship among Academic Stress, Motivation and Academic Achievement of NCE Students of FCT College of Education Zuba, Abuja, Nigeria” submitted by Yakubu Danlami Jeremiah (P15EDPC8172) meets the regulations governing the award of the degree of Master of Educational Psychology of Ahmadu Bello University, Zaria and it is approved for its contribution to knowledge and literary presentation.

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Date

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(Dean, School of Postgraduate Studies)

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Date

## **DEDICATION**

This research work is dedicated to the memory of my late father Yakubu Dan-wazan and my mother Kyakyawa Yakubu for the moral, social, academic and psychological foundation that has guided my life to this day.

## ACKNOWLEDGEMENTS

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## ABSTRACT

This study investigated the relationship among academic stress, motivation and academic achievement of NCE students of FCT College of Education in Abuja. Related literature were reviewed to address conceptual and theoretical framework as well as empirical studies. Correlational design was adopted in the study. A total sample of 313 students were proportionately selected for the study. Academic Stress Scale adopted from Yumba (2008), Academic Motivation Scale adapted from Vallerand, Pelletier, Blais, Briere, Senecal, and Vallieres, (1992), were used as instruments for data collection and students' CGPA. Mean and Standard Deviation were used to answer the research questions while Pearson Product Moment Correlation was used to test the null hypotheses at 0.05 level of significance. Result of the study revealed that significant relationship exist between academic stress and intrinsic motivation among NCE students ( $r=-0.763$ ,  $P=0.001$ ). Academic stress was found to have significant relationship with extrinsic motivation ( $r=-0.631$ ,  $P=0.002$ ). Significant relationship was found between academic stress and academic achievement ( $r=-0.954$ ,  $P=0.000$ ). Significant relationship exist between intrinsic motivation and academic achievement ( $r=-0.945$ ,  $P=0.011$ ). Finally, significant relationship was found between extrinsic motivation and academic achievement among NCE students ( $r=0.996$ ,  $P=0.000$ ). It was recommended among others that lecturers should employ teaching styles that provides students with opportunities to make choices and have some degree of control over their learning; this would reduce stress and raise students' level of motivation for greater academic achievement.

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## OPERATIONAL DEFINITIONS OF TERMS

Key terms of this study have been operationally defined as follows:

**Academic Stress** refers to the academic pressure and or challenges NCE students face during the course of their studies.

**Motivation** simply refers to the intrinsic or extrinsic (motivation) force which drives an individual to engage in academic activity.

**Intrinsic Motivation** refers to an inner force that motivates students to engage in academic activities, because they are interested in learning and they enjoy the learning process as well.

**Extrinsic Motivation** refers to the external force which drives a student to engage in activities in order to attain some reward.

**Academic Achievement** refers to the cumulative grade point average (CGPA) of NCEII students of the 2016/2017 session.

# **CHAPTER ONE**

## **INTRODUCTION**

### **1.1 Background to the Study**

Stress is a common element in the lives of every individual, regardless of race or cultural background. Over the past few decades, there has been significant investigation on the issues of stress and management of stress. In addition, college students have been shown to possess a unique set of stressors which can affect their daily experiences. Stress has been defined as the adverse reaction people have to excessive pressure or other type of demands placed on them (Campbell, 2006). Thus, Stress consists of any event in which environmental demands, internal demands or both tax or exceed the adaptive resources of the individual (Lazarus & Folkman 1986). In other words, stress arises when there are burden on the person which exceed his available assets. Stress occurs when an individual is confronted by a situation that he perceives as overwhelming and cannot cope with. Academic Stress is the pressure and anxiety that come from schooling and education.

As a matter of fact, college students in their peculiar endeavors are exposed to various kinds of stressors including academic and psychological stress which could militate against their active participation in school activities, and this may block the possibilities of realizing their educational goals. It is considered to be a part of students' life and can impact the students coping strategies in accordance with the demands of academic life. This is so because academic work is always accomplished with stressful activities. Thus, tertiary institution students are very vulnerable to experience stress, which may be related to many educational outcomes. Lazarus and Folkman (2007) stated that person's response towards stress depends on whether an event is appraised as a challenge or a threat. It is a necessary and inescapable concomitant of daily living - necessary because without some stress we would be

listless and apathetic creatures. Erkutlu and Chafra (2006) for instance opines that, when these events take place, an individual may become disorganized, disoriented and therefore less able to cope with, thus may result in stress related problems. The pressure to perform well in the examination or test and time allocated might make academic environment very stressful. However, it is pertinent to note that if stressed students cannot effectively learn and consequently perform poorly in their academics, it would be very difficult to realize the Federal Government's objectives on Tertiary Education.

The incidence of stress especially among College of Education students has increased dramatically in recent years. There is often a lot of pressure that comes along with pursuing NCE Certificate and one's education. There is studying, assignment, tests, labs, reading, and quizzes. Teachers expect work to be completed on time. There is the stress of doing all of the work, balancing the time and finding time for extra-curricular activities. There are several explanations for increased stress levels in college students. First, students have to make significant adjustments to college life. Second, because of the pressure of studies, there is strain placed on interpersonal relationships. Third, housing arrangements and changes in lifestyle contribute to stress experienced by college students. In addition, students in college experience stress related to academic requirements, support systems, and ineffective coping skills. Whereas these factors have been found to be responsible for stress, it is worth noting that in order to minimize the stress among students, the College administrators must develop appropriate strategies that will enable them to detect in advance the symptoms and causes of the stress. According to Yumba (2009), possible sources of stress that can be faced in academic situations could be viewed in four areas: by relating with others, personal factors, academic factors, and environmental factors.

Motivation is a driving force for students' engagement in learning. Student engagement in learning is not only an end in itself but it is also a means to the end of students

achieving sound academic outcome. This is important because authentic engagement may lead to higher academic achievement throughout student life (Zyngier, 2008). Satisfactory school learning and academic achievement are unlikely to take place in absence of sufficient motivation to learn. Psychologists have noted that motivation should be taken into account in education because of its effective relationship with new learning, abilities, strategies and behaviors. By motivation people are stimulated to successfully complete an assignment, achieve a goal or a degree of qualification in their professions. Accordingly motivation defines the reasons behind people's behavior and determines why they behave in a particular way. Motivated behaviors are energetic, oriented and permanent (Omidian, 2006).

Psychological experts have divided motivation into two major groups of intrinsic motivation and extrinsic motivation. While the individual influenced by the extrinsic motivation will independently undertake a specific activity in order to achieve a goal, the intrinsic motivation provides the sufficient incentive for doing a task (Mohamadi, 2006). Intrinsic motivation, occurs when the activity is done out of the free choice of the individual (Ryan & Deci 2000). Intrinsically motivated students perform activities simply for the enjoyment and satisfaction that comes from completing the activity. These students engage in behaviors such as working for a sustained period of time, taking more risks, and working out creative solutions to problems. Extrinsic motivation is a construct that is relevant whenever an activity is done in order to attain some reward. Extrinsically motivated behaviors' are those where the controlling mechanism is easily seen (Ryan & Deci (2000), An extrinsic orientation toward learning is characterized by a concern with external reasons for working, such as the judgment of others regarding one's performance, grades, or some anticipated reward. This form of motivation is relevant to academic achievement owing to the fact that intrinsic motivation is fast dying out among students especially in tertiary institution.



Getting students to learn and sustaining their interest in what they are learning therefore should be the sole objective of teachers in the classroom.

Academic achievement is a term which represents performance outcomes that indicate the extent to which a person has accomplished specific goals that were the focused of activities in instructional environment, specifically in schools, colleges and university. It is the attainment obtained by a student from a period of instruction and assessment which may include experiences, knowledge, skills and the likes. This knowledge and skills are measured in students CGPA. However, academic achievement is depended more than what happens within the walls of the classroom. Where there is an internal motivated factor towards an important desire, an individual's level of performance usually increases. More so, when interest is lost in some desirable goals, achievement is thwarted. It is because of this that educationists consider motivation as one of the important factors for any achievement vis a vis academic achievement,

The Colleges of education stage plays a significant role in the quest to develop the nation's future manpower for rapid development (Quist 2003). As a result, successive governments of Nigeria have made several efforts to improve the standards of learning through infrastructural development at the education sector among other policy initiatives (Ankomah, Koomson, Bosu, & Oduro,2005). Despite all these efforts, the standard still remains low at the higher school level. This has prompted several research into more effective ways of improving academic standards and have found out that inadequate motivation for students of higher learning among other factors as a disincentives to learning and academic achievement (Sikhwari, 2014). Brown, Armstrong and Thompson. (1998) have also acknowledged that stimulating motivation among students of higher learning still remains a challenge as some students' enthusiasm for learning is unpredictable. Looking at

the number of students that graduate from colleges of education every year, one may say that the institution is trying to fulfill its obligations. But on the other hand, considering the quality of those students that graduate every year, it looks like the institution is not realizing the goals and objectives for which it is set up. This informed the researcher's decision to carry out the study among the NCEII Students of FCT college of Education, Zuba.

Broadly, it can be concluded that although some amount of stress result in motivation which may enhance learning; high level may cause physical and mental health problems, reduce self-esteem and may affect academic achievement of students. This highlights the need for research to examine the relationship among academic stress, motivation and academic achievement. With such knowledge, educationists will be able to pay more attention to the sources of academic stress of students and the use of counseling measures as well as appropriate motivational strategies to assist students in the sound development of their bodies and mind for academic success.

### **1.1 Statement of the Problem**

It was generally observed by the researcher that academic achievement among NCE students has been on the decline over the years. As a matter of fact, every student is in school to academically succeed, but a careful observation has shown that some students and graduate of Colleges of Education seems not to be living up to expectation. The situation where you find an NCE holder having difficulties in the use of English or teaching call for serious concern.

Students experience certain pressure in school such as having prerequisite credit units for graduation, passing prescribed examinations, complying with the rules and regulations of the institution among others. There is a parental expectation from students such as graduating with a good result and acquiring moral values from school. Also, community counts on the students to graduate and contribute to the development of such communities. Furthermore, an

additional pressure to obtain financial support that is often limited for college students contributes to their stress. At individual level, students battle within them with issues such as interest in their course of study vis-à-vis their aspirations after graduation, worry about their competence in their course of study, the relevance of their course of study in the labour market, finding life partner and a host of others. In the long run, these problems might lead to stress and later to delinquent behaviours. This stress can negatively influence their motivation to achieve as well as leading to adjustment problems. Academic stress is associated with many problems, such as school difficulties and dropout, unwanted pregnancies, health problems, drug and alcohol abuse and smoking among students, as well as anxiety. When stress takes over the whole person's emotions, bodily functions, behaviours and thoughts they will become so irritated and may not see reasons for doing anything. This situation renders the individual inactive and unhealthy.

Lack of intrinsic motivation was one of the most critical factors affecting learning in most Colleges. Most students are not intrinsically motivated to learn, and on the other hand parent and lecturers are not also doing their very best to encourage motivation in students. Many students are observed to have set back regarding their intrinsic motivation, which is evident by their non-challant attitude to learning such as absconding from lectures, not paying attention to lectures even when they are in class, some students do not even see the need to visit library for studies and research left alone patronizing library services in the college. The reason behind this was not farfetched, some students attend College of Education because they could not meet up with university requirement of five credits and cut off point in tertiary matriculation examination. Thus they find themselves there as a last resort. Some students are persuaded by their parents to attend particular academic institution and to a certain extent are made to study courses against their interest or aptitude. If the motivation to achieve is very

slim the efficacy of such students may be tampered with, this may have negative consequences on academic achievement of students.

Generally, as children move from secondary level to the university and from one level to another they become more stressful due to lengthy syllabus, too much homework, and tight time schedule. This stress can negatively influence their motivation to achieve as well as leading to adjustment problems. From general observation, some students in the study area tend to be stressed, and lack the motivation to achieve, while some of them seem to have other problems in their academics. This will likely influence their academic outcomes. Therefore, it is against this backdrop that the researcher investigated the relationship among Academic stress, motivation and academic Achievement.

### **1.3 Objectives of the Study**

The objectives of the study were as follows:

1. To determine the Relationship between Academic Stress and Intrinsic Motivation among students of FCT College of Education, Zuba.
2. To determine the Relationship between Academic Stress and Extrinsic Motivation among students of FCT College of Education, Zuba.
3. To determine the Relationship between Academic Stress and Academic Achievement among students of FCT College of Education, Zuba.
4. To determine the Relationship between Intrinsic Motivation and Academic Achievement among students of FCT College of Education, Zuba.
5. To determine the Relationship between Extrinsic Motivation and Academic Achievement among students of FCT College of Education, Zuba.

### **1.4 Research Questions**

For the purpose of this study, the following research questions were raised:

1. What is the Relationship between Academic Stress and Intrinsic Motivation among students of FCT College of Education, Zuba?
2. What is the Relationship between Academic Stress and Extrinsic Motivation among students of FCT College of Education, Zuba?
3. What is the Relationship between Academic Stress and Academic Achievement among students of FCT College of Education, Zuba?
4. What is the relationship between Intrinsic Motivation and Academic Achievement among students of FCT College of Education, Zuba?
5. What is the relationship between Extrinsic Motivation and Academic Achievement among students of FCT College of Education, Zuba?

### **1.5 Research Hypotheses**

The following hypotheses were formulated:

1. There is no significant Relationship between Academic Stress and Intrinsic Motivation among students of FCT College of Education, Zuba.
2. There is no significant Relationship between Academic Stress and Extrinsic Motivation among students of FCT College of Education, Zuba.
3. There is no significant Relationship between Academic Stress and Academic Achievement among students of FCT College of Education, Zuba.
4. There is no significant relationship between Intrinsic Motivation and Academic Achievement among students of FCT College of Education, Zuba.
5. There is no significant relationship between Extrinsic Motivation and Academic Achievement among students of FCT College of Education, Zuba.

### **1.6 Basic Assumptions**

The study assumed that relationship may exist between:

1. Academic Stress and Intrinsic Motivation among students of FCT College of Education, Zuba
2. Academic Stress and Extrinsic Motivation among students of FCT College of Education, Zuba
3. Academic Stress and Academic Achievement among students of FCT College of Education, Zuba.
4. Intrinsic Motivation and Academic Achievement among students of FCT College of Education, Zuba.
5. Extrinsic Motivation and Academic Achievement among students of FCT College of Education, Zuba.

### **1.7 Significance of the Study**

The findings of this study would be useful to the following: the students, teachers/lecturers, parents, school counselors, school psychologists, educational administrators, National commission for colleges of education (NCCE) and government authorities and the field of educational psychology. It is hoped that the findings of this study would be disseminated through seminar for teachers, conferences, workshops and online publication so that it will be properly circulated.

This study would contribute to theory building in academic stress, motivation and academic achievement which will invariably enrich the concept of the stated variables in educational psychology.

Essentially, the students of tertiary institutions would find this study very important as it will give them insight on how to cope with stress and manage themselves in any stress related situation, so as to strengthen their academic performance in school. The knowledge

and findings about motivation would help students to develop intrinsic motivation for their success in life.

The study would be of immense benefit to teachers in the sense that it will improve the quality of teaching and learning; it would enable them to develop appropriate motivational strategies in order to sustain students' interest in learning and to raise the level of their intrinsic motivation. The study would help lecturers to regulate learning environment in order to eliminate stress for better academic performance.

Educational/School psychologists and counselors would find this study as key players in stress management in schools, the study would help them to assist students with appropriate intervention strategies in managing stress and motivating them toward achieving success in school.

The study would be very important and useful to parents and guardians who are concerned with their children's education. It would help them understand what they should do to minimize stress among their children in school and to promote intrinsic as well as extrinsic motivation in them.

School administrators would find this study of great importance in planning school activities, regulating the academic activities to help students of tertiary institutions to cope with the various stress they encounter in school. The findings would reveal the causes of students stress to enable the administrators know how to monitor and control the stress factors that are responsible for students stress and develop appropriate strategies that will enable them to detect in advance the symptoms and causes of stress. The study would equally help administrators to identify the achievement level of their subjects so as to develop motivational strategies for dealing with under-achievement in students.

The study would provide government, National Commission for Colleges of Education (NCCE) and other relevant authorities with evidence based data which will help in

making appropriate educational decisions that would ensure reduction of stress on students at all levels of education and promote motivation, particularly at college of education level.

This study would serve as a reference material for the research community and students who may wish to carry out further research on similar problems in order to add to existing body of knowledge. Yet still, this study would be relevant to the general public who on daily basis face lots of stressful challenges.

### **1.8 Scope and Delimitation of the Study**

The study investigated academic Stress, Motivation and Academic Achievement as the major variables of the research. The entire NCE II students of FCT College of Education, Zuba in Abuja was covered, involving both male and female students as they are observed to struggle with stressful events as well as lack of motivation for academic achievement.

The study was delimited to NCE II students of the College and does not include other categories of students as well as other variables other than Academic Stress, Intrinsic and Extrinsic Motivation and Academic Achievement.



## **CHAPTER TWO**

### **REVIEW OF RELATED LITERATURE**

#### **2.1 Introduction**

This chapter deals with review of related literature, and it was discussed under the following sub-headings:

2.2. Concept of Academic stress

2.3 Concept of Motivation

2.3.1 Intrinsic Motivation

2.3.2 Extrinsic Motivation

2.4 Concept of Academic Achievement

2.5 Relationship among the Variables

2.5.1 Academic Stress and Intrinsic Motivation

2.5.2 Academic Stress and Extrinsic Motivation

2.5.3 Academic Stress and Academic Achievement

2.5.4 Intrinsic Motivation and Academic Achievement

2.5.5 Extrinsic Motivation and Academic Achievement

2.6 Theoretical framework

2.6.1 Lazarus and Folkman Cognitive Appraisal Theory of Stress

2.6.2 Self-determination Theory (SDT)

2.6.3 Achievement Motivation Theory

2.7 Empirical studies

2.8 Summary and uniqueness of the study

## **2.2 Concept of Academic Stress**

Stress is viewed as a negative emotional, cognitive, behavioural and physiological process that occurs as a person tries to adjust to or deal with stressors (Bernstein, Penner, Stewart & Roy 2008). Stress can be seen as a psychological and physical strain or tension generated by physical emotional social, economic or occupational circumstance, events, or experiences that are difficult to manage or endure. The concept of stress can be described as the perception of discrepancy between environmental demands (stressors) and individual's capacities to fulfill these demands (Topper, 2007). Campbell, (2006), defined stress as the adverse reaction people have to excessive pressure or other types of demands placed on them. Stress occurs when an individual is confronted by a situation that they perceive as overwhelming and cannot cope with. Students may experience different types of stress ranging from physical, psychological, mental, perceptual, academic and psycho-spiritual. Physical stress is caused by intense physical work, nutritional deficiencies, illness, environmental pollution, substance abuse and others. Psychological stress consist of emotional disturbances such as fear, anger, grief, sadness, frustration. Mental stress involves worry, the need for perfectionism, jealousy, anxiety, a sense of a loss of control. Perceptual stress is caused by beliefs, attitudes and world views etc. Stress can be caused by environmental factors, psychological factors, biological factors, and social factors. It can be negative or positive to an individual, depending on the strength and persistence of the stress, the individual's personality, cognitive appraisal of the stress and social support.

Academic stress is a product of a combination of academic related demands that exceed the adaptive resources available to an individual (Kadapatti and Vijayalaxmi, 2012). This is to say, academic stress refers to the unpleasant psychological situations that occur due to the educational expectations from parents, teachers, peers and family members, pressure of parents for academic achievement, present educational and examination system, burden of

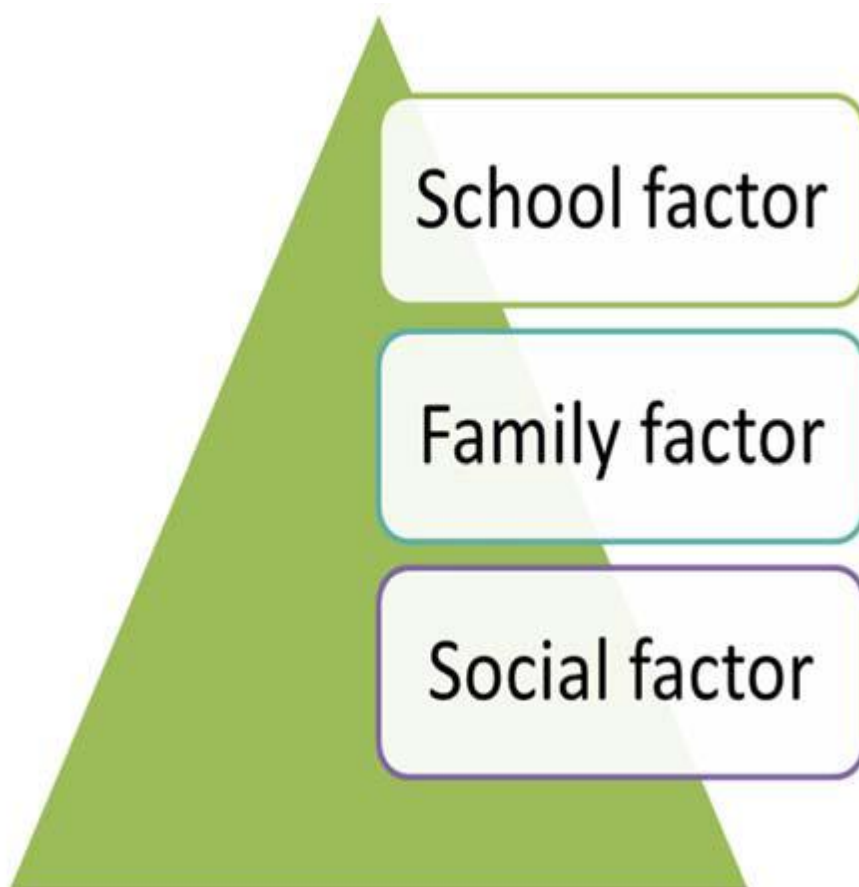
Homework etc. Academic stress refers to academic pressure the school poses to students. Academic related stress have included fear of falling behind the course work, finding motivation to study, time pressures and concern about academic ability. Academic stress is a mental distress with respect to some anticipated frustration associated with academic failure or even an awareness of possibility of such failure(Aja,2005).Stressed adolescents perceived academics as burdensome. Psychologists sometimes relates academic stress to when students experience tasks beyond their capacity; this situation makes them to manifest hyper vigilance excessive alertness to a stressful situation resulting in panic for example, over studying for exam, a premature closure quick choosing a solution to end a stressful situation. For example, rushing through an examination.

Academic stress among students have long been researched on, and researchers have identified stressors as too many assignments, competition with other students, failures, lack of pocket money, poor relationships with other students or lecturers, family or problems at home. Institutional level stressors are overcrowded lecture halls, semester system, and inadequate resources to perform academic work (Ongori, 2008). Stressors that give rise to stress can be specific for a particular environment and for students the stressors of academic life can lead to academic stress. These stressors can range from academic demands, exam anxiety, academic expectations of significant others, fear of failure, poor time management, negative social interactions or lack of social interactions Erkutlu and Chafra cited in Agolla and Ongori, (2009), for instance opines that, when these events take place, an individual becomes disorganized, disoriented and therefore less able to cope up, thus resulting in stress related health problems. The pressure to perform well in the examination or test and time allocated makes academic environment very stressful (Erkutlu & Chafra,in Agolla & Ongori, 2009). This is likely to affect the social relations both within the College and outside since there is conflict with the social aspect of one's life. This not only affect the social relations

within or outside the school, but this goes to affect the individual person's life in terms of commitment to achieving goals in life.

***i.Sources of Academic Stress***

Bernstein, Penner, Stewart, and Roy (2008), defined the sources of stress as every circumstance or event that threatens to disrupt people's daily functioning and causes them to make adjustments. These sources of stress are called "Stressors". Stressors are demands made by the internal or external environment that upset balance, thus affecting physical and psychological well-being and requiring action to restore balance (Lazarus and Cohen, in Siew and Kia 2013). However, they differ from the degree of severity and duration of stress; what is stressful for an individual may not be a stressor for another. The sources of Academic stress are summarized in the figure below:



**Sarita and Sonia, (2015)**

Many factors contribute to the stress being experienced by students but one common cause of academic stress in India is School. Such stress comes from too much homework, unsatisfactory academic performance, preparation for tests, lack of interest in a particular subject, and teacher's punishment. Stress from high expectations of teachers, parents, and self is usually an agony for students studying in schools. Generally, parents are very concerned about their children's academic achievement and moral behaviors. Course work assignment was a major source stress. Also, often keeping the students under continual examination puts them to stress. Lack of parental help, congenial examination system, living up to parental expectation, and attitude of the teachers and fear of examination were the stress causing factors found that imposing excessively high self-expectation was the most trouble stressor leading to academic stress. Examination related stresses were equally found to be causing high academic stress so also class room assignment overload.

Students appeared to be under high pressure originating from course overload and academic evaluation procedures and least stressed by personal familiar and social factors. Curriculum being highly concept laden, inappropriate school timings, high student-teacher ratio, nonconductive physical environment of classrooms, the absence of healthy teacher-student interaction, irrational rules of discipline, physical punishment, excessive or unbalanced school-work, teaching methodology, indifferent attitudes of teachers, overemphasis on weaknesses rather than strengths, expectations of students themselves, and expectations of teachers (Ang&Huan, 2006). Additionally, the following were recognized to be associated to academic stress based on studies: academic workload, attending lectures (Agolla&Ongori, 2009), examinations, school curriculum, inadequate learning materials (Shah, Hassan, & Malik, 2010), subject-related projects (Conner, Pope, & Galloway, 2010).

Family is also one of the important sources of academic stress which includes the pressure placed upon students due to the expectations of parents for their child to do well

academically (Deb, Majumdar, & Sun, 2011). This often results in parents encouraging their child to study for a long periods of time in order to attain high grades or percentages in examinations. (Deb, Majumdar, & Sun, 2011)., found in their studies that the incidence of parental pressure differs significantly with differences in the educational levels of the parents, mother ' s occupation, number of private tutors, and academic performance. Fathers possessing a lower education level (non-graduates) were found to be more likely to pressurize their children regarding better academic performance. For example children from non-disrupted families have higher academic stress than children from disrupted families. It is likely that the children from disrupted families get less attention and guidance from their parents regarding academic matters than do their counterparts in non-disrupted families. This, paradoxically, reduces their academic stress – thus highlighting the negative impact of the parental vigilance and persuasion on the academic lives of their children (Ganesh & Magdalin, 2007). Formation of stress is highly associated with the social environment. Stress arises not only in a complicated and competitive environment but also in a monotonous and stimulus-less one.

Kumar and Jejurkar as cited in Busari (2012), concluded in their studies that academic factors were mainly responsible for a higher level of stress among undergraduate students. Students experience stress due to different many factors including issues of time management, financial matters, interaction with lecturers, personal subjective goals, social behavior, adjustment in the academic culture lack of support system (Wilks, 2008), admission process, high expectation of parents, curriculum comprised of complex concepts, unsuitable school timings, unbalanced student-teacher ratio, physical environment of classroom, unhealthy student teacher interaction, hard and fast rules of discipline, too many or complex assignments, teaching methodology, unconcerned teacher's attitude and overemphasis on weaknesses rather than acknowledging strengths (Masih&Gulrez, 2006).

Kai-wen (2010), in his study on stress sources among college students in Taiwan identified the following sources:

**Physical/mental Factor:** Adolescents are mostly concerned about their physical appearances than about other aspects. This is more peculiar with girls than boys and as such girls may feel upset by their appearance. Fengcited in Kai-wen (2010), pointed out that setting high goals, being a perfectionist and comparing self with others and self-degradation may all cause stress and result in depression.

**School Factor:** Some of the situation in the school that could cause stress for students include: too much homework, unsatisfactory academic performance, preparation for test/examination, lack of interest in a particular subject. According to Roberts and White cited in Kai-wen (2010), academic work may reflect some of the high level of stress that college students have reported. Some of them experience grade pressures that cause students to have problem with stress. Too much stress can interfere with a student preparation, concentration and performance. One of the main cause of academic stress is test anxiety.

**Relationship factor:** Many students at this level of development are pre-occupied with the development of relationship with opposite sex. They want to belong and be accepted by their peers. Making new friends is another source for college students. "Giving up or changing new friendships and developing new ones is often a stressful activity associated with college life".

**Family factor:** The family can also be a source of stress for secondary school students. Some families place a great deal of stress on students by telling them that they need to acquire good grades. In addition, families with constant conflicts are characterized by a lack of parent-child communication and shallow understanding of each other's expectation.

Research has determined that for most female students, the effect of managing multiple roles and additional stressors was determined largely by the student's perception of

the enormity of the task. (Giancola, Grawitch & Borchert, 2009). Students' program of study is another cause of stress. The most dominant subject area of study is programs with strong vocational element as in the case of nursing and other health care students (Alzahem, Van, & De Boer, 2013). For example, a study by Behere, Yadavand, and Behere, (2011), found a higher level of stress among medical and engineering students. Previous studies also seem to suggest consistent outcome regarding the year of education and level of stress among students. Whilst first year students have been found to experience considerable stress than students in other Schooling years. (Alzahem, Van, & De Boer, 2013), found out that third year students experience more stress than any other year. Workload has also been found to be related to stress. A study by Euan and Helen, (2009), revealed that students' reported levels of workload were more variables than the measure of stress, suggesting that the relationship between stress and workload is more complex than earlier thought.

***ii. Symptoms which are helpful in identifying the stressful behaviors of Students:***

Agolla (2009), identified stress symptoms as lack of energy, taking over the counter medication, high blood pressure, feeling depressed, increase in appetite, trouble concentrating, restlessness, impatience, nervousness, strain, tensions and anxiety among others. An individual experiencing one of these factors is likely to be a victim of stress. Although this may also depend on how the individual appraises the situation, and how resilient is the person. Some of the basic symptoms are as follows:

- i. Students may be experiencing irritability because of lack of proper sleep at night.  
Then it is a Wakeup call for parents.
- ii. They may be unable to concentrate on academics task and sports.
- iii. Students may be having unexplained fears or increased anxiety.
- iv. Students isolate from family activities or peer relationships.
- v. Students may be experimenting with drugs and alcohol.



- vi. Students may complain about headaches or stomach aches.
- vii. Students may have poor appetite and low immunity.

### *iii. Effect of Academic Stress*

People struggle with many stresses every day. Most stress come and go without leaving any enduring imprint. However, when stress is severe or when many stressful demands pile up one's psychological functioning may be affected. The effect of stress can be positive or negative .Stress can be a motivator for an improved quality of life. Stress can be negative when it becomes destructive as a result of how an individual negatively perceived it and reacted to it (Blonna, 2005). Research on the effects of stress has focused on mainly on negative outcomes so our coverage is scant in that direction. However, it's important to emphasize that stress is not inherently bad. Stress makes life challenging and interesting. Moreover, it can have beneficial effects. Stress can force people to develop new skills, learn new insights and acquire new personal strength. Along the way, though stress can be harrowing, sometimes leading to impairments in performances to burnout and other problems. Other effect of stress are discussed as follows:

#### **(a) Burnout**

Burnout involves physical, mental and emotional exhaustion that is attributable to long term involvement in emotionally demanding situations. The physical exhaustion includes chronic fatigue, weakness and low energy. The metal exhaustion is manifested in highly negative attributes towards oneself, one's work and life in general. The emotional exhaustion includes feelings of hopelessness, helplessness, and trapped. What causes burnout is a question of everyday concern. After years of studying the phenomenon, psychologists concludes that the cause of burnout lies in our inability to believe that our lives are meaningful and that the things we do are u, important, useful and even great. Burnout sneaks up through a general erosion of the spirit. For the most part, burnout is brought on gradually

by heavy, chronic work related stress. And this stress must not be overlooked as it negatively affects the general adjustment of the students. (Hussain, Kumar, & Husain, 2008).

### **(b) Posttraumatic Stress Disorders**

Historically, the phenomenon of traumatic stress has been in existence from the ancient times. Scholars had suggested that the ancient Greece was the first culture to document traumatic stress (Abdul-hamid & Hughes 2014). Disorder (PTSD) involves disturbed behavior that is attributed to a major stressful event but emerges after the stress is over. It is capable of harming students by depriving them of physical stability and proper concentration at work. People deal with traumatic experience in two basic ways: they either bury it as deep as they can and never talk about it, or they spend time thinking about the event and discussing it with others (Arouso, Wilson & Akert, 2010). Among females, the most common cause is physical attack, such as rape. Other causes among women included seeing someone die (or seriously hurt) experiencing a close brush with death, being in serious accident and discovering spouse's affair. Among men, all the posttraumatic disorders were attributed to combat experiences or to seeing some.

### **(c) Psychological Problems and Disorders**

Posttraumatic stress disorders are caused by a single episode of extreme stress. Of great relevance to most people are effects of chronic prolonged everyday stress. On the basis of clinical impressions, psychologists have long suspected that chronic stress contributes to many types of psychological problems and mental disorders. On the domain of common psychological problems, studies indicate that stress may contribute to poor academic performance, insomnia, sexual difficulties, drug abuse and unhappiness. Above and beyond these everyday problems, research reveals that stress often plays a role in the onset of full-fledged psychological disorders, including depression, Schizophrenia, anxiety disorder and eating disorders.

#### **(d) Effect of Stress on Physical Health**

The assertion that stress can contribute to physical diseases is not entirely new. Evidence that stress can cause physical illness began to accumulate back in 1930's and 1940's. By 1950's, the concept of psychosomatic disease was widely accepted. Psychosomatic diseases are physical ailments with genuine organic basis that are caused in part by psychological factors, especially emotional distress. The underlying assumption is that stress induced autonomic arousal play a key role on the development of psychosomatic diseases. Surveys conducted by Kansas State University reveal a 58% increase in stress-related mental health issues reported to campus counsellors between 1988 and 2001. These increased stress loads come with some dire consequences. Suicide rates amongst college-aged students are three times higher than they were in 1950, as described by American College Health Association statistics published in Psychology Today (Retrieved on March 10, 2017).

#### **(e) Effect of Stress on Immunal Function**

The apparent link between stress and many types of illness raise the possibility that stress may undermine immunal functioning. The immune response is the body's defensive reaction to invasion by bacteria, viral agents or other foreign substances. The immune response works to protect the body from many forms of diseases. Immunal reactions are multifaceted but they depend heavily on actions initiated by specialized white blood cells called lymphocytes. Stressors such as crowding, shock, restraint reduce various aspects of lymphocyte reactivity in laboratory animals. Studies by Junice and her colleagues (2004), have also related stress to suppressed immunal activity in humans.

#### ***iv. Levels of Academic Stress***

Stress is a natural response and can be a good thing. But with too much or the wrong kind, our body can go into a tailspin. Take a better care of yourself by understanding how stress works. Stress is automatic reaction that happens in our body when there is a perceived

threat. The release of chemicals (such as the hormone, adrenaline) sharpens your senses, focuses attention, quicken breathing, dilates blood vessels, increases heart rate and tenses your muscles. This is the “fight or flight responses that prepare us to act quickly to tackle or avoid danger. And that’s a good thing. On the flip side, it’s not as helpful for most day-to-day stress of modern life, as such as never ending deadlines, nagging traffic jams, financial worries or seemingly endless family responsibilities. While certain amount of the optimum kind of stress can be positive force that provides challenge, change and stimulation, excessive, negative or low level stress that extends over a long period of time can have a detrimental impact on your physical and mental health, relationship and general wellbeing of life. From the foregoing, it could be deduced that stress can be of three different levels:

-Over-Stress is a state of arousal which tends to produce disorganized and ineffective behaviour particularly if the tasks students undertake are complex.

-Moderate Stress Level: when individuals are moderately aroused they behave with optimal effectiveness.

-Under Arousal: When individuals are under aroused they lack stimulation to behave effectively.

#### ***v. Academic Stress and their Coping Strategies***

Stress does not affect all people equally, but stress can lead to illness and negative experiences. Coping with stress is therefore an important factor, it affects whether and how people search for medical care and social support and how they believe the advice of the professionals (Passer & Smith 2007). For a psychologist, coping is the process by which a person takes some action to manage, master, tolerate or reduce environmental and internal demands that cause or might cause stress and what will tax the individuals’ inner resources. Coping strategies are the techniques people use to deal with stress. There are various coping strategies used by students when experiencing academic stress. Some resort to avoidant

coping; alcohol/drug abuse, denial and behavioral disengagement; while others cope actively through acceptance, planning, and positive reframing and taking the necessary steps to overcome the academic stress (Sreeramareddy., 2007).

Effective coping requires that people have variety of strategies and make appropriate choices about when to use them. No single strategy is bad or good, but some strategies tend to be more effective than others. For example, some coping strategies involve actively dealing with the stressors, whereas others strategies are more passive. Passive coping strategies include refusing to accept the reality of the problem, trying to ignore the problem, avoiding the situation, engaging in distracting activities, or sleeping more than usual. These approaches sound ineffective and even potentially dangerous, but under some circumstance they can work. For example avoiding unpleasant person may be an effective way to cope with the person. However, this coping strategy is effective in a limited number of situations and will be disastrous in others. For examples, avoiding a person with whom one must work is not an effective way to deal with a difficult colleague. Also, failing to accept the possibility that one is ill and avoiding medical care can be fatal. Psychologists usually view active coping strategies as more effective than passive ones. But some types of active coping are not necessarily the best choices. For example, using drugs or alcohol requires actives effort, but this activity is not oriented toward solving the problem. Thus, this type of active coping is not a good strategy.

#### **(a) Emotion-focused Coping**

When you have a problem (or just a bad day), is your first thought to talk to a friend or partner to help you ease those feelings of stress? If so, you are using emotion-focused coping. Women tend to use the strategy of seeking social support more than men do (Renk&Creasey, 2003).But this tendency may relate to their relationship styles and the availability of support in their social networks. Seeking social support can be an adaptive

coping strategy (Taylor, 2000). In addition to seeking social support, another emotion-focused technique that can be very effective is writing about stresses and trauma. Students were asked to write about a traumatic event for 20 minutes for 3 consecutive days and compared these participants to other students who wrote about trivial events. Those students who wrote about stresses and problems experienced physical as well as psychological benefits. These promising findings prompted additional research, which confirmed the benefits of writing about emotional events. Participants enjoyed a wide variety of benefits, from better immune system functioning to better grades. Talking about problems is the basis for many psychological treatments; writing as a coping technique has a much shorter history but comparable effectiveness (Pennebaker&Graybeal, 2001). Some emotion-focused coping strategies are effective ways to deal with some stressors, especially if the coping strategy involves a positive, active approach rather than a passive one or a negative view. However, problem-focused coping is usually a better choice as a coping strategy.

### **(b) Problem-focused Coping**

Most psychologists recommend problem-focused coping for managing stress. This strategy has the goal of solving or managing the problem that is producing stress, and includes approaches for planning and resolving problems, gathering information, making decisions, and obtaining resources to deal with the problem (Folkman&Moskowitz, 2000).The active, task-oriented approach of problem-focused coping is associated with effective problem solving and decision making in many domains. People who use problem-focused coping tend to feel that they can effectively solve a problem involving a stressor; they have a high sense of self-efficacy for the stress-related task. A sense of self efficacy is important, and this is particularly true in stressful situations (Jimmieson, Terry, &Callan, 2004). People with internal locus of control tend to choose problem-focused coping. Thus, some individuals are more likely to use problem-focused coping, at least in some situations,

and these individuals tend to be effective problem solvers. Not only do problem-focused strategies tend to be more likely to solve stress-related problems, but some research indicates that people who use this strategy tend to have a more positive outlook, experience fewer symptoms of illness, and showed better immune system functioning (Stowell & Glaser, 2001). Therefore, this approach has advantages over emotion-focused coping.

### **(c) Proactive Coping**

If you know that you are going to have a challenging semester next fall, you might try to get a full-time job over the summer so that you will only need to work part-time when school starts. By doing so (whether you think of it that way or not), you are already coping with your tough fall semester. You are practicing proactive coping; you are anticipating a problem and taking action to avoid or decrease its impact. Lisa and Shelley, (2011), have described proactive coping as a five-stage process. First, we accumulate resources, mustering time, money, and social support and managing current situations. Next, we recognize that a stressful event is coming. Third, we appraise the event for its difficulty and its potential impact. Fourth, we engage in preliminary coping, to see what we can do now to prevent or minimize a threat. And last, we elicit and use feedback to assess whether we have averted a future stressor.

Using this active approach, people can avoid some stressors and modify others so that they are not so stressful. Proactive coping may be part of an overall positive approach to life that engenders resilience (Strumpfer, 2003). However, the process of proactive coping requires effort, and people have a limited amount of time and energy. Thus, they have to choose which situations to manage and which to try to avoid or to allow to develop. They also need to choose which strategies to use in those situations they do want to manage.

#### **(d) Effective Coping**

Both emotion-focused and problem-focused coping can be successful, and both can fail. Proactive coping can prevent or decrease stress but it requires time and effort. Therefore, selecting the appropriate strategy is critically important for managing stress. Emotional confrontation is obviously a strategy that needs to be chosen with much care; inappropriate choices may be not only ineffective but also dangerous. Seeking social support or writing about a distressing experience are better choices to manage the emotions generated by stress. This difference was confirmed by a study of college students' coping (Park, Armeli, & Tennen, 2004a). These students were successful in coping with controllable stressors using problem-focused coping and with uncontrollable stressors by using emotion-focused strategies, but not the reverse. First-year medical students were healthier when they used both types of coping strategies than when they used only one (Park & Adler, 2003). However, emotion-focused strategies such as smoking and drinking to avoid problems are not adaptive for college students, but positive emotion-focused coping in the form of seeking social support is (DeBerard, Spielmans, & Julka, 2004). Some people are flexible and effective in dealing with the stressors in their lives, but others lack a repertoire of coping strategies. These people need help in learning to cope with stress. Biofeedback, relaxation techniques, and meditation can help some individuals manage the physical responses that accompany stress, and psychotherapy may also be helpful.

#### **(e) Stress Inoculation**

Stress inoculation is a techniques that can help people cope with stress by combining cognitive and behavioural approaches. Stress inoculation is based on the same principle as inoculation against a disease: It introduces a low, harmless level of stress and provides people with practice in using coping skills so that when threatening stress comes along, they will



know how to cope — they have become immune to stressors. This process involves three stages:

1. Conceptualization: People develop an understanding of the stress process and their specific problems.
  2. Skills Acquisition and Rehearsal: People learn relaxation and imagery techniques that are incompatible with stress and anxiety; they learn how to reinterpret stressors and regulate their feelings.
  3. Follow-through: People apply their acquired coping skills to problems in a natural context; that is, they practice the techniques they have learned in the second stage.
- Stress inoculation training provides a number of specific coping techniques, giving people a variety of strategies to manage stress. It can help people who have not devised effective strategies on their own. In addition to having a variety of strategies to manage stress, people are better equipped to deal with the inevitable stressors of life if they lead a healthy lifestyle.

### **Different Strategies of Stress Management**



**Saritaand Sonia, (2015)**

Stress management is a large family of techniques ranging from methods to reduce the occurrence of stress to techniques which can be used by people who feel overwhelmed by stress. Stress management refers to a wide spectrum of techniques and psychotherapies aimed at controlling a person's level of stress for the purpose of everyday living. It is the ability to reduce stress around or cope in a competent manner with stressors. Yoga, humour and reading are simple effective methods to help reduce academic stress among adolescents (Rizzolo, 2009).

*vi. Academic Stress and Gender*

Gender differences influence students' perception and reaction to academic stressors. Suleiman, Hassan, Sopian and Abdullah (2009), studied that males and female students experience different level of stress and an explanation may be because females are more likely to be emotional than males in reaction to their environment. For example, female students more often report letting out their feelings, whereas men more often report controlling their emotions, accepting the problem, not thinking about the situation, and engaging in problem-solving. Men and women report different reactions to stress, both physically and mentally. They attempt to manage stress in very different ways and also perceive their abilities to do — and the things that stand in their way in markedly different ways (American Psychological Association, 2012).

Findings from the APA survey suggests that while women are more likely to report physical symptoms associated with stress, they are doing a better job connecting with others in their lives and, at times these connections are important to their stress management strategies. In fact, according to the APA study (2006), women score consistently higher on stress than men. The study found that 51 percent of women compared to 43 percent of men reported that stress had an impact on their lives. Other research confirms the APA's findings.

In terms of gender, a significant difference was found between boys and girls in assessment anxiety while other motivational orientations were comparable between the two groups. Girls were more anxious than boys on assessment and this finding concurred with those studies carried out elsewhere (Ergene, 2011). Academic stress among College students has become a topic of interest in many countries of the world. For example, Seven out of ten students in Swedish higher education experienced stress several days a week during the spring. Three out of ten experienced difficulties in sleeping or skipped lunch at least once a week. One out of four of all students had a headache or stomach ache one or several times a week.

### **2.3 Concept of Motivation**

Motivation is a theoretical construct used to explain behavior and needs. It gives the reasons for peoples' actions and desires. Motivation refers to "the reasons underlying behavior" (Guay, Chantal, Ratelle, Marsh, Larose, & Boivin, 2010). Motivation is one of the factors that contribute to academic success. It is important for both parents and educators to understand why promoting and encouraging academic motivation from an early age is very important. Psychologists believe that motivation is a necessary ingredient for learning as well as academic achievement. Satisfactory school learning is unlikely to take place in absence of sufficient motivation to learn. Denhardt (2008), defined motivation as "what causes people to behave as they do". It is motivation is goal directed. Motivation outlines the achievement and pursuit of goals. Campbell and Pritchard in Emmanuel (2014) defined motivation as being the set of psychological processes that cause the initiation, direction, intensity, and persistence of behavior. Motivation is what gets one going, keeps one going, and determines where one is to go. Denhardt, and Aristigueta (2008) outlined motivation is not: directly observable, the same as satisfaction, always conscious, and directly controllable. Motivation

is an internal state that causes people to behave in a particular way to accomplish particular goals and purposes (Denhardt, 2008).

### **2.3.1 Intrinsic Motivation**

Intrinsic motivation is an inner force that motivates students to engage in academic activities, because they are interested in learning and they enjoy the learning process as well. Intrinsic motivation is widely regarded as the highest level of motivation as it is completely from within an individual (Grolnick, in Eymur & Geban 2011). Intrinsic motivation is the true drive in human nature, which drives individuals to search for and to face new challenges. Individuals with intrinsic motivation put their abilities to the test and they are eager to learn even when there are no external rewards to be won. Students with learning goals of seeking understanding for mastery of science content and skills are said to be intrinsically motivated. Weinberg and Gould (2011) noted that intrinsically motivated performers, especially youths in schools show higher levels of attention, and exhibit better and positive attitudes towards participation in physical activities. Intrinsically motivated individuals possess the following characteristics: They engage in both mental and physical activities holistically, they remain highly focused throughout these activities with clearly defined goals, they are self-critical, they self-reflect on their own actions realistically, and they are usually relaxed and not afraid to fail during learning.

Intrinsically motivated students learn independently and always choose to do challenging tasks. They persevere to complete the tasks they have undertaken. They integrate their knowledge acquired in school with their experiences gained from outside school. They often ask questions to broaden their knowledge and learn regardless of any external push factors or help from teachers, and they take pride in their work and express positive emotions during the learning process. According to Ryan & Deci, (2009), intrinsic motivation is defined as the doing of an activity for its inherent satisfaction rather than for some separable

consequence. When intrinsically motivated, a person is moved to act for the fun or challenge entailed rather than because of external products, pressures or reward. Therefore, Intrinsic motivation is most commonly defined as “doing something for its own sake,” as when a child plays baseball for no reason other than because that is what he wants to do. Weinberg and Gould (2011), noted that intrinsically motivated performers, especially youths in schools show higher levels of attention, and exhibit better and positive attitudes towards participation in physical activities.

According to the self-determination theory of Ryan and Deci, (2009), intrinsic motivation is dependent on the interaction between different individual perceptions of self, interest, amount of appropriate skills; feelings of competence and choice in the classrooms are all things that can potentially affect the intrinsic balance. Siedentop (2007), expressed that a teaching style that provides students with opportunities to make choices appear to have a positive effect on their intrinsic motivation. Also, when students believe that they have some degree of control over their learning, such as selecting some of their lab topics, overall motivation is increased. Intrinsic motivation varies according to the activity. Students show different levels of intrinsic motivation in different activities and this is attributed partly to perceived competence to the degree of self-determination that the students has for the specific activity.

In a study conducted by Black and Deci (2000), results obtained supported the idea that self-determination leads to improvements in student learning. They found that students with a high desire to enroll in the course were significantly correlated with perceived competence, interest/enjoyment of the course, low anxiety, and were more focused on learning whilst those who enrolled due to course requirements were significantly correlated with dropping out of the course. Lavigne, Vallerand, and Miquelon (2007), posited that

teachers who support self-determination in students' result in a positive impact on students learning toward science and pursuing a career in science.

Intrinsic motivation to learn involves engaging in learning opportunities because they are seen as enjoyable, interesting, or relevant to meeting one's core psychological needs. As a result, intrinsic motivation is associated with high levels of effort and task performance (Patall, Cooper, & Robinson 2008). Intrinsic motivation is defined as drive from personal needs and satisfaction and is further split into three subcategories based on the type of satisfaction experienced during the activity: intrinsic motivation to know, intrinsic motivation to accomplish, and intrinsic motivation to experience stimulation. Intrinsic motivation to know refers to motivation based on the enjoyment of learning new things. Intrinsic motivation to accomplish refers to the motive to accomplish or to create new things. Intrinsic motivation to experience stimulation refers to motivation to achieve sensory stimulation while performing an activity). Students with greater levels of intrinsic motivation demonstrate strong conceptual learning, improved memory, and high overall achievement in school. These students are more likely to experience a state of deep task immersion and peak performance (Shernoff, Abdi, Anderson, & Csikszentmihalyi. 2014).

### **2.3.2 Extrinsic Motivation**

Extrinsic motivation is a construct that pertains whenever an activity is done in order to attain some separable outcome. Extrinsic motivation thus contrasts with intrinsic motivation, which refers to doing an activity simply for the enjoyment of the activity itself, rather than its instrumental value, (Ryan & Deci, 2009). Extrinsically motivated learners' behaviours are shaped by external factors such as rewards and punishment. Unlike intrinsic motivation, extrinsic motivation drives students to engage in academic tasks for external reasons. Extrinsic motivators include parental expectations, expectations of other trusted role models, earning potential to enroll in a course later and good grades. The Self-determination

theory (SDT) proposes that extrinsic motivation can vary greatly in the degree to which it is autonomous. For example, a student who does his homework only because he fears parental sanctions for not doing it is extrinsically motivated because he is doing the work in order to attain the separable outcome of avoiding sanctions. Similarly, a student who does the work because she personally believes it is valuable for her chosen career is also extrinsically motivated because she too is doing it for its instrumental value rather than because she finds it interesting.

Motivation is said to be extrinsic in nature when the force of the motivation comes from outside the learner. For instance, a task, activity, or work the student is assigned or encouraged to undertake is associated with a result or outcome that has clear meaning and relatively immediate value to the student” (Schlechty, 2011). Generally, this means that there is some external goal that is more important to the learner than the process of reaching that goal, thus making the goal the reason for the behavior. Examples of extrinsic motivation among others include praise, reward be it tangible or intangible. Extrinsic motivation promises an external reward. Extrinsically motivated people comply to receive praise or a tangible return. Students who are extrinsically motivated learn for profit: grades, honor roll or free time.

#### **2.4 Concept of Academic Achievement**

According to Chowdhury and Pati, as cited in Awan, Noureen, and Naz, (2011), Academic achievement is defined by examination marks, teachers’ given grades and percentiles in academic subjects. Academic achievement and other dimensions of learning can be measured by a variety of yardsticks or measuring instruments, the results of which are types of scores, ranks or grades. Academic performance is a measure of success or how well a student meets standard that is set by the institution of learning. Academic achievement is how students deal with their studies and how they cope with or accomplish different tasks

given to them by their teachers. It is also the ability to study and remember facts and being able to communicate your knowledge verbally or down on paper. Garba,(2015), defined academic performance as the attainment obtained by a child from Lessons taught which may include experiences, knowledge, skills and the like. He explained that the child's good or poor performance does not depend on any attributes that the child is born with, but he has complex responses to his family, his home environment, his social contacts, his peers, and the overall climate of his school and assessment procedure.

Academic achievement refers to particular learning in a particular setting which is defined by examination marks, teachers' given grades and percentiles in academic subjects. School success depends upon the ability of the students to qualify such examinations. Academic Achievement is defined as that which is indicated by the total marks in subjects obtained by the pupil out of 100, in the final examinations.

Research conducted by Pentrich and De Groot as cited in Sharifi, (2006), has shown that the following factors can predict an important part of the changes in academic achievement of student: self-ability, intrinsic value, test anxiety, or self-regulated learning strategies. Studies suggest that academic achievement are influenced by the interaction between situational variables such as planning, training methods, physical and emotional condition of the school environment, the learners' condition and attitudes toward education issues and achievement motivation (Sharifi, 2006).

## **2.5 Relationship among the Variables**

### **2.5.1 Academic Stress and Intrinsic Motivation**

Stress and motivation is an interesting subject. Stress can actually act as a serious motivator in changing one's behavior. In fact, change cannot occur without first a stressor being applied. Craigmitchell, (2008),opined that there is a relationship between stress and motivation and agreed that they are in fact two sides of the same coin. In his opinion, He



submitted that the link between stress and motivation is presented to conclude that not all stress is bad. Moreover, if the effects of stress are known prior and the levels are controlled to an optimum, it is possible to produce high levels of intrinsic motivation. Thus proving that stress and motivation are closely linked and in fact two sides of the same coin. A Student who is under stress display several differences compared with those who are not stressed. Increasing intrinsic motivation may occur through interventions against stress and depression. Moreover, appropriate stress management may help students to become more motivated.

Research studies have shown that motivation not only influences the effectiveness of learning, but that being intrinsically motivated is also associated with better well-being and an increased amount of satisfaction (Ryan&Deci, 2009). If extrinsic and intrinsic motivation correlate with positive psychological states, it therefore indicate that a lack of motivation, will lead to more negative states as being stressed. A person's intrinsic motivation to do or accomplish anything changes over time. Motivation tends to wane as initial excitement dissipates. Discouragement and setbacks can chip away at otherwise high levels of intrinsic motivation, leaving a person feeling defenseless against life's stressors. Academic stress can be either external (coming from the environment) or internal (coming from personal anxiety). Cowden (2009) observed, students with highAnxiety often show low confidence on their ability to cope with academic situations because they do not havethe skills to cope, thus, they do not have control or are losing control of what they are doing. On the other hand,a moderate level of anxiety is in fact good as it helps motivate learning. Positive stress plays a role in motivation, adaptation, and reaction to the environment. Excessive amounts of stress, however, may hinder performance and decrease motivation.McKinney (2011) suggested teachers should create a conducive learning environment that is challenging,stimulating and relevant to boost students' interest and motivation, for instance, promoting cohesiveness amongststudents using small group cooperative learning strategies. This is a powerful

pedagogical tool that enhances students' self-efficacy. Teachers should explore and use this strategy to make students more determined and efficacious to learn, instead of using the teacher-centered expository approach that is so prevalent among teachers. Teachers should also attempt to link concepts to students' experiences, so that they can realize the relevance of what they learn to their everyday lives, thus making learning more meaningful and relevant.

## **2.5.2 Academic Stress and Extrinsic Motivation**

Motivation is used as an important therapeutic tool to change ill behavior. Jana (2012), in her study found out that people who are extrinsically motivated have less problem of stress and their performance is high but without motivation, high level of stress was noticed and students performance drops. Extrinsic motivation is correlated with positive psychological states, a lack of motivation will lead to more negative states as being stressed. Research into student expectations indicate that students are overly optimistic at the beginning of semester regarding their final year grades. Guillaume and Khackikan, (2011), suggested that students' expectations on achieving high grades do not necessarily correlate with their performance. Hence being overly optimistic with regards to grade expectations can be detrimental as students may become discouraged or even drop out, if after setting their goal too high, their actual grades fall below their expectations.

Jangho(2012), stated that several inferences may be drawn from path analysis model, first, academic stress, motivation and grades form a feedback loop. Therefore, if one of the three factors deteriorates, the other two factors may be stabilized as a protective psychological mechanism. For example, a decrease in grades will cause an increase in stress, which in turn may cause motivation to increase. This in turn, would cause grades to increase, thereby correcting the initial decrease in grades. In real life situations, the response to each step would certainly be influenced modified by other factors and this protective mechanism

may not function easily. From a practical viewpoint, however, results imply that actions that promote motivation may greatly benefit from interventions against stress or depression. Moreover, appropriate stress management may increase motivation. On the whole, Jangho (2012), noted that academic stress may be influenced by an interaction among motivation, school grades, depression and personality.

### **2.5.3 Academic Stress and Academic Achievement**

Among college students, a strong relationship is found between stressful life events and reduced academic performance as well as there is a link between health related quality of life and stress. A publication on stress by the University of New York [Retrieved March 14, 2016] buttresses the notion that, extreme levels of stress can hinder studies effectiveness and lead to poor academic performance and attrition. It goes on to affirm that, students who experienced stressful life events also reported worse health outcomes and reduced quality of life. Many studies have addressed this issue and it was found that many psychological problems, such as depression, anxiety, and stress have an impact on the student academic achievement.

Most study found that Students with more stressed behaviour show average or poor results in academic achievement. Though most of the research findings support the negative relationship between stress and academic achievement, few researchers conclude against them. Gelow, Brown, Dowling, and Torres,(2009), stated that a state of emotional stress was reported to have a significant positive relationship with reported school performance. Teachers often emphasize the acquisition of knowledge, so they often neglect the emotional feelings of students during the teaching process, which can cause emotional stress and learning problems for students.

In addition, students may feel unfamiliar situations like nervousness, worry, frustration, abasement, depression, and etcetera. The instability of these emotions easily initiates unusual behaviour, which then affects the learning achievements and adjustment ability of students if appropriate timely counseling is not given by the schools, teachers and parents. When students perceive high levels of stress this often leads to the fact that they become overwhelmed with handling different tasks and responsibilities in their study. Research studies show that especially higher school students have to handle the possible negative effects of stress concerning their academic achievements (Elias, Ping,& Abdullah, 2011). Frequently, stress takes its toll on the ability to perform effectively on a task at hand. Stress is a common problem to male and female students in schools and the way it is managed may reflect in their academic performance.

#### **2.5.4 Intrinsic Motivation and Academic Achievement**

Intrinsic Motivation refers to motivation that is driven by an interest or enjoyment in the task itself, and exists within the individual rather than relying on external pressure. Research has found that it is usually associated with high educational achievement. There is a significant correlation between academic achievement and Intrinsic Motivation (Sikwari 2014). Intrinsic Motivation is a strong force in academic achievement. Moula (2010) observes that motivation is one of the factors that contribute to academic success; that parents and educators should strive to understand the importance of promoting and encouraging academic motivation early in life. Highly motivated students performed better academically than lowly motivated students. Intrinsically motivated students keenly engage themselves in learning out of oddity, interest, or enjoyment, or in order to achieve their own scholarly and personal goals. Thus students with intrinsic motivation are more enthusiastic, self-driven, challenging and feel pleasure in their studies and students with extrinsic motivation try to drag themselves

with academic assignments, feel compelled to learn, and always put minimal efforts to achieve maximum appreciations. Intrinsically motivated, students tend to utilize strategies that require more effort and that allow them to process information more intensely. When students were confronted with multifarious intellectual tasks, those with an intrinsic direction used more logical information-gathering and decision-making strategies than did students who were extrinsically motivated. Students with an intrinsic orientation also tend to prefer tasks that are fairly challenging, whereas extrinsically oriented students incline toward tasks that are low in degree of difficulty. It has been identified that students who are intrinsically motivated stay in school than those who are not intrinsically motivated. Zimmerman cited in Schunk, (2011), in a study realized that a student's scholastic achievement could be predicted with 93% accuracy based of the student's measured self-regulation. Self-regulated learning and motivation.

### **2.5.5 Extrinsic Motivation and Academic Achievement**

Extrinsic Motivation refers to the performance of an activity in order to attain a desired outcome. Common Extrinsic motivations are rewards like money and grades, coercion and threat of punishment. Moula (2010) stated that motivation is one of the factors that contribute to academic success. Extrinsic motivation typically produces immediate results and requires less effort in comparison to intrinsic motivation (Ryan & Deci, 2009). Extrinsically motivated students tend to focus on earning higher grades and obtaining rewards. Researchers characterize these students as exerting minimal effort. They often have low self-esteem, anxiety, and stress over their learning. One could argue that extrinsic motivation does result in achieving high goals. However, when the reward is no longer present, these students cease to perform. According to Steward, Bachman, and Johnson (2010), motivational orientations act as a driving force that encourages a person to engage in a task. Motivational orientations consist of several constructs and among these are intrinsic

motivation, extrinsic motivation, personal relevance, self-efficacy, self-determination, and assessment anxiety.

## **2.6 Theoretical Frame Work**

The following are the theories reviewed for the purpose of this study:

### **2.6.1 Lazarus and Folkman Cognitive Appraisal Theory of Stress**

Lazarus and Folkman (1984) proposed a model that emphasizes the transactional nature of stress. Stress is a two way process; the environment produces stress and the individual find ways to deal with these Cognitive appraisal is a mental process by which people assess two factors:

1. Whether a demand threatens their well-being.
2. Whether a person considers that they have the resources to meet the demand of the stressor.

There are two types of appraisal:

1. Primary
2. Secondary

#### **Primary appraisal**

During the primary appraisal stage a person will be seeking answers to the meaning of the situation with regard to their wellbeing. One of the three types of appraisals could be made:

1. It is irrelevant
2. It is good (being positive)
3. It is stressful

Further appraisal is made with regard to three implications:

1. Harm-loss
2. Threat
3. Challenge

Harm-loss: Refers to the amount of damage that has already occurred. There may have been an injury. The seriousness of this injury could be exaggerated producing a lot of stress.

Threat: Is the expectation of future harm, for examples the fear of losing one's job and income. Much stress depends on appraisals that involve harm-loss and threat.

Challenge: Is the way of reviewing the stress in a positive way. The stress of a higher level job could be seen as an opportunity to expand skills, demonstrate ability and make more money. The stress transaction can be vicarious. Empathizing with others who are in stress. An example of vicarious stress is a study which involved showing a college student subjects a film, called "Sub-incision" The boys in a primitive society in which the under-side of the penis is cut deeply from the tip to the scrotum using a sharp stone. The subjects were divided into four groups. One group saw the film with no sound. Another group heard a sound track with a "trauma" narrative emphasizing the pain, danger and primitiveness of the operation. A third group heard a "denial" narration that denied the pain and potential harm to the boys, describing them as within participants in a joyful occasion who look forward to the happy conclusion of the ceremony. Psychological and self-report measures of stress were taken. The psychological measure was of the heart rate during the viewing of the film. The self-report measures were questionnaires that evaluate feelings of stress immediately after the film was shown. Those who heard the trauma narration reacted with more stress than the control group(no sound); those who heard the denial than the control group.

### **Secondary Appraisal**

Secondary appraisals occur at the same time as primary appraisals. A secondary appraisal can actually cause a primary appraisal. Secondary appraisals include feelings of not being able to deal with problem such as:

. I can't do it — I know I will fail

- . I will try, but my chances are slim
- . I can do it if I get help
- . If this method fails I can try a few others
- . I can do it if I work hard
- . No problem, I can do it

Stress can occur without appraisal such as when your car is involved in an accident and you haven't had time to think in an accident and you haven't had time to think about what has happened. Accidents can often cause a person to be in shock. It is difficult for people to make appraisals whilst in shock as their cognitive functioning is impaired. Events are stressful depending on two types of factors:

1. Those that relate to the person.
2. Those that relate to the situation.

Personal factors include intellectual, motivational and personality characteristics. People who have high self-esteem likely believe they have the resources to meet demands. Stressful events are seen as challenges rather than as threats.

### **2.6.2 Self-determination Theory (SDT)**

Self-determination theory (SDT) is one of the theories developed for understanding individuals' motivation. It was developed by Deci and Ryan in 1985. According to Eymur and Geban (2011), SDT suggests that the impetus of motivated behaviour is having the experience of choice (autonomy) and emotion of efficacy inactions (competence), and the value attached to important others in the individual's environment (relatedness). These authors further point out that the most differentiating characteristic of SDT from other motivation theories is that it suggests motivation as a multidimensional concept that not only varies in level, but also kind. Deci and Ryan, as cited in Eymur and Geban (2011), proposed that there are three main types of motivation, namely intrinsic motivation, extrinsic



motivation and amotivation. Intrinsic motivation refers to being engaged in an activity for itself and for the pleasure and satisfaction derived from participation (Deci, as cited in Eymur & Geban 2011).

Intrinsic motivation is widely regarded as the highest level of motivation as it is completely from within an individual. Recently, Vallerand and Ratelle, (2002) reviewed, proposed three part taxonomy of intrinsic motivation. The first type, Knowledge, is the motivation for doing an activity for the feelings associated with exploring new ideas and developing knowledge. The second type, Accomplishment, refers to the sensations related to attempting to master a task or achieve a goal. The third type, Stimulation, refers to motivation based simply upon the sensation stimulated by performing the task, such as aesthetic appreciation or fun and excitement. In the theory, extrinsic motivation is a construct that pertains whenever an activity is done only to attain a specific outcome (Ryan & Deci, 2000a).

The least self-determined form of extrinsic motivation is External Regulation. Such behaviors are performed to satisfy an external demand or obtain an externally imposed contingency. A second type of extrinsic motivation is Introjected Regulation; such behaviors are performed when there is a feeling of pressure to avoid guilt or anxiety or to attain ego enhancement or pride. A more autonomous or self-determined form of extrinsic motivation is regulation through identification. Here the individual has identified with the personal importance of a behavior and has thus accepted its regulation as his own. Finally, the most autonomous form of extrinsic motivation is Integrated Regulation, which occurs when identified regulations have been fully assimilated to the self (Ryan and Deci, 2000a). In their theory, Ryan and Deci (2000a, 2000b) suggested a third motivational orientation, termed Amotivation, which is the state of lacking an intention to act. With Amotivation, a person's behavior lacks intentionality and sense of personal causation.

### **2.6.3 Achievement Motivation Theory**

The achievement theory is associated with the works of McClelland (1958). Achievement Motivation Theory attempts to explain and predict behavior and performance based on a person's need for achievement, power, and affiliation" (Lussier&Achua, 2007). The Achievement Motivation Theory is also referred to as the Acquired Needs Theory or the Learned Needs Theory. Daft (2008) defined the Acquired Needs Theory as "McClelland's theory that proposes that certain types of needs (achievement, affiliation, power) are acquired during an individual's lifetime", The achievement Motivation Theory evolved from work McClelland in the 1940s. In 1958 McClelland 'described human motives in the Methods of Measuring Human Motivation. At that point, McClelland identified human motives related to the achievement motive, the affiliation motive, the sexual motive, and the power motive. In his later work, *The Achieving Society* (McClelland, 1961).however, McClelland focused his attention on only need for Achievement, the need for Affiliation, and the need for Power. In essence, McClelland's theory postulates that people are motivated in varying degrees by their need for Achievement need for Power, and need for Affiliation and that these needs are acquired, or learned, during an individual's lifetime (Daft, 2008). In other words, most people possess and will exhibit a combination of three needs.

#### **i. Need for Achievement**

McClelland, Atkinson, Clark, and Lowell (2010) defined the need for Achievement (n Achievement) as "success in competition with some standard of excellence. That is, the goal of some individual in the story is to be successful in terms of competition with some standard of excellence. The individual may fail to achieve this goal, but the concern over competition with a standard of excellence still enables one to identify the goal sought as an achievement goal. This, then, is our generic definition of n Achievement". Competition with a standard of excellence was most notable when an individual was in direct competition with someone else

but that it can also be evident in the concern for how well one individual performs a task, regardless of how someone else is doing. According to Lussier and Achua (2007), “the need for achievement is the unconscious concern for excellence in accomplishments through individual efforts”. Similarly, Daft (2008) stated the need for Achievement is “the desire to accomplish something difficult, attain a high standard of success, master complex tasks, and surpass others”. Individuals who exhibit the need for Achievement seek to accomplish realistic but challenging goals.

### **ii. Need for Power**

Lussier and Achua (2007), defined the need for Power as a “concern ‘with the control of the means of influencing a person’. And the need for Power as “the unconscious concern for influencing others and seeking positions of authority”. Similarly, Daft (2008) defined the need for Power as “the desire to influence or control others, be responsible for others, and have authority over others”. Individuals who exhibit the need for Power have a desire to be influential and want to make an impact.

### **iii. Need for Affiliation**

When defining the need for Affiliation, “Affiliation establishing, maintaining, or restoring a positive affective relationship with another person. This relationship is most adequately described by the word friendship”. Therefore, “the need for affiliation is the unconscious concern for developing, maintaining, and restoring close personal relationships” (Lussier and Achua, 2007). Daft (2008) defined the need for Affiliation as “the desire to form close personal relationships, avoid conflict, and establish warm friendships” individuals who exhibit the need for Affiliation are seeking interactions with other people. The McClelland theory of achievement motivation is relevant to one of the major variable of the research, specifically the need for achievement for an individual to excel academically.

## 2.7 Empirical Studies

A good number of related studies have been reviewed in this study as follows:

Marwan, (2013). Conducted a study titled 'Academic stress among undergraduate students' the case of education faculty at King Saud University. This study investigated the academic stressors experienced by the students at university. A total sample of 232 subjects participated in this study were obtained from faculty of education at KSU. Data were collected through self-administered questionnaire which was randomly distributed to the students during lecture time. Data obtained were analyzed using descriptive statistics, correlation, and analysis of variance (ANOVA).

The result showed that academic overloads, course awkward, inadequate time to study, workload every semester, exams awkward, low motivation, and high family expectations were drive moderately stress among students. It was also found that fear of failure is the major source of stress among undergraduate students. Moreover, the study found that there were positive correlation between religiosity sources and academic stress ( $r = .300^{**}$ ,  $p = .00$ ). Lastly, the study found that there were no significant differences in academic stress among students with different, level of study and specializations.

Deb, Esben and Jiandong, (2012), examined the prevalence of academic stress and exam anxiety among private secondary school students in India as well as the associations with socio-economic and study-related factors. Participants were 400 adolescent students (52 percent male) from five private secondary schools in Kolkata who were studying in grades 10 and 12. Participants were selected using a multi-stage sampling technique and were assessed using a study-specific questionnaire. Findings revealed that 35 and 37 percent reported high or very high levels of academic stress and exam anxiety respectively. All students reported high levels of academic stress, but those who had lower grades reported higher levels of stress than those with higher grades. Students who engaged in extra-curricular activities were

more likely to report exam anxiety than those who did not engage in extra-curricular activities.

Laura, (2012), investigated the impact of stress factors on college students' academic performance sampled out twenty five college students to participate in the study. The students were asked to complete a survey, including the perceived stress scale. The students were also asked to fill a demographic data sheet that asked questions such as age and gender and also their classes and grades in their prior semester. A correlation was run on the score from the perceived stress scale and students GPA. The result showed that the stress the surveyed students were under was not significantly correlated with the students GPA,  $r = -.03$ ,  $P = .885$ . The qualitative data was "eyeballed" to see in what students ranked their stress factors. Not getting enough sleep ranked number 1 with 12 students, followed by having problems with that the difference is statistically significant at ( $\alpha = 0.05$ ) by using MANOVA it was found that gender, college and study level are statistically significant ( $\alpha = 0.05$ ) factors in causing stress associated with physical factor while they are not significant in social or academic factors. It was found also that the income variable is statistically significant with physical and social factors. Regarding the interactions between variables, it was found that following interactions were statistically significant, gender with college for the physical factors, college with income for social factor, college with stress for academic factor. The result showed that students of PT year had more social stress than other years. Concerning the academic stress, it was found that students from educational science college and administration and Finance College have more stress than students from other university colleges. The result indicated a positive significant correlation between family income and males stress level. Also, it was found that the correlation between students' cumulative average and academic were relatively significant. While it was positively significant with social and physical stress. The result indicated that the three factors (physical social and academic) were explained (0.47) of the

university students stress. The result also indicated that the dependent variable (gender, college, income and study level) explain (0.417, 0.4 17 and 0.446) of the variance of physical social and academic stress respectively. The study concluded that university students experienced a moderate social, academic and physical stress level.

Akande, Olowonirejuaro, and Okwara-Kalu,(2014), investigated level and sources of stress among secondary school students in the Federal Capital Territory (FCT) Abuja. The study was a descriptive survey and the population comprised all senior secondary school students in the FCT. A sample of 18 secondary schools out of the 59 public senior secondary schools in the FCT was involved in the study with a total of 540 respondents made up of male and female students. A questionnaire was designed by the researchers and validated through expert judgment to collect relevant data. The data collected were analyzed using percentage, statistical weighted mean and standard deviations for the research questions while t-test was used to test the hypotheses.

The results indicated that secondary school students had a medium level of stress and some of the significant sources of stress include: academic, intra-personal and environmental. There was a significant gender difference in the level of stress and also some sources of stress among secondary school students. It was recommended that the guidance and counseling unit of secondary schools should identify students with stress and provide adequate support and management strategies.

Kumari, and Gartia, (2012), investigated the relationship between stress and academic achievement of senior secondary school students. A total of 120 senior secondary school students randomly selected from six senior secondary schools of North-western Delhi participated in the study. Three null hypotheses were tested using data generated from research instruments. The instrument included Stress Inventory designed and standardized by Garba, (2015). Academic achievement was taken from the students' previous examinations.

Data generated from these instruments were correlated using Pearson product moment correlation method.

Results showed a positive correlation between stress and academic achievement. Significant difference exists in the academic achievement of students having high, moderate and less stress. Students with high and moderate stress performed better than the students having less stress. Further it was also found that stress and academic achievement are not mediated by gender.

Mayowa,(2014), study investigated the underlying intrinsic factors that motivate secondary school students to participate in Physical Education class and physical activities. Six hundred male and female students (N-600) were randomly and purposively selected from some selected secondary schools in AjeromiIfelodun local government area of Lagos State. The descriptive research design was adopted using Intrinsic Motivation Inventory (IMI) by McAulay, Duncan and Tammen (2007) to elicit opinion from respondents. The test-retest reliability value obtained for the instrument, using Pearson Product Moment Correlation Co-efficient was 0.92. Out of the six hundred questionnaire distributed only five hundred and fifty-four (N-554) were correctly filled, coded and analyzed while inferential statistics of Chi-Square ( $X^2$ ) was used to test all hypotheses at .05 alpha level.

Based on the findings of this study, the result revealed that several factors intrinsically motivates students to participating and involving in Physical Education class and physical activities which includes instructors' personality and perceived competence of the students.

Eunice, Amosa, Elizabeth, and Nathan, (2016), study the effects of computer-assisted instruction in promoting intrinsic and extrinsic motivation among 90 senior secondary one (SS1) students from three secondary schools in Minna, Niger state. Nigeria. A pre-test and post-test experimental design was used during which students were randomly assigned into either the experimental groups or the control group. The experimental group I was taught two

selected concepts of chemistry using a computer simulation instructional package (CSIP), the experimental group II was exposed to computer tutorial instructional package (CTIP) while a conventional teaching method (CTM) was used for the control group. The Chemistry Achievement Test (CAT) and Chemistry Motivation Questionnaire (CMQ) were used for data collection. Additional qualitative data was collected using classroom observations as well as interview schedules.

The outcome of this study revealed that students taught with CSIP performed better than those in CTIP and CTM groups. The CSIP and CTIP were found also to be gender friendly. Based on the findings, it was recommended that chemistry teachers should employ computer simulation for improving their students performance and motivation in the subject.

Amir. Mohammad, and Arezou, (2013), embarked on a study to determine the relationship of internal motivation and happiness with academic achievement among high school students. Using cluster random sampling 341 student were selected .Then internal motivation and happiness questionnaires administrated. To measure the academic achievement, their academic grade average was used. Collected data analyzed using Pearson correlation coefficient, stepwise regression analyses and Z test.

The results showed that there is positive and significant relationship between internal motivation and academic achievement ( $P < .01$ ). There is positive and significant relationship between happiness and academic achievement ( $P < .01$ ).The relationship of internal motivation and academic achievement as well as happiness and academic achievement among male and female students is no different. The results of regression analysis showed that only internal motivation is able to predict academic achievement.

## **2.8 Summary and uniqueness of the study**

This chapter reviewed existing research works that are related to the variables of the study. It explains the concept of Academic stress as pressure and anxiety that comes from



schooling and education. In line with the concept of academic stress, sources of academic stress, Symptoms, effect of academic stress to students and the coping strategies have been highlighted. Other issues discussed in this study include concept of intrinsic motivation, extrinsic motivation, and academic achievement. Also, relationship between academic stress and intrinsic as well as extrinsic motivation, relationship between academic stress and academic achievement, and the relationship between intrinsic and extrinsic motivation and academic achievement were equally reviewed.

The theoretical framework captured the cognitive appraisal theory of stress by Lazarus and Folkman. Hence, Students need to receive appropriate direction, nurturing, encouragement and guidance from significant adults for their successful transition into adult life. Self-determination theory gives a vivid clarification on intrinsic and extrinsic motivation as well as amotivation. McClelland's achievement motivation theory delve into the aspects of achievement needs of students. However, the empirical studies reviewed address issues such as students' vulnerability to stress as well as intrinsic and extrinsic motivational factors affecting learning and academic achievement.

This research is unique from all the empirical studies reviewed in the sense that many researches in this area focused on either the relationship between academic stress and academic achievement or academic motivation and academic achievement and other areas, whereas this research uniquely focuses on academic stress, and motivation with a view to finding out their likely relationship to students' academic achievement at FCT College of Education, Zuba. Moreover, the study purposely concentrates on NCEII students of the College because the researcher discovered that study on the above mentioned variables have not been common among college of education students.

## **CHAPTER THREE**

### **METHODOLOGY**

#### **3.1 Introduction**

This chapter presents the research design, population, sample and sampling techniques, instrumentation, validation of the instrument, reliability of the instrument, procedure for data collection and procedure for data analysis.

#### **3.2 Research Design**

Research design for this study was Correlational Design. Correlation design is appropriate for comparing and determining whether there is relationship between two or more quantifiable variables and to what degree this relationship exist, (Waters 2011). The function of Correlation was therefore to establish relationship or lack of it or to use relationship in making predictions. It allowed the researcher to determine the relationship between the two independent variables (Academic Stress and Motivation) and the dependent variable (Academic Achievement, the CGPA of the students).

#### **3.3 Population of the Study**

The population of the study was the entire NCEII students of FCT College of Education Zuba with the total number of 1,704. This consists of all male and female Students of the school. FCT College of Education has five schools and these include: School of Education, School of Art and Social Science, School of Sciences, School of Languages, and School of Vocational and Technical Education. The above population is presented on the table 3.1 below.

**Table 3.1: Population Distribution of NCEII Students of FCT COE, Zuba by School**

<b>S/N</b>	<b>School</b>	<b>Population</b>
1	Art & Social Science	436
2	Education	382
3	Science	326
4	Languages	287
5	Voc and Tech.	273
	Total	1704

**Available record in Academic Division, FCT COE Zuba, Jan. 2018**

### **3.4 Sample and Sampling Technique**

A sample size of 313 was drawn for data collection. This was justified by the recommendation from the table of Krejcie and Morgan (2010) reviewed prescription for sample selection. Cluster sampling technique was employed in the selection of sample from the various schools. The number of students to be selected per school was proportionately determined. This was because the schools differ in their population and location. It help to ensured equitable distribution of the sample among the NCEII students. Such a sample is unbiased and provides the best representative of the population. The sample of students was proportionately but randomly selected from the five (5) schools as follows: Art and Social Science-80, Education-70, Science-60, Languages-53, Voc and Tech-50.

**Table 3.2: Sample of NCEII Students of FCT COE, Zubaby School**

S/N	School	Sample size
1	Art & Social Science	80
2	Education	70
3	Science	60
4	Languages	53
5	Voc and Tech.	50
Total		313

### **3.5 Instrumentation**

Two instruments were used for data collection in this study. Academic Stress Scale (ASS) and Academic Motivation Scale (AMS), Students' CGPA was also used to measure their academic achievement.

#### **i. Academic Stress Scale (ASS)**

Academic Stress Scale (ASS) was adopted from Yumba, (2008). The scale consisted of 33 items that were divided into four categories of potential sources of stress. Among the 33 main items of the scale, seven items represent interactions with others, ten items represent (intrapersonal) internal sources, nine items represent academic sources of stress, and seven items environmental sources of stress. The researcher however modified the scale in such a way that the respondents are required to evaluate the degree of personal stressfulness of each of the 33 items on a 4-points Likert-type scale from "4-Strongly Agree, 3-Agree, 2-Disagree, 1-Strongly Disagree. Lowest possible score is 33, while highest possible score is 132. Score

ranges from 33=39 Low stressful, 40=59 moderately stressful, 60=79 highly stressful, 80=132` extremely stressful.

**ii. Academic Motivation Scale (AMS)**

The Academic Motivation Scale (AMS) was adapted from Vallerand, Pelletier, Blais, Briere, Senecal, and Vallieres, (1992). It is a 28- item scale used to look at the reasons why students are in school. However, 24 items have been carefully selected for the purpose of this study, to measure intrinsic and extrinsic motivation of NCE II students. Participants were asked to indicate to what extent each of the items on the scale corresponded to the reason they go to school using a 4 point Likert scale from “4 –Strongly Agreed” to “1 –Strongly Disagreed”. Lowest possible score is 24, while highest possible score is 96. Scores ranges from 24-48 indicate low Intrinsic and Extrinsic motivation, while scores ranging from 49-96 indicate high Intrinsic and Extrinsic motivation.

**iii. The Cumulative Grade Point Average (CGPA)**

The cumulative grade point average (CGPA) is a vital tool for measuring students’ academic achievement. It is considered valid and reliable across all Nigerian educational institutions. The researcher officially requested for students’ CGPA assuring the school management that it was going to be used for research purpose only and as such, names of students and their registration numbers was not included.

**3.5.1 Validation of the Instruments**

To establish the validity of the instruments some experts in the department of Educational Psychology and Counseling in Ahmadu Bello University were provided with copies of the adopted instruments in order for them to assess and authenticate each item. Observations and corrections made by them were effected before using the instruments. Thus, Content and face validity were employed to ensure that the instruments measure what they were meant to measure.

### **3.5.2 Pilot Study**

For the purpose of this study pilot study was carried out to ascertain the reliability of the two instruments. According to Kerlinger (2000), the use of pilot testing is the best way to validate an instrument before data collection. Therefore a sample of 30 NCEII students from School of Art and Social Sciences, in Federal College of Education, Zaria, which is entirely outside FCT College of Education Zuba, but shared similar characteristics, were used for the pilot test. Questionnaire was distributed to the students and 40 minutes was given to them to complete it. At the end of the period, dully completed questionnaire was retrieved.

### **3.5.3 Reliability of the Instruments**

The data obtained from the pilot study were statistically analyzed. The reliability of both Academic Stress Scale and Academic Motivation Scale was obtained by the use of Cronbach Alpha using Statistical Package for Social Science version 20 (SPSSv20). The instruments are indeed reliable as both of them have an appreciable internal consistency. Academic Stress Scale has an internal consistency of 0.791 while Intrinsic and Extrinsic Motivation Questionnaire has the internal consistency of 0.905. Kerlinger, (2000) stated that an instrument is considered reliable when the calculated reliability coefficient is closer to 1.

### **3.6 Procedure for Data Collection**

The researcher obtained an introductory letter from the department of Educational Psychology and counseling, Ahmadu Bello University, Zaria to FCT College of Education, Zuba. The letter was presented to the Provost of the school in order to obtain permission to distribute the Questionnaire for the collection of data. After obtaining permission from the school authority, two research assistants were assigned by the Dean of Students' affairs to assist in administering the Questionnaire. Students were met in their classroom and 40 minutes was given to them to complete the questionnaire. At the end of the exercise, dully completed questionnaire was retrieved by the researcher and his assistants. However, out of

the 320 questionnaires administered, only a total of 311 were successfully retrieved. Cumulative Grade Point Average (CGPA) of NCE II students was also collected from the School as part of the data to measure students' academic achievement.

### **3.9 Procedure for Data Analysis**

The data for this study were subjected to statistical analysis. Frequency and simple percentage were used to present the demographic variables; mean and standard deviation was used to answer the research questions; while Pearson Product Moment Correlation was used to test hypotheses 1-5. All hypotheses were tested at 0.05 alpha level of significance. Statistical package version IBM 23 computer software was used for data calculation, analysis and storage.

## CHAPTER FOUR

### RESULTS AND DISCUSSION

#### 4.1 Introduction

This Chapter presents the result of analyzed data and summary as well as discussion of findings on relationship among Academic Stress, Motivation and Academic Achievement of NCE students of FCT College of Education, Zuba, and the respondents consisted of 311 students out of the sampled 313 representing 99.5%. The analysis was presented in sections. The first section presents the frequency and percentage distribution of the bio data variables of gender and the schools of studies of the students. The second section of the chapter answers the five research questions using the correlation statistics to determine the relationship between the variables. The third section tested the five null hypotheses with the inferential statistics of Pearson Product Moment Correlation (PPMC) statistics at 0.05 alpha level of significance. The data was analyzed with statistical package of version IBM 23.

#### 4.2 Answering Research Questions

**Question One:** What is the Relationship between Academic Stress and Intrinsic Motivation among students of FCT College of Education, Zuba?

**Table 4.2.1: Correlation statistics on the Relationship between Academic Stress and Intrinsic Motivation among students of FCT College of Education, Zuba**

<b>Variables</b>	<b>N</b>	<b>Mean</b>	<b>SD</b>
ACADEMIC STRESS	311	84.6399	22.55528
Intrinsic Motivation	311	35.1222	10.61517



According to the Correlation statistics above there is an inverse Relationship between Academic Stress and Intrinsic Motivation among students of FCT College of Education, Zuba. The level of correlation between Academic Stress and Intrinsic Motivation is at a correlation index value of -0.763. The relationship between Academic Stress and Intrinsic Motivation is inversely proportional, that is the higher the Academic Stress, the lower the Intrinsic Motivation and the lower the Academic Stress, the higher the Intrinsic Motivation among students of FCT College of Education, Zuba.

**Question Two:** What is the Relationship between Academic Stress and Extrinsic Motivation among students of FCT College of Education, Zuba?

**Table 4.2.2: Correlation statistics on the Relationship between Academic Stress and Extrinsic Motivation among students of FCT College of Education, Zuba**

<b>Variables</b>	<b>N</b>	<b>Mean</b>	<b>SD</b>
ACADEMIC STRESS	311	84.6399	22.5552
Extrinsic Motivation	311	33.9293	10.7193

According to the Correlation statistics above there is an inverse Relationship between Academic Stress and Extrinsic Motivation among students of FCT College of Education, Zuba. The level of correlation between Academic Stress and Extrinsic Motivation is at a correlation index value of -0.631. The relationship between Academic Stress and Extrinsic Motivation is inversely proportional, that is the higher the Academic Stress, the lower the Extrinsic Motivation and the lower the Academic Stress, the higher the Extrinsic Motivation among students of FCT College of Education, Zuba.

**Question Three:** What is the Relationship between Academic Stress and Academic Achievement among students of FCT College of Education, Zuba?

**Table 4.2.3: Correlation statistics on the Relationship between Academic Stress and Academic Achievement among students of FCT College of Education, Zuba**

<b>Variables</b>	<b>N</b>	<b>Mean</b>	<b>SD</b>
ACADEMIC STRESS	311	84.6399	22.5552
Academic Achievement	311	3.0172	.90334

According to the Correlation statistics above there is an inverse Relationship between Academic Stress and Academic Achievement among students of FCT College of Education, Zuba. The level of correlation between Academic Stress and Academic Achievement is at a correlation index value of -0.954. The relationship between Academic Stress and Academic Achievement is inversely proportional, that is the higher the Academic Stress, the lower the Academic Achievement and the lower the Academic Achievement, the higher the Academic Stress among students of FCT College of Education, Zuba.

**Question Four:** What is the relationship between Intrinsic Motivation and Academic Achievement among students of FCT College of Education, Zuba?

**Table 4.2.4: Correlation statistics on the Relationship between Intrinsic Motivation and Academic Achievement among students of FCT College of Education, Zuba.**

<b>Variables</b>	<b>N</b>	<b>Mean</b>	<b>SD</b>
Academic Achievement	311	3.0138	.9037
Intrinsic Motivation	311	29.5897	9.4459

The Correlation statistics above, revealed an inverse Relationship between Intrinsic Motivation and Academic Achievement among students of FCT College of Education, Zuba. The level of correlation between Intrinsic Motivation and Academic Achievement is at a correlation index value of 0.945. The relationship between Intrinsic Motivation and Academic Achievement is directly proportional, that is the higher the Intrinsic Motivation, the higher their Academic Achievement and the lower the Intrinsic Motivation, the lower the Academic Achievement among students of FCT College of Education, Zuba.

**Question Five:** What is the Relationship between Extrinsic Motivation and Academic Achievement among students of FCT College of Education, Zuba?

**Table 4.2.5: Correlation statistics on the Relationship between Extrinsic Motivation and Academic Achievement among students of FCT College of Education, Zuba**

<b>Variables</b>	<b>N</b>	<b>Mean</b>	<b>SD</b>
Academic Achievement	311	3.0138	.9037
Extrinsic Motivation	311	32.8931	9.87843

The Correlation statistics above, revealed an inverse Relationship between Academic Achievement and Extrinsic Motivation among students of FCT College of Education, Zuba. The level of correlation between Extrinsic Motivation and Academic Achievement is at a correlation index value of 0.996. The relationship between Extrinsic Motivation and Academic Achievement is directly proportional, that is the higher the Academic Achievement, the higher their Extrinsic Motivation and the lower the Extrinsic Motivation, the lower the Academic Achievement among students of FCT College of Education, Zuba.

### 4.3 Hypotheses Testing

**Hypothesis One:** There is no significant Relationship between Academic Stress and Intrinsic Motivation among students of FCT College of Education, Zuba.

**Table 4.3.1: Pearson Product Moment Correlation (PPMC) statistics on the Relationship between Academic Stress and Intrinsic Motivation among students of FCT College of Education, Zuba**

Variables	N	Mean	SD	Df	r	p
ACADEMIC STRESS	311	84.6399	22.55528			
				309	-0.763**	0.001
Intrinsic Motivation	311	35.1222	10.61517			

**\*\*.** *Correlation is significant at the 0.05 level (2-tailed). Critical  $r = 0.113$ ,  $p = 0.001$*

Outcome of the Pearson Product Moment Correlation (PPMC) statistics revealed that significant Relationship exist between Academic Stress and Intrinsic Motivation among students of FCT College of Education, Zuba. Reasons being that the calculated p value of 0.001 is lower than the 0.05 alpha level of significance. The computed correlation index value of 0.763 is significant at 0.001 level of confidence. Academic Stress and Intrinsic Motivation is inversely proportional, that is the higher the Academic Stress, the lower the Intrinsic Motivation and vice versa. Therefore the null hypothesis which state that there is no significant relationship between Academic Stress and Intrinsic Motivation among students of FCT College of Education, Zuba, is hereby rejected.

**Hypothesis Two:** There is no significant Relationship between Academic Stress and Extrinsic Motivation among students of FCT College of Education, Zuba.

**Table 4.3.2: Pearson Product Moment Correlation (PPMC) statistics on the Relationship between Academic Stress and Extrinsic Motivation among students of FCT College of Education, Zuba**

Variables	N	Mean	SD	Df	r	p
ACADEMIC STRESS	311	84.6399	22.5552			
				309	-0.631**	0.002
Extrinsic Motivation	311	33.9293	10.7193			

**\*\*.** *Correlation is significant at the 0.05 level (2-tailed). Critical  $r = 0.113$ ,  $p = 0.002$*

Outcome of the Pearson Product Moment Correlation (PPMC) statistics revealed that significant Relationship exist between Academic Stress and Extrinsic Motivation among students of FCT College of Education, Zuba. Reasons being that the calculated p value of 0.002 is lower than the 0.05 alpha level of significance. The computed correlation index value of 0.631 is significant at 0.002 level of confidence. The relationship between Academic Stress and Extrinsic Motivation is inversely proportional, that is the higher the Academic Stress, the lower the Intrinsic Motivation and vice versa. Therefore the null hypothesis which state that there is no significant relationship between Academic Stress and Extrinsic Motivation among students of FCT College of Education, Zuba, is hereby rejected.

**Hypothesis Three:** There is no significant Relationship between Academic Stress and Academic Achievement among students of FCT College of Education, Zuba.

**Table 4.3.3: Pearson Product Moment Correlation (PPMC) statistics on the Relationship between Academic Stress and Academic Achievement among students of FCT College of Education, Zuba**

Variables	N	Mean	SD	Df	r	p
ACADEMIC STRESS	311	84.6399	22.5552			
				309	-0.954**	0.000
Academic Achievement	311	3.0172	.90334			

**\*\*.** *Correlation is significant at the 0.05 level (2-tailed). Critical  $r = 0.113$ ,  $p = 0.000$*

Outcome of the Pearson Product Moment Correlation (PPMC) statistics revealed that significant Relationship exist between Academic Stress and Academic Achievement among students of FCT College of Education, Zuba. Reasons being that the calculated p value of 0.000 is lower than the 0.05 alpha level of significance. The computed correlation index value of 0.954 is significant at 0.000 level of confidence. The relationship between Academic Stress and Academic Achievement is inversely proportional, that is the higher the Academic Stress, the lower the Academic Achievement and vice versa. Therefore the null hypothesis which state that there is no significant relationship between Academic Stress and Academic Achievement among students of FCT College of Education, Zuba, is hereby rejected.

**Hypothesis Four:** There is no significant Relationship between Intrinsic Motivation and Academic Achievement amongst students of FCT College of Education, Zuba.

**Table 4.3.4: Pearson Product Moment Correlation (PPMC) statistics on the Relationship between Intrinsic Motivation and Academic Achievement among students of FCT College of Education, Zuba**

Variables	N	Mean	SD	Df	r	p
Academic Achievement	311	3.0138	.9037			
				309	0.945**	0.011
Intrinsic Motivation	311	29.5897	9.4459			

**\*\*.** Correlation is significant at the 0.05 level (2-tailed). Critical  $r = 0.113$ ,  $p = 0.011$

Outcome of the Pearson Product Moment Correlation (PPMC) statistics revealed that significant Relationship exist between Intrinsic Motivation and Academic Achievement among students of FCT College of Education, Zuba. Reasons being that the calculated p value of 0.011 is lower than the 0.05 alpha level of significance. The computed correlation index value of 0.945 is significant at 0.011 level of confidence.. The relationship between Intrinsic Motivation and Academic Achievement is directly proportional, that is the higher the Intrinsic Motivation, the higher the Academic Achievement and vice versa. Therefore the null hypothesis which state that there is no significant relationship between Intrinsic Motivation Academic Achievement among students of FCT College of Education, Zuba, is hereby rejected.



**Hypothesis Five:** There is no significant Relationship between Extrinsic Motivation and Academic Achievement amongst students of FCT College of Education, Zuba.

**Table 4.3.5: Pearson Product Moment Correlation (PPMC) statistics on the Relationship between Extrinsic Motivation and Academic Achievement among students of FCT College of Education, Zuba**

Variables	N	Mean	SD	Df	r	p
Academic Achievement	311	3.0138	.9037			
				309	0.996**	0.000
Extrinsic Motivation	311	32.8931	9.87843			

**\*\*.** Correlation is significant at the 0.05 level (2-tailed). Critical  $r = 0.113$ ,  $p = 0.000$

Outcome of the Pearson Product Moment Correlation (PPMC) statistics revealed that significant Relationship exist between Extrinsic Motivation and Academic Achievement among students of FCT College of Education, Zuba. Reasons being that the calculated p value of 0.000 is lower than the 0.05 alpha level of significance. The computed correlation index value of 0.996 is significant at 0.000 level of confidence. The relationship between Extrinsic Motivation and Academic Achievement is directly proportional, that is the higher the Extrinsic Motivation, the higher the Academic Achievement and vice versa. Therefore the null hypothesis which state that there is no significant relationship between Extrinsic Motivation and Academic Achievement among students of FCT College of Education, Zuba is hereby rejected.

#### 4.4 Summary of Findings

The following are summary of the findings from the study..

1. Significant Relationship existed between Academic Stress and Intrinsic Motivation among students of FCT College of Education, Zuba at a computed correlation index value of  $-0.763$ ,  $P=0.001$ . The relationship between Academic Stress and Intrinsic Motivation was inversely proportional, that is the higher the Academic Stress, the lower the Intrinsic Motivation and vice versa. .
2. Significant Relationship existed between Academic Stress and Extrinsic Motivation among students of FCT College of Education, Zuba, at a computed absolute correlation index value of  $-0.631$ ,  $P = 0.002$ . The relationship between Academic Stress and Extrinsic Motivation was inversely proportional, that is the higher the Academic Stress, the lower the Intrinsic Motivation and vice versa.
3. Significant Relationship existed between Academic Stress and Academic Achievement among students of FCT College of Education, Zuba, at a computed correlation index value of  $-0.954$ ,  $P =0.000$ . The relationship between Academic Stress and Academic Achievement is inversely proportional, that is the higher the Academic Stress, the lower the Academic Achievement and vice versa.
4. Significant Relationship existed between Intrinsic Motivation and Academic Achievement among students of FCT College of Education, Zuba at a computed absolute correlation index value of  $0.945$ ,  $P = 0.011$ . The relationship between Intrinsic Motivation and Academic Achievement is

directly proportional, that is the higher the Intrinsic Motivation, the higher the Academic Achievement and vice versa.

5. Significant Relationship exist between Extrinsic Motivation and Academic Achievement among students of FCT College of Education, Zuba, at a computed absolute correlation index value of 0.996,  $P = 0.000$ . The relationship between Extrinsic Motivation and Academic Achievement was directly proportional, that is the higher the Extrinsic Motivation, the higher the Academic Achievement and vice versa

#### **4.5 Discussions of Findings**

The outcome of the study showed that significant but negative relationship exist between academic stress and intrinsic motivation among students of FCT College of Education, Zuba at a computed correlation index value of -0.763. The relationship between Academic Stress and Intrinsic Motivation is inversely proportional, that is the higher the Academic Stress, the lower the Intrinsic Motivation and vice versa. This implies that intrinsic motivation should be created in the minds of the students driven by inward acceptance and goal oriented focus. This findings corroborates with Kumar & Jejurkar as cited in Busari (2012) who concluded in their studies that academic factors were mainly responsible for a higher level of stress among undergraduate students. Students experience stress due to many different factors including issues of time management, financial matters, interaction with lecturers, personal subjective goals, social behavior, adjustment in the academic culture lack of support system and these lower the intrinsic motivation of students

Further results of this study revealed that significant but negative relationship exist between Academic Stress and Extrinsic Motivation among students of FCT College of Education, Zuba, at a computed correlation index value of -0.631. The relationship between Academic Stress and Extrinsic Motivation is inversely proportional, that is the higher the

Academic Stress, the lower the Extrinsic Motivation and vice versa. This findings is supported by Jana (2012), in her study she found out that people who are extrinsically motivated have less problem of stress and their performance is high but without motivation, high level of stress was noticed and students' performance drops. Extrinsic motivation is correlated with positive psychological states a lack of motivation, will lead to more negative states as being stressed. Extrinsically motivated behaviours are those where the controlling mechanism is easily seen. An extrinsic orientation toward learning is characterized by a concern with external reasons for working, such as the judgment of others regarding one's performance, grades, or some anticipated reward. This form of motivation is relevant to academic achievement owing to the fact that intrinsic motivation is fast dying out due to factors such as stress among students especially in tertiary institution. Getting students to learn and sustaining their interest in what they are learning therefore should be the sole objective of teachers in the classroom.

In the same vein, the study established that significant but negative Relationship exist between Academic Stress and Academic Achievement among students of FCT College of Education, Zuba at a computed correlation index value of -0.954 The relationship between Academic Stress and Academic Achievement is inversely proportional, that is the higher the Academic Stress, the lower the Academic Achievement and vice versa. This findings supports that of Aja, (2005) and Agolla, (2009) who both sees Academic stress as a mental distress with respect to some anticipated frustration associated with academic failure or even an awareness of possibility of such failure Stressed adolescents perceived academics as burdensome. Psychologists sometimes relates academic stress to when students experience tasks beyond their capacity; this situation makes them to manifest hyper vigilance excessive alertness to a stressful situation resulting in panic for example, over studying for exam, a premature closure, quick choosing a solution to end a stressful situation. For example,

rushing through an examination. Stress symptoms have been identified as lack of energy, taking over the counter medication, high blood pressure, feeling depressed, an increase in appetite, trouble concentrating, restlessness, tensions and anxiety among others. An individual experiencing one of these factors is likely to be victim of stress. Although this may depend on how the individual appraises the situation, and how resilient is the person.

Furthermore, it was revealed that significant Relationship exist between Intrinsic Motivation and Academic Achievement among students of FCT College of Education, Zuba, at a computed absolute correlation index value of 0.945 . The relationship between Intrinsic Motivation and Academic Achievement is directly proportional, that is the higher the Intrinsic Motivation, the higher the Academic Achievement and vice versa. This findings agrees with that of Denhardt, (2008), who believe that satisfactory school learning is unlikely to take place in absence of sufficient motivation to learn. He defined motivation as “what causes people to behave as they do”. Motivation is goal directed. Motivation outlines the achievement and pursuit of goals. Also, of this view is Campbell & Pritchard in Emmanuel(2014) who defined motivation as being the set of psychological processes that cause the initiation, direction, intensity, and persistence of behavior and Denhardt, Denhardt & Aristigueta (2008) outlined motivation is not: directly observable, the same as satisfaction, always conscious, and directly controllable. Motivation is an internal state that causes people to behave in a particular way to accomplish particular goals and purposes.

This study also found out that significant Relationship exist between Extrinsic Motivation and Academic Achievement among students of FCT College of Education, Zuba, at a computed absolute correlation index value of 0.996 . The relationship between Extrinsic Motivation and Academic Achievement is directly proportional, that is the higher the Extrinsic Motivation, the higher the Academic Achievement and vice versa. This findings is corroborated by Garba, (2015), who viewed academic performance as the attainment

obtained by a child from Lessons taught which may include experiences, knowledge, skills and the like. He explained that the child's good or poor performance does not depend on any attributes that the child is born with, but he has complex responses to his family, his home environment, his social contacts, his peers, and the overall climate of his school and assessment procedure. Academic achievement is a measure of success or how well a student meets standard that is set by the institution of learning. Academic achievement is how students deal with their studies and how they cope with or accomplish different tasks given to them by their teachers. It is also the ability to study and remember facts and being able to communicate your knowledge verbally or down on paper.

## CHAPTER FIVE

### SUMMARY, CONCLUSION AND RECOMMENDATION

#### 5.1 Introduction

The study titled relationship among Academic Stress, Motivation and Academic Achievement of NCEII students of FCT College of Education Zuba, Abuja. This chapter presents the summary of the study, the conclusions deduced from the study and offer suitable recommendations.

#### 5.2 Summary of the study

This study was presented under five main chapters which this section discusses. The first chapter was the presentation of the background of the study, as well as offer introductory statements of the study. The main objective of the study was to assess the relationship among Academic Stress, Motivation and Academic Achievement of NCEII students of FCT College of Education Zuba, Abuja, Nigeria. This was structured into five specific objectives, five questions answered as well as five null hypotheses tested at 0.05 level of significance. The significance of the study especially to the students was highlighted as well as the scope of the study which is limited to NCE III students of FCT College of Education Zuba, Abuja, Nigeria responses and their Cumulative examination achievement.

The second chapter dealt with the literature review as well as some empirical study that are related to the study. In this chapter the concepts of academic stress, intrinsic and extrinsic motivations and academic achievement of students were extensively discussed. (Topper, 2007). Campbell, (2006), defined stress as the adverse reaction people have to excessive pressure or other types of demands placed on them. Stress occurs when an individual is confronted by a situation that they perceive as overwhelming and cannot cope with. Students may experience different types of stress ranging from physical, psychological, mental, perceptual, academic and psycho-spiritual.

The third chapter of this study discussed the research methodologies that were adopted or used in this study. The correlational design was adopted for this study due to the nature of the study which seek to find relationship between variables. The population of the study is the entire NCEII students of FCT College of Education Zuba. The population of the students is put at 1,704. This consists of all male and female Students of the school. FCT College of Education has five schools and these include: School of Education, School of Art and Social Science, School of Sciences, School of Languages, and School of Vocational and Technical Education. The sample of 313 was adopted from the Krejcie and Morgan 2010 reviewed. Three different types of instruments of Academic Stress Scale (ASS), Academic Motivation Scale (AMS) and The Cumulative Grade Point Average (CGPA) were used to gather data for the data analysis. Combined supervisors and other professionals assessed the face validity while the Cronbach Reliability options was used to assess the internal consistency of the instrument and the reliability coefficient of 0.791 was realized which made the instrument reliable according to Stephens and Spiegel (2010), enabling the researcher to proceed to administer the instrument to the sampled.

The fourth chapter was the presentation and discussion of results of the data analysis of the 311 students who responded to this study. The presentation was done in sections of demographic variables in frequency distribution, the research questions were answered with correlational statistics while the null hypotheses were tested with the Pearson Product Moment Correlation (PPMC) statistics. It was established that significant relationship exist between academic stress and motivation and between academic achievement and both intrinsic and extrinsic motivation.

The fifth chapter presents the summary, conclusions and recommendations. It was concluded that the higher the intrinsic motivation, the lower the academic stress and vice versa and the higher the intrinsic motivation, the lower the academic stress and vice versa.



### 5.3 Contributions to Knowledge

The study has the following contribution to knowledge

1. Negative relationship existed between Academic Stress and Intrinsic Motivation among students of FCT College of Education, Zuba at a computed correlation index value of -0.763,  $P = 0.001$ , that is the higher the Academic Stress, the lower the Intrinsic Motivation and vice versa. .
2. Negative Relationship existed between Academic Stress and Extrinsic Motivation among students of FCT College of Education, Zuba, at a computed absolute correlation index value of -0.631,  $P = 0.002$ , that is the higher the Academic Stress, the lower the Intrinsic Motivation and vice versa.
3. Negative Relationship existed between Academic Stress and Academic Achievement among students of FCT College of Education, Zuba, at a computed correlation index value of -0.954,  $P = 0.000$ , that is the higher the Academic Stress, the lower the Academic Achievement and vice versa.
4. Positive Relationship existed between Intrinsic Motivation and Academic Achievement among students of FCT College of Education, Zuba at a computed absolute correlation index value of 0.945,  $P = 0.011$ , that is the higher the Intrinsic Motivation, the higher the Academic Achievement and vice versa.
5. Positive Relationship exist between Extrinsic Motivation and Academic Achievement among students of FCT College of Education, Zuba, at a computed absolute correlation index value of 0.996,  $P = 0.000$ , that is the higher the Extrinsic Motivation, the higher the Academic Achievement and vice versa

## **5.4 Conclusion**

Based on the findings from this study, it can be concluded that significant relationship exist among the key variables under this study. That is academic stress correlatenegativelywith intrinsicmotivation;extrinsic motivation and academic achievement since the result revealed inverse relationship among academic stress, intrinsic motivation, extrinsic motivation and academic achievement of students of FCT College of Education, Zuba. Also it has been established that academic achievement is positively correlated with both intrinsic motivation and extrinsic. Since direct proportional relationship existed between intrinsic motivation andacademic achievement.Similarly, direct proportional relationship existed between extrinsic motivation andacademic achievementamong students of FCT College of Education, Zuba. Therefore, effort should be made by the college authoritiesand concern individuals to address stress in student’s academics and also to motivate students for greater academic achievement.

## **5.5 Recommendations**

The following are the recommendations of the study:

1. Lecturers as well as teachers should employ teaching styles that provides students with opportunities to make choices and have some degree of control over their learning, thiswill reduce stress and raise students’ level of intrinsic motivation for academic achievement.
- 2 School authorities/teachers should cut down unnecessary school activities and workloads on students; this will increase their self-interest and pleasure in their academic activities. Also, College administrators must develop appropriate strategies that will enable them to detect in advance the symptoms and causes of the stress.

- 3 Parents/guardian of students should give the needed parental supports and guidance so that College students will be less stressful and work toward greater academic achievement.
- 4 School counselors and psychologists should as matter of necessity organize seminar, workshop, and orientation programmes to cushion the effect of stress. Furthermore, students should be encouraged to concentrate on their studies, i.e. reading for test/exams and doing all assignments given to them so they can achieve good success.
- 5 Government non-governmental organization should provide students with all necessary equipment such as e-library, conducive classes, equipped library, and laboratories among others. Also, scholarships opportunities should be provided to students. This will increase their level of extrinsic motivation for academic achievement.

#### **5.6 Suggestions for further studies**

This study was limited to examining the relationship among Academic Stress, Motivation and Academic Achievement of NCEII students of FCT College of Education Zuba, Abuja, Nigeria. The researcher suggest that further studies be carried out to evaluate the relationship among Academic Stress, Achievement Motivation and Academic performance of senior secondary School Students in the FCT, Nigeria.

Further studies can also be carried out on the relationship between Psychological Stress, Intrinsic Motivation and Academic Achievement of undergraduate Students of university of Abuja, FCT, Nigeria.

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## APPENDICES

### APPENDIX 1

Department of Education Psychology And Counseling  
Ahmadu Bello University Zaria  
Faculty of Education,  
A.B.U. Zaria.

Dear Respondent,

#### Request to Fill Questionnaire

The researcher is carrying out a research titled: “relationship among Academic Stress, Motivation and Academic Achievement of NCEII students of FCT College of Education Zuba, Abuja, Nigeria” as part of requirement for the award of Master’s Degree in Educational Psychology of the above university.

Please I solicit for your assistance in filling these items (questionnaire) as objectively as possible. The confidentiality of your responses will be strictly maintained as your responses will be used for the purpose of this research only.

Thank you for your co-operation.

Yours faithfully,

Yakubu Danlami Jeremiah.

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10.	Change in sexual habits				
11.	Financial difficulties				
12.	Combining job with studies				
13.	Change in using alcohol				
14.	Health problems				
15.	Pressure				
16.	Lack of social contacts				
17.	New responsibilities				
	<b>C. Academic Factors</b>				
18.	Increased class workload				
19.	Lower grade				
20	Many hours of studies				
21	Language difficulties				
22	Lack of college support				
23	Examinations				
24	Many essays				
25	Staying late writing paper				
26	Missing some lecturers				
	<b>D. Environments Factors</b>				
27	Lack of vacations/ Breaks				
28	Computer problems				
29	Bad living conditions				
30	Quit job				
31	Divorce between parents				

32	Placed in unfamiliar situations				
33	Moving to a new city				

Adopted from Yumba (2008).

## SECTION B

### Academic Motivation Scale (AMS)

Kindly indicate by ticking (√) the response that describes why you go to College.

#### KEY

Strongly Agreed (SD)	Agreed (A)	Disagree (D)	Strongly Disagree (SD)
4	3	2	1

Why do you go to College (COE)?

S/N	ITEMS	SA	A	D	SD
	<b><u>A. Intrinsic Motivation</u></b>				
1.	<u>Because I experience pleasure and satisfaction while learning new things.</u>				
2.	<u>For the pleasure I experience when I discover new things never seen before.</u>				
3.	<u>For the pleasure that I experience in broadening my knowledge about subjects which appeal to me.</u>				
4.	<u>Because my studies allow me to continue to learn about many things that interest me.</u>				
5.	<u>For the pleasure I experience while doing better in my studies</u>				
6.	<u>For the pleasure that I experience while I am excelling myself in one of my personal accomplishments.</u>				

7.	<u>For the satisfaction I feel when I am in the process of accomplishing difficult academic activities.</u>				
8.	<u>Because College (COE) allows me to experience a personal satisfaction in my quest for excellence in my studies</u>				
9.	<u>For the intense feelings I experience when I am communicating my own ideas to others .</u>				
10.	<u>For the pleasure that I experience when I read interesting authors.</u>				
11.	<u>For the pleasure that I experience when I feel completely absorbed by what certain authors have written</u>				
12.	<u>For the ‘high’ feelings that I experience while reading about various interesting subjects.</u>				
	<b><u>B. Extrinsic Motivation</u></b>				
13.	<u>Because I think that a college (COE) education will help me better prepare for the career I have chosen.</u>				
14.	<u>Because eventually it will enable me to enter the job market in a field that I like.</u>				
15.	<u>Because this will help me make a better choice regarding my career orientation.</u>				
16.	<u>Because I believe that a few additional years of education will improve my competence as a worker.</u>				
17.	<u>To prove to myself that I am capable of completing my college (COE).</u>				
18.	<u>Because of the fact that when I succeed in college (COE) I</u>				



	<u>feel important.</u>				
<u>19.</u>	<u>To show myself that I am an intelligent person.</u>				
<u>20</u>	<u>Because I want to show myself that I can succeed in my studies</u>				
<u>21</u>	<u>Because with only a high school certificate I would not find a high-paying job later on.</u>				
<u>22</u>	<u>In order to obtain a more prestigious job later on</u>				
<u>23</u>	<u>Because I want to have “the good life” later on.</u>				
<u>24</u>	<u>In order to have a better salary latter on.</u>				

**Adopted from Vallerand (1992).**

### APPENDIX 3

**Table 1: Perception of students on items of Stress on Relating to other people**

S/N	Items	Response categories				Mean	Rank
		SA	A	D	SD		
1.	Change in relation with others	55	96	52	108	2.3151	4
2.	Room mate conflict	55	92	80	84	2.3794	3
3.	Work with people you don't know	57	71	51	132	2.1704	6
4.	Fight with boyfriend/ Girlfriend	66	34	95	116	2.1608	7
5.	New boy friend/ girlfriend	50	68	80	113	2.1768	5
6.	Family problem.	122	89	42	58	2.8842	1
7.	Frustration due to misunderstandings	120	96	30	65	2.8714	2
	<b>Cumulative Mean</b>					<b>2.4225</b>	

**Decision/standard mean = 2.500**

**The students agreement level on the items of stress relating to other people is low as the cumulative mean response of 2.4225 is lower than the standard/decision mean of 2.5000**

**Table 2: Perception of students on items of Stress on Personal Factors**

S/N	Items	Response categories				Mean	Rank
		SA	A	D	SD		
1.	Change in sleeping habits	80	84	55	92	2.4887	6
2.	Change in eating habits	74	60	60	117	2.2926	8
3.	Change in sexual habits	58	59	36	158	2.0547	10
4.	Financial difficulties	141	90	28	52	3.0289	1
5.	Combining job with studies	132	71	35	73	2.8424	3
6.	Change in using alcohol	100	56	39	116	2.4502	7
7.	Health problems	165	55	24	67	3.0225	2
8	Pressure	93	97	56	65	2.7010	5
9	Lack of social contacts	46	98	65	102	2.2830	9
10	New responsibilities	79	128	37	67	2.7042	4
	<b>Cumulative mean</b>					2.5868	

Decision mean = 2.5000

**The personal factors as affecting students' academic is high as the cumulative mean response of 2.5868 is higher than the standard/decision mean of 2.5000**

**Table 3: Perception of students on items of Stress on Academic Factors**

S/N	Items	Response categories				Mean	Rank
		SA	A	D	SD		
1.	Increased class workload	136	79	33	63	2.9260	2
2.	Lower grade	104	56	64	87	2.5691	5
3.	Many hours of studies	132	81	48	50	2.9486	1
4.	Language difficulties	108	102	48	53	2.8521	3
5.	Lack of college support	100	91	56	64	2.7299	4
6.	Examinations	49	109	69	84	2.3955	8
7.	Many essays	67	82	75	87	2.4148	7
8	Staying late writing paper	83	67	68	93	2.4502	6
9	Missing some lecturers	84	74	34	119	2.3955	9
	<b>Cumulative mean</b>					<b>2.6313</b>	

**Decision Mean = 2.500**

**The stress level is high as the cumulative mean response of 2.6313 is higher than the standard/decision mean of 2.5000**

**Table 4: Perception of students on items of Stress on Environment Factors**

S/N	Items	Response categories				Mean	Rank
		SA	A	D	SD		
1.	Lack of vacations/ Breaks	95	83	61	72	2.6463	3
2.	Computer problems	72	77	80	82	2.4469	6
3.	Bad living conditions	106	88	28	89	2.6785	2
4.	Quit job	70	79	70	92	2.4084	7
5.	Divorce between parents	108	73	37	93	2.6302	4
6.	Placed in unfamiliar situations	106	99	33	73	2.7653	1
7.	Moving to a new city	85	81	67	78	2.5563	5
	Cumulative mean					2.5902	

**Decision mean = 2.500**

**The environmental factors level is high as the cumulative mean response of 2.5902 is higher than the standard/decision mean of 2.5000**

**Table 5: Perception of students on items of Intrinsic Motivation**

S/N	Items	Response categories				Mean	Rank
		SA	A	D	SD		
1.	Because I experience pleasure and satisfaction while learning new things.	143	99	12	57	3.0547	4
2.	For the pleasure I experience when I discover new things never seen before.	141	97	28	45	3.0740	3
3.	For the pleasure that I experience in broadening my knowledge about subjects which appeal to me.	122	101	34	54	2.9357	6
4.	Because my studies allow me to continue to learn about many things that interest me.	155	91	17	48	3.1350	1
5.	For the pleasure I experience while doing better in my studies	158	77	23	53	3.0932	2
6.	For the pleasure that I experience while I am excelling myself in one of my personal accomplishments.	129	75	46	61	2.8746	9
7.	For the satisfaction I feel when I am in the process of accomplishing difficult academic activities.	106	91	38	76	2.7299	10
8	Because College (COE) allows me to experience a personal satisfaction in my quest for excellence in my studies	118	93	46	54	2.8842	7
9	For the intense feelings I experience	133	104	20	54	3.0161	5

	when I am communicating my own ideas to others .						
10	For the pleasure that I experience when I read interesting authors.	114	77	59	61	2.7846	8
11	For the pleasure that I experience when I feel completely absorbed by what certain authors have written	87	102	49	73	2.6527	11
12	For the 'high' feelings that I experience while reading about various interesting subjects.	104	122	31	54	2.8875	8
	Cumulative mean					2.9268	

**Decision mean = 2.500**

**The level of intrinsic motivation high as the cumulative mean response of 2.9268 is higher than the standard/decision mean of 2.5000**

**Table 6: Perception of students on items of Extrinsic Motivation**

S/N	Items	Response categories				Mean	Rank
		SA	A	D	SD		
1.	Because I think that a college (COE) education will help me better prepare for the career I have chosen.	147	84	36	44	3.0740	1
2.	Because eventually it will enable me to enter the job market in a field that I like.	111	99	57	44	2.8907	5
3.	Because this will help me make a better choice regarding my career orientation.	140	75	45	51	2.9775	2
4.	Because I believe that a few additional years of education will improve my competence as a worker.	138	77	44	52	2.9678	3
5.	To prove to myself that I am capable of completing my college (COE).	117	88	38	68	2.8167	7
6.	Because of the fact that when I succeed in college (COE) I feel important.	130	73	40	68	2.8521	6
7.	To show myself that I am an intelligent person.	103	88	51	69	2.7235	10
8	Because I want to show myself that I can succeed in my studies	109	95	44	63	2.8039	8
9	Because with only a high school certificate I would not find a high-paying job later on.	80	55	81	95	2.3859	11
10	In order to obtain a more prestigious job later on	84	116	42	69	2.6913	12
11	Because I want to have “the good life” later on.	148	52	55	56	2.9389	4
12	In order to have a better salary latter on.	103	75	77	56	2.7235	9
	Cumulative mean					2.8204	

**Decision mean = 2.500**

**The response level of extrinsic motivation as affecting academic performance is high as the cumulative mean response of 2.8204 is higher than the standard/decision mean of 2.5000**



## APPENDIX 4: RELIABILITY STATISTICS

### ACADEMIC STRESS SCALE (ASS)

#### Case Processing Summary

		N	%
Cases	Valid	30	100.0
	Excluded <sup>a</sup>	0	.0
	Total	30	100.0

a. Listwise deletion based on all variables in the procedure.

#### Reliability Statistics

Cronbach's Alpha	N of Items
.791	33

#### Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Q1	63.07	180.271	-.004	.795
Q2	63.43	173.771	.301	.786
Q3	63.13	174.809	.249	.788
Q4	63.03	170.516	.380	.783
Q5	63.33	179.057	.038	.795
Q6	63.37	166.999	.528	.778
Q7	63.20	168.372	.565	.778
Q8	63.23	170.323	.374	.783
Q9	63.03	172.861	.298	.786
Q10	62.77	178.185	.052	.795
Q11	63.47	173.499	.277	.787
Q12	63.30	179.597	.013	.796
Q13	63.03	169.137	.373	.783
Q14	63.30	163.734	.717	.772
Q15	63.40	166.869	.611	.777
Q16	63.07	167.720	.508	.779
Q17	63.23	177.013	.132	.791
Q18	63.40	171.076	.412	.783
Q19	63.30	168.286	.509	.779
Q20	63.13	174.051	.240	.788
Q21	63.13	174.395	.238	.788
Q22	63.03	168.792	.474	.780
Q23	63.03	168.033	.464	.780
Q24	62.83	178.489	.098	.792
Q25	62.93	173.030	.288	.786
Q26	63.20	169.614	.410	.782
Q27	62.60	134.317	.336	.829
Q28	62.87	174.051	.250	.788
Q29	63.00	173.931	.234	.788
Q30	63.07	167.857	.461	.780
Q31	63.30	167.321	.553	.778
Q32	63.13	175.292	.212	.789
Q33	62.83	175.040	.167	.791

## INTRINSIC AND EXTRINSIC MOTIVATION SCALE (IEMS)

### Case Processing Summary

		N	%
Cases	Valid	30	100.0
	Excluded <sup>a</sup>	0	.0
	Total	30	100.0

a. Listwise deletion based on all variables in the procedure.

### Reliability Statistics

Cronbach's Alpha	N of Items
.905	24

### Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
B_Q1	41.50	114.259	.701	.898
B_Q2	41.20	115.614	.420	.903
B_Q3	41.27	113.582	.544	.900
B_Q4	41.53	114.395	.541	.901
B_Q5	41.27	115.237	.424	.903
B_Q6	40.93	112.202	.626	.899
B_Q7	41.07	112.340	.639	.898
B_Q8	41.37	110.585	.628	.898
B_Q9	41.27	110.823	.672	.898
B_Q10	41.30	110.769	.606	.899
B_Q11	40.93	112.823	.558	.900
B_Q12	41.17	110.626	.655	.898
B_Q13	41.57	110.461	.705	.897
B_Q14	41.37	118.516	.304	.905
B_Q15	41.03	114.516	.387	.905
B_Q16	41.53	117.430	.412	.903
B_Q17	41.40	114.248	.571	.900
B_Q18	41.43	113.702	.562	.900
B_Q19	41.13	115.775	.334	.906
B_Q20	41.47	112.051	.657	.898
B_Q21	40.97	118.516	.335	.904
B_Q22	41.37	112.999	.620	.899
B_Q23	41.53	120.533	.153	.909
B_Q24	41.70	121.459	.154	.907

## Appendix 5

### Appendix

#### Frequency Table

##### Schools

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Education	78	25.1	25.1	25.1
	Arts	68	21.9	21.9	46.9
	Soc Sciences	62	19.9	19.9	66.9
	Science	54	17.4	17.4	84.2
	Language	49	15.8	15.8	100.0
	Total	311	100.0	100.0	

##### Gender

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	150	48.2	48.2	48.2
	Female	161	51.8	51.8	100.0
	Total	311	100.0	100.0	

```
FREQUENCIES VARIABLES=V1 V2 V3 V4 V5 V6 V7
  /STATISTICS=MEAN
  /ORDER=ANALYSIS.
```

#### A. Relating To Other People

#### Frequency Table

##### Change in relation with others

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	SD	108	34.7	34.7	34.7
	D	52	16.7	16.7	51.4
	A	96	30.9	30.9	82.3
	SA	55	17.7	17.7	100.0
	Total	311	100.0	100.0	

##### Room mate conflict

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	SD	84	27.0	27.0	27.0
	D	80	25.7	25.7	52.7
	A	92	29.6	29.6	82.3
	SA	55	17.7	17.7	100.0
	Total	311	100.0	100.0	

**Work with people you don't know**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid SD	132	42.4	42.4	42.4
D	51	16.4	16.4	58.8
A	71	22.8	22.8	81.7
SA	57	18.3	18.3	100.0
Total	311	100.0	100.0	

**Fight with boyfriend/ Girlfriend**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid SD	116	37.3	37.3	37.3
D	95	30.5	30.5	67.8
A	34	10.9	10.9	78.8
SA	66	21.2	21.2	100.0
Total	311	100.0	100.0	

**New boy friend/ girlfriend**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid SD	113	36.3	36.3	36.3
D	80	25.7	25.7	62.1
A	68	21.9	21.9	83.9
SA	50	16.1	16.1	100.0
Total	311	100.0	100.0	

**Family problem.**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid SD	58	18.6	18.6	18.6
D	42	13.5	13.5	32.2
A	89	28.6	28.6	60.8
SA	122	39.2	39.2	100.0
Total	311	100.0	100.0	

**Frustration due to misunderstandings**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid SD	65	20.9	20.9	20.9
D	30	9.6	9.6	30.5
A	96	30.9	30.9	61.4
SA	120	38.6	38.6	100.0
Total	311	100.0	100.0	

FREQUENCIES VARIABLES=V8 V9 V10 V11 V12 V13 V14 V15 V16 V17  
/ORDER=ANALYSIS.

## B. Personal Factors

### Frequency Table

#### Change in sleeping habits

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid SD	92	29.6	29.6	29.6
D	55	17.7	17.7	47.3
A	84	27.0	27.0	74.3
SA	80	25.7	25.7	100.0
Total	311	100.0	100.0	

#### Change in eating habits

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid SD	117	37.6	37.6	37.6
D	60	19.3	19.3	56.9
A	60	19.3	19.3	76.2
SA	74	23.8	23.8	100.0
Total	311	100.0	100.0	

#### Change in sexual habits

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid SD	158	50.8	50.8	50.8
D	36	11.6	11.6	62.4
A	59	19.0	19.0	81.4
SA	58	18.6	18.6	100.0
Total	311	100.0	100.0	

#### Financial difficulties

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid SD	52	16.7	16.7	16.7
D	28	9.0	9.0	25.7
A	90	28.9	28.9	54.7
SA	141	45.3	45.3	100.0
Total	311	100.0	100.0	

#### Combining job with studies

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid SD	73	23.5	23.5	23.5
D	35	11.3	11.3	34.7
A	71	22.8	22.8	57.6
SA	132	42.4	42.4	100.0
Total	311	100.0	100.0	

**Change in using alcohol**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	SD	116	37.3	37.3	37.3
	D	39	12.5	12.5	49.8
	A	56	18.0	18.0	67.8
	SA	100	32.2	32.2	100.0
	Total	311	100.0	100.0	

**Health problems**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	SD	67	21.5	21.5	21.5
	D	24	7.7	7.7	29.3
	A	55	17.7	17.7	46.9
	SA	165	53.1	53.1	100.0
	Total	311	100.0	100.0	

**Pressure**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	SD	65	20.9	20.9	20.9
	D	56	18.0	18.0	38.9
	A	97	31.2	31.2	70.1
	SA	93	29.9	29.9	100.0
	Total	311	100.0	100.0	

**Lack of social contacts**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	SD	102	32.8	32.8	32.8
	D	65	20.9	20.9	53.7
	A	98	31.5	31.5	85.2
	SA	46	14.8	14.8	100.0
	Total	311	100.0	100.0	

**New responsibilities**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	SD	67	21.5	21.5	21.5
	D	37	11.9	11.9	33.4
	A	128	41.2	41.2	74.6
	SA	79	25.4	25.4	100.0
	Total	311	100.0	100.0	

FREQUENCIES VARIABLES=V18 V19 V20 V21 V22 V23 V24 V25 V26  
/ORDER=ANALYSIS.

## C. Academic Factors

### Frequencies

#### Frequency Table

##### Increased class workload

	Frequency	Percent	Valid Percent	Cumulative Percent
SD	63	20.3	20.3	20.3
D	33	10.6	10.6	30.9
Valid A	79	25.4	25.4	56.3
SA	136	43.7	43.7	100.0
Total	311	100.0	100.0	

##### Lower grade

	Frequency	Percent	Valid Percent	Cumulative Percent
SD	87	28.0	28.0	28.0
D	64	20.6	20.6	48.6
Valid A	56	18.0	18.0	66.6
SA	104	33.4	33.4	100.0
Total	311	100.0	100.0	

##### Many hours of studies

	Frequency	Percent	Valid Percent	Cumulative Percent
SD	50	16.1	16.1	16.1
D	48	15.4	15.4	31.5
Valid A	81	26.0	26.0	57.6
SA	132	42.4	42.4	100.0
Total	311	100.0	100.0	

##### Language difficulties

	Frequency	Percent	Valid Percent	Cumulative Percent
SD	53	17.0	17.0	17.0
D	48	15.4	15.4	32.5
Valid A	102	32.8	32.8	65.3
SA	108	34.7	34.7	100.0
Total	311	100.0	100.0	

##### Lack of college support

	Frequency	Percent	Valid Percent	Cumulative Percent
SD	64	20.6	20.6	20.6
D	56	18.0	18.0	38.6
Valid A	91	29.3	29.3	67.8
SA	100	32.2	32.2	100.0
Total	311	100.0	100.0	

**Examinations**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid SD	84	27.0	27.0	27.0
D	69	22.2	22.2	49.2
A	109	35.0	35.0	84.2
SA	49	15.8	15.8	100.0
Total	311	100.0	100.0	

**Many essays**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid SD	87	28.0	28.0	28.0
D	75	24.1	24.1	52.1
A	82	26.4	26.4	78.5
SA	67	21.5	21.5	100.0
Total	311	100.0	100.0	

**Staying late writing paper**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid SD	93	29.9	29.9	29.9
D	68	21.9	21.9	51.8
A	67	21.5	21.5	73.3
SA	83	26.7	26.7	100.0
Total	311	100.0	100.0	

**Missing some lecturers**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid SD	119	38.3	38.3	38.3
D	34	10.9	10.9	49.2
A	74	23.8	23.8	73.0
SA	84	27.0	27.0	100.0
Total	311	100.0	100.0	

FREQUENCIES VARIABLES=V27 V28 V29 V30 V31 V32 V33  
/ORDER=ANALYSIS.



## D. Environments Factors

### Frequency Table

#### Lack of vacations/ Breaks

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid SD	72	23.2	23.2	23.2
D	61	19.6	19.6	42.8
A	83	26.7	26.7	69.5
SA	95	30.5	30.5	100.0
Total	311	100.0	100.0	

#### Computer problems

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid SD	82	26.4	26.4	26.4
D	80	25.7	25.7	52.1
A	77	24.8	24.8	76.8
SA	72	23.2	23.2	100.0
Total	311	100.0	100.0	

#### Bad living conditions

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid SD	89	28.6	28.6	28.6
D	28	9.0	9.0	37.6
A	88	28.3	28.3	65.9
SA	106	34.1	34.1	100.0
Total	311	100.0	100.0	

#### Quit job

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid SD	92	29.6	29.6	29.6
D	70	22.5	22.5	52.1
A	79	25.4	25.4	77.5
SA	70	22.5	22.5	100.0
Total	311	100.0	100.0	

#### Divorce between parents

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid SD	93	29.9	29.9	29.9
D	37	11.9	11.9	41.8
A	73	23.5	23.5	65.3
SA	108	34.7	34.7	100.0
Total	311	100.0	100.0	

**Placed in unfamiliar situations**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	SD	73	23.5	23.5	23.5
	D	33	10.6	10.6	34.1
	A	99	31.8	31.8	65.9
	SA	106	34.1	34.1	100.0
	Total	311	100.0	100.0	

**Moving to a new city**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	SD	78	25.1	25.1	25.1
	D	67	21.5	21.5	46.6
	A	81	26.0	26.0	72.7
	SA	85	27.3	27.3	100.0
	Total	311	100.0	100.0	

FREQUENCIES VARIABLES=M1 M2 M3 M4 M5 M6 M7 M8 M9 M10 M11 M12  
/ORDER=ANALYSIS.

**Intrinsic Motivation**

**Because I experience pleasure and satisfaction while learning new things.**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	SD	57	18.3	18.3	18.3
	D	12	3.9	3.9	22.2
	A	99	31.8	31.8	54.0
	SA	143	46.0	46.0	100.0
	Total	311	100.0	100.0	

**For the pleasure I experience when I discover new things never seen before.**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	SD	45	14.5	14.5	14.5
	D	28	9.0	9.0	23.5
	A	97	31.2	31.2	54.7
	SA	141	45.3	45.3	100.0
	Total	311	100.0	100.0	

**For the pleasure that I experience in broadening my knowledge about subjects which appeal to me.**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	SD	54	17.4	17.4	17.4
	D	34	10.9	10.9	28.3
	A	101	32.5	32.5	60.8
	SA	122	39.2	39.2	100.0
	Total	311	100.0	100.0	

**Because my studies allow me to continue to learn about many things that interest me**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid SD	48	15.4	15.4	15.4
D	17	5.5	5.5	20.9
A	91	29.3	29.3	50.2
SA	155	49.8	49.8	100.0
Total	311	100.0	100.0	

**For the pleasure I experience while doing better in my studies**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid SD	53	17.0	17.0	17.0
D	23	7.4	7.4	24.4
A	77	24.8	24.8	49.2
SA	158	50.8	50.8	100.0
Total	311	100.0	100.0	

**For the pleasure that I experience while I am excelling myself in one of my personal accomplishments**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid SD	61	19.6	19.6	19.6
D	46	14.8	14.8	34.4
A	75	24.1	24.1	58.5
SA	129	41.5	41.5	100.0
Total	311	100.0	100.0	

**For the satisfaction I feel when I am in the process of accomplishing difficult academic activities**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid SD	76	24.4	24.4	24.4
D	38	12.2	12.2	36.7
A	91	29.3	29.3	65.9
SA	106	34.1	34.1	100.0
Total	311	100.0	100.0	

**Because College (COE) allows me to experience a personal satisfaction in my quest for excellence in my studies**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid SD	54	17.4	17.4	17.4
D	46	14.8	14.8	32.2
A	93	29.9	29.9	62.1
SA	118	37.9	37.9	100.0
Total	311	100.0	100.0	

**For the intense feelings I experience when I am communicating my own ideas to others**

	Frequency	Percent	Valid Percent	Cumulative Percent
SD	54	17.4	17.4	17.4
D	20	6.4	6.4	23.8
Valid A	104	33.4	33.4	57.2
SA	133	42.8	42.8	100.0
Total	311	100.0	100.0	

**For the pleasure that I experience when I read interesting authors.**

	Frequency	Percent	Valid Percent	Cumulative Percent
SD	61	19.6	19.6	19.6
D	59	19.0	19.0	38.6
Valid A	77	24.8	24.8	63.3
SA	114	36.7	36.7	100.0
Total	311	100.0	100.0	

**For the pleasure that I experience when I feel completely absorbed by what certain authors have written**

	Frequency	Percent	Valid Percent	Cumulative Percent
SD	73	23.5	23.5	23.5
D	49	15.8	15.8	39.2
Valid A	102	32.8	32.8	72.0
SA	87	28.0	28.0	100.0
Total	311	100.0	100.0	

**For the 'high' feelings that I experience while reading about various interesting subjects**

	Frequency	Percent	Valid Percent	Cumulative Percent
SD	54	17.4	17.4	17.4
D	31	10.0	10.0	27.3
Valid A	122	39.2	39.2	66.6
SA	104	33.4	33.4	100.0
Total	311	100.0	100.0	

FREQUENCIES VARIABLES=M13 M14 M15 M16 M17 M18 M19 M20 M21 M22 M23 M24  
/ORDER=ANALYSIS.

## Extrinsic Motivation

### Frequency Table

**Because I think that a college (COE) education will help me better prepare for the career I have chosen**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid SD	44	14.1	14.1	14.1
D	36	11.6	11.6	25.7
A	84	27.0	27.0	52.7
SA	147	47.3	47.3	100.0
Total	311	100.0	100.0	

**Because eventually it will enable me to enter the job market in a field that I like**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid SD	44	14.1	14.1	14.1
D	57	18.3	18.3	32.5
A	99	31.8	31.8	64.3
SA	111	35.7	35.7	100.0
Total	311	100.0	100.0	

**Because this will help me make a better choice regarding my career orientation**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid SD	51	16.4	16.4	16.4
D	45	14.5	14.5	30.9
A	75	24.1	24.1	55.0
SA	140	45.0	45.0	100.0
Total	311	100.0	100.0	

**Because I believe that a few additional years of education will improve my competence as a worker**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid SD	54	17.4	17.4	17.4
D	34	10.9	10.9	28.3
A	65	20.9	20.9	49.2
SA	158	50.8	50.8	100.0
Total	311	100.0	100.0	

158 65 34 54

**To prove to myself that I am capable of completing my college (COE)**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid SD	68	21.9	21.9	21.9
D	38	12.2	12.2	34.1
A	88	28.3	28.3	62.4
SA	117	37.6	37.6	100.0
Total	311	100.0	100.0	

**Because of the fact that when I succeed in college (COE) I feel important**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid SD	68	21.9	21.9	21.9
D	40	12.9	12.9	34.7
A	73	23.5	23.5	58.2
SA	130	41.8	41.8	100.0
Total	311	100.0	100.0	

**To show myself that I am an intelligent person**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid SD	69	22.2	22.2	22.2
D	51	16.4	16.4	38.6
A	88	28.3	28.3	66.9
SA	103	33.1	33.1	100.0
Total	311	100.0	100.0	

**Because I want to show myself that I can succeed in my studies**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid SD	63	20.3	20.3	20.3
D	44	14.1	14.1	34.4
A	95	30.5	30.5	65.0
SA	109	35.0	35.0	100.0
Total	311	100.0	100.0	

**Because with only a high school certificate I would not find a high-paying job later on**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid SD	95	30.5	30.5	30.5
D	81	26.0	26.0	56.6
A	55	17.7	17.7	74.3
SA	80	25.7	25.7	100.0
Total	311	100.0	100.0	

**In order to obtain a more prestigious job later on**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid SD	69	22.2	22.2	22.2
D	42	13.5	13.5	35.7
A	116	37.3	37.3	73.0
SA	84	27.0	27.0	100.0
Total	311	100.0	100.0	

**Because I want to have "the good life" later on**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid SD	56	18.0	18.0	18.0
D	55	17.7	17.7	35.7
A	52	16.7	16.7	52.4
SA	148	47.6	47.6	100.0
Total	311	100.0	100.0	

**In order to have a better salary latter on**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid SD	56	18.0	18.0	18.0
D	77	24.8	24.8	42.8
A	75	24.1	24.1	66.9
SA	103	33.1	33.1	100.0
Total	311	100.0	100.0	

CORRELATIONS

```

/VARIABLES=ACADEMIC_STRESS Intrinsic_Motivation
/PRINT=TWOTAIL NOSIG
/STATISTICS DESCRIPTIVES
/MISSING=PAIRWISE.
    
```

**Hypo 1**

**Correlations**

**Descriptive Statistics**

	Mean	Std. Deviation	N
ACADEMIC_STRESS	84.6399	22.55528	311
Intrinsic_Motivation	35.1222	10.61517	311

**Correlations**

		ACADEMIC_STRESS	Intrinsic_Motivation
ACADEMIC_STRESS	Pearson Correlation	1	-.763**
	Sig. (2-tailed)		.001
	N	311	311
Intrinsic_Motivation	Pearson Correlation	-.763**	1
	Sig. (2-tailed)	.001	
	N	311	311

\*\* . Correlation is significant at the 0.01 level (2-tailed).

CORRELATIONS

```

/VARIABLES=ACADEMIC_STRESS Extrinsic_Motivation
/PRINT=TWOTAIL NOSIG
/STATISTICS DESCRIPTIVES
/MISSING=PAIRWISE.
    
```

## Hypo 2 Correlations

### Descriptive Statistics

	Mean	Std. Deviation	N
ACADEMIC_STRESS	84.6399	22.55528	311
Extrinsic_Motivation	33.9293	10.71936	311

### Correlations

		ACADEMIC_STRESS	Extrinsic_Motivation
ACADEMIC_STRESS	Pearson Correlation	1	-.631**
	Sig. (2-tailed)		.002
	N	311	311
Extrinsic_Motivation	Pearson Correlation	-.631**	1
	Sig. (2-tailed)	.002	
	N	311	311

\*\* . Correlation is significant at the 0.01 level (2-tailed).

CORRELATIONS

```

/VARIABLES=ACADEMIC_STRESS ACADEMIC_ACHIEVEMENT
/PRINT=TWOTAIL NOSIG
/STATISTICS DESCRIPTIVES
/MISSING=PAIRWISE.

```

## Hypo 3 Correlations

### Descriptive Statistics

	Mean	Std. Deviation	N
ACADEMIC_STRESS	118.6148	35.63089	311
ACADEMIC_ACHIEVEMENT	3.0172	.90334	313

### Correlations

		ACADEMIC_STRESS	ACADEMIC_ACHIEVEMENT
ACADEMIC_STRESS	Pearson Correlation	1	-.954**
	Sig. (2-tailed)		.000
	N	311	311
ACADEMIC_ACHIEVEMENT	Pearson Correlation	-.954**	1
	Sig. (2-tailed)	.000	
	N	311	313

\*\* . Correlation is significant at the 0.01 level (2-tailed).

DATASET ACTIVATE DataSet1.

```

SAVE OUTFILE='C:\Users\Ojo\Documents\YAKUBU JEREMIAH DATA.sav'
/COMPRESSED.

```

CORRELATIONS

```

/VARIABLES=ACADEMIC_ACHIEVEMENT Intrinsic_Motivation
/PRINT=TWOTAIL NOSIG
/STATISTICS DESCRIPTIVES
/MISSING=PAIRWISE.

```

CORRELATIONS

```

/VARIABLES=ACADEMIC_ACHIEVEMENT Intrinsic_Motivation
/PRINT=TWOTAIL NOSIG
/STATISTICS DESCRIPTIVES
/MISSING=PAIRWISE.

```



## Hypo 4

### Correlations

**Descriptive Statistics**

	Mean	Std. Deviation	N
ACADEMIC_ACHIEVEMENT	3.0138	.90373	311
Intrinsic_Motivation	29.5897	9.44590	311

**Correlations**

		ACADEMIC_ACHIEVEMENT	Intrinsic_Motivation
ACADEMIC_ACHIEVEMENT	Pearson Correlation	1	.945**
	Sig. (2-tailed)		.011
	N	311	311
Intrinsic_Motivation	Pearson Correlation	.945**	1
	Sig. (2-tailed)	.011	
	N	311	311

\*\* . Correlation is significant at the 0.01 level (2-tailed).

CORRELATIONS

```

/VARIABLES=ACADEMIC_ACHIEVEMENT Extrinsic_Motivation
/PRINT=TWOTAIL NOSIG
/STATISTICS DESCRIPTIVES
/MISSING=PAIRWISE.

```

## Hypo 5

### Correlations

**Descriptive Statistics**

	Mean	Std. Deviation	N
ACADEMIC_ACHIEVEMENT	3.0138	.90373	311
Extrinsic_Motivation	32.8931	9.87843	311

**Correlations**

		ACADEMIC_ACHIEVEMENT	Extrinsic_Motivation
ACADEMIC_ACHIEVEMENT	Pearson Correlation	1	.996**
	Sig. (2-tailed)		.000
	N	311	311
Extrinsic_Motivation	Pearson Correlation	.996**	1
	Sig. (2-tailed)	.000	
	N	311	311

\*\* . Correlation is significant at the 0.01 level (2-tailed).

**Appendix 6**  
**Table of r Critical Values: Pearson Correlation**

*1-tailed*

	0.05	0.025	0.005
<i>2-tailed</i>			
<b>DF</b>	<b>0.1</b>	<b>0.05</b>	<b>0.01</b>
1	0.988	0.997	0.999
2	0.900	0.950	0.990
3	0.805	0.878	0.959
4	0.900	0.950	0.990
5	0.805	0.878	0.959
6	0.729	0.811	0.917
7	0.669	0.754	0.875
8	0.621	0.707	0.834
9	0.582	0.666	0.798
10	0.549	0.632	0.765
11	0.521	0.602	0.735
12	0.497	0.576	0.708
13	0.476	0.553	0.684
14	0.458	0.532	0.661
15	0.441	0.514	0.641
16	0.426	0.497	0.623
17	0.412	0.482	0.606
18	0.400	0.468	0.590
19	0.389	0.456	0.575
20	0.378	0.444	0.561
21	0.369	0.433	0.549
22	0.360	0.423	0.537
23	0.352	0.413	0.526
24	0.344	0.404	0.515
25	0.337	0.396	0.505
26	0.330	0.388	0.496
27	0.323	0.381	0.487
28	0.317	0.374	0.479
29	0.311	0.367	0.471
30	0.306	0.361	0.463
35	0.283	0.334	0.430
40	0.264	0.312	0.403
45	0.248	0.294	0.380
50	0.235	0.279	0.361
60	0.214	0.254	0.330
70	0.198	0.235	0.306
80	0.185	0.220	0.286
90	0.174	0.207	0.270
100	0.165	0.197	0.256
200	0.117	0.139	0.182
<b>300</b>	<b>0.095</b>	<b>0.113</b>	<b>0.149</b>
400	0.082	0.098	0.129
500	0.074	0.088	0.115
1000	0.052	0.062	0.081

*\*Please call 877-437-8622 to request a quote based on the specifics of your research, or email [Info@StatisticsSolutions.com](mailto:Info@StatisticsSolutions.com).*