INFLUENCE OF ACHIEVEMENT MOTIVATION AND DEMOGRAPHIC CHARACTERISTICS ON ACADEMIC PERFORMANCE OF NOMADIC FULANI GIRLS IN ADAMAWA STATE

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DECLARATION

I hereby declare that this work “The Influence of Achievement Motivation and Demographic Characteristics on the Academic Performance of Nomadic Fulani Girls in Adamawa State” is the product of my own research efforts, undertaken under the supervision of Prof. (Mrs.) J.O. Mallum has not been presented elsewhere for the award of a degree or certificate. All sources have been duly distinguished and appropriately acknowledged.

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CERTIFICATION

This is to certify that the research work for this thesis and subsequent preparation for this thesis by (Beatrice Ahmadu Bahago, PGED/UJ/11586/2000) were carried out under my supervision.

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ABSTRACT

The present study was designed to determine the influence of achievement motivation and demographic characteristics on academic performance of nomadic Fulani primary school girls' in Adamawa State. The survey and expost-facto designs were employed for the study which used a sample of 300 primary six nomadic Fulani girls from 38 schools. Random sampling technique was used to select the sample. The instruments for data collection were Achievement Motivation Rating Scale (AMRS) and Nomadic Girls' Achievement Test (NGAT) with reliability coefficient of 0.58 and 0.61 respectively. Three research questions and seven hypotheses guided the study. Mean, standard deviation and percentages were calculated in order to answer research questions while t-test, one-way analysis of variance and factorial analysis were used to test hypotheses. The results of the study showed that nomadic Fulani girls have high achievement motivation, but low academic performance. It was also discovered that all demographic factors affect their achievement motivation and academic performance with the exception of age. Among other things, it was recommended that schools be located near nomads' homesteads and collaboration between NCNE, UBEC, religious and traditional leaders to eradicate betrothal and early marriage in order to boost nomadic Fulani girls academic performance.

CHAPTER ONE
INTRODUCTION

1.1 BACKGROUND OF THE STUDY

National Commission for Nomadic Education (NCNE) records for the past two decades show low performance of nomadic Fulani girls compared to that of boys (NCNE, 2006). Ahmed (2000) reports the low performance by nomadic Fulani girls on the National Common Entrance Examinations which was 38% in 1992, 34% in 1993, 36% in 1994 and 40% in 1995 and 1998. Also Muhammad (2000) discovered that nomadic Fulani children perform slightly better in Fulfulde than on the English language test. They perform particularly low in spelling, punctuation and reading

This low academic performance according to Ezeomah (1983, 1987), Mohammed (1989), Muhammad (2000) informed concern shown parents, teachers, and educationists over the poor academic performance of nomadic Fulani girls in school. Their poor performance is reflected in assigned tasks and examinations conducted for promotion from one class to another. Also the continuous assessment scores for eligibility for transition from primary to junior primary school are poor.

The poor performance of nomadic Fulani girls has generated a trade of blame between parents, teachers and National Commission for Nomadic Education (NCNE) with each party trying to exonerate itself. Teachers argue that the poor performance of nomadic girls is because they lack interest in the formal school system and don't value it. Parents attribute the poor performance to the failure of the nomadic curriculum to meet their needs. On the other hand, NCNE shows concern over what they believe is a conspiracy

by parents and teachers to frustrate their efforts at improving the performance of nomadic Fulani children by preventing their daughters from attending school and withdrawing them for marriage. Nomadic Fulani parents allege that formal education alienates their children from nomadic culture. For example they complain that it is counter productive to their economic development and the survival of the family because it hinders the girls from performing their traditional daily responsibility of selling dairy products. This shift of blame between stakeholders in nomadic education is inimical to the attainment of Education for All (EFA) and Millennium Development Goals (MDGs).

Apart from the counter accusation by stakeholders of nomadic education, psychologists have linked school success with the level of pupils' desire to achieve. A learner's level of need to achieve significantly affects his performance (Atkinson, 1964; McClelland, 1955; Weiner, 1990). The need for achievement (nAch) is the desire to seek for the attainment of realistic, but challenging, goals and achievement in one's academic activities. Murray (1938) defines nAch as the desire to do things as well as possible, to accomplish some difficult tasks, to overcome obstacles and to attend a high standard. Nomadic Fulani nAch is the desire to overcome all personal, home and school impediments to succeed in classroom tasks including assignments, tests and examinations.

Highlighting the relevance of nAch in education, Eccles, Adler, Futterman, Kaczala, Meece and Midgley (1983) and Atkinson (2000) opine that it exists in every individual but with varying degrees, either low or high. Eccles et al state that these differences are responsible for low or high

academic performance of students. This also applies to nomadic Fulani girls. Eccles et al emphasise that nAch is the benchmark for learners' success in school.

The dissimilarity in nAch is attributed to variations in socialization among ethnic groups. Chauhan (1996) and Myers (1990) posit that nAch develops in early childhood through the process of socialization. They are of the pinion that socialization involves the inculcation of the norms and values of the culture of the parents. Culture dictates the rearing styles which may enhance or mar the development of an individual's nAch. Children from democratic homes have been shown to develop a high desire to succeed. When in school such children engage in tasks that are challenging and face them boldly and confidently. They rarely rest on their laurels; instead, they set increasingly higher standards for excellence as their current standards are met.

Weiner (1990) and Elliot and Hararackiecz (1999) indicate that pupils with the desire to achieve are undaunted in their pursuit of attaining goals set by them. To ensure the attainment of goals, they set realistic goals, they desire feedback of their achievement and progress, and they have a need for a sense of accomplishment. From the foregoing, it is clear that achievement motivation is indispensable in the academic achievement of learners.

Studies by VerEecke (1991) and Obiese (2007) show that most nomadic primary school Fulani girls have low need to achieve. This is why they engage in easy or moderate tasks to avoid failure. They seem to give up at any little difficulty in problem solving. Research findings by Obanya (2010) confirm that the attempt by Universal Basic Education (UBE) to address the

‘education deficit’ has not been feasible because of low desire to succeed among learners. Nomadic Fulani girls who’s socialization do not enhance the development of high nAch, are not likely to perform well in school.

Apart from achievement motivation, Lar, (1997) and Sa’ad (2002) discovered that academic performance is influenced by various demographic factors such as age and school distance. Harter (1981) found that there is a progressive and significant age change in interest across the elementary and middle school years which affect performance. Harter states that lower primary school children are interested to learn in order to get tokens like sweets, a clap, and a pat on the back or a smile from the teacher. As they progress in school, their nAch tends to be more intrinsic. In the context of nomadic Fulani girls, level of interest may either increase or decrease as they advance in age. Also, underage or overage nomadic Fulani girls, both of whom are likely to have a feeling of ‘not fitting in’, may be physically in school but not learning sufficiently well.

School distance, according to Lar (1997), affects performance of nomadic Fulani children. She states that distance between nomadic schools and nomadic girls’ homestead requires them to trek long distances to and from school, which makes them tired and unable to concentrate during teaching. Furthermore, nomadic schools are stationed inappropriately; only a few nomadic schools are in densely populated areas. Locating schools in non-pastoral areas attracts non-Fulani children. This makes competition with sedentary children difficult due to their advantage in the conventional school system from which they have been benefiting right from their introduction to the formal school system.

Lar (1997) and Kratli (2000) observe that nomadic parents are reluctant to release their daughters to school because they want to ensure their total compliance to nomadic norms and values. Nomadic culture, and Islam as a dominant religion, enjoins adherents to ensure that their daughters are given out in marriage at age 12 or 13. Most nomadic parents betroth their children, especially girls, to would-be husbands from birth. Rites are performed during betrothal and it is considered a taboo for them to be broken. Thus nomadic girls grow up already betrothed. Interaction between the researcher and an informant revealed that when nomadic girls are in primary 6 they have reached the age of marriage and may be withdrawn from school. This makes the completion of primary school difficult and consequently prevents them from transiting to junior secondary school. Awareness of the betrothal also affects their achievement as their concentration is shifted to issue of marriage.

It appears that birth order of nomadic children is a major parameter for enrolment into primary school and academic attainment. In line with nomadic culture, first sons and upper primary age girls, and some of the non-first born sons who are needed for herding, tend to be excluded from the formal school system. This is due to their indispensable role in the economic life or the family where herding is restricted to male children. Nevertheless, female nomadic children are also engaged in herding where there is no male child and they are also needed in the processing and sale of diary products to assist in the up-keep of the family.

The socio economic status of parents has also been advanced as being responsible for poor performance of nomadic Fulani girls, with girls from

high socio economic status performing better. The low level of performance of nomadic Fulani girls has been substantiated research (VerEecke, 1991; Atiku, 2002). Similarly, Usman (2010) states that nomadic Fulani girls hawk dairy product as part of family gender division of labour, poverty levels of most families, preparing girls for self reliance and economic independence, and to augment family income. These findings are indecisive, thereby supporting the need for this investigation.

Other factors that impinge on academic performance are the parental educational levels. Lar, Adepetu and Gumut (1996) discovered that most nomadic Fulani parents are not literate. Research by Indabawa (2006) indicates Fulani adult literacy of 52% (male 70%, female, 30% in western term). According to Indabawa, parents with low level education may not provide a conducive learning environment at home for their children. Also, low educational levels limit parental supervision of their children homework at home. However, illiteracy of Nomadic Fulani parents prevents them from active involvement in the education of their daughters, as they may not attach any relevance to investing in their education.

Available evidence shows that there is a scarcity of empirical studies on nomadic Fulani girls' achievement motivation and academic performance (Krafli, 2000; Muhammad, 2006). Much of the studies conducted in Nigeria appear to be concentrated on enrolment. The only studies that are close to the present one are the ones by Muhammad (2000) and Obeise (2007). However these did not address the variables of achievement motivation or the demographic variables of birth order, betrothal, parental educational levels and socio-economic status. This study is an attempt to fill the gaps in these

areas. The need to determine the level of nAch of nomadic Fulani girls and how their levels of nAch affect their performance on the basis of demographic variables under investigation cannot be overemphasized. It is against this background that this researcher carried out this present study.

1.2 STATEMENT OF THE PROBLEM

The central focus of this study was to examine the influence of achievement motivation and demographic characteristics of nomadic Fulani primary girls in Adamawa state. Invite of the role of women in the development of any society, the poor academic achievement of nomadic Fulani girls in common entrance examination into secondary schools became an issue to concern to stakeholders in nomadic education. The assumption here is that if nomadic girls have high need for achievement, if their demographic characteristics of age, school distance, birth order, socio-economic status, betrothal and parental educational levels are such that promote their education, their academic performance would be high.

Available literatures indicate that relatively few studies have investigated nomadic Fulani children academic performance, particularly girls (Ahmed, 2000; Muhammad 2000). A scan of these studies indicates only that of Muhammad investigated academic performance of nomadic Fulani children in English language and Fulfulde. However, the study did not addressed the variable of birth order, school distance, age, socio economic status, betrothal and parents educational levels which the present study explored.

Again, the investigator was not aware of any study which investigated the influence of nAch and demographic characteristics on nomadic Fulani girls' academic performance; this made the present study worthwhile.

Research findings revealed that much of the studies conducted were in foreign countries, with cultural and environmental differences from yhat of Nigeria (Njeuma, 1993, Jama, 1999 & Eisa, El-Dasis, Hassan, 2003).It was therefore, worthwhile to carry out studies on nomadic Fulani children, particularly girls, considering their relevance of their academic performance in completion of primary school; and transition to junior secondary school.

If nomadic Fulani girls strive to excel; desire to learn, and with personal incentives are attached to classroom assigned tasks, their academic performance will may improve. What was then the influence of nAch and demographic characteristics on nomadic Fulani girls' academic performance?

1.3 PURPOSE OF THE STUDY

The general purpose of this study was geared towards examining the influence of achievement motivation and demographic characteristics on the academic performance of nomadic Fulani girls in Adamawa State. Specifically the study sought to determine the following:

a. the level of nomadic girls' achievement motivation.

b. the level of nomadic girls' academic performance.

c. the distribution of nomadic Fulani girls according to demographic characteristics.

d. the influence of demographic characteristics on achievement motivation nomadic Fulani girls.

e. the influence of demographic characteristics on the academic performance of nomadic Fulani girls.

f. the interaction effects of demographic characteristics on nomadic Fulani girls' achievement motivation.

g. the interaction effects of demographic characteristics on nomadic Fulani girls' academic performance.

1.4 RESEARCH QUESTIONS

The following research questions were formulated to guide the investigation:

1. What is the level of achievement motivation of nomadic Fulani girls in Adamawa State?
2. What is the level of nomadic Fulani girls' academic performance in Adamawa state?
3. What is the distribution of nomadic Fulani girls according to demographic characteristics?

1.5 HYPOTHESES

The following hypotheses were tested during the course of this study at 0.05 level of significance:

1. There is no significant difference in the achievement motivation mean scores of nomadic Fulani girls due to the following demographic characteristics:
    a. Age level
    b. Birth order
    c. School distance
    d. Parents' socio economic status

e. Betrothed or not betrothed

f. Father's educational level

g. Mother's educational level

2. There is no significant difference in the academic performance mean scores of nomadic Fulani girls due to the following demographic characteristics:

a. Age level

b. Birth order

c. School distance

d. Parents' socio economic status

e. Betrothed or not betrothed

f. Father's educational level

g. Mother's educational level

3. There is no significant difference in the academic performance mean scores of nomadic Fulani girls with high and low achievement motivation.

4. There are no significant interaction effects of school distance, age and socio economic status on nomadic Fulani girls' achievement motivation by the following demographic characteristics.

5. There are no significant interaction effects of betrothal, birth order, father's educational level and mother educational level on nomadic Fulani girls' achievement motivation.

6. There are no significant interaction effects of school distance age and socio economic status on nomadic Fulani girls' academic performance.

7. There are no significant interaction effects of betrothal, birth order, father's educational level and mother educational level on nomadic Fulani girls' academic performance.

1.6 THEORETICAL /CONCEPTUAL FRAMEWORK

The present investigation is hinged on the Motivation to Achieve Academically (MAA) approach developed by Waugh (2001). The theory is based on main aspects and corresponding sub-aspects of motivation from ten models. Russell Waugh developed MAA following findings of Leo and Galloway (1996) that previous models fail to tap the phenomenology of motivation. They state that researchers have not used a good multi-aspects model of motivation which shows these aspects to be linked to behaviour. In developing MAA, Waugh focused on three main aspects of motivation with each operationally defined by a number of sub-aspects: (a) striving for excellence, (b) desire to learn and (b) personal incentives. "Striving for excellence" was defined by the sub-aspects standards, goals, tasks, effort, ability and values. "Desire to learn" was defined by the sub-aspects interest, learning from others, and responsibility for learning. "Personal incentives" was defined by extrinsic rewards, intrinsic rewards and social rewards.

First, MAA posits in the theory that individuals with the need to achieve strive for excellence. This agrees with the position of McClelland (1978) that individuals with a high need for achievement seek out situations in which they can compete against some standards – be it grades, money, or winning at a game – and prove they are successful. It also involves any challenge to a student's sense of competences that ends with a success/failure, right/wrong,

or win/lose outcome such as a score on a test, an answer to a question, or the outcome of an election or contest.

MAA also hypothesises that when students face standards of excellence and set goals they adopt two achievement goals, either learning goals or performance goals (Dweck, 1986; Nicholls, 1984). Learning goals, in Nicholls' perspective, involve developing competence and mastering the task. A goal is what a student sets out to accomplish. Goals generate motivation by focusing students' attention on the discrepancy between their present level of accomplishment and their ideal level of performance. However, the type of goal one sets determines the extent to which that goal translates into performance gains. A good goal possesses two characteristics- difficulty and specificity. Difficult goals energize the performance more than easy goals. Specific goals direct students toward the desired course of action better than vague goals. Based on MAA, nomadic Fulani girls, when faced with a standard of excellence, can adopt learning goals to improve their performance through the setting of moderate and specific goals.

Equally important, and equally subjective, is the concept of value which implies that students must believe that there are direct or indirect benefits in performing a task. In their theory, Eccles, Fulterman, Goff, Kaczala, Meece and Midgley (1983) agree that the subject value which a task has for a learner, in combination with his performance expectation, is a major determinant of his/her behaviour in relation to that task which may be high or low. Explaining the concept of task value, Eccles et al (1983) and Wigfiled and Eccles (1992, 2000) state that task value is determined both by characteristics of the task and the needs, goals and values of the person.

The degree to which a task is able to fulfil an individual's needs, facilitate reaching goals or affirm personal values determines the value a person attaches to engaging in that task. In the context of Nomadic Fulani girls, goal setting, goal difficulty and specificity are vital in improving performance as they determine the kind of effort they can exert to accomplish a goal related academic performance.

Another major thrust of the theory is the desire to learn (interest, learning from others, responsibility to learn). Interest of students determines the level of desire to strive to excel. Interest is a topic-specific motivational state that arises from attraction to a particular domain of activity. When piqued, it enhances students' attention, effort and learning. Also students' desire to learn from peers determines their desire to excel. It is assumed by this theory, that nomadic Fulani girls' desire to succeed and perform well in school is hinged on whether they are interested, like to learn from others, or can take responsibility for their ability or inability to learn.

Personal incentives are the third focus of MAA. Waugh (2001) indicates that students can approach any activity from either an intrinsic or an extrinsic motivational orientation. Intrinsic motivation is viewed as the propensity to engage one's interest and to exercise and develop the individual needs for autonomy, competence and relatedness. In concord with Dece and Ryan (2000), Waugh states that when students are intrinsically motivated, they exhibit healthy, productive functioning such as initiative, persistence, creativity, high quality learning, and conceptual understanding of what they are learning and positive well being.

Extrinsic rewards on the other hand arise from outside incentives and consequences. Students work hard not because they enjoy what they are doing but because they want to receive the reward such as grades, sweets, praise, trophies, prizes awards, smiles, etc. Social rewards, in the form of social recognition, relationships and fun pupils enjoy among class members and earning positions like class captains, group leaders, motivate students to engage in any activity. Also students engage in an activity because of the honour they want to bring to themselves, families and the society.

In the context of the Nomadic Fulani girl, MAA assumes that nomadic girls will engage in any academic activity (class work, tests, and examinations) when intrinsic, extrinsic or social rewards are attached, depending on whether they want honour, scores, grades, certificates, recognition or to acquire positions.

1.7 SIGNIFICANCE OF THE STUDY

The significance of the research lies in the fact that it is addressing issues highlighted in the EFA and MDG goals, to which the FGN has attached significant interest. Specifically the focus is on the accessibility of education to all children and the elimination of gender disparities in primary and secondary schools. The outcome of the study will assist in the realization of UBE goals of improving accessibility and performance in education. The study can improve the ability of agencies like National Commission for Nomadic Education (NCNE), Pastoral Resolve and Miyyeti Allah Cattle Breeders Association of Nigeria (MACBAN) to reach the nomadic population using achievement motivation. It will particularly assist in enhancing the nomadic

girls' achievement motivation and invariably their transition from primary to secondary school.

Since the establishment of the National Commission for Nomadic Education (NCNE) in 1986, and recognition of the significance of Nomadic girl-child education, there has been no comprehensive investigation to examine issues regarding nAch, academic performance and nomadic Fulani girls. Thus the NCNE will benefit from the study in view of the fact that it will advance suggestions on how to improve nomadic Fulani girls' nAch and academic performance. Also findings of this research can be applied by NCNE on other nomadic populations like the Shuwa Arabs, Buduma, Badawis and Koryams of Borno State and the Lake Chad Basin, as well as the migrant fishermen in Bakassi, Buguma, Okrika, etc in Rivers, Akwa Ibom and Bayelsa States.

A vital goal of this investigation is to determine the levels of nomadic girls' achievement motivation and how it affects their academic achievement and transition. It is hoped that the outcome of this study shall assist curriculum planners with the necessary information on how to review the nomadic primary school curriculum to enhance nomadic girls' academic achievement and their transition from primary to junior secondary school. Where there may be pitfalls with the current reforms in the educational sector affecting nomadic schools, the findings of this study will provide the basic information for review of gaps, especially in textbooks, teaching strategies and assessment techniques for nomadic children.

Nomadic primary school teachers will benefit from the findings of the study. As agents of change, the study will provide them with information on

the differences in achievement motivation and academic achievement among nomadic Fulani girls. The outcome of the study will equip them with the necessary information on how achievement motivation of nomadic girls can be improved on to ensure that they perform well in order to academically to make the transition from primary to junior secondary schools.

Non-governmental organizations, in partnership with NCNE in Nomadic Education, will also benefit from this investigation. Through this research, Al-hayab, Pastoral Resolve (PARE) and Miyyetti Allah Cattle Rearers' Association of Nigeria (MACBAN) will see the need to support the education of nomadic Fulani girls through financial contributions, in view of their indispensable role in changing their communities and the Nation at large.

Similarly, nomadic parents will be more enlightened on the need to educate their children irrespective of gender. This will be feasible where NCNE and nomadic teachers use the suggestions advanced from this study through vigorous print and mass media campaigns.

In summary the research will contribute to the theory and practice of educational psychology, especially on the need for achievement among disadvantaged groups.

1.8 DELIMITATION OF THE STUDY

The study was limited to the determination of the influence of nAch and demographic characteristic on the academic performance of nomadic Fulani girls. Aspects of nAch investigated included the striving for excellence, desire to learn and personal incentives. This is due to representation of nAch comprising sub-scales like effort task difficulty, ability, luck, interests and rewards either intrinsic or extrinsic. It also investigated the nAch and

academic performance levels of nomadic girls. The influence of demographic characteristics (age, birth-order, betrothal, school distance, parents' socio-economic status and educational levels) on nomadic girls' achievement motivation and academic performance was sought during the course of the study. The nAch and performance levels of nomadic Fulani girls were categorized into high and low based on their AMRS scores and NGAT scores. Only nomadic girls in primary six participated in the study.

1.9 OPERATIONAL DEFINITION OF TERMS

The terms below are defined within the context they are used in this study.

Achievement Motivation: This refers to the nomadic girls' achievement **Motivation rating scale (AMRS) score**. The score may be low or high. Low or high motivation to achieve inhibits or enhances a nomadic Fulani girls' academic performance.

Low motivated to achieve nomadic girl child (LMANG): This refers to nomadic girls with achievement motivation level below 135 of the total 180 AMRS scores.

High motivated to achievement nomadic Fulani girls (HMANG): This refers to Nomadic girls with AMRS scores from 135 -180 which is the limit of level of agreement,

Nomadic Primary school female pupils: They are those nomadic Fulani girls' who are in class six which is their final year of school at the primary level.

Nomadic girl child: A Nomadic female child within the ages 9-11, 13- 15 and above 15 years.

School Distance: This refers to geographical location of nomadic primary schools, which may be far or near, with distance between 0 to 1 kilometres for near and far above 1 kilometre

Academic performance: It is the ability of nomadic Fulani girls' test score from NGAT designed by the researcher. In the context of this work, performance is used synonymously with achievement.

Demographic Characteristics: These are the personal and home background variables of nomadic Fulani girls which comprise age, birth-order, betrothal, school distance measured in kilometres, parents' socio-economic status measured by number of cows and educational levels.

Birth order: This is the position of Nomadic girls in the family, whether they are first, middle or last born.

Betrothal: Engagement of nomadic girls at birth to would-be husbands by their parents.

Parents' educational level: This implies the educational attainment of nomadic Fulani girls' parents based on whether they have non-formal, Islamic secondary or tertiary education.

Parents' Socio Economic Status: The categorization of nomadic families according to their herd size from 0-50, 51-100, 101-200, 201-300, 301-400 and above 400.

CHAPTER TWO

REVIEW OF RELEVANT LITERATURE

This chapter presents a review of various works, publications and research studies that are related to the present investigation. The review covers achievement motivation, academic performance, demographic characteristics, concepts of motivation, nomadism, the characteristics of the achieving individuals, the relationship between achievement motivation and academic performance, influence of demographic characteristics on nomadic Fulani girls' education, nomadic education programme in Nigeria, survey of studies on nomadic education in North East education zone, pastoral nomadic girl child in Adamawa State, empirical studies on nomadic Fulani girl education both outside and within Nigeria and summary of related literature and its bearing on the current study.

2.1 THE CONCEPT OF ACHIEVEMENT MOTIVATION

McClelland (1957, 1964), the pioneer achievement motivation theorist, conceived achievement motivation as a learned motive, unconscious in nature, resulting from reward or punishment of behaviour. Atkinson (1964) states that achievement motivation is a drive whereby behaviour involves competition with a standard of excellence and that, if successful, has a positive influence on subsequent behaviour, but if unsuccessful, affects an individual's subsequent behaviour negatively.

McClelland's associate, Atkinson (1957) stated that one universal human need is the need to achieve and, hence, achievement motivation is the striving to overcome obstacles, to exercise power, to strive to do something difficult very well, as quickly as possible. Achievement motivation,

according to its proponents, is the desire of individuals to excel in assigning tasks or goals set by them in the midst of problems. This implies that, challenges notwithstanding, individuals remain committed until they achieve the desired goals.

Murphy and Alexander (2002) explain that a child develops the desire to gain approval and to establish a position of social esteem among his peers. Beyond these motives is that of the acquisition of mastery involving the learning of intellectual skills that enables him to function independently. They further state that reinforcement for such learning is provided by accuracy and accomplishment of tasks the pupil undertakes. Murphy and Alexander thus consider the motivation for achievement as the level of development. This they refer to as the development of true self – motivation in which successful mastery of more and more difficult tasks becomes a source of self-satisfaction and generates a desire for greater improvement, which equips pupils with the readiness needed to be true self-learners.

Marsh (1994), Tukman (1999), and Cavington (2000) differ in their views of achievement motivation in terms of competence. According to them, competence motivation is genetically based, as they have studied in animals and is related to such sources of motivation as exploration, activity, and manipulation. They therefore posit that many activities of a child may not be explained through the operation of need satisfaction, as claimed by other theorists, but through the pursuit of activities that constitute effective interaction with the environment and that are accomplished by a feeling of efficiency.

This perception of motivation portrays the vital role of the effectiveness of teacher motivation in the performance of nomadic Fulani girls because exploratory behaviours cannot be feasible in an unconducive learning environment. This is further compounded where the home background of the nomadic girl-child is at variance with the school environment. Competence motivation can, therefore in this case, be put into use in the teaching–learning process through the proper arrangement of both quantitative and qualitative learning materials to ensure that nomadic Fulani girls can display competence and experience efficiency.

Furthermore, explaining the factors enhancing achievement motivation in children, Passer and Smith (2001), Chauhan (1996) and Agullana and Nwachukwu (2004) agree that a combination of techniques can lead to a persisting motivation for achievement. These include those leading to a clear definition of individual goals, perception of self-improvement, increasing tendencies towards the assumption of responsibility for ones' performance, and a supportive social environment.

Some researchers such as Mukherjee (2002) and Sprintal and Oja (1994) consider the motivation of task mastery and achievement as more important than other factors in enhancing learning. They believe that the advantages of motivation for learning lie first in the fact that such motives are intrinsic to the task itself, and hence the reward (the attainment of new knowledge and skills) is capable of wholly satisfying the underlying motive.

Secondly, achievement is ego enhancing because the status achieved by the individual is in proportion to his achievement or competence level and this directly affects his self-esteem and feeling of adequacy. This opinion, as

can be seen, emphasises the power of intrinsic motives, including what Dece and Ryan (2000) and Eccles (2002) regard as the biological origin of curiosity and exploration as well as task mastery. Such cognitive motives, which are overtly demonstrated by children, could be regarded as the most important motivation for school learning. Dece and Ryan conclude that a causal relationship between motivation and learning is reciprocal rather than unidirectional. They assert that motivation is not an indispensable condition for learning. The experience of learning creates motivation to learn. Thus, the most appropriate thing to do is to focus on the cognitive rather than the motivational aspect of learning.

Hence there is the need for an educational system where qualified and experienced teachers can use their vast knowledge in identifying and utilizing innovative strategies to guide the nomadic Fulani girls in the course of primary education. This will go long way to improve their academic performance. This will enhance the shifting of the orientation of the nomadic girl child from extrinsic to intrinsic orientation towards education. This makes nAch central in nomadic Fulani girls' academic performance.

From the foregoing it is obvious that competence motivation has important implications for education, particularly nomadic Fulani girls' academic performance. It could be seen that achievement and mastery of the objectives of educational programmes can themselves lead to the persistent satisfaction of nomadic Fulani girls; and can therefore become a most dependable source of their continuing motivation.

2.1.1 The Concept of Nomadism

Nomadism is derived from the word nomad, which is used interchangeably with traveller, migrant or wanderer. It is also viewed from different perspectives by scholars depending on their area of interest. Nomadism, according to Kirk-Green (1958), is derived from a Greek terminology implying “cattle–driving”. The Oxford English Dictionary Thesaurus defines a nomad as a traveller, migrant, wanderer, way farer. Providing more elaboration on the concept of nomadism, Yakubu (1997) states that pastoral nomadism, which is the movement of Fulani in charge of cattle and sheep, is their second nature. In Yakubu’s perception, nomadism is their means of livelihood and their way of life. Similarly, Tahir (2006) describes nomads as an ethnographic group who move from one place to another, having no fixed home. He attributes their movement to cultural and economic demands such as cattle rearing, hunting and gathering fish and doing craftwork.

Turaki (1993) states that nomads are not aimless wanderers, refugees or displaced persons, but individual whose work requires them to travel often. According to FMI, they are not homeless, but people whose whole way of life makes them ‘at home’ on the move. Nomadism therefore can be viewed as the act of systematic travel by cattle rearers to support and meet their needs. Mohammed (1994) views nomadism as a way of looking at the world, a different way of perceiving things, and a different attitude to accommodation, to work and to life in general.

As counterparts in Europe, travellers or nomads take a range of forms including those who are constantly on the move, those who have a fixed base

for a part of the year, and those who are sedentary for many years and then move.

The nomad's society is shaped by their mobility even though it varies considerably. Their categorization into different groups by different authors is based on their degree of variation in mobility like semi-nomad and semi-sedentary, Fulbe Mbalyu or Sheep Fulani (Fulbe ladde or Na'i or bush or cattle Fulani) and Fulbe Wuro or settled Fulani (Yakubu,1997). According to Turaki (1993) nomads are grouped according to the degree of urbanization. The Mbororoen is completely pastoral and continuously on the move without regard to permanent home. Their movement notwithstanding, they contribute significantly to the economic development of their countries of abode but educating them has not been easy due to their unique life style.

From the preceding definitions and categorizations, it is clear that there is a cultural dichotomy between nomads' based on their categorization before and after the 1804 Sokoto jihad. As directed by Usman Danfodio after the Jihad, the different Fulani groups were to cultivate land, rear animals, seek the will of Allah and seek for knowledge. While the sedentary/settled Fulani cultivated land and sought Koranic education and Western education, the pastoral/nomadic Fulani who rear animals, have acquired very little learning, especially in Western education. Tahir (2006) lamented that nomadic Fulani are the most neglected group in Nigeria. This he attributed to their unique life style of constant movement in order to herd their animals.

This gap in terms of Western education informed the launching of the National Commission for Nomadic Education in Nomadic Education by the Federal Government in 1989. This has been followed by many studies on

how to enhance their involvement in education compared to sedentary children, especially the female children. The situation of nomadic Fulani girls is based on nomadic norms and values that are encapsulated in Pulaaku which all nomadic Fulani, especially girls, are bound to strictly adhere to.

Efforts to ensure the realization of Education for All (EFA) and the Millennium Development Goals (MDGs) goals on gender equity and elimination of gender disparities in primary and secondary schools prompted the present study on nomadic Fulani girls' nAch and academic performance.

2.1.2 The Concept of Academic Performance

Academic performance is a concept that is subject to different interpretations by researchers depending on their area of interest. Academic performance is used interchangeably with academic achievement to mean learner's attainment in an educational programme. It implies evaluating or assessing the learners' effort in a given task, test or examination.

It is important to look at its definition from a few scholars. Mangal (2005) defines academic performance as the learner's success in school and is the outcome of a student commitment, endurance and perseverance in school. Anastasi and Urbina (1997) view it as the ratings by teachers or instructors of a learner's effort in the form of school grades, achievement test scores, promotion or graduation records and special honours and awards at the end of any educational programmes. Subscribing to these definitions, Adell (2002) defines academic performance as the extent of demonstrated ability in school subjects as observable in the results of semester/sessional examinations of students.

In the context in this research, academic achievement refers to the extent of performance of nomadic Fulani girls' demonstrated ability in school subjects during terminal and sessional examinations as observed by their teachers. It is also their demonstrated ability in the achievement test designed by the researcher which comprises English Language, Mathematics and General paper.

2.1.3 Characteristics of the Achieving Individual

According to Schunk (1991), Weiner (1990), and Foster (1999) the drive to succeed is associated with an individual's philosophy or ideology which is independent of manipulation by other people. They explained that the characteristics of pupils/children with a high need for achievement (nAch), as reported in various investigations, are that they are relatively independent of adults; less likely to conform to the opinions of their peers in social situation; better able to work under delayed incentives and prefer moderately difficult tasks to easy or very difficult ones. Supporting this description, Elliot and McGregor (1999) observed that achieving individuals engage in energetic, innovative activities. They work hard only where there are some challenging situations. They further explained that they do not care for routine tasks; preferring tasks which require a degree of mental manipulation, originality, or a new angle of approach for successful solutions. They seek novelty or new solutions to old problems. It can be inferred from their description that the characteristics of independence, non-conformity to others opinions, energetic behaviour, seeking of innovative activity, originality and seeking novel solutions to old problems are much more characteristic of the creative and intellectually gifted individuals.

Among the researchers who have also analyzed these characteristics are Petri (1991), Sarason and Sarason (1990), Gottfried; Felming and Gottrifield (1998), and Murphy and Alexander (2002). They maintained that it seems students with high nAch are more likely to prefer to complete their studies than those with low nAch. Their completion of school, according to them, is possible as they explore and satisfy their curiosity without much restriction and also where novelty is encouraged and uniqueness of the learner is respected. They also insist that where their performance is enhanced through adequate reinforcement, their performance improves and they are optimistic that their problems and challenges can be met with success. Thus, nomadic Fulani girls with high need for achievement are more likely to solve problems related to achievement goals than those with low nAch largely due to their greater persistence.

Diaz (2002) and Marchezi and Martin (2002) discovered that an individual with high nAch who is intrinsically motivated tends to undertake a task for its own sake, and is capable of tackling independently and successfully both work and examination. Unlike the high nAch learner, the social and liberal learner responds to a mixture of both intrinsic and extrinsic motivation. He takes part in community life outside the classroom and is more likely to enjoy discussion methods and group tasks and enjoy group, rather than individual, tasks. This enables the achieving pupil to perform better under this situation. When confronted with a problem, he becomes creative, integrated, efficient and pleasant. His behaviour is built into the activity itself.

This implies that nomadic Fulani girls, who are social and liberal, would enjoy group rather than individual tasks which is the common trend in our

educational system where, although they are taught as a class, are mostly assessed individually. This is in line with the norms and values of nomads who cherish group work and success and not individual success.

According to the studies by Montero (1990) and Fulana (1995) of students with high nAch, an individual who is aroused and is interested may learn a great deal whether the methods of teaching and materials used are adequate or not. This shows that individuals with nAch persevere even in the midst of numerous problems.

Commenting on the interaction between achievement and motivation, Cavington (2000) found a direct relationship between the two. Cavington found out that achievement oriented pupils showed greater growth in academic achievement and more interest in school work when placed in ability groups. Diaz (2000) and Adell (2002) explained that some individuals have the need to achieve and others do not. Reviews of related literature on nAch by race, sex and social class confirm that the need to achieve is usually perceived as a single unitary construct possessed by some and not by others. However some psychologists, Skinner and Belmont (1994) and Sansome and Harackrewer (2000) contest the premise that motivation is a single phenomenon. They assert that achievement behaviour is common to all groups. Sansome and Harackiewer, however extend this theoretical argument by suggesting that the need to achieve is situational. For instance one may be motivated to achieve in the psychomotor domain (carpentry, carving) but not in the classroom (cognitive domain). Also, an individual may experience the need to achieve in school at the primary and may not have a need to achieve in secondary school. Thus, to comprehend why pupils' academic

performance fluctuates, one should search beyond the motivational state of the pupils. This implies that situational factors such as religion, culture, gender, educational level, socio-economic status and school location affect nAch.

This applies to the nomadic Fulani girl where situational factors of their unique environment reflected in their culture may influence their nAch. The nomadic Fulani girl-child is socialized specifically to suit her feminine role of a mother, housewife, and custodian of nomadic Fulani culture.

McClelland (1954) postulates that on the strength of nAch, the basis of an achievement oriented activity is the tendency to achieve success. This identifies the mainspring of action as an individual is confronted with the challenge to achieve and the threat to avoid failure that are both present whenever his ability is put to test and when there is uncertainty about whether he will succeed or fail. Agreeing with McClelland, McCombs and Marason (1990) assert that individuals' motive to achieve and to avoid failure, as well as their expectation of success in some ventures, strongly influences the character of their motivation. This is expressed in the level of motivation, preference for tasks, willingness to put forth effort as well as persistence in an activity. They assume that the tendency to achieve success, as expressed in the interest and performance of an individual in some tasks, is a manipulative function.

This strength of motivation to achieve success is thus presented mathematically: Motivation = F (Motive x Expectancy x Incentive), where motivation is the function of an individual, multiplied by his expectancy and incentives attached. This informed Sarason and Sarason's (1990) view that

performance is positively related to the strength of a particular motive only when the expectancy of satisfying that motive through performance has been aroused.

Festinger (1980), cited in Passer and Smith (2001), conceives achievement motivation mathematically as:

Motivation TS = (Ms x Ps x Is) or

TS = (Maf x Pf x If)

TS mean Tendency to achieve success.

MS = Strength of motivation to approach success

P = Probability for success

I = Incentive for success

From this explanation, it can be said that a nomadic Fulani girl in whom the motive to achieve is stronger, could set her level of aspiration in the intermediate zone where there is moderate risk. This implies that she will voluntarily choose activities that will minimize her own anxiety about failure. On the other hand, a nomadic Fulani girl in whom the motivation to avoid failure is stronger, would select either the easiest of the alternatives or would be speculative and set her goals where there is virtually no chance for success, so that when there is failure, she can always advance that after all, the task is not on her level but on the level is those above her. The choice of activities or tasks by nomadic Fulani girls that are difficult can be seen as an attempt to minimize their anxiety about failure. The concept of motive seems to represent the nomadic Fulani liking for success in general. This is due to the fact that their values and beliefs are internalized, having been instilled in them during the process of socialization.

The dynamic achievement tendencies, as Passer and Smith (2001) explain, are the changes that are brought about by success or failure. They explain that an individual who has high nAch is more persistent following task failure when she initially believes the task to be easy than when she initially believes the task to be difficult. For instance, if a nomadic Fulani girl with high nAch undertakes to solve a problem with the Probability for Success (PS) as 70% and repeatedly fails in successive trials, this PS would gradually decrease to zero level until she finally quits attempting to solve the problem.

However, if her perception of PS is 0.05 because it is a very difficult task, it should take her only a few failures to reduce the tendency sufficiently so that the strength of the tendency to undertake the task becomes proportionate to her expectancy. However, the nomadic Fulani girl whose motive to avoid failure is dominant should be very persistent in the face of failure in what initially appeared to be a very difficult task.

Based on the foregoing information, Elliot and Church (1997) explain that lack of motivation leads to an individual's attempts to avoid failure. According to them, there are two possible causes of inadequate motivation of particular individuals. First, is a deficiency in the personality, which they refer to as anxiety and fear that is too much in an individual. Secondly, the motive to avoid failure may be too strong and the motive to achieve success too weak in the individual. This, they say, may produce a general resistance to achievement oriented activities that must be overcome by other extrinsic sources of motivation if there is to be any spur to achievement–oriented task at all.

Koester and McClelland (1990) also explain that individuals may be motivated by both the desire for success and fear of failure in such a way that their experiences approach avoidance conflict. Hence, a nomadic Fulani girl with high nAch may be willing to risk failure provided that the risk is not perceived to be as too great. It is pertinent to note that some learning environments are characterized by threat of failure. This demonstrates the importance of an enhanced learning environment with qualified and motivated teachers to cultivate the required type of motivation for achievement in learners.

However, Denga (2002) and Agullana and Nwachukwu (2004) postulate that when learners are motivated to learn, adequate instructional materials, teaching strategies and evaluation techniques by their teachers are something to be desired. Thus, Nomadic girls need to be motivated to improve their performance. Unfortunately, the learning environment of Nomadic Fulani girls is characterized by classrooms that are mostly temporary and may be under the control of unqualified teachers that are deficient in the knowledge of motivational strategies. The motivational level of these girls may be such that little or no effective learning takes place; thus undermining their nAch and performance.

2.2 THEORIES OF MOTIVATION

Motivational theories, propounded by psychologists can be classified into instinct, drive, and needs theories.

2. 2. 1 Instinct Theories

An instinct is a genetic capacity that requires no learning such as breathing or blinking of the eye. Drives are psychological expressions of

internal needs or valued goals; for instance, hunger, thirst or a drive for success. The instinct approach drives its basis from Charles Darwin's (1859/1959) principle of natural selection, which William McDaugall's (1908, 1932) proposal is based on. This states that human behaviour is controlled by genetically programmed instincts. In fact, McDaugall insists that all human behaviours are instinctive. He views instincts as (1) unlearned (2) uniform in expression and (3) universal in all species. Instincts listed by him include mating sex, jealousy, fear, disgust, submission, etc. However, critique of the instinct theories shows that it does not explain human behaviour very well. Some of the instincts are congruent with situations that encourage learning, which contradicts the meaning of instinct.

This pitfall led to the emergence of ethnologist and sociologist perspectives of the genetic basis of behaviour proposed by Wilson (1975) who studied behaviour from a genetic perspective. Despite the advancement of the ethnologists over McDaghall's theory, sociologists study the genetic and evolutionary basis of behaviour in organisms, including humans. This sociological view was also rejected on the premise that human beings cannot be equated with all organisms.

The loopholes of these theorists notwithstanding, their findings have far reaching implications on the genetic and sociological basis of behaviour which affect education if instincts are innate and universal qualities that remove motivation from the realm of education. The assumption that instincts are unlearned informed the contention of some educators that they can be curbed through punishment. Emphasis was not made on creating a conducive environment for developing appropriate behaviour.

Nomadic Fulani girls need an ideal home and school environment to enhance the development of positive behaviour, which are prerequisite for successful learning. Unfortunately their unique life style denies them access to the enhanced environment of sedentary girls which this investigation subscribes to. Therefore, the present study seeks to find out how nomadic girls' achievement motivation affects their academic performance.

2. 2. 2 Drive Theories

Behaviorists (Freud, 1915; Cannon, 1932; Hull, 1943) abandoned the notion of instincts and began to consider other factors that might motivate behaviour. The drive theories of the behaviorists hypothesized that drive can be increased or decreased by creating certain conditions in the environment. Weiten (1995) defines drive as an internal state of tension that motivates an organism to engage in activities that should reduce these tensions. Drives such as hunger and thirst arise out of tissue deficits (e.g. lack of food and water). Drive theories fit well with the concept of reinforcement hypothesized by Skinner and Thorndike's theories of operant conditioning and connectionism respectively. Reinforcement is defined as anything that would reduce a drive. For reinforcement theorists, therefore, drives are indispensable in learning.

Despite the relevance of drive theories in modern psychology, they cannot explain all motivation. They have, for instance, failed to explain some human motives, such as a "thirst for knowledge" which has direct bearing with this investigation. Achievement motivation, the main thrust of this research, may exist without drive arousal. The desire to excel academically is influenced by many factors. Nomadic Fulani girls' need to achieve may vary

based on several factors ranging from age, parents' socio-economic status and educational level. In learning, environmental factors can mar or enhance the genetic potential of a child, including nomadic Fulani girls.

The concentration of drive theories on the reduction of internal tension without a full explanation of how it affects an individual's behaviour, informed the emergence of incentive theories that hypothesized that external stimuli regulate motivational states. Proponents of these theories (McClelland, 1953; Murray, 1938; Weiner, 1979) defined an incentive as an external goal that has the capacity to motivate behaviour. Incentive theories emphasized that the source of motivation lies outside the individual in the environment. Environment influences an individual's desire for good grades and promotions. Despite the uniqueness of her environment, the nomadic girl child may possess the variables earlier enumerated under drive theories.

2.2.3 Need Theories

Motivational theorists posit that individuals are motivated by a wide range of needs which can be classified into biological and social needs. While biological needs originate in bodily needs such as hunger, social needs originate from social experiences, such as the need for achievement.

Needs is an approach taken by psychologists like McClelland (1938) and Murray (1938) and Atkinson (1964) to explain motivation. While some psychologists such as Murray and Atkinson categorized psychological needs, some have not. Murray (1938) proposed 28 psychological needs that include the need for play, achievement, autonomy and affiliation. Feldman (1996) views nAch as stable learned characteristics in which satisfaction comes from striving for achieving a level of excellence. He posits that individuals with a

need for achievement seek situations in which they can excel. He explains further that pupils with nAch seek situations in which they can compete against some standard either for grades, money or winning games and prove themselves successful. They don't discriminate in their choice of challenges.

Halone and Santrock (1996) see nAch as the desire by an individual to accomplish something, to reach a standard of excellence and to expend effort to excel. Achievement motivation can thus be viewed as a desire by an individual to attain realistic but challenging goals. It is a learner's concern over competition with a standard of excellence, for instance doing as well as or better than other pupils in the class. Thus, an achievement-oriented individual has a general tendency for excelling in a field for the sake of achievement rather than for reward. Such an individual is tagged as a person with a high need for achievement."

McCombs and Marason (1990) identified "skill" and "will" as the major characteristics of achievement outcomes as they are indispensable in ensuring success. Tukman (1999) emphasises that for success to be attained, individuals must possess positive attitude, drive and strategy. He provides evidence of a correlation between these variables and success in school and society. This implies that nAch plays a vital role in school success. Students with nAch are obviously the most motivated to be taught by a teacher.

2.3 NOMADIC EDUCATION

Since the inauguration of the Nomadic Education programmes in 1990, the NCNE has implemented the goals of the programme, which are geared towards meeting the basic needs of migrant communities in Nigeria

educationally. The population of the two categories of migrants (nomadic pastoralists and artisan migrant fishermen) is 7.2 million and 2.8 million respectively (Tahir, 1999). According to a NCNE monitory and evaluation report (2004), while the nomadic pastoralists are made up of the Fulbe who form the largest group (5.3 million) and are found in 31 out of the 36 states of the Federation, the Koryam, Badu, and Dark Buzzu, are mainly found in the Borno plains and shores of Lake Chad. The migrant fishermen found along the coastlines, the riverine areas of Southern Nigeria, as well as the river basins make up the second category of the programme target group.

Out of the 10 million nomadic people in Nigeria, 3.6 million are children of school age. Consequently, it has been observed that the participation of nomads in existing formal and non-formal educational programmes is abysmally low with a literacy rate of 2.0% to 10% (Tahir 1999; Muhammad 2007).

Lar (1997), Kratli (2000) and Sa'ad (2002) attribute the low literacy rates among nomads to constant migration, the critical role of children in their production systems, the unsuitability of the formal school curriculum as well as time schedules and calendar that favour sedentary children. Other contributory factors are the physical isolation and minimal social interaction with the larger society as they live and operate in mostly inaccessible terrains and a land tenure policy that makes it difficult for the nomads to acquire land and have settlements. This necessitated the establishment of NCNE in 1989 to provide relevant and functional basic education to the nomadic pastoralists, with the mandate to:

1. raise the living standard of rural community

2. harness the potential of the Fulani

3. bridge the literacy gap between the Fulani and the rest of the society.

The establishment of NCNE led to some increase in enrolment of pupils and teachers. For instance, the monitoring report of 1999 by NCNE indicates that there were 1,356 nomadic primary schools in 34 States and Abuja with 1,3741 teachers and an enrolment figure of 162,002 pupils, out of which 65,789 were girls representing 41% of the total enrolment. The report also indicated that enrolment in nomadic primary schools increased from 17,670 in 1990 to 29,332 in 2004 representing an increase of about 24%. (See Table 1 below.)

Table 1: Statistics of Teachers by Qualification in Pastoralist Nomadic Primary Schools in Nigeria 2002-2008.

Year	Teachers			Qualification					
	Male	Female	Total	B.Ed	NCE	GD II P	GR II R	Others	
2002	151	17	168	-	20	84	27	18	10
2003	149	19	168	-	23	81	29	25	10
2004	149	19	168	-	25	74	27	23	19
2005	159	21	179	-	38	85	20	29	15
2006	220	36	256	-	57	95	20	44	40
2007	192	34	226	2	58	92	12	39	41
2008	2002	36	4	4	62	94	10	39	35

Table 2: Pupils Enrolment in Nomadic Primary Schools in Adamawa State, 2002-2008.

Year	No of Participating States	No of Schools	No of Teachers	Enrolment		
				Male	Female	Total
2002		51	168	2145	1961	4,106
2003		51	168	2205	1946	4,151
2004		57	168	3572	2,268	5,840
2005		59	179	3627	2305	5,932
2006		59	256	3627	2305	6,932
2007		70	226	3690	2418	6,281
2008		70	238	3789	2492	6,281

Source: Monitoring, Evaluation & Statistics Department (NCNE), Kaduna 2009.

Apart from funding, one major problem that confronted the programme was the dearth of teachers in terms of quantity and quality. That is to say, there are only 4,208 teachers for 1,321 schools (a ratio of about three teachers per school) 60% of whom lack minimum requisite teaching qualification prescribed by government. A breakdown of teachers by qualification is presented in Table 3.

Table 3: Annual Distribution of Teachers by Qualification in Nomadic primary Schools in Adamawa State 2002 – 2008.

Year	Teachers			Qualification					
	Male	Female	Total	B. Ed	NCE	GD II P	GR II R	Others	
2002	151	17	168	-	20	84	27	18	10
2003	149	19	168	-	23	81	29	25	10
2004	149	19	168	-	25	74	27	23	19
2005	159	21	179	-	38	85	20	29	15
2006	220	36	256	-	57	95	20	44	40
2007	192	34	226	2	58	92	12	39	41
2008	2002	36	4	4	62	94	10	39	35

The report went further by noting that incessant transfer of teachers to conventional primary schools by Local Government Education Authorities (LGEAS) further compounds the problems militating against the programme. These notwithstanding, the report revealed that between 1992 and 1998, 28,769 nomadic children made up of 9,418 females and 19,351 males had successfully completed their primary school education.

Prior to the establishment of NCNE, an attempt to provide education to mobile populations, particularly the pastoral nomads, had been made in the early 1950s in Borno and Katsina states. This initiative was short-lived as it was discontinued until the mid-1970s when the initiative was reactivated by some State Governments in the North following the launching of the Universal Primary Education (UPE). This resulted in awareness on the part of nomads of the relevance of education and therefore stimulated nomadic parents to send their children to school. During this period, pilot schools were sited in the then North Central States to cater for the educational needs of the pastoral nomads. This was in consonance with the 1979 Constitution and the National Policy on Education, which strongly urged government to provide equal educational opportunities for all Nigerians irrespective of sex, religion and ethnic background. The policy further enjoined that, whenever possible, arrangement will be made for such children to assist their parents and go to school in the evening, while special adequate inducements will be provided for teachers to stay in the job.

These steps taken by the Federal Government of Nigeria was in fulfilment of Article 26 of the United Nations 1948 Universal Declaration of Human Rights which emphasizes the right of every child to education.

Furthermore, the National Policy on Education (2004) specifically states that education is the birthright of every child and should be brought close to the environment of ‘every’ child.

Evaluation and monitoring reports of NCNE attainment in 1989 show a total of 1, 321 nomadic schools comprising 1,022 and 299 for pastoralists and fishermen respectively. The total enrolment figures were 157,837, out of which 92,290 and 65,547 were boys and girls respectively. There were 4,926 classes and 4,208 teachers (NCNE, 1998).

By 2000, there were 1,574 Nomadic Primary schools located in all the 36 states of the federation. While 1,102 were for pastoral Nomads, 472 were for migrant fishermen constituting 7.3% and 39.9% respectively. The total pupil enrolment in these schools was 203,844 made up of 118,905 males and 84,939 females or 58.3% and 41.7% respectively. The total number of teachers at 2001 was 4,907. Since the inception of the programme, about 15,833 pupils have successfully graduated from the Nomadic primary schools system. This is made up 10,290 boys and 5,543 girls, which represents 65% and 35% respectively (NCNE, 2002). It is important to note that despite an increase in enrolment, girls’ enrolment was low compared to boys.

Before the launching of NCNE in 1986, interactions held between nomads and researchers showed that nomads subscribed to a high degree of seasonal mobility which they were unwilling to forgo (Ismail, 1999; Lar, 1999; Dyer, 2002). According to the nomads, nomadism (Bokkugo, Ladde) and herdsmanship (Ngainaka) are among their traditions (Finugotawa), a part of their identity (Pulaaku) and they were not willing to surrender or sacrifice them for whatever reason. However, they were interested in soliciting Government

support for the enhancement of their pastoral livelihood. In fact, they were ready to unite towards realizing this common goal.

By 1986 with the launching of NCNE, the knowledge of the existence of an education programme existed amongst the nomads, but they were still opposed to it. They would not imagine the rationale behind sending their children to school at the detriment of their cattle. They were not ready to become sedentary. They were suspicious of the genuineness of Government commitment as they were scared of being tricked into abandoning their source of livelihood.

However, by the middle of 1988, recognition of the utility of education had spread among the nomads. This emanated from the State Nomadic Education Units with the support of Ardo'en (chief) and the Mi yetti Allah (Cattle Rearers' Association). In fact, the nomads were happy about the attention given to them at the National level. Indeed, the change in attitude towards education by the nomads was hastened by a costly propaganda campaign, e.g. media coverage, calendar buttons, shirts tags and school bags (Tahir, 1999; Ismail, 2002; Eisa, El-Dasis & Hassan, 2004).

To sustain the momentum on nomadic education, an appeal was made in 1988 to future teachers with concern for pastoral nomads' education to assist in educating the pastoral nomads. This was followed by an appeal to headmasters to join the programme. As mobile teachers, they were expected to live in or near the nomads' bush escarpments and to follow the communities or clan segments on seasonal treks. The first Gongola nomadic school was opened in August 1988 at Yolde Kpasham in Numan Local Government Area of Gongola State.

Unfortunately, the excitement of the launching of the programme was short lived as it was bedevilled with numerous problems. These problems ranged from low enrolment, disagreement by teachers and parents over attendance, lack of teaching materials and non-payment of salaries. These problems led to insignificant progress of nomadic education, especially among nomadic Fulani girls. This lack of maximum success prompted a renewed effort through UBE and researches on how best to enhance their education.

In former Gongola State (presently Adamawa and Taraba States) Ardo (1986) reported that a nomadic educational unit was established in the Ministry of Education in Yola in 1980. The programme was officially launched in June 1983, two years after it was launched in Plateau State. Two committees (at local government and State levels) were set up. Ardo (1986) went further to reveal that in consideration of the nature of pastoral nomadism, Gongola State was divided into zones based on geographical features. The pilot schools were to be sited in these zones before the Federal Government established NCNE in 1986.

As earlier stated, the UNDP financial contribution to the then Gongola State that began in 1984 was completed in 1986 coinciding with the launching of NCNE that year. This contributed significantly to the sensitization of pastoral nomads on the need to educate their children. However, this was short lived as the commission was faced with obstacles that threatened its very foundation. Impediments encountered during the experimentation of Nomadic Education in Gongola, Bauchi and Plateau States, according to Ardo (1986) and Tahir (1999), include difficulties in tracing the nomadic

pastoral movements in and out of a particular area. In addition there were difficulties in finding the nomads at a certain times of the year due to high mobility and lack of motorable roads to their location, if they were found at all.

It was also discovered that the initiating age to the nomadic cultural occupation of cattle herding coincided with the school age of 5-7 years and the time lessons used to start in primary schools also coincided with the time when the pastoral nomadic child led his cattle to nearby grazing areas for the day. Similarly, Oguche (2001) listed the problems militating against Nomadic Primary education to include:

1. Structure and organization of schools in line with the regular conventional system of education.
2. Irrelevance of the curriculum.
3. Lack of comprehensive research on nomadic lifestyle.
4. Too much time-spent in school.

It is worthy of note that while these impediments were of a disadvantage to boys, they favoured girls. Sex roles within the nomadic setting allocate herding to boys, with exceptional cases where the family is mostly comprised of female children. This enhanced the enrolment of girls into nomadic schools as reflected in the 1995/96 academic session where out of the 61,863 pupils that enrolled 42,738 (69.1%) were girls.

However, subsequent evaluation and monitoring reports (1998, 1999, & 2001) showed that the enrolment figure for boys was higher than that of girls. Statistics showed that while girls' enrolment for the year was 65,547, that of boys were 92,290. This was attributed to withdrawal of nomadic girls for early marriage in line with nomadic culture and Islamic religion.

However as Atiku (2002) and Bahago (2009) rightly pointed out, even where girls are more than that boys, girls were enrolled just for the fun of it because they are withdrawn for early marriage even before the completion of primary school. This corroborates the evaluation and monitoring report of 1999 where out of the 3,835 pupils, 1,557 were girls as against 2,278 boys. Subsequent evaluation and monitoring reports also showed a great disparity in the enrolment and graduation rate among boys and girls with the boys always at an advantage. Similarly, Ayanniyi (1999) and the Monitoring and Evaluating report for North East zone in 2002 show that girls contributed only 20% to enrolment against 37% for nomadic male children enrolment. This concurs with the reports by UNICEF (1998) and Kratli (2000) on the disparity in enrolment existing between nomadic boys and girls.

The statistics provided in previous tables show the need for a study like this to see how achievement motivation as a psychological construct can be used to boost nomadic Fulani girls' enrolment, retention and performance.

2.4 ACHIEVEMENT MOTIVATION AND ACADEMIC PERFORMANCE

Empirical studies have been conducted to determine the relationship between achievement motivation and academic performance. It has been postulated that a learner's performance is not measured by his/her ability. Researchers opined that instead, the lack of nAch, or even extreme nAch, by a learner can make such a learner so eager to succeed as to lose focus and be unable to realize his goals (Gonalaz, 1997; Raynor &Deci,2000 Henderson, 2002; Zeedyk, Gallagher, Hinderson, Hope &Husband, 2003).

Investigating the needs that spur people to work, Stenberg and Noguera (1999) explain that intrinsic or growth factors are the real motivators.

These stem from the job itself and are internally mediated by the unique human nature of having the ability to achieve, and through achievement, experience psychological growth. Such needs, according to Yi-Chia (2002), include achievement, freedom to act, recognition, education, membership, responsibility, participation, advancement, feeling of using and developing one's skills and ability. It is worthy of note that such needs were not only limited to workers but also nomadic girls' needs for success in school.

Research evidence from McCombs and Marason (1990), Zimmerman (1998) and Tukman (1999) emphasise that levels of motivation are vital factors in learning. Very low motivation is associated with being sluggish and partially or non-goal directed, while high motivation is associated with having anxiety, being persistent and working independently.

McAulay and Ducan (1991) and Stipek (1998) agree that the tendency to achieve success and the tendency to avoid failures are conceived as inherently related to the evaluation of performance. They are invariably present whenever there is some standard of excellence against which an individual can measure success or failure. Stipek (1998) says that there is a general positive relationship between need for achievement (nAch) and performance. This is feasible especially where persons are given achievement oriented instruction and then left alone in a room to work out a task on an individual basis. However, this could be washed out completely by having the work in a competitive group situation.

From the foregoing, it is evident that it is not just the nAch that is important and necessary for effective performance, but the degree and the level of this nAch matters. When motivation is at a lower level, nomadic

Fulani girls may not put much effort towards the achievement of their goals and thus may end up performing poorly in their class-work and examinations. When nAch is too high, nomadic Fulani girls that are highly motivated may become over anxious and thus become unable to compose themselves in facing their schoolwork. They may be more gripped with the fear of failure than hope for success and that may lead to a resistance to any efficient performance. Hence, they are likely to perform poorly in both class-work and especially in examinations.

It is important to observe that generally in life too much anxiety does not yield good performance in any field of work. High anxiety has the effect of distracting the attention of the learners from the task to herself so much so that they become preoccupied with how they are doing, what others will think of their performance, whether they can meet their goal and so forth. They do poorly in the complex tasks that require full concentration on facts and ideas. The learners are usually paralyzed in examination settings and may often perform poorly.

One can deduce that the moderately motivated nomadic Fulani girl, as explained earlier, is most likely to put in the best performance in measures of academic achievement. This may be so because the desire to achieve is in proportion with her psychological make up. Thus, when faced with difficult tasks, the desire to succeed over-shadows that desire to avoid failure. Hence, she is likely to be composed enough to organize her thoughts and set aside obstacles such as those identified by Ahmed (2000), e.g. age, poverty and low parental educational levels of nomadic Fulani parents. These factors

interact to determine the level of nomadic Fulani girls' nAch, which may likely inhibit their performance.

2.5 DEMOGRAPHICS AND ACADEMIC PERFORMANCE

Various demographic factors affecting nomadic girl child's primary education, including school distance, age, birth order, betrothal, parental educational levels and socio economic status, have been shown to be major variables in nAch (Nnorom, 1980; Ezeomah, 1983,1987; VecEecke, 1991; Sa'ad 2002; Muhammad, 2007). Researchers maintain that there is positive correlation between these variables and school persistence and performance. The influence of each of these variables is presented in subsequent subsections.

2.5.1 Age and Nomadic Fulani Girls Education

Developmental psychologist such as Piaget, Hurlock, Vygotsky and Freud stress the importance of age in the cognitive development of a learner. Piaget (1952) specifically proposes stages of development on the basis of chronological age. He hypothesizes children's intellectual development increases with age. He states that as children's age increases the more they are able to undertake more complex academic tasks. He advocates the use of learning materials suitable for a learners' age. Subscribing to Piaget's position, Bloom (1956) proposes levels of thinking among learners on the basis of age. His six levels of cognitive thinking (knowledge, comprehension, application, analysis, synthesis, evaluation) are sequentially arranged from simple to complex.

The implication is that teachers, including nomadic Fulani teachers, should be advised to take into consideration the suggestions of these

psychologists as they prepare their learning materials for their learners. This is because learners differ in age and this is bound to affect their academic performance.

Age is a major variable in taking decisions on nomadic Fulani children, especially girls. Age is used to decide when they can be engaged in herding, marketing of diary products and married out to prospective a husband. Ages 5 years through 12 or 13 years, that are targeted for the socialization of nomadic children, conflict with the age of enrolment of nomadic Fulani girls into primary school (Ezeomah, 1987; Tahir, 2003). Apart from the distractions these tasks may be to nomadic Fulani girls, Franz (1980) and Franklin and Nathan (1999) note that their unique environment may be such that it may undermine their mental growth and make their performance in school below expectation. Although the chronological and mental age of nomadic Fulani children may be below that of sedentary school children, they are assessed uniformly for eligibility for promotion from one class to another or admission into junior secondary school and a good performance may not be possible from them.

2.5.2 School Distance and Nomadic Fulani Girl Education

Distance to school is a hindrance to school motivation and achievement. Studies conducted in Nigeria (Nnorom, 1980; Ezeomah, 1987; Ismail, 2002) found a correlation between distance to school and nomadic pupils' attendance and performance. Likewise, a UNICEF report (1990) shows a relationship between school distance and nomadic girls' performance. Previous findings were corroborated by Csapo (1981) and Rudner (1998) who found long school distances were a significant barrier to

nomadic Fulani girls' education. Subscribing to previous findings, Lar (1997) states that the distance between the nomadic schools and nomadic girls' homestead affects their punctuality. Nomadic girls who walk long distances to and from school are unable to attend to other responsibilities.

Sa'ad (2002) insists that inappropriate stationing of nomadic schools is the major problem. According to him only few nomadic schools are sited in densely populated areas and many in sparsely populated areas. Having many schools in non-pastoral areas attracts non-Fulani children which results in scarcity of materials meant for nomadic children. It also affects their performance as they compete with sedentary children who are more advantaged than in terms of learning environment. For example, Ismail (2002) discovered that only six out of the 100 children in Mazat Ropp Nomadic School were Fulani.

It is generally agreed among educationist that the learner is the major determinant of school success. In fact, no matter the environment and the quality of teachers and materials available, unless the learner is favourably disposed to learning all efforts to make him learn will be futile.

2.5.3 Betrothal and Nomadic Fulani Girls Education

The culture of betrothing girls at birth has been identified as a negative factor influencing nomadic Fulani girls' education. Darnell (1972), Lar (1997) and Kratli (2000) observed that nomadic parents are sceptical about releasing their daughters to school because of the importance of total compliance to the nomadic culture of betrothal. Nomadic culture and religion enjoin adherents to ensure that their daughters are given out in marriage at the age of 12 or 13. Most nomadic parents betroth their children, especially girls, to would-be

husbands from birth. Rites are performed during betrothal and it is considered a taboo for them to be broken. Thus nomadic girls grow up, already betrothed.

However, contrary findings by Obiese (2007) indicate that a barrier to educating nomadic girls is lack of interest. Obiese discovered that nomadic girls were more interested in playing than going to school. She attributes this problem to the difference between nomadic traditional education and formal school in which the curriculum content is at variance with nomadic culture. Nevertheless, an interaction between the researcher and an informant revealed that when nomadic girls are in Primary 6 they have reached the age of marriage, and may be withdrawn from school. This makes the completion of primary school difficult and affects their performance negatively. Awareness of the betrothal also affects their achievement as concentration is shifted from classroom concentration to the issue of marriage.

2.5.4 Birth Order and Nomadic Fulani Girls Education

Birth order of nomadic children is a major parameter for enrolment into primary school by nomadic parents (Atiku, 2002; Ezeomah, 2002). Atiku stresses that in nomadic culture first sons, upper primary age girls and some of the non-first born sons who are needed for herding tend to be excluded from the formal school system. This is due to their indispensable role in the economic life of the family where herding is the role of male children. Statistics show that herding accounts for the 27% drop out among nomadic Fulani children (ASUBEB, 2007). Nevertheless, nomadic female children also engage in herding where there is no male child and they also process and sell diary products to assist in the up-keep of the family.

LeVine (1969) and Lannacone (1998) argue that birth order affects one's need for achievement in school. According to LeVine (1969), while a last born is more likely to be taught by their elder brothers and sisters, a first born may not likely get this privilege as a result of his position of birth. Concurring with this opinion, Elliot et .al (2000) reiterated Vygotsky's position that early language development is a basic prerequisite for the need to achieve.

The researcher, based on personal observation and experience after living closely with nomads for years, came to realise that nomadic culture does not encourage interaction between a mother and her first born child. Instead, interaction with the first born is between the child and grandparents which may not be favourable to the development of nAch and performance because of the high level of over-protection (Denga, 2002). Highlighting the role of grandparents in child upbringing, Bahago (2009) states that some grandparents are less likely to stimulate the desire to achieve in their grandchildren, because they are often too protective. This may impinge on the development of nAch among first born nomadic Fulani girls, thereby inhibiting their academic performance.

2.5.5 Socio-Economic Status and Nomadic Fulani Girls' Education

Researches examining the influence of home background on students and schooling have been extensive. Review of literature seems to indicate that parents' socio-economic status does correlate with their children's success in school (Alturari 1988; Heckhausen, 1991; Diaz, 2002). With learners from high socio-economic families performing better than students from low socio-economic families in examinations, their nAch and

performance is bound to vary. Rudner (1998) discovered a significant difference in the achievement of students from different home backgrounds, with students from high socio-economic families scoring higher grades. The study conducted by Ahmed (2000) showed a low correlation between socio economic status and nomadic Fulani children's achievement. However, Lar, Adepetu and Okpede (1996) found no difference in school attendance and performance of nomadic Fulani children from different socio economic status families.

Studies conducted by Mohammed (1989), Prior (1994) and Kratli (2000) indicate that although nomadic girls are not under-represented in formal education, they perform low in school. They opined that nomadic Fulani children's home background undermines their attendance and effective performance in school. Kratli (2000) and Hofstede (2001) advocate the positioning of education for the minority groups to meet their cultural needs. It is generally agreed that education in all societies should be tailored towards meeting both immediate and long terms needs of the society. In his opinion, nomadic Fulani children's full participation and improved performance should be the concern of all involved in providing education to nomads.

The position of the researchers already discussed concurs with that of Gottried, Felming and Gottrifield (1998) and Ibrahim (2001) who attribute most failure recorded in schools to lack of meeting the needs of the students. They are of the opinion that the inability of graduates to acquire skills that will enable them to earn a living is a serious challenge to the educational systems of most developing countries. Sociologists identified education as the most important factor in social stratification. Myers (1999) described education as

the most potent factor in making individuals acquire wealth and a position of authority. In the context of nomadic Fulani girls, the low socio economic status of parents may deny them access to education which is the only means of changing their socio economic status positively.

2.5.6 Parents' Educational Levels and Nomadic Fulani Girls' Education

Lack of educational credentials by nomadic parents blocks their children's opportunity to participating in formal education (Tahir, 1991; Lar 1997, Kane, 1995); Atiku, 2002). Muhmmad (2007) states that the literacy rates of nomadic Fulani only increased from 2% in 1989 to 10% in 2007. As earlier mentioned, the high rate of illiteracy is traced to their unique lifestyle of nomadism which makes it difficult for them to have access to education. Dyer and Choksi (1997) found that illiterate parents are disadvantaged in their perception of the value of educating their daughters. Lack of access to high earnings encourages their view of female children as a source of revenue derived from payment of bride price, so they do not see the value of sending their children to school. For instance Lar, Adepetu and Okpede (1996) and King and Hill (1997) found out that most Nomadic parents are illiterate. This affects their decision to send their children to school. Without education, an individual is incapacitated in meeting his basic needs of food, clothing and shelter as well as of security and belonging. The role of parents in the enrolment, retention and educational advancement of their children is globally acknowledged across all disciplines (Reisman, 1979; Rudner, 1998). Dyer (2000) stressed that parents' educational background is the most important factor in determining the academic performance attained by their children/wards. She maintains that parent's educational qualification is

defined by the amount and style of help that children receive from their family; this is determined by elements of the family context like the dynamics of communication and affective relationships, attitudes towards child expectations, etc.

Unfortunately nomadic parents are more knowledgeable in Islamic than in Western education which they dislike due to problems already mentioned by Junaid (1987) and Lar, Anzaku and Gumut (2000). Parental limitation in terms to education has an adverse impact on students' enrolment, retention and achievement in school. This informed the selection of the education of nomadic parents as a factor for consideration during this research.

2.6 EMPIRICAL STUDIES ON NOMADIC GIRLS' EDUCATION

A synoptic analysis of literature on nomads and education by the researcher showed that literature is relatively scarce, disparate and inaccessible. The investigations on individual countries or even regions are usually no more than a sparse handful of secondary sources different in nature and relevance, distant in time from one another and focusing on different areas. The first collection of studies on the topic, the report of the Mogadishu 1978 seminar on Basic Education for Nomads (UNESCO, 1993), is still today is an isolated exception. Works resulting from good quality primary research are exceptionally rare. The review will be done outside and within Nigeria to provide a clear understanding of the chronology of research work on nomadic girls both within and outside the country.

2.6.1 Studies outside Nigeria

One of the available studies was conducted by Jama (1993) in Somalia. The study focused on major constraints that limit provision of education to Somali nomadic children and identified problems related to nomadic accessibility to education in terms of gender. On the basis of the findings the author recommended suitable strategies through which education could be provided to pastoral nomads. The population of study consisted of the head teachers of all nomadic schools. A combination of documentary and observation designs was used for the study. The findings revealed low enrolment and male-biased nomadic education. It was also discovered that the nomads' way of life is not conducive to accommodating the structure of the present day education system. The researcher recommended provision of functional literacy, the recruitment of more teachers, revision of the curriculum content and enhancement of gender equity in enrolment. Despite the empirical nature of the study, the focus was not on the nomadic girls' achievement motivation and academic achievement. The present study sets out to investigate the influence of achievement motivation on nomadic girls' academic performance.

Forum for Africa Women Educationalists (2001) investigated the status of women education in the North Eastern province of Wajir and Mandera of Kenya The purpose of the study was to examine the perceptions of community and opinion leaders, teachers, and learners about girls' education. Forty respondents from each of the 8 zones in the two districts were interviewed alone or in focus groups using semi-structured interview schedules. The data were analyzed for each group according to the themes in

the research questions and instruments. The findings show that the respondents had a positive perception of girls' education. Nevertheless, negative attitudes of girls' parents and communities, early marriage and excessive girl-child labour were impediments to girls' education. The research was weakened by the lack of reporting of the sampling technique, population of study and statistical techniques used for data analysis. Also, the findings of the study did not include the performance of learners as earlier indicated in their statement of the problem and research questions. These loopholes make the conduct of this research relevant as they were incorporated in the present research.

Ismail (2002) investigated perceptions of knowledge and coping strategies in nomadic communities in a case study of the Hawawir in Northern Sudan. The population of study consisted of Hawawir women. The description and analysis was based on qualitative data collected through informal interviews and discussions. Findings revealed that the reasons parents gave for not sending their daughters to school were mainly that the school was situated far away from the shelters. The use of women only as the population of study is commendable. Nevertheless the investigator failed to mention the number of women used as sample for the study. Also there was no report of the level of education or of the statistical techniques used in analyzing data collected. Therefore the pitfalls of the study by Ismail will be dealt with in the course of this research.

Nangurai (2006) reported her study on the education for girls and women in nomadic in Kenya. The purpose of the study was to examine the difficulties encountered by parents in sending their girls to school and the use

of a rescue programme as a strategy to counteract reasons advanced by parents for not enrolling their daughters. Data collected and analyzed from the area of her study showed high rates of girls' withdrawal for early marriage. A hostel was then constructed by Forum for African Women Educationists (FAWE) to serve as a rescue centre for nomadic girls who flee from home due to being removed from school for forceful marriage. The study served more as an intervention to assist nomadic girls' retention and completion of primary school education. The study failed to provide adequate statistics on the number of girls that have been rescued and also on variations in culture and religion in adopting the strategy across Africa. This was a loophole the present study has addressed.

A study by Garises (2006) focused on the enrolment and attendance of girls in San and Ovahimba pastoral nomadic communities in Namibia. The author presented findings on interventions in San girls' education. Factors identified as contributing to low enrolment and poor attendance include poverty, alcohol abuse among parents and cultural practices like early marriages. Methods adopted in supporting San girls in completing the transition to junior secondary school include provision of scholarships, increased public awareness, influencing policy formulation, planning and implementing increased access, retention and academic achievement. Vital information from the research such as design, population and sample, and statistical analysis are not available. This makes it important for consideration in the conduct of this study.

ADEA (2008) investigated gender equity in junior and senior secondary education in Africa. The purpose of the study was to collect, analyze and

summarize current best practices and identify sustainable strategies of expansion and improved quality of equity and efficiency of delivery of secondary education. The major approach used by the researcher was to review studies undertaken in Africa with a particular focus on un-reached ethnic minorities, especially the academic performance of girls. The main findings of the study include a gender disparity in participation due to differences in policy direction, economic policies, family level economic decisions and socio-cultural norms.

The review from other countries shows that no investigation has been conducted on nAch or on the demographic characteristics of nomadic Fulani. Moreover, the impact of nAch on the academic performance of nomadic Fulani girls has not been the main focus of any researcher. This makes the present investigation very relevant. In view of the role of nomadic Fulani girls in the advancement of their nomadic Fulani communities, their education and enhanced performance cannot be compromised for any reason. The success of the present Government's seven point agenda is only attainable with the improved enrolment and performance of learners, including Nomadic Fulani girls, at all levels of education. This emphasises the necessity of conducting this study.

2.6.2 Empirical Studies on Nomadic Girls' Education in Nigeria

Ezeomah (1987) conducted a research on the attitudes of cattle Fulani towards formal education. The purpose of the study was to determine the attitudes of the nomadic Fulani towards formal education and the constraints that prevent them from sending their children to school. The population of the study comprised nomadic parents. Interview and observation were the major

instruments for data collection. Findings revealed that the involvement of children 5-10 years age in animal herding was a major constraint hindering most nomadic children from obtaining formal education. Also, they prefer sending boys instead of girls to school because they marry girls out between 11-16 years. Apart from the issue of marriage, school attendance was considered detrimental to domestic duties.

Despite the adequacy of the design and instruments used for data collection, the sample of the study was not stated. Also the validity and reliability of the instruments were not established, thereby creating doubt over the authenticity of the findings and their generalization over all nomads in Nigeria. Nevertheless, his findings confirmed that the school going age and the issue of early marriage are contributory factors of nomadic girls' inability to complete primary school and transit to junior secondary school.

Similarly, Nnorom (1980) conducted research on the constraints on the educational achievement of the cattle Fulani in Ningi Local Government Area of Bauchi State. The main purpose of the study was to find out the enrolment and achievement trends in nomadic primary school by gender. Interviews and school documents (registers) were the major instruments used for collecting data. Nomadic parents and teachers formed the sample of study. Percentage was the statistic used for data analysis. Nevertheless, the study did not provide a definite population and sample of the study. Also the method of analysis was not explained. This makes it difficult to accept the findings for replication of the study. The investigation revealed a low enrolment of girls between 1976 and 1979. Nomadic girls' enrolments for the period were 72%, 44.4%, 30.5% for 1976, 1978 and 1979 respectively. These impressive

enrolments not withstanding, there was low attendance which may be due to their complaint that the school system does not favour them.

Ezeomah (1983) evaluated Nomadic Fulani experiments in Bauchi, Borno, Adamawa, Gongola, Kaduna, Sokoto and Plateau States. The purpose of the research was to determine efforts made by governments of the mentioned States in providing education to nomadic Fulani. Respondents were cattle Fulani parents. The sample was made up of 140, 207 and 162 male parents and 120 and 84 female parents from Bauchi Dukku, Ningi and Toro respectively. The data was collected by interviews and presented using percentages. However, it was not indicated whether the interview was structured or non-constructive structure. Also the sampling technique used in selecting the sample was not explained. The findings of the study showed that between 1976 and 1981 only 25, 69 and 38 girls against 81, 167 and 63 boys enrolled in Nomadic Schools in Gardo, Tashar Mangoro and Hardo Chindo respectively. Attendance in the three schools showed that for the three years, attendance seemed to be better during rainy season. The highest rate of attendance during the rainy season was between 90% to 100% while the highest attendance for dry season was 50% and the lowest 9%. The study also revealed that the three schools are traditionally structured on the patterns of schools organized for sedentary children. They are located 8 km away from each other. This is far from the children's camps and accounts for parents' resistance to enrolment and attendance.

In the Guri district of Kano State, the findings revealed that the number of enrolled pupils continued to decline, especially in Primaries Five and Six. For instance only 18 boys and 3 girls were in Class Six in the 1976/1977

school year. Attendance was also so low that Hadejia Local Government decided to impose a fine of N10.00 for parents who would not release their children to attend school regularly. Ezeoma (1983) also discovered that in Borno, Plateau and Gongola States enrolment, attendance and completion rates were very low and there was no transition from primary to junior secondary school, especially for the nomadic Fulani girls.

As exhaustive as the study seem to be, limitations in terms of description of population and sample were noticed. The use of interview only as the main instrument for data collection does not provide enough basis for generalization of these findings. Also nomadic children's academic achievement was not focused on in the research. The current study intends to fill this gap.

Lar, Adepetu, and Okpede (1996) conducted a statistical survey of nomads in the nine southern States of Nigeria including Abuja. The major objective of the research was to determine the demographic characteristics of nomads including their migratory patterns, level of access to education and welfare services etc. Five hundred households in each of the States were sampled. The research design was the survey method. Questionnaires and interview schedules were used for Ardos (Nomadic Fulani leaders) and heads of households, while questionnaires were sent to Coordinators of Nomadic Education in the various States. The major findings of the study showed that 44%, 21% and 32% of the nomads had acquired primary education in the Southwest, Southeast and FCT respectively. In addition, 3.74%, 1.45% and 2.72% respectively acquired secondary school education in the Southwest, Southeast and FC. Only 1.76%, 0.05% and 0.72 claimed they had some

tertiary education in the Southwest, Southeast and FCT respectively. Reasons for dropping out of school included lack of finance and lack of schools within their communities or, where available, they were far from their camp sites. Though the study had a wide coverage, parents were the main respondents. Also the basis of sampling 500 households in each State was not provided. Limiting the distribution of questions to only heads of households, ardos, and coordinators of nomadic education excluded nomadic teachers who are directly involved in making education accessible to the nomads.

Ahmed (2000) conducted a comparative study between public and nomadic primary schools to find out their performance in the areas of school resources, teachers supply and qualification, National Common Entrance Examination and parent community support. The design of the research comprised both case study and survey methods. Stratified random sampling technique was used in selecting the schools in both 36 nomadic and 36 regular schools respectively. The instruments used for data collection included a questionnaire, school records and documents. The reliability of the questionnaire was determined through Cronbach alpha at 0.89. The findings of the study indicated that school performance was poor, both in nomadic and in regular schools. It was also discovered that pupils in regular schools performed better than their counterparts in nomadic schools, and male pupils performed better than their female counterparts. As exhaustive as the study seem to be, variations of pupils' achievement of nomadic and regular school pupils based on age, birth order, betrothal, parental socio-

economic status and educational levels were not focused on in the study. This supports the need for the current study.

An ADEA (2005) assessment of basic education for nomadic groups in Nigeria was intended to determine the education provision accessible to nomadic groups in Nigeria. The major aim of the study was to assess achievements/breakthrough recorded in the implementation of nomadic education programmes. The population of the study comprised all the six geological zones and State Coordinators of Nomadic Education in Nigeria. The instruments used for data collection comprised documents, interviews and observations. The findings revealed a disparity in enrolment between 1990 and 1998 in favour of nomadic boys. Similarly, completion of nomadic primary schools favoured boys, with the highest in 1995 for females (33.9%) as against 72.1% for boys.

Weaknesses of the study include the failure to provide the basis of restricting the sample of study to Nomadic Coordinators in the population of the study. Though percentages were used for data analysis, it was not stated earlier as expected. Also, the academic achievement of nomadic Fulani girls within this time range was not investigated. These weaknesses were taken into consideration in the process of conducting the present study.

Ardo (2001) presented a report on a study conducted on Nomadic education in Nigeria which focused on strategic direction and planning for improving access for nomads, pastoralists and migrants in Nigeria. The purpose of the study was to determine what pupils learn, what they should learn and how they progress. The population of study consisted of national educational bodies and agriculture and livestock bodies. The findings

revealed that nomadic schools progressed from Grade 1 through 6. It was established that they write common entrance examination for eligibility to be awarded with a first leaving school certificate and to transit to junior and conventional secondary schools

Similar to most studies already reported, Ardo's research failed to explain the reliability of his instrument. He also failed to explain the reasons attributed for the low rate of transition. This formed the basis of the present research which is to find out whether achievement motivation affects nomadic girls achievement and invariably their transition to junior secondary school.

Ezeomah (2002) investigated the social, economic and political activities of nomads and educational policy implementation for nomads in Nigeria. The study covered Adamawa, Borno, Katsina and Jigawa States. The sample consisted of nomadic parents, coordinators and teachers drawn from these States. Percentages were used for data analysis. The findings showed that pupils attend school either in the morning and evening, depending on which is suitable for them. Most school attendance times were not suitable. Also most nomadic schools lacked permanent classrooms. Ezeomah stated that nomadic girls prefer going to school from 8:00 a.m. to 11:00 a.m. to enable them to sell dairy products in the markets. Despite the indication of statistic (percentage) use for data analysis, the sample drawn from each State and the modalities used in selecting the States were not explained. Nevertheless the findings concur with the researcher's opinion that to enhance regular attendance, 8:00 a.m. – 11:00 a.m. is suitable for nomads' unique lifestyle as it ensures that the work roles assigned to them do not suffer unduly.

Madugu and Guyit (2003) presented the results of their study conducted on two decades of nomadic education in Nigeria in Mazat-Ropp in Barakin Ladi Local Government area of Plateau State. The main purpose of the study was to examine the growth and expansion of the nomadic pilot school established at Mazat Ropp in 1983. They also assessed the extent to which its objectives have been achieved between 1983 and 2003. It was a case study and the instruments used for data collection were interviews and school documents. The findings revealed that only eight pupils graduated from the school during the two decades. Only one out of the eight students that graduated within the two decades was a female who proceeded to secondary school and is now married.

Despite the fact that the research was a case study, the nature of the instrument (interview), e.g. whether it was structured or not structured was not indicated. Also descriptive analysis (percentage) was not used in describing the percentage of enrolment and graduates in terms of male and female. Also the percentage of performance in terms of gender was not provided.

Obiese (2007) investigated the factors militating against effective participation of girls in nomadic education in Kaduna state. The sample consisted of one hundred nomadic parents and fifty nomadic school age girls drawn from Zaria Local Government Area of Kaduna State. A survey method which involved the structured questionnaires was used. Percentages were used for data analysis. Results revealed that contrary to expectation, low participation of girls had more to do with the girl child than the parents. Weaknesses of the study include the failure of the researcher to state research questions or hypotheses, and lack of validation of the instrument

used for data collection. This cast doubt on the reliability of her findings and generalization of the findings on all nomadic Fulani girls, since only one Local Government out of the twenty-three was used. It is based on these inadequacies that this study was conducted.

2.7 SUMMARY OF LITERATURE REVIEW

The extensive review has shown that there has been a low completion rate and poor performance of nomadic Fulani girls. This phenomenon is universal and not limited to Nigeria and Adamawa State alone. Many scholars (Ezeomah, 1983, 1987; VeEecke, 1991; UNICEF 1998; and Obeise 2007) reported that nomadic female children lag behind their male counterparts in enrolment, academic achievement, and transition. This disadvantage and outright prejudice comes as a result of the unique life style that is encapsulated in their culture,

Other reviews concentrated on nomadic education in Adamawa State. The influence of demographic characteristics on achievement motivation and performance were also reviewed. Past studies show a strong correlation between demographic characteristics (age, parent education, school distance) and performance. However, low correlations were discovered between birth order, socio economic status and academic achievement. Some past studies show relationships among the variables while others show contradictions. For instance studies conducted by Ezeomah (1983), Muhammad (2000), Lar, Adepetu and Okpede (1996), Lar, Anzaku and Gumut (2000) and Obeise (2007) show a strong correlation between educational levels and nomadic Fulani girls' achievement. However, demographics show that a large proportion of nomadic girls perform low

compared to their male counterparts (Ahmed, 2000; Madugu & Guyit, 2003; Muhammad, 2006).

The concepts of achievement motivation, academic performance, nomadism, demographic characteristics were reviewed. The theories of motivation reviewed were instinct, drives and needs. Theories reviewed include those McDaniel, Skinner, McClelland and Weiner, for instance, drives and need theories respectively. The Waugh MAA theory was also discussed.

Other reviews concentrated on the concept of nAch shown by some studies to have generated a positive influence on nomadic girls' academic achievement (Ismail 2002; Atiku 2002; Kratli 2000) but studies conducted by Ahmed (2000), and Foester (1999) show no significance difference in academic performance due to differences in achievement motivation.

Education, as already stated by EFA (2000) and NPE (2004) is a right not a privilege for all children, nomadic Fulani girls inclusive. The immeasurable role of the female in the development of any society cannot be over-estimated. This is why this research was not only aimed at supplementing the effort by NCNE but also to contribute to the improvement of nomadic Fulani girls' nAch and academic performance. The review of literature showed that there is a need for empirical studies on the enrolment, nAch and academic performance of nomadic Fulani girls. There is a need to investigate, as Muhammed (2000, 2006), Atiku (2002) and Obeise (2007) suggested, whether the low academic performance of nomadic Fulani girls is as a result of demographic characteristics. This is the gap this study was designed to fill.

CHAPTER THREE
METHODS AND PROCEDURE

3.1 RESEARCH DESIGN

The design employed by a researcher is determined by the nature of the study. Two research designs were used in this study. They are Ex-post factor design and survey design.

The ex-post facto design was used for the conduct of this study. According to Akuezuilo (2004), an ex-post facto design seeks to find out the factors that are associated with certain occurrences, outcomes, conditions, or types of behaviour by analysis of past events or of already existing conditions.

The choice of ex-post facto was due to its suitability in discovering possible causes for a behaviour pattern by comparing subjects in whom achievement motivation is present with similar subjects in whom it is absent. Osuala (1995) and Koul (2006) highlight the usefulness of ex-post facto by stating that it attempts to determine the causes or consequences of differences that already exist between or among groups of individuals. Ex-post facto is an approach that does not involve the manipulation of variables in the study. Thus, in studying the influence of achievement motivation on the academic performance of nomadic Fulani girls, the researcher compared nomadic Fulani girls with various demographic characteristics-age, school distance, birth order, etc. (the independent variables) on their achievement motivation.

Thus the choice of this design was to determine the possible causes of difference in achievement motivation among nomadic girls and how these differences affect their academic performance. Since the possible causes of achievement motivation that are being examined in this research study

cannot be manipulated, the choice of ex-post facto research design is considered appropriate.

A Survey design was used because according to Goodwin (2005), it is a useful tool for measuring nomadic Fulani girls' attitudes, beliefs, values opinions, and self described behaviour of nAch. Therefore it was an appropriate tool for measuring nomadic Fulani girls' nAch and academic performance.

3.2 POPULATION AND SAMPLE OF STUDY

The population and sample of study that was used for study are discussed below:

3.2.1 Population of Study

The population for this study consisted of all primary six nomadic Fulani girls in Adamawa State. There are 522 nomadic Fulani school girls. The choice of primary six girls was informed by the fact that it is the terminal class in which they complete their primary school education. Another reason is that at this age they are expected to have reached their formal operational level of thinking as hypothesized by Piaget (1956) and Woolfolk (2004). Consequently they would be able to respond to the items in both the Achievement Motivation Rating Scale (AMRS) and Nomadic Girls Achievement Test (NGAT) which demanded formal operational thinking. Primary six nomadic girls are therefore better placed in a position to make a meaningful impact on the study. To adequately select the sample, the researcher set up criteria that guided the selection of schools in each zone. The criteria are presented below:

1. Each school must have not less than five nomadic Fulani girls to enable the researcher to select the 300 nomadic girls;
2. The school must use the NCNE nomadic school curriculum;
3. The school must have primary six;

See Table 4 for the population of the study by school.

Table 4: Population of Study by School and Gender

Zone	Nomadic Primary School	Population Boys and Girls		
		Boys	Girls	Total
I	Thuri	93	31	124
	Kwa	60	26	100
	Yaddafa	44	27	66
	Wuro-Bojam	66	14	90
	Gau Musa	100	26	126
	Mutsumin	32	24	56
II	Dogan Fulani	22	15	37
	Danbilam	41	19	60
	Kuma	29	11	30
	Dabal	23	6	29
	Guleng	81	16	97
III	Nasarawo	108	22	130
	Gudusu	40	9	49
	GudusuVendu	57	16	73
	Garadinya	48	6	54
	Jamali	29	13	42
IV	Zauna Bako	36	10	46
	Wuro Yanka	25	9	34
	Boborei	43	18	61
	Kumoyel	31	7	38
	Kampani	32	11	43
	Garura	25	11	36
	Ngbekedewe	18	7	25
	Kosoyel	20	7	27
	Ribadu Yoffo	19	8	27
	GumariTugga	25	9	34
V	Sakinyo	75	16	91
VI	Watere	31	8	39
	Wuro- Jam	38	19	57
	Danmamukan	31	13	44
	Mayo kila	43	14	57
	Dunubu	27	10	27
VII	Gida Bagobiri	61	16	77
	Wuro Gauji	33	14	47
	Sanjo Fulani	30	11	41
	Kanisue	28	7	35
	Konlgata	53	16	69
Total	38	1597	522	2119

Source: Adamawa State Universal Education Board 2006

3.2.2 Sample of Study

The sample for this study was selected from a population of about 522 nomadic Fulani girls distributed in the 38 nomadic primary schools with primary six in Adamawa State which met the criteria set by the researcher. A sample of 300 nomadic girls was selected from the nineteen nomadic primary schools that met the criteria set by the researcher to represent the entire population. The nomadic girls sampled were of different ages, birth order, parental education levels, socio-economic status and betrothal status. The choice of 300 was considered adequate because it was in line with the principles governing sample selection provided by Sidhu (2000) that a sample size must be large enough to be representative of a population from which it was selected, and that there should be no significant differences between the sample and population on any given matter. It is also in line with Goodwin (1995) who says that for causal comparative studies where the population is in hundreds, more than half of the sample will give some degree of confidence that conclusions reached concerning the respondents are valid. It was based on the foregoing principles that the sample size used in this study is considered adequate and representative of the population.

3.3 SAMPLING TECHNIQUES

The sampling technique that was used in the study is the simple random sampling technique. The sampling technique used in selecting the nomadic schools for the study was simple random sampling. The following steps were taken in using the random sampling technique. First, the names of the 38 nomadic primary schools with primary six were placed in a large bowl and the 19 nomadic primary schools constituting 50% 0f the population were

picked. The sampling of 19 out of the 38 nomadic schools is in lie with Nwana (1981) position that the larger the sample size, the more representative the sample is the population. He specifically recommended 40% for a population for few hundreds.

The choice of simple random is hinged on Goodwin (1995) and Nwana (2005) observation that it is the most effective, practical way to create a representative sample. It is sometimes the method of choice for ethical reasons as well.

Nomadic Fulani girls in the 19 selected primary Nomadic schools constituted the sample of study. The use of all nomadic Fulani girls in the 19 secondary schools was due to the fact the 300 girls could be conveniently handled by the researcher. This was followed by the field study of the nomadic primary schools in Adamawa State to find out the extent to which the schools met the set criteria.

The sampling plan for selection of nomadic schools is presented in Table 5.

Table 5: Sample of Nomadic Fulani Girls by school

Zone	Nomadic Primary School	Population of Girls
I	Thuri	31
	Kwa	26
	Wuro-Bojam	14
	Gau Musa	26
II	Dabal	6
	Kuma	11
	Guleng	16
III	Nasarawo	22
	Gudusu-Vendu	16
IV	Zauna Bako	10
	Boborei	18
	Kampani	11
V	Sakinyo	16
VI	Watere	8
	Wuro-Jam	14
	Mayo kila	14
VII	Gidan Bagobiri	16
	Wuro Gauji	11
	Konlata	14
Total		**300**

Source: Adamawa State Universal Basic Education Board 2006

3.4 INSTRUMENTS FOR DATA COLLECTION

The two instruments used for data collection were the Achievement Motivation Rating Scale (AMRS), and Nomadic Girls Achievement Test (NGAT). These instruments are described below.

3.4.1 Description of Instruments

3.4.1.1. Achievement Motivation Rating Scale

The Achievement Motivation Rating Scale (AMRS) is an interval scale with attitude items linked to behaviour items based on a conceptual model of achievement goals. The scale is structured based on three aspects of motivation, Striving for Excellence, Desire to Learn, and Personal Incentives. Each of the aspects is defined by a number of sub-aspects. Striving for Excellence was defined by Tasks, Effort, Values and Ability. Personal Incentives was defined by Extrinsic Rewards and Intrinsic Rewards and Social Rewards. Desire to Learn was defined by the sub-aspects Interest, Learning from others, and Responsibility for Learning. Example of items for each of the goals include, *I try to be the best in my class* for Striving for Excellence; *I am eager to work hard in all my assignments given by my teacher;* for Desire to Learn; *I enjoy getting better scores after examination*, for Personal Incentives.

The sub-scale on Striving for Excellence had 28 items, Desire to Learn had 9 items and Personal Incentives had 8 items. The AMRS was structured based on a modified Likert Scale format with Strongly Agree, Agree, Disagree and Strongly Disagree. Nomadic Fulani girls were required to tick the appropriate column indicating the level of agreement with each of the statements. The sores were obtained by scoring each of the statements with

Strongly Agree = 4; Agree=3; Disagree=2 and Strongly Disagree=1. The weight assigned to the three components of the test was equal with the format used in marking common entrance examination. Each question was assigned one mark each. Each section had a total of 15 marks so the total AMRS score ranged from 0 to 45.

The test items were scored personally by the researcher based on the item difficulty index. The outcome of the item analysis enabled the researcher to select the good items while marginal ones were renewed and the final edition of the test obtained.

3.4.1.2 Nomadic Girls Achievement Test

The Nomadic Girls Achievement Test (NGAT) is a structured multiple-choice instrument. It consisted of three sections,namely; English language, Mathematics, Science and General Paper. Each section has 15 items. The test is designed to measure how much nomadic Fulani Girls know of English Language, Mathematics and General Knowledge matching the nomadic primary school curriculum objectives. The test was designed to match the selected concepts, the table of specification and the internal outcomes are components of the test.

3.4.2 Procedures for Development and Validation of Instruments

The procedures adopted for the development and validation of the two instruments are described as follows: (a) Achievement Motivation Rating Scale, (b) Nomadic Girls Achievement Test.

a) Achievement Motivation Rating Scale

This Achievement Motivation Rating Scale (AMRS) is an interval scale that measures achievement motivation of nomadic Fulani girls. As earlier

stated, AMRS is divided into three subscales. Striving for excellence had 28 items, desire to learn 9 items and personal incentives 8 items. The measure was developed by Waugh (2001) was named Student Motivation to Achieve Academically (SMAA), at Cowan University, Churchland, Western Australia. The one-dimensional scale of motivation for students with items linked to behaviour is base on a conceptual model of motivation. There were initially 48 set-items, but these were reduced to 45 to form a valid and reliable model. It was found to be an excellent model and a variance of 0.93 was observed. The adoption of this model is due to its suitability in measuring the variables investigated by the researcher. However, items related to learner responsibility were not adopted due to the fact that nomadic girls may not be able to take responsibility for their motivation to achieve in school considering their unique environmental challenges such as inappropriate location of nomadic schools and nomadic culture encapsulated in pulaaku which decision are taken on behalf of a nomadic Fulani girl by her father and a woman by her husband.

b) Nomadic Girls Achievement Test (NGAT)

The instrument was adapted by the researcher from Adamawa State past common entrance examination questions through the following steps.

First, in developing the NGAT, the researcher took a careful study of the English language, mathematics, social studies and science syllabus for nomadic primary six, as outlined in the National Commission for Nomadic School Curriculum for Primary Six (NCNE 1991) and previous National and Adamawa State Common Entrance Examination papers for English language, mathematics and general paper. This was followed by determining the items

to be included. To achieve this, a table of specification was generated covering the subject areas and their instructional objectives. The table of specification, otherwise known as a test blue-print according to Ugodulunwa (2008), is a two-way chart showing the content/topics and instructional objectives to be assessed, which relate the behavioural objectives to the content areas of a subject matter. It adequately determines the proportion of questions to be asked on the level of objective and the content areas the investigator is interested in. It was vital to generate a table of specification, because of its role in ensuring that objectives in the instructional process are those assessed. It also reduced the chances of not including important objectives or contents, thus, ensuring content validity of the instrument.

The table of specifications covered the overall level of educational objectives, knowledge, comprehension, application, analysis, synthesis and evaluation. It also guided the researcher in picking items from the National Common Entrance Examination covering all levels already mentioned. In doing this, primary six textbooks in the areas that were tested were used to ensure that items picked were similar to items in class six textbooks covering the three areas (English Language, Mathematics and General Paper) to be tested as presented in Table 6.

Table 6: Table of Specification of Nomadic Girls Achievement Test.

	Levels of Educational Objectives						
	Knowledge	**Comprehension**	**Application**	**Analysis**	**Synthesis**	**Evaluation**	**Total**
English Language	7	5	2	1			15
Mathematics	7	6	2				15
General Paper	6	5	2	1	1		15
Total	**20**	**16**	**6**	**2**	**1**		**45**

The weight assigned to the three components of the test was equal with the format used in marking common entrance examination. Each question was assigned one mark each. Each section had a total of 15 marks so the total AMRS score ranged from 0 to 45.

The test items were scored personally by the researcher based on the item difficulty index. The outcome of the item analysis enabled the researcher to select the good items while marginal ones were renewed and the final edition of the test obtained.

3.4.3 Validation of Instruments

The instrument was pilot tested with a fifty nomadic Fulani girls that possessed attributes similar to the main study. However they were not part of sample for the main study.

(a) Validation of AMRS

The reliability of AMRS was determined through Cronbach Alpha. Each of the subscales of AMRS reliability was determined before the whole AMRS.

1. The AMRS was subjected to construct validity according to Gruonland (1981) as cited by Awotunde and Ugodulunwa (2004). This involves determining the extent to which test performance can be interpreted in terms of three psychological constructs. Construct related validity focuses on how well items of an instrument represent all dimensions or relevant behaviour domains and how irrelevant factors are excluded from the measurements. It is on this basis that AMRS was subjected to factor analysis using a Varimax Orthogonal or theory rotation method in which the factors themselves are extracted to provide a simpler and clearer picture of their relationships. This is in line with Thurston's criterion of positive manifold and simple structure which requires the rotation of axes to such a position as to eliminate all significant negative weights. This also helps in defining clearly the variable being measured.

   Based on these steps the researcher defined achievement motivations as the desire of the nomadic girl-child to demonstrate ability in solving assigned tasks by teachers and get high scores on tests, examinations and the NGAT to be administered by the teacher.

Reliability of AMRS.

The internal consistency of AMRS was determined with the Coefficient Alpha formula on the result of the pilot study as 0.58 (see Appendix B2.)

(b) Validation of NGAT

The NGAT was subjected to the scrutiny of three experts, one each in educational psychology, test and measurement and sociology, together with the table of specification. The experts were required to carefully assess the objectives, content, activities and the table of specifications to ensure the adequacy, appropriateness, usability and comprehensiveness of the test items using a two point scale of *yes* or *no*. Their verdict indicated that the test was adequate, appropriate, usable and comprehensive.

The NGAT was subjected to construct validity using the Varimax orthogonal rotation method as advocated by Thurston (as cited in Anastasia, 1996) using factor analysis of variance.

3.4.4 Reliability of the Instrument (NGAT)

The internal consistency of AMRS and NGAT was determined through Cronbach Alpha based on the result of the pilot study. The Cronbach Alpha is defined as follows:

$$\alpha = \frac{k}{k-1}\left[\frac{1-\Sigma S^2 items}{S^2 test}\right]$$

Where,

k = number of test items,

S^2 = variance of each test item,

$\sum$ = sum of,

S^2 test =variance of the test.

The Cronbach Apha is the averaged split-half correlation based on all possible divisions of a test into two parts. The reliability of the three different sections of NGAT was determined before the entire NGAT. The Cronbach Alpha method was chosen because it can be used to compute from the variance of individual tested items and variance of the test score. Moreover, it is widely used when test items are scored pass or fail as is the case with NGAT. The reliability coefficient of 0.61 determined for NGAT was considered adequate for the main study.

3.5 PROCEDURE FOR DATA COLLECTION

The data for this investigation were gathered through the administration and scoring of the two instruments, namely AMRS and NGAT. The researcher personally visited the Chairman of Adamawa State Universal Basic Education Board to obtain permission to conduct the study in the sampled nomadic schools. Pertinent information was also collected from the headmasters of the selected schools on the nomadic teachers 'trained' by the researcher and eventually used as research assistants. Such information included their area of specialization and experience.

3.5.1 Co-ordination of Research Assistants

Four research assistants were coordinated by the researcher to assist in administering the instruments. The investigator ensured that each research assistant had a minimum qualification of an N.C.E. or B.Sc (Ed) or B.Ed, degree in any subject and was more proficient in Fulfulde language, with three years post qualification experience. This was necessary to ensure that they possessed the required knowledge of the subject matter and the professional qualifications required for the successful conduct of the research.

In coordinating the research assistants, the researcher went through the AMRS and NGAT items with them to acquaint them with the modalities of administering them. This included guidelines on things expected from them during the administration of AMRS and NGAT. These guidelines included:

- Reading out instructions to the hearing of every pupil.
- Ensuring that the girls supply all the needed personal information about themselves.
- Ensuring that mistakes made by the girls are completely erased.
- Ensuring that there is no room for interaction among the girls during the exercise.
- Ensuring that completed AMRS and NGAT are collected, counted and submitted to the researcher after the administration of each instrument.

The next was to prepare the research assistants for the administration of the two instruments. They were trained for one week on how to effectively administer the instruments. The training focused on items on each of the two instruments. First the researcher guided them through the actions on the AMRS and informed them that they are measuring some psychological constructs like the desire to learn, excellence etc; the weighting and how to make sure that the girls do not double tick columns against each item.

The same thing was done in respect of NGAT. They were instructed on how to guide the girls and ensure that they tick the correct answer and do not cheat during the test. The training schedule for research assistants is presented in table 7.

Table 7: Schedule for Training of Research Assistants for the Study.

Day	Activities	Remarks
1	Explanation of concept and importance of achievement AMRS.	The researcher ensured that research assistants were actively involved by raising issues based on the AMRS if any. The researcher made sure she asks them questions.
2	The explanation of the concept and importance of NGAT.	The researcher invited the research assistants to pay attention to the different components of the test.
3	Guide through the items in AMRS.	The researcher and the research assistants shared views on the items.
4	Guide through the items in NGAT	The researcher and the research assistants shared views on the items.

3.5.2 Administration and Scoring of the Instruments

The sampled nomadic girls were taken to a classroom for the administration of the instruments. Adequate seating arrangement was made for the girls. They were given the AMRS and the researcher and research assistants explained how to provide the required information and how to fill the right column of their choice. During the administration of each of the instruments, the researcher went through the instructions on the questionnaire and the test sheet. The nomadic girls were allowed to ask questions on the instructions that were not clearly understood and further explanation was given to them. They were also directed to complete the bio-data section of their answer sheets. The research assistant in each class ensured that nomadic girls did not cheat and that they followed the instructions given for each test.

The AMRS and NGAT were administered each day before and after break respectively in all the sampled schools. They were restricted to the 45 minutes allocated for the test. The instrument was scored by the researcher as described in 3.7.3 and 3.7.4 of this work.

3.5.3 Administration and Scoring of Achievement Motivation Rating Scale.

The AMRS was distributed to the sampled nomadic girls for the purpose of ascertaining their level of achievement motivation. In administering the scale, they were limited to the time allocated. The girls were provided the AMRS and were required to tick [√] the appropriate column indicating their level of agreement with each statement. At the end of exercise, their copies of the questionnaire (Rating Scales) were collected and submitted to the

researcher for summing. In scoring, each respondent's rating was weighed for any positive statement. It was scored as follows:

Strongly Agreed (SA) = 4

Agreed (A) = 3

Disagreed (D) = 2

Strongly Disagreed (SD) = 1

For Negative statements, the scoring was in the reverse:

Strongly Disagreed (SD) = 1

Disagreed (D) = 2

Agreed (A) = 3

Strongly Agreed (SA) = 4

The total score for each respondent was calculated based on these weightings. The highest score for the scale was determined by multiplying the highest weight of 4 by the total number of items (45) which gives 180 and the least would be 45 if the least weight of 1 is multiplied by 45. High and low achievement motivated nomadic Fulani girls were determined as follows:

To determine the level of high and low nAch of nomadic Fulani girls, a rating was done. Scores were added (4+3+2+1=10 ÷ 4 =2.5), and 2.5 multiplied by the 45 items which gave 112.5 = 113. This implied that scores between 84 – 113 are considered as low, and above 113 as high

84 – 134 = Low

135 - 180 = High

Thus, nomadic Fulani girls with ARMS score ranging from 84 to 134 were considered to be low in achievement motivation and those with 135 – 180 were considered high.

3.5.4 Administration and Scoring of the Nomadic Girls' Achievement Test (NGAT)

The NGAT was given to the nomadic girls to determine their level of achievement in English language, Mathematics and General Paper. In administering the test, nomadic girls were limited to 45 minutes for the all the questions as indicated on the question paper. The girls were given question papers, and were required to circle the correct alternative out of the alternatives provided for each question on the question paper. At the end of the test, their scripts were collected with the help of the research assistants and submitted to the investigator for scoring. In scoring, a tick [√] was given to the correct alternative and 1 mark assigned to the tick. Any incorrect alternative was marked wrong [x] and a 0 assigned to the x. The NGAT scripts were scored over 100% and the scores graded to determine high and low performance. To determine Nomadic Fulani girls' academic performance, score were corrected to percentage by multiplying 45 ×10 to meet primary school mandatory pass marks of 40%. Thus, the scores between 0 – 26, i.e. percentages 24 - 57 were considered as low and those above 26 i. e. percentages 60 – 91 high.

0 - 26 = Low

27 – 45 = High

3.6 METHOD OF DATA ANALYSIS

After administering AMRS and NGAT to the respondents, data were collected separately for each of them. Descriptive statistics comprising mean, standard deviation and percentages were used to answer the research questions. The t-test was used to compute and compare or determine results

involving two groups only. The analysis of variance (ANOVA) was used to compute and analyze results involving more than two groups such as for the research hypotheses.

3.6.1 Research Questions

Research Question One

This research question sought to determine the level of nomadic girls' achievement motivation. Mean, standard deviation, and simple percentages were used to address this question. These descriptive statistics are considered appropriate because of their suitability in categorizing the subjects' proportions into different levels of achievement motivation.

Research Question Two

The research question sought to find out the level of nomadic Fulani girls academic performance. Mean, standard deviation, and simple percentages were used to address this question. These descriptive statistics are considered appropriate because of their suitability in categorizing the subjects' proportions into different levels of achievement motivation.

Research Question Three

The question sought to find out the distribution of the demographic characteristics- age, birth order, betrothal etc. of nomadic Fulani girls. Descriptive statistics were used in determining variations accountable for differences in achievement motivation and academic performance.

3.6.2 Testing of Hypotheses

Hypothesis One

The differences in achievement motivation mean scores of nomadic Fulani girls based on demographic characteristics were determined using t-

test for school distance and socio-economic status. One way analysis of variance was used in the analysis related to age, birth order, betrothal, father and mother's educational levels at 0.05 level of significance.

The t-test is defined as:

$$t = \frac{\overline{X}_1 - \overline{X}_2}{\sqrt{\left[\frac{n_1 - 1)S_1^2 + (n_1 - 1)S_2^2}{n_1 + n_2 - 2}\right]\left[\frac{1}{n_1} + \frac{1}{n_2}\right]}}$$

Where:

$\overline{X}_1$ = Mean for group 1

$\overline{X}_2$ = Mean for group 2

n_1 = Group 1

n_2 = Group 2

S^2 = Variance for group 1

S^2 = Variance for group 2

One way analysis of variance is defined as:

SSE (S^2_B) =$\sum$ (x-xt) ^{2}

Where:

S^2_B = between groups variance

S^2 = within groups variance

F = ANOVA

Hypothesis Two

The differences in the mean scores on academic performance based on nomadic Fulani girls' demographic characteristics was determined using t-test for school distance and socio-economic status, and One way analysis of variance for age, birth order, betrothal, father and mother educational levels at 0.05 level of significance.

Hypothesis Three

Variations of nomadic Fulani girls' academic performance mean scores with high and low achievement motivation was determined using one way ANOVA

Hypothesis Four

The variation accounted for by nomadic Fulani girls' achievement motivation by age, school distance and socio-economic status was determined using ANOVA at 0.05 level of significance.

Hypothesis Five

The variation accounted for by nomadic Fulani girls' achievement motivation by betrothal, birth order, father and mother's educational level was determined using ANOVA at 0.05 level of significance.

Hypothesis Six

The variation accounted for by nomadic Fulani girls' academic performance by age level, school distance and socio–economic status was determined using ANOVA at 0.05 level of significance.

Hypothesis Seven

The variation accounted for by nomadic Fulani girls' academic performance by betrothal, birth order, father and mother's level of education was determined by ANOVA.

Hypotheses one, two, four, five, six and seven were tested for significant difference using t-test and one way ANOVA for independent samples based on the following considerations.

(a) The data to be collected in each case is interval in nature.

(b) The samples were drawn by random sampling.

(c) The population is a normal population, implying that the example is normal also,

(d) The samples are independent samples,

(e) The distribution of the sample is normal distribution.

The t-test is also known for identifying variations between different samples on a particular dependent variable. The choice of t-test agreed with the provision of Godwin (1995), Koul (2006) and Sidhu (2007) that the test for independent samples could be used when subjects are randomly assigned or when there are only two groups of a subject variable, such as in the case of school distance and socio-economic status.

The conditions for using 1-way ANOVA were as follows:

(a) Sample selected from the population are independent random samples.

(b) The distribution of variance in the population is normal.

(c) The data being analyzed are internal in nature.

(d) There is homogeneity of variances (Awotunde & Ugodulunwa, 1998).

CHAPTER FOUR
RESULTS AND DISCUSSION

This study was targeted at investigating the influence of achievement motivation and demographic characteristics on academic performance of nomadic Fulani girls. Data were collected by means of the study instruments and the data analyzed using appropriate statistics. The chapter, therefore, presents the results of the analysis of data. It also interprets and discusses the results.

4.1 RESULTS

4.1.1 Research Question One.

What is the level of nomadic girls' achievement motivation?

The level of nomadic Fulani girls' achievement motivation as shown by analysis is presented in Table 8.

Table 8: Level of Nomadic Girls' Achievement Motivation

Level of Motivation	Range of Scores	Frequency	Percentage
High	113-166	223	74.3
Low	84–112.5	77	25.7
Total		300	100

Table 8 shows that 25.7% of nomadic Fulani girls have low achievement motivation and 74.3% have high motivation, indicating that generally nomadic girls have high achievement motivation.

4.1.2 Research Question Two.

What is the level of nomadic girls' academic performance?

In order to answer this research question, nomadic Fulani girls' performance was categorised into high and low based on the scores they obtained from Nomadic Girls Achievement Test (NGAT). The result of the analysis is presented in Table 9.

Table 9: Categorization of Nomadic Girls' Academic Performance

Level of Performance	Range of Scores	Frequency	Percentage
High	22 – 91	197	34.4
Low	60 - 91	103	65.7
Total		**300**	**100**

The data in Table 9 indicate that 34.3% nomadic Fulani girls have high academic achievement, while 65.7% have low achievement. This implies that more nomadic girls' have academic achievement score.

4.1.3 Research Question Three.

What is the distribution of nomadic Fulani girls according to demographic characteristics?

Table 10: Demographic Distribution of Nomadic Fulani Girls.

S/N	Variable	Groups	N	%
1	Sch. Dist.	Near	163	54.3
		Far	136	45.3
		Missing	1	99.7
		Total	300	100
2	Age	9-11	152	50.7
		12-14	106	35.3
		15+	42	14.0
		Total	300	100
3	Birth Order	First	103	34.3
		Middle	147	49.0
		Last	50	16.7
		Total	300	100
4	Betrothal	Yes	108	36.0
		I don't know	140	46.3
		No	52	17.3
		Total	300	100
5a	Mother's Ed	N.F. Ed	155	51.7
		Prim. Ed	98	33.3
		Islamic. Ed	45	15.0
		Total	300	100
5b	Father's Ed	N.F.Ed	181	60.3
		Prim. Ed	98	32.7
		Islamic Ed	21	7.0
		Total	300	100
6	SES	Low	196	65.3
		High	104	34.7
		TOTAL	300	100

Data in Table 10 show that 55% of the respondents reside near their school while 45% respondents reside far. Data for age show that 51% were between ages 9-11 years, 35% were between ages 12-14 years while 14% were between ages15 years and above respectively. With respect to birth order 34% were the first born, 49% were in the middle and16.7% were the last born. The responses for betrothal showed that 36% were betrothed, 46.3% didn't know if they were betrothed, while only 17.3% were not betrothed. With respect to education of the fathers, 60.3% had non-formal education, 32.7% had primary education while 7% had Islamic education; 51.7% of the mothers had non-formal education, 33.3% had primary and 15% had Islamic education. For parents' socio-economic status, 65.3% were recorded low and 34.7% high. It can be deduced from the table that there are variations in nomadic Fulani girls' demographic characteristics which may undermine their nAch and academic achievement.

4.1.4 Hypothesis One.

There is no significant difference in the achievement motivation mean scores of nomadic Fulani girls due to the following demographic characteristics:

a. School distance

b. Parents' Socio-economic status

c. Age

d. Betrothed and not betrothed

e. Birth order

f. Father's educational level

g. Mother's educational level

Table 11: Results of t-test Analysis for Differences in Achievement Motivation Mean Scores of Nomadic Fulani Girls from Near and Far schools.

Group	N	$\overline{X}$	S	t_{cal}	t_{crit}	Decision
Near	163	123.15	16.0	2.75	1.96	Reject
Far	136	118.14	15.2			

Note: P<0.05, df = 298

The result in Table 11 shows that the calculated t-value of 2.75 is more than the critical t-value of 1.96 for degree of freedom 297 at a 0.05 level of significance. The hypothesis is therefore, rejected. This means that there is a significant difference between the mean score on the test of achievement motivation of nomadic Fulani girls based on whether their school distance is near or far. Nomadic Fulani girls that live near their school have significantly higher achievement motivation than those that are far.

Table 12: Results of t-test Analysis for Differences in Achievement Motivation Mean Scores of Nomadic Fulani Girls from High and Low Socio Economic Status Families.

Group	N	$\overline{X}$	S	t_{cal}	t_{crit}	Decision
High SES	104	127.74	17.13	5.83	1.96	Reject
Low SES	196	117.05	13.96			

Note: P<0.05, df = 298

The data in Table 12 show the effect of socio- economic status on nAch of nomadic Fulani girls. The t-test was used since there were only two groups. The t-statistic value of 5.83 is greater than the critical t-value of 1.96 at 0.05 level of significance, and 298 as degrees of freedom. The hypothesis is rejected. This shows that there is a significant difference in the nAch between nomadic Fulani girls from high and low socio-economic status families. This shows that nomadic Fulani girls from families with high socio economic status have higher achievement motivation than nomadic Fulani girls from low socio economic families.

Table 13: One-Way Anova Comparison of Achievement Motivation Mean Scores of Nomadic Fulani Girls with Different Ages.

Source of Variance	SS	Df	MS	F_{cal}	F_{crit}	P-value
Between Groups	421	2	211	0.83	3.00	.44
Within Groups	75593	298	255			
Total	76014	300				

P>0.05

Table 13 shows the difference in the nAch of nomadic Fulani girls with different ages. The ANOVA was used since there were more than two groups with achievement motivation as the dependent variable. The calculated F-ratio of 0.83 which was found to be above the table F-value of and the p-value was .44 which is less than 0.05. The result provides ground for the hypothesis to be accepted. The hypothesis was retained indicating no significant influence of age on nomadic Fulani girls' achievement motivation.

Table14: One-Way Anova Comparison of Achievement Motivation Mean Scores of Betrothed and Non-betrothed Nomadic Girls.

Source of Variance	SS	Df	MS	F_{cal}	F_{crit}	P
Between Groups	12255	2	6128	28.54	3.00	.000
Within Groups	63758	298	215			
Total	176013	300				

P<0.05

The data in Table 14 show the nAch of nomadic Fulani girls' betrothal status. The computed value of F-ratio of 28.54 is greater than the table F value of 3.00 at 0.05 for degree of freedom 297 at 0.05 level of significance. This result provided enough grounds to reject the null hypothesis. Therefore, there is a significant difference between the achievement motivation of betrothed and non-betrothed nomadic Fulani girls. Since there are significant differences between girls who are betrothed, not betrothed and who don't know, the Scheffe Post Hoc Test was used to identify those significant differences. These are presented in Table 15.

Table 15. Multiple Comparison of Group Mean of Achievement Motivation of Betrothed and Not Betrothed Nomadic Fulani girls.

Dependent Variable	Betrothed or not Betrothed	Betrothed or not Betrothed	Mean Difference	P-value
Achievement Motivation	I don't know	Yes	5.6	.011*
	No	Yes	18.68	.000*
	No	1 don't know	12.99	.000*

*P<0.05

Table 15 shows a mean difference of 18.68 for nomadic Fulani girls who say they are not betrothed indicating that they have the highest need to achieve. On the other hand, nomadic Fulani girls who reported that they were betrothed had the lowest mean of 5.6. This implies that nomadic Fulani girls who are not betrothed have a higher need for achievement than those who are betrothed.

Table 16:One-Way Anova Comparison of Achievement Motivation Mean Scores of Nomadic Fulani Girls With different Birth Order.

Source of Variance	SS	Df	MS	F_{cal}	F_{crit}	P-value
Between Groups	10087	2	5044	22.72*	3.00	.000
Within Groups	65927	297	222			
Total	76014	299				

P<0.05

The data on Table 16 show nAch mean scores of nomadic Fulani girls with different birth order. The calculated F-value of 22.72 is greater than the critical F-value of 3.00 at 0.05 alpha level, and 2,298 degrees of freedom. The null hypothesis is rejected implying that there is a significant difference in the mean score of nomadic Fulani girls with different birth orders. A multiple comparison of group mean differences was conducted using scheffe post hoc test to determine the differences. The result is presented in Table 17.

Table 17: Multiple Comparisons of Group Means of Scheffe Procedure on Nomadic Fulani Girls with Different Birth Order.

Dependent Variable	Birth Order	Birth Order	Mean Differences	P- value
Achievement Motivation	Middle	Last	4.06	.11
	Last	First	17.16	.000*
	First	Middle	13.09	.000*

*P<0.05

The information in Table 17 indicates that the last born had the highest mean differences of 17.16 and middle born had the lowest mean difference of 4.06.This shows that nomadic Fulani girls that are last born have higher nAch than first and middle born.

Table 18: One-Way Anova Comparison of Achievement Motivation Mean Scores of Nomadic Fulani Girls' with Fathers of Different Educational Levels.

Source of Variations	SS	Df	MS	F_{cal}	F_{crit}	P
Between Groups	2140	2	1070	4.30	3.00	.014
Within Groups	73874	297	249			
Total	76014	299				

P<0.05

Table 18 shows the results of one way analysis of variance (ANOVA). The calculated F-ratio of 4.30 is more than the F-value of 3.02 at 2, 297 as degrees of freedom. The null hypothesis is rejected indicating a significant influence of father's level of education on nomadic Fulani girls' nAch. Since there was a significant difference, the group means were compared using multiple comparison of mean through scheffe on achievement motivation of nomadic Fulani girls with fathers of different educational levels. These results are presented in Table 19.

Table 19: Result of Scheffe Procedure on Nomadic Fulani Girls' with Fathers of Different Educational Levels.

Dependent Variable	Father's Educational Level	Father's Educational Level	Mean Difference	P-value
Achievement Motivation	Primary	Non Formal	4.38	.088
	Islamic	Non Formal	8.41	0.071
	Islamic	Primary	4.03	.569

P>0.05

Data in Table 19 show that P-value for the levels education was not significant at 0.05 level of significance. Nevertheless, the mean difference varies with Islamic education having the highest mean difference of 8.41, and primary and Non-formal with 4.38 and 4.03 respectively. This means that nomadic Fulani girls' nAch is influenced by their fathers' level of education.

Table 20 One-Way Anova Comparison of Achievement Motivation Mean Scores of Nomadic Fulani Girls with Mothers of Different Educational Levels.

Source of Variations	SS	Df	MS	F_{cal}	F_{crit}	P
Between Groups	710.67	2	7515	36.59	3.00	.000
Within Groups	15415.25	297	205			
Total	16125.92	299				

P<0.05

Table 20 show the effect of mother educational level on nomadic Fulani girls' achievement motivation. Since there were three groups of non formal, primary and Islamic education, the ANOVA was used with achievement motivation as dependent variable. The F-ratio of 36.59 was found to be above the table F-value of 3.00 at 0.05 level of significance. This provided enough grounds for the rejection of the null hypothesis. It can therefore, be deduced that a significant difference exists in the achievement motivation of nomadic Fulani girls' mothers with different educational levels. To determine the level of difference, a post-hoc test was used. These results are presented in Table 21.

Table 21: Result of Multiple Comparison Scheffe on Mothers' Educational Level and Achievement Motivation.

Dependent Variable	Mothers' Educational Level	Mothers' Educational Level	Mean Differences	P-value
Achievement Motivation	Primary	Non Formal	7.32	.000*
	Islamic	Non Formal	20.42	.000*
	Islamic	Primary	13.10	.000*

*P<0.05

Information in Table 21 shows that the mothers' level of education affects nomadic Fulani girls' achievement motivation. This is based on the mean difference of nomadic Fulani girls of mothers with Islamic education who have the highest mean difference of 20.42, while the lowest mean difference of 7.32 is for mothers with non-formal education. This suggests that the higher the level of nomadic mothers' level of education, the higher their daughters' nAch.

4.1.5 Hypothesis Two:

There are no significant differences in the academic performance mean scores of nomadic Fulani girls due to the following demographic characteristics:

(a) Age level

(b) Birth order

(c) School distance

(d) Parents' socio economic status

(e) Betrothed or not betrothed

(f) Father's educational level

(g) Mother's educational level

Table 22: Results of t-test Analysis of Academic Performance Mean Scores of Nomadic Fulani Girls from Near and Far distance school.

	N	$\overline{X}$	S^2	t_{cal}	t_{crit}	Decision
Near	163	23.44	8.05	2.38	1.96	Reject
Far	136	21.23	7.90			

Notes: P<0.05, df = 298

The data in Table 22 shows the difference in the academic performance of nomadic Fulani girls' depending on whether they live near or far from school. The t-test was used because there two groups, near and far. The calculated t-value of 2.38 was greater than the critical t-value of 2.02 with 298 degrees of freedom at an alpha level of 0.05. The null hypothesis was rejected. This indicates that school distance has a significant influence on the academic performance of nomadic Fulani girls. Those living near the school score higher.

Table 23: Results of t-test Analysis of Academic Performance Mean Scores of Nomadic Girls Academic Performance from Low and High Socio Economic Status Families.

Group	N	$\overline{X}$	S	t_{cal}	t_{crit}	Decision
High	196	26.32	7.71	6.47	1.96	Reject
Low	104	2O.40	4.11			

Notes: P<0.05, df = 298

The data in Table 23 show the differences in academic performance of nomadic Fulani girls from families of high and low socio economic status. The t-test was used since there are only two groups, high and low with socio economic status as dependent variable. The calculated t-value of 6.47 was greater than the critical-value of 1.96 at 0.05 alpha level with 298 degrees of freedom. This provides the basis for the rejection of the null hypothesis. It implies that nomadic Fulani girls from families with high socio economic status perform better than those from families with low socio economic status.

Table 24: One-Way Anova Comparison of Academic Performance Mean Scores of Nomadic Fulani Girls with Different Ages.

Source of Variance	SS	Df	MS	F_{cal}	F_{crit}	P
Between Groups	232.7	2	116.4	1.81	3.21	0.16*
Within Groups	19079.6	292	64.2			
Total	19312.3	299				

*P>0.05

Table 24 shows the academic performance of nomadic Fulani girls based on age. The calculated F-value was 1.81 which is less than the critical F value of 3.21 at 0.05 level of significance. The null hypothesis was therefore retained, indicating that age does not have significant impact on the academic performance of nomadic Fulani girls.

Table 25: One-Way Anova Comparison of Academic Performance of Nomadic Fulani Girls with Different Birth Order.

Source of Variance	SS	Df	MS	F_{cal}	F_{crit}	P
Between Groups	4210.9	2	2105.5	41.41	3.00	.000
Within Groups	15101.4	297	50.8			
Total	19312.3	299				

P<0.05

In Table 25, the academic performance of nomadic Fulani girls according their birth order was presented. The calculated value of F-value was 41.41 which is higher than the calculated value of 3.00 at 0.05 alpha level. The null hypothesis was therefore rejected, indicating that there is a significant difference in academic performance of nomadic Fulani girls with different birth order. A multiple comparisons Scheffe Post Hoc Test was carried out to determine the level of differences. The result is presented in Table 26.

Table 26: Result of Scheffe Procedure on Academic Performance of Nomadic Fulani Girls with Different Birth Order.

Dependent Variable	Birth order	Birth order	Mean	Pvalue
Academic Performance	Middle	First	2.89	.008*
	Last	First	11.13	.000*
	Last	Middle	8.26	.000*

* P< 0.05

A multiple comparisons scheffe post hoc test was used to find the mean differences between the groups. The results presented on Table 26 indicate that the last born had the highest mean difference of 11.3, followed by first born with 8.26 over while the middle born had the lowest mean difference of 2.89. This implies that being first, middle or last born affects nomadic Fulani girls' academic performance. Thus, nomadic Fulani girls that are born last tend to have a higher academic performance than first and middle born.

Table 27: One-Way Anova Comparison of Academic Performance Mean Scores of Nomadic Fulani Girls Betrothed or not betrothed.

Source of Variance	SS	Df	MS	F_{cal}	F_{crit}	P
Between Groups	3876.4	2	1938.2	37.29	3.21	.000
Within Groups	15436.0	297	52			
Total	19312.4	49				

P<0.05

Table 27 presents the academic achievement of nomadic Fulani girls based on whether they are betrothed or not. The calculated F-value was 37.29 which is more than the critical F-value of 3.21 at 0.05 level of significance. The null hypothesis is therefore rejected, indicating a significant difference in academic performance of nomadic Fulani girls based on their betrothal status. Since a significant difference exists in the performance of nomadic Fulani girls based on whether they were betrothed or not betrothed, a multiple comparison of mean differences was conducted using Scheffe Post Hoc Test. The result is shown in Table 28.

Table 28: Multiple Comparisons Scheffe on Academic Performance of Nomadic Fulani Girls Betrothed or Not Betrothed.

Dependent Variable	Betrothed or Not Betrothed	Betrothed or Not Betrothed	Mean	P value
Academic Performance	I don't know	Yes	2.13	.072
	No	Yes	10.35	.000*
	No	I don't know	8.23	000*

*P<0.05

Data on multiple comparisons group means indicate that nomadic Fulani girls that are not betrothed perform better with the highest mean difference of 10.35 over those who were betrothed, followed by those who didn’t know with 8.23 over those betrothed who had the lowest mean difference of 2.13. This means that nomadic girls who are not betrothed have the highest academic performance. This implies that the betrothing of nomadic Fulani girls affects their academic performance negatively.

Table 29: One-Way Anova Comparison of Academic Performance Mean Scores of Nomadic Fulani Girls with Fathers' of Different Educational Levels.

Source of Variance	SS	Df	MS	F_{cal}	F_{crit}	P
Between Groups	2076.2	2	1038.1	17.88	3.00	.000
Within Groups	17236.1	297	58.0			
Total	1564.82	299				

P<0.05

In Table 29, the performance of nomadic Fulani girls according to their fathers' level of education is presented. It shows the calculated F-value of 17.88 which is higher than the critical value of 3.00 at alpha level 0.05. The null hypothesis is therefore rejected, indicating that there is a significant difference in the academic performance of nomadic Fulani girls with fathers of different educational levels. A multiple comparisons Scheffe Post Hoc Test result, carried out to determine the level of differences, is presented in Table 30.

Table 30: Multiple Comparisons of Academic Performance of Nomadic Fulani Girls of Father's with Different Educational Levels.

Dependent Variable	Father's Educational Level	Father's Educational Level	Mean Difference	P value
Academic Performance	Primary	Non-Formal	3.80	.000*
	Islamic	Non-Formal	8.91	.000*
	Islamic	Primary	5.03	.000*

*P<0.05

Information in Table 30 shows a significant mean difference of 8.91 in favour of nomadic Fulani girls whose fathers possess with Islamic education over those with primary education. Nomadic Fulani girls' fathers with only non-formal education had the least mean difference of 3.80. It can be inferred that nomadic Fulani girls' fathers' level of education affects their academic performance. This indicates the relevance of father's education in the academic achievement of nomadic Fulani girls.

Table 31: **One-Way Anova Comparison of Academic Performance Mean Scores of Nomadic Fulani Girls of Mothers with Different Educational Levels.**

Source of Variance	SS	Df	MS	F_{cal}	F_{crit}	P
Between Groups	6167.6	2	3088.3	69.83	3.21	.000
Within Groups	13135.7	297	44.2			
Total	19303.3	299				

P<0.05

Table 31 shows the academic performance of nomadic Fulani girls based on their mothers' educational levels. A calculated F-value of 69.83 which is greater than the critical F-value of 3.21 was obtained with a calculated P-value of .000. This is greater than 0.05. The null hypothesis is consequently rejected. This implies that there is a significant difference in the academic performance of nomadic Fulani girls with mothers of different educational levels. To establish the mean differences between the groups, a post-hoc test of multiple comparisons was run and the results are shown on Table 32.

Table 32: Result of Scheffe Procedure on Academic Performance of Nomadic Fulani Girls of Mothers of Different Educational levels.

Dependent Variable	Mother's Educational Level	Mother's Educational Level	Mean	P value
Academic Performance	Primary	Non Formal	6.06	.000*
	Islamic	Non Formal	12.53	.000*
	Islamic	Primary	6.48	.000*

*P < 0.05

From Table 32, data show that nomadic Fulani girls whose mothers possess Islamic education have the highest mean difference of 12.53, while those with non-formal education have the least with 6.06. This Implies that mothers' level of education is a major factor in enhancing nomadic Fulani girls' academic performance, with the highest level (Islamic) having the most positive impact.

4.1.6 Hypothesis Three.

There is no significant difference in the academic performance mean scores of nomadic Fulani girls with high and low achievement motivation.

Table 33: Results of t-test Analysis of Academic Mean Scores of Nomadic Fulani Girls with Low and High Achievement Motivation.

Group	N	$\overline{X}$	S	t_{cal}	t_{crit}	Decision
High	55	29.84	6.36	9.22	1.96	Reject
Low	245	20.80	7.43			

Notes: P<0.05, df = 298

The data in Table 33 indicate difference in academic performance of high and low nAch nomadic Fulani girls. Since there were only two groups, high motivation to achieve and low motivation to achieve, the t-test was used. The calculated t-value of 9.22 is higher than the critical t-value of 2.02 at 0.05 level of significance. The null hypothesis is therefore rejected and it is concluded that there is a significant difference in the academic performance mean score of nomadic Fulani girls based on high and low achievement motivation. The high nAch nomadic girls performed better than the low nAch nomadic Fulani girls.

4.1.7 Hypothesis Four.

There are no significant interaction effects of school distance, age and socio-economic status on nomadic Fulani girls' achievement motivation.

Table 34: Factorial Analysis of Variance Results of Interaction Effects of School Distance, Age and Socio-economic Status on Achievement Motivation of Nomadic Fulani Girls.

Variable	SS	Df	MS	F_{cal}	P-value
School Distance vs. Age	1533.191	2	766.596	3.472	.032*
School Distance vs. SES	448.397	2	488.397	2.031	.155
Age vs. SES	147.281	2	73.640	.334	.717
School distance vs. Age vs. SE	594.010	2	297.005	1.345	.262

*P < 0.05

Table 34 shows the results of factorial analysis of variance for interaction effects of school distance, age and socio economic status on the nAch of nomadic Fulani girls. The two-way interaction effects of school distance and age was significant with a calculated F-value of 3.47 at 0.05 level of significance. The null hypothesis is rejected. However, from the table if age and school distance are removed, socio-economic status does not account for nomadic Fulani girls' achievement motivation.

4.1.8 Hypothesis Five.

There are no significant interaction effects of betrothal, birth order, father's education and mother's education on nomadic Fulani girls' achievement motivation.

Table 35: Factorial Analysis of Variance Results of Interaction Effect of Betrothal, Birth order, Father's and Mother's Education on Achievement Motivation of Nomadic Fulani Girls.

Variable	SS	Df	MS	F_{crit}	P
Betrothal vs. Birth Order	963.005	4	240.751	1.332	.259
Betrothal vs. Fathers' Education	174.034	3	58.011	.321	.810
Birth Order vs. Fathers' Education	20.035	3	6.678	.037	.990
Betrothal vs. Birth Order vs. Fathers' Educ.	708.709	4	177.177	.980	.419
Betrothal vs. Mother's Education	1459.105	4	364.776	2.018	.092
Birth order vs. Mothers' Education	1521.848	4	380.462	2.105	081
Betrothal vs. Birth order vs. Mothers' Educ.	171.482	3	57.161	.316	.814
Fathers' Educ. vs. Mothers' Educ.	3672.847	4	918.212	5.080	.001*
Betrothal vs. Fathers' Educ. vs. Mothers Educ	1362.110	3	454.370	2.514	.059
Birth order vs. Father's Educ. vs. Mothers' Educ	1305.702	3	435.234	2.408	.068
Betrothal vs. Birth order vs. Fathers' Educ. vs. Mothers' Educ.	576.494	2	288.247	1.595	.205

*P<0.05

Analysis of data in Table 35 indicates two-way interaction effect of betrothal, birth order, father's and mother's education on the nomadic Fulani girls' nAch. Only the two-way interaction effect of father's and mother's education was significant with an F-ratio of 5.08 and p-value of .000 The null hypothesis is therefore rejected. This shows that parents' educational levels interact to predict academic performance of nomadic Fulani girls.

4.1.9 Hypothesis Six.

There are no significant interaction effects of school distance, age and socio-economic status on nomadic Fulani girls' academic performance.

Table 36: Factorial Analysis of Variance. Results of Interaction Effect of School Distance, Age and Socio-economic Status on Academic Performance of Nomadic Fulani Girls.

Variable	SS	Df	MS	F_{crit}	P_{value}
School Distance vs. Age	86.403	2	43.201	.792	.454
School Distance vs. SES	314.367	2	314.367	5.761	.017*
Age vs. SES	297.685	2	148.843	2.728	.067
School distance vs. Age vs. SES	125.218	2	62.609	1.148	.319

*P < 0.05

From Table 36, only the two-way interaction between school distance and socio-economic status was significant with a calculated F-value of 5.761 at 0.05 level of significance. The null hypothesis is rejected. This shows that the socio-economic status of the families of nomadic Fulani girls and the distance between their homestead and primary school impact on their academic performance.

4.1.10 Hypothesis Seven.

There are no significant interaction effects of betrothal, birth order, father's education and mother's education on nomadic Fulani girls' academic performance.

Table 37: Factorial analysis of Variance Results of Interaction Effect of Betrothal, Birth Order, Father and Mother's Educational Level on Academic Performance of Nomadic Fulani Girls.

Variable	SS	Df	MS	F_{crit}	P
Betrothal vs. Birth Order	233.103	4	58.276	1.545	.190
Betrothal vs. Fathers' Edu	18.320	3	6.107	.162	.922
Birth Order vs. Fathers' Edu	91.421	3	30.103	.808	.491
Betrothal vs. Birth Order vs. Fathers' Edu	66.499	4	16.625	.441	.779
Betrothal vs. Mothers' Edu	36.205	4	9.051	.240	.916
Birth order vs. Mothers' Edu	115.537	4	28.884	.766	.614
Betrothal vs. Bith order vs. Mothers' Edu	68.241	3	22.884	.766	.548
Fathers' Edu vs. Mothers' Edu	72.433	4	18.108	.480	.750
Betrothal vs. Fathers' Edu vs. Mothers' Edu	42.774	3	14.258	.378	.769
Birth order vs. Fathers' Edu vs. Mothers' Edu	71.701	3	23.9000	.634	.594
Betrothal vs. Birth order vs. Fathers' Edu vs. Mothers' Edu	47.554	2	23.777	.630	.533

*P < 0.05

The analysis in Table 37 above shows that calculated F-ratios are less than the F-critical of 1.96. This indicates that all the variables have no significant interaction effects on nomadic Fulani girls' academic performance. The P-values were all greater than 0.05 level of significance. The null hypothesis is therefore retained. The variations of this result with other hypotheses tested, may be due the variables tested individually, and seem to affect performance than when combined.

4.2 DISCUSSION OF RESULTS

The results are discussed according to the following: Level of nomadic Fulani girls' achievement motivation, level of nomadic Fulani girls' academic performance, demographic characteristics of nomadic Fulani girls, demographic characteristics and nomadic Fulani girls' achievement motivation, demographic characteristics and nomadic Fulani girls' academic performance, relationship between achievement motivation and academic performance, interaction effects of demographic characteristics on nomadic Fulani girls' achievement motivation and interaction effects of demographic characteristics on nomadic Fulani girls' academic performance.

4.2.1 Level of Nomadic Fulani Girls' Achievement Motivation

There is a general concern over the poor performance of nomadic Fulani children, especially girls. Nomadic Fulani girls' performance has remained low, despite the efforts of the National Commission for Nomadic Education and Universal Basic Education Commission.

The researcher undertook the research to find the level of nomadic Fulani girls' achievement motivation. Research question one addressed this issue. It was found that nomadic Fulani girls have high achievement motivation as indicated by a percentage of 65.70%. (See Table 10). The result shows that nomadic Fulani girls' socialization process equips them with the necessary norms and values that enhance the need to excel.

This study partially supports Ezeomah's (1983) report that nomadic Fulani children have a high desire to succeed in school despite cultural impediments. This finding is also consistent with the assertion of VerEecke (1991) and Muhammad (2000) that nomadic Fulani girls are assigned roles

discouraging dependence on their parents as girls, and their husbands as women. VerEecke (1991) observed that nomadic Fulani girls are assigned roles that enhanced the desire to achieve. They are also made to acquire skills that promote independence through weaving of mats and calabash covers, and their engagement in the sale of dairy products, the proceeds of which are used to assist their parents in the upkeep of the family. FAWE (2006) also reported that nomadic Fulani girls desire to attend school and succeed despite the numerous challenges from their culture and religion.

The consistency of the foregoing findings with the present study may be traced to the nomadic Fulani socialization process that encourages nomadic children's independence which is encapsulated in the nomadic Fulani code of conduct (Pullaku) which places a high premium on commitment, endurance and persistence in achieving a desired objective.

There are, however, contrary views on the nAch of nomadic Fulani girls. Nnorom (1980) and Mohammed (1989) assert that nomadic Fulani girls do not have the desire to excel in school. Obeise (2007) also observed that nomadic Fulani girls do not aspire to succeed in school and instead of concentrating on the assigned tasks, they prefer to play. She went further by stating that nomadic Fulani girls complain of lack of interest in what was being taught in school by their teachers. This contradiction in finding could be due to the numerous challenges facing UBE and NCNE, ranging from irrelevancy of curriculum, gross inadequacy of qualified teachers and indiscriminate transfer of nomadic teachers.

One implication of this study is that although nomadic girls have a high need for achievement, they lack the privilege to exibit this need. The

implication is that, if given the necessary encouragement from home and school, they will excel in assigned tasks in school and be able to proceed to junior secondary school. This has implications for NCNE and UBEC as it means that it is possible to decrease the gender gap in enrolment, drop-outs and graduation rates given the correct conditions.

4.2.2 Level of Nomadic Fulani Girls Academic Performance

Another area of concern about nomadic girls is their academic performance. Research Question Two looked at the level of their academic performance. It was shown in Table 11 that nomadic Fulani girls' academic performance is low. This result may be due to lack of interest by nomadic girls or it could be due to the inability of the school curriculum to meet their needs.

This finding supports Muhammad's (2000) statement that nomadic Fulani girls performed low in English language. Their poor performance was attributed to lack of adequate learning materials and irregular school attendance. The preceding finding concurs with Jegede (1994) and Jegede and Ugodulunwa (1997) who report a link between academic performance and students' study habits, gender and achievement motivation. They stated that a learner's achievement in school is not hinged on his availability of teaching and learning materials alone, but on his study habits and motivation.

The compatibility of these current finding with previous ones could be because Nomadic Fulani girls, like other children, vary in their study habits, mental ability, learning style and perception. With respect to Nomadic Fulani girls, the case is further worsened by their being disadvantaged in terms of

the numerous cultural norms and values which result in their being socialized to undertake their assigned roles as future housewives and mothers.

It can be stated from the findings of the study that nomadic Fulani girls may not be able to contribute to the development of their community and the society at large. Women are regarded as agents of change in every society, and they are supposed to impact their society positively. By their poor performance, nomadic girls may not be able benefit from the laudable educational programmes like the UBE. They may also be deprived of the benefit of competing with other women economically, socially and politically.

4.2.3 Distribution of Nomadic Fulani Girls' Demographic Characteristics

The present study also focused on the demographic characteristics of nomadic Fulani girls. It was discovered that they vary in age, birth order, betrothal, distance from school, parental educational levels and socio-economic status. (See Table 13.) It was discovered that most nomadic girls live far from school. This means that most nomadic Fulani girls trek long distances to school. This could be because nomadic parents only settle where they can find pasture for their cattle. This is due to the centrality of their cows to their economic survival. This corroborates the observations of Ezeomah (1983), Atiku (2002) and ADSUBEB (2007) that nomadic schools are located far from nomad's homestead. This, as already stated, may inhibit punctuality, interest and regular school attendance, which are central to academic achievement.

On nomadic Fulani girls' age, it was found that 49.30% of the nomadic Fulani girls fall under the age range of 12 years to 15 years plus. This implies that a significant number of nomadic girls are above the prescribed age for

primary which is six to eleven years as stipulated in the National Policy on Education (NPE, 2004).This may have resulted in the insignificant difference in their academic performance. In support of this finding, Ahmed (2000) reported that nomadic Fulani girls' age does not account for their academic performance.

The study also revealed that nomadic Fulani girls' are of different birth order. It was found that 49% of the nomadic girls were middle born against 34.30% and 16.70% first born and last born respectively. The result showed that being first, middle or last born accounts for differences in achievement. This is in line with the observations of Kratli (2000) and Usman (2006) that nomadic children are socialized based on their birth order. Usman (2006) specifically stated that nomadic first born, irrespective of gender, do not benefit from maternal attachment as it is a taboo for mothers to interact with their first born apart from breast feeding. From this it can be deduced nomadic girls are treated differently on the basis of their birth order. Therefore, so their academic performance is bound to be affected.

Also discovered during the conduct of the study are differences in nomadic Fulani girls' betrothal status as they affect academic performance and need for achievement. The study found that only 17.30% nomadic Fulani girls were not betrothed while 36% were already betrothed. This confirms the assertion by Nnorom (1980) and Ismail (2002) that betrothal distracts nomadic girls' attention from class, probably due to the fear of withdrawal from school for marriage. The academic performance of nomadic Fulani girls is more likely to be affected by whether they are betrothed or not.

The study further discovered that Nomadic Fulani girls' parents' level of education differ, with non-formal education having the highest percentages of 60.3% and 51.70% for fathers and mothers respectively. With only 7% and 15% nomadic fathers and mothers with Islamic education, the academic performance of nomadic girls may not be the same. This finding corroborates the discovery of Lar, Anzaku and Gumut (2000) that most nomadic Fulani parents have no formal education. These variations also affect academic performance. Most nomadic parents value their nomadic life style more than education which they view as alien.

The agreement between previous studies and the present one may be related to the issues raised by researchers such as Lar (1997) and Tahir (2003) on nomads' unwillingness to part with their nomadic lifestyle and embrace formal education. Education is generally regarded to be a potent force in economic and political emancipation. Without education, nomadic Fulani parents are less likely to value the education of their children, especially girls.

The distribution of nomadic Fulani girls' socio-economic status indicated that 37% and 65% are of high and low socio-economic status. What this means is that, 65% nomadic parents have between 0 to 50 cows. The academic achievement mean scores of nomadic girls from high and low socio economic status were found to be low.

Variations in nomadic Fulani girls' demographic characteristics have implications for their education and achievement in school. It means that differences in nomadic Fulani girls' demographic characteristics may either deter or enhance their academic performance. Where they are at a

disadvantage because of demographic characteristics already discussed, they may perform poorly in school. It also means that nomadic teachers, ASUBEB, and NCNE will face challenges in trying to improve the literacy rate of nomadic Fulani which, according to Muhammad (2007), is only 10%. This is far below the Education for All (EFA) objectives.

4.2.4 Demographic Characteristics and Nomadic Fulani Girls Achievement Motivation.

The impact of demographic characteristics on nomadic Fulani girls' nAch was also investigated in this study. Hypothesis one examined the influence of demographic characteristics on nomadic Fulani girls' nAch. The hypothesis was tested to establish the nAch of nomadic Fulani girls with differences in school distance, age, betrothal status, birth order as well as parents' socio- economic status and educational levels. It was expected that nAch of nomadic Fulani girls would be the same irrespective of their demographic differences. However, a significant difference was found in the nAch of nomadic Fulani girls who live near compared to those who live far from the school with lower scores for those living far from school. The nAch mean score of nomadic Fulani girls living near their school (123.15) was greater than those living far from school which was 118.14. (See Table 14). This could be due to the over-tasking of girls at home with house chores in the morning forcing them to leave home late and then trek long distances before reaching school.

This finding is consistent with the findings of Nnorom (1980) and Sa'ad (2002, 2008) that living near school enhances students desire to learn. They further highlighted the importance of school distance on students' attendance

and desire to learn. All nomadic primary schools in Adamawa State are day schools and the distance between primary schools and the nomadic homestead ranges from 1 kilometre to 70 kilometres. Thus, the initial interest of pupils may not be sustained after having trekked long distances daily for a term, a year and even the entire primary school period.

However there are dissenting opinions on the role of school distance on students' desire to succeed. Usman (2001) observes that school distance is not major factor in nomadic children nAch. She further adds that when a learner has positive attitudes to schooling, the proximity of his home to the school does not count. This varying opinion could be due to the fact that unlike sedentary pupils, nomadic Fulani girls may not enjoy the same friendly home and school learning environment.

The important lesson learnt from the findings of the present study is that inappropriate location of nomadic primary schools affects nomadic girls' attendance, punctuality and attention in school. No matter the motivation, adequacy of teachers, teaching and learning material, long school distance may affect their achievement negatively. When they arrive late to school and are exhausted, they may not be able to participate effectively in class work.

The study also discovered that socio-economic status affects nomadic Fulani girls' academic performance. Specifically, nomadic Fulani girls from families with high socio-economic status performed better than those from low socio-economic status families. This may likely be due to ability of their parents to provide the required learning materials. Since 60.30% nomadic Fulani girls come from low socio-economic families, their parents may not be able to provide educational materials at home which they can benefit from.

This confirms the findings of Kalgo (2002) and Usman (2010) that learners' socio-economic status impinges on their motivation. Kalgo (2002) also observes that students from families with a high socio-economic status perform better than those from families with a low socio-economic status. All these findings support the assumption that family income determines the ability to meet one's basic needs. About 65% of nomadic parents are poor and this limits their capacity to meet their basic needs of food, shelter and clothing. This shows that even when nomadic children are motivated to excel in school; their nAch may not be sustained due to poverty.

On the other hand, Stenberg and Noguera (1999) are of the view that although socio-economic status is relevant in motivation of school children, other variables like parent involvement in the learning of their children are the major determinant of school success. They argue that irrespective of their socio-economic status, lack of monitoring by parents discourages children's interest in school, even if their parents are already rich. This dissenting opinion may not be relevant to the present study group because of the significant difference in their levels of development. Moreover, 65% of nomadic Fulani parents are so poor they are unable to cater for their basic needs, not to mention the education of their children.

The role of socio-economic status has important implications for the education of nomadic Fulani girls' education since it was discovered that most of them come from families with low socio-economic status and live in a challenging environment. Nomadic parents' inability to meet their basic needs and other social responsibilities including education implies that not only would it be difficult for nomadic Fulani girls to attend school but the

parents may not be able to provide the educational materials necessary for learning at home and schools. This further widens the inequity in enrolment and performance. This highlights the need for the realization of the goals of UBE, EFA and MDGs for gender equity and poverty reduction.

On the influence of age on nomadic Fulani girls' achievement motivation, no significant influence was found. This means that younger and older nomadic girls do not differ in their need for success. Since nomadic Fulani girls reach class six with most of them between 12-15 years of age, it may be expected that their motivation would decline. However, the result of this study supports the findings of Eccles and Wigfield (1995) that children and adolescents do not differ in their need for achievement. They maintain that irrespective of their age, primary school children appear to have distinct beliefs about what they are good at. These unchanging results may be due to similarity in the development trends of children irrespective of race, ethnicity and gender. If children pass through the same stages of development, physical, social and emotional changes are bound to be the same.

Nevertheless, this finding contradicts those of Alturaire (1988) and Diaz (2000) that revealed age influences students' needs to achieve. Alturaire stressed the role of age in a learner's desire to succeed. He explains that pupils' motivation slides as they move on through primary school. Mangal (2005) and Upadhya and Singh (2008) also highlight the role of maturation in motivation. Indeed, age is a major determinant in a learner's attention span, effort and persistence in learning. The contradiction between this finding and the present one may be due to the fact that children's motivation levels vary. Like other nomadic Fulani girls, motivation in upper primary school may slide

in line with the observation of Mclean (1997) that preschool children and lower primary school pupils have higher motivation than their upper primary school counterparts.

It was further discovered in the present study that betrothal affects nomadic Fulani girls' motivation to achieve. This may be because the knowledge of their status as betrothed girls undermines their attention to their studies. As earlier stated, nomads are resistant to cultural changes, especially as regards to those related to decisions about marriage. This is in agreement with the observations of Maqsud (1983) and Ismail (2001) that allowing cultural infiltration with regards to marriage rites are unacceptable for whatever reason as they are viewed as contravening their code of conduct. It can be deduced from this finding that betrothal, which is traditional marriage at birth contracted between nomadic parents on behalf of their children, undermines the efforts of the Federal Government, through the National Commission for Nomadic Education (NCNE) and Universal Basic Education (UBE). The negative affect of betrothal on nomadic girls is a serious issue that needs to be addressed urgently. It means that despite the existence of NCNE for the past two decades, it has not been possible to curtail the practice of betrothal of nomadic girls at birth. Thus, though nomadic Fulani girls are motivated to go to school, they are unable to complete primary school and proceed to junior secondary school.

The study also found out that birth order affects nomadic Fulani girls' achievement motivation. For nomadic girls that are last born, their nAch mean difference was 17.16, while first and middle born had 13.09 and 4.06 respectively (see Table 27). This could be due to the benefits last born get in

terms of attention of parents along with elder siblings. This finding is in consonance with and the assertion of Philips and Philips (1994) and Marjoribanks (2003) that being first born affects academic motivation and achievement of learners. As earlier stated birth order among nomadic Fulani affects their behaviour both at home and school. The agreement of these findings with this one may be traced to the attention normally given to the last born by parents' grandparents and extended family members, especially in the African culture. Furthermore the finding concurs with those of Usman (2001) and Mark (2008) who observe that nomadic culture abhors parental interaction with first born. Nomadic Fulani child rearing practice forbids mothers from interacting with their first born irrespective of gender. This is bound to affect their personality which is a major determinant of one's desire to achieve.

Contrary to these findings, LeVine (1969) report that ethnicity accounts for variations in desire to success and not birth order. He discovered that the socialization process of Igbo and Yoruba of Nigeria irrespective of gender, place emphasis on first and last born for the purpose of inheritance. He attributes the educational, political and economic advancement of these two major tribes to their socialization process that encourages independence. The differences in views on the role of birth order can be due to cultural variations in norms and values by each ethnic group. This finding has implications for nomadic teachers considering the importance of mother-child interaction on the emotional and social development of children. First born nomadic children may not benefit from the love and development of social and emotional skills derived from attachment with their mother. This is can impact negatively on

the classroom relationships as first born nomadic girls may manifest behaviours that are inimical to effective learning and socialization.

The present study also revealed that the educational levels of nomadic Fulani parents affect their daughters' need for achievement and desire to excel in school. This result is in conformity with the reports by Essien (2002) and Baker, Kanan and Al- Minad (2008) that the educational level and culture of parents contribute to differences in the children need to learn. This may likely be due to the significant role of parents' educational attainment in determining their commitment to the type of school their children attend, provision of learning materials and monitoring of their children's performance in school. Literacy levels have been identified as a major determinant in the liberation of individuals economically, politically and socially. It is pertinent to note that 93% of nomadic fathers and 85% of nomadic mothers have low educational qualifications, as shown in Table 22. These low levels of education can influence nomadic Fulani parents' decisions concerning who is enrolled in school. It also influences the value they attach to the provision of school materials and the amount of attention they pay to what is learnt at school by their children.

To determine the interaction effects of demographic characteristics on achievement motivation of nomadic Fulani girls, Hypotheses 4 and 5 were tested. It was shown in Table 40 that only school distance and age interacted to influence the nAch of nomadic Fulani girls. It was discovered that young nomadic girls living near to their school perform better than those who are far, while the performance of older nomadic girls living near or far from school was high. Since maturation is significantly determined by age, younger

nomadic girls may not be able to trek long distances and still have the energy to exert on class activities.

This finding is in agreement with the reports of Kalgo (2002) and Nwachukwu (2002) who report that learners' home background (age and school distance) impinged heavily on their desire to succeed in school. These researchers noted that age significantly contributes to motivation and school success. Since the mental ability of most learners is dependent on their age, the similarity in findings of both previous and present results may hinge on theories of development that emphasise uniformity in children's development according to age.

Contrary to these findings, some cognitive psychologists like Alfred Binet (1904), in measuring students mental and chronological age, discovered that some childrens' mental age are above their chronological age and vice versa. Base on Binet's explanation, some nomadic Fulani girls' mental age may be below or above their chronological age. Where this happens, it implies that learning material may not meet their needs and this may result in a low nAch. Thus, it can be concluded that if nomadic Fulani girls' ages are below or above their mental age, and they also live far from school, their nAch may be affected negatively. It may be deduced that this will result in poor academic performance leading to class repetition, high drop out rates, thereby further widening the gender gap in education which UBE and NCNE are trying to reduce.

Further more it was found that only the educational level of the father and mother interacted to influence nAch as shown in Table 41.The nAch mean scores of nomadic girls differ according to their parents' educational

levels. This result corroborates the reports of Stenberg and Noguera (1999) that parent educational levels predict students desire to succeed. Nwachukwu (2002) also reiterated the relevance of parental credentials on children's motivation to learn. He observed that parents take important decisions concerning the education of their children, from the type of school, its location, mode of operation and ownership depending on their level of education. Indeed, an individual may be rich but ignorant about investing in the education of his children. Nomadic Fulani girls are at a double disadvantage in terms of their environment and the educational levels of their parents as reflected in Table 13 where it was shown that the majority of fathers and mothers have no formal education. Thus, the nomadic Fulani girl whose home environment is not favourable for learning is at a further disadvantage due to her parents' illiteracy.

Nevertheless, the present finding differs with that of Essien (2002) who found no significant relationship between parents' level of education and students nAch. Essien attributes low nAch to parent's occupation and the limited time they have to attend to their children. The difference between Essien's finding and this present one is the much lower educational levels of the nomadic parents who are mostly illiterates. Thus illiterate Nomadic families may lack educational facilities at home for their children to manipulate very early in life and may not encourage their children to succeed since they are ignorant of the benefits of investing in the education of their children.

The finding of this investigation suggests that despite nomadic Fulani girls' high nAch, their performance is dependent on whether their parents have high or low educational levels. Thus, maintaining a low level of

education by nomadic parents is inimical to the realization of goals of EFA, UBE, and MDGs goals to which the Federal government is committed.

4.2.5 Demographic Characteristics and Academic Performance

Demographic characteristic and nAch already discussed above are likely to affect the academic performance of nomadic Fulani girls. The findings of the test of Hypothesis Two, which addressed the influence of demographic variables on the academic performance, is reflected in Tables 22 through 28. The findings show that there was a significant difference between the academic performances of nomadic Fulani girls depending on whether they live near or far distances from the nomadic primary school. Nomadic Fulani girls who live near to their schools had a mean score of 163 as against 136 for those who live far from school. (See Table 25.) What this means is those nomadic Fulani girls that attend schools near their homes perform better than those who live far.

This finding corroborates those of Lar (1997), Tahir (2003) and Tilde (2005) that there is a strong relationship between school distance and academic achievement. It is a known fact that when students reside far from school, they are likely to be late, tired and too exhausted to pay attention to the teacher. They may miss the first lessons in the morning which in most cases are English and mathematics which are core subjects in primary and secondary schools. ADSUBEB (2006) data revealed that most nomadic schools are far from nomadic homestead with distance ranging from 1 kilometre to more than 50 kilometres. By implication, most nomadic girls trek long distances to school. Thus only those nomadic Fulani girls who are lucky to live near their school and walk a short distance to school are likely to

perform well. This poses a serious threat to the realization of the objectives of UBE when nomadic girls do not move to the next class at the end of a session due to poor performance and may drop out of school. It means the low level of literacy may not be reduced, since women as agents of change lack the basic knowledge with which they can impact on their families positively.

The implication of this finding is that nomadic Fulani girls may be over stretched by their assigned roles which they have to carry out before they go to school. Their situation is further compounded by the long distance they have to trek to school. It means that nomadic Fulani girls may not be interested in paying attention, and so, may not perform well in school.

It was further discovered that age had no significant impact on academic performance of nomadic Fulani girls. This result may be attributed to the insignificant difference in the age range of nomadic girls that participate (see Table 13). This finding runs contrary to the theories of developmental psychologists such as Piaget and Vygotsky who hypothesized that the cognitive development of a child runs in stages from a simple to a more complex ability in problem solving depending on their age. Also, Bahago (2005) stressed the relevance of maturation and readiness in learning. She frowns at the undue haste of most parents and proprietors of private schools in pushing children ahead their level of maturation and readiness, thereby promoting the recent upsurge of children not ready for learning may contribute to the poor performance of students in examinations conducted by examination bodies.

This finding appears not to be in line with those of Rencher (1992), Stipek (1998) and Diaz (2000) who established a relationship between students' age and their academic beliefs and motivational orientation. The findings suggest that children's confidence in their achievement generally declines as they grow older.

The findings also revealed that birth order has a significant influence on the academic achievement of nomadic Fulani girls (see Table 25). This indicates that the academic performance of nomadic Fulani girls is based on whether they are first, middle or last born. As explained earlier in the literature review, nomadic parenting style prohibits maternal–child interaction, especially for the first born irrespective of gender.

This finding corroborated those of Falbo (1981) and Ginsburg and Bronstein (1993) who reported that birth order do have some effect on academics. These findings suggest that these differences could be as a result of varying levels of parental attention or sibling competition. Birth order affects the socialization of the nomadic girl child. Apart from her detachment because of gender, her situation becomes worse when she is the first born where she may not receive the required parental attention base on nomadic child rearing style.

Nonetheless, contrasting views by Elliot, Kratochwill, Cook and Tavers, (2000) assert that rather than birth order, it is learners' perception and mental ability that determine their academic performance. They further stated that mental ability differ even in children of same parents. This implies that nomadic Fulani girls are bound to vary in their performance not only as a result of their birth order, but due to other personal, home and school factors.

Another demographic characteristic which the research sought to find was whether betrothal from infancy affects nomadic girls. Table 26 shows that betrothal from infancy has a significant impact on the academic performance of nomadic Fulani girls. Since betrothed nomadic Fulani girls are likely to be withdrawn for early marriage before the completion of primary school, their interest in attending school and active involvement in learning may be reduced.

This finding endorses the reports of VerEecke (1991), Atiku (2002) and ADSUBEB (2006) that betrothal of nomadic Fulani girls at birth undermines their performance in school. Apart from the psychological trauma of being withdrawn at any time from school for marriage, their attention during classes may be distracted resulting in poor performance. That can lead to class repetition or even dropping out. Of all the reasons provided for dropping out by nomadic Fulani girls in 2006/2007 session, (marriage, rearing, death), marriage accounted for 58%, implying that betrothal is a serious deterrent to the education of nomadic Fulani girls.

Furthermore, it was discovered that the educational level of parents affects the academic performance of nomadic Fulani girls. It shows that the educational levels of nomadic parents affect their children's achievement in school. (See Table 28 and 29). This implies that Nomadic Fulani girls whose parents have the highest educational level (Islamic education) performed better academically than the girls whose parents had a lower level of education. Parents' educational levels affect their investment in the education of their children. They are more likely to chose the best schools, provide learning materials and guide their children in how to make career choice. This

finding is in line with the assertions of Steinberg & Noguera (1999) and Ahmed (2000) that parents' educational attainment affects their children's school achievement. Ahmed (2000) compared the performance of pupils in nomadic and public primary schools and found that their performance was influenced by parents' educational attainment. He found out that irrespective or religion, gender and ethnicity, parents' educational qualifications affected students' academic performance. Similarly, the study by Muhammad (2000) of the performance of nomadic primary school teachers and pupils in Fulfulde and English languages revealed that parents' educational levels impinged on their children academic performance. The implication of this is that nomadic children from families with a low level of educational may be disadvantaged academically.

Highlighting the role of parents' education in school success, Nwachukwu (2002) and Mallum (2003) observed that highly educated parents are more involved in their children's education through visits and attendance of school open days. Children of such parents performed very high. Since most of the parents of nomadic Fulani girls are of low educational levels, the girls are not likely to enjoy encouragement from their parents. The case of the nomadic girl child is a double tragedy. With a challenging home and school environment and illiterate parents; their performance is bound to slide even where teachers employ supportive measures in school through selection of novel pedagogies and suitable teaching and learning materials to make up for the lapses in the home environment.

The test of research Hypothesis Three showed a significant difference in the academic performance of nomadic Fulani girls with high and low

achievement motivation. Nomadic Fulani girls with high nAch had an academic achievement mean difference of 9.04 over those with low nAch. This implies that the achievement motivation of the nomadic Fulani girls influences their academic performance. This is likely due to the role of nAch in determining an individual's effort and persistence at task accomplishment.

The finding is in agreement with the discovery by Neihbur (1995) of a high correlation between young children's motivation and academic achievement. This could be because of the determination of the girls with high nAch to learn leads them to put in more effort. With an interest in succeeding, they are eager to arrive school early even if they live far away from school.

However, the findings of the affect of nAch of nomadic Fulani girls on their academic performance is at variance with those of Hammer (2003) and WEAC (2005) who reported that students' motivation was not strong predictor of academic performance. The findings of Hammer suggest that students' learning style, perception and mental ability also have a positive impact on their academic performance. This shows that apart from motivation, other factors, either from the student, home or school environment, can negatively affect their academic performance. To ensure that the nomadic Fulani girls with a high nAch perform well academically, the other factors already observed by the researcher need to be enhanced.

Hypotheses Six and Seven were designed to determine the interaction effects of demographic characteristics on nomadic Fulani girls' academic performance. In Table 42 it was shown that only school distance and socio economic status had a significant interaction effects on nomadic Fulani girls

performance. This indicates that school distance and the socio-economic status of family account for high academic achievement. The above finding should be examined in the light of what previous studies have found. Adaw (1986) and Dyer and Choksi (1997) agreed that the socio-economic status of families and school distance affected nomadic Fulani children's interest in attending school. Dyer and Choksi observed that level of poverty and the location of schools far from their homes undermine student's motivation of the Rabaris of Katch in West India.

Also it was reported in studies by Ahmed (2000) and Madugu and Guyit (2003) that nomadic schools are located far away from nomadic homesteads. Sa'ad (2002) noted that due to inappropriate location schools, most of nomadic primary schools have been overtaken by sedentary children. He stated that the few nomadic children are unable to compete with their sedentary counterparts due to their differences in home and school environments. The congruence of this finding with those researchers mentioned above could be due the general belief that families of high socio-economic status can select better schools and have educational facilities at home for their children to exploit. The high level of poverty among nomads, as stated by Backiny-Yetna and Ben-Achour (2010), limits their children's access, retention and graduation from school.

Nomadic Fulani parents' low socio economic status can be linked to the few cows they have. It is a known fact that cattle ownership is the major source of income to most nomads. Table 13 shows that most nomadic parents have a low socio-economic status (below fifty cows). Nomads depend heavily on their herd as source of income, which is meant solely for the

upkeep of the family ranging from feeding, clothing, and housing to education. The meagre resources at their disposal are judiciously managed for the family. Investing in their daughter's education may be viewed as counter productive and a waste of money.

Nonetheless, this result contradicts the statement of Baker, Kannan and Al-Misnad (2008) that children from low socio economic families have high academic achievement. They linked the high performance to the belief by such families that education is a major determinant of change in their social status. Parents therefore, encourage their children to work hard in order to succeed in school. Similarly, Ogunlade (1973) and Odebunmi (1988) contend that the socio economic status of a family had no significant negative influence on the academic performance of the students. The variation between their findings and those of the present study may be due to the fact that, unlike nomadic Fulani girls whose parents are mostly poor, other children from other ethic groups in Nigeria and elsewhere are spread across the different social strata. Many rich parents, as acknowledged by Nwachukwu (2002), are so busy that they hardly concern themselves with whether their children progress in school or not.

The twin problems of school distance and low socio-economic status are bound to exert a significant impact on nomadic girls' academic performance based on the reasons advanced by other researchers. It will be reasonable to attribute the interaction effects to the unique environment of nomads which is characterized by difficult terrain, and the arbitrary location of nomadic primary schools that make it necessary for nomadic children to trek long distances to attend school.

Hypothesis Seven was tested to determine the interaction effects of betrothal, birth order, and education levels of mothers and fathers on the academic performance of nomadic Fulani girls. It was shown in Table 43 that there was a significant interaction effect of fathers' and mothers' educational levels on nomadic Fulani girls' academic performance. This shows that parental level of education is a major predictor of high academic performance. Educated parents encourage their children through selection of schools and provision of learning materials. This result corroborates previous findings by Henderson and Mapp (2002) that there is a high correlation between parents' educational levels and students' academic achievement. The similarity between previous results and the current one is that most educated parents are committed to the payment of school fees, personal involvement in guiding their children at home and even employing teachers for extra lessons just to enhance the academic achievement of their children. This explains the high mean score of nomadic girls of parents with Islamic education.

Nevertheless, the finding contradicts those of Niebur (1995) and Renchler (2002) who report that educational qualification has no significant impact on children's academic performance. Also, (Ogunlade (1973) and Osokoya, Atinmo, Sarumi, Lawal and Osokoya (2010) found no significant relationship between the educational levels of parents and students' academic performance. The consistency of these results may be due to the low educational levels of nomadic Fulani parents. Unlike other ethnic groups, nomadic parents are not only less educated, but are bound by their culture and religion which are sceptical of formal education. The attachment of education to job opportunities, which in most cases are not feasible, further

demoralizes their zeal to encourage their children to perform well at school. The nomadic girl child in nomadic culture is viewed as a custodian of her culture, and western education is viewed by her parents as disconnecting her from her roots.

The implication of this finding is that Nomadic Fulani girls may not progress beyond primary school if their performance does not improve. Since their parents possess low academic credentials, they may not benefit from the usual encouragement other children enjoy from their educated parents. Thus the Federal government's goal to reach them and enable them to contribute to the economic, social and political development of their society and the Nation at large may not be attained. It also implies that their socio-economic status may not change because they lack the educational qualifications that would enable them to earn a good salary which can alter their social status. It can be inferred that some results of this study are in agreement with previous findings, while some disagree. These variations may likely be due to time span between previous studies and this one, and effort made by Government in providing education to disadvantage groups.

CHAPTER FIVE

SUMMARY OF FINDINGS, RECOMMENDATIONS AND CONCLUSION

This chapter provides a summary of the findings of this study, recommendations and conclusion. The chapter also gives the limitation, some suggestions for further study and its contribution to knowledge.

5.1 SUMMARY OF FINDINGS

This study was conducted to find out the influence of demographic characteristics and achievement motivation on the academic performance of nomadic Fulani girls in Adamawa State. This was borne in mind based on the concern of the national and international concern about inequality in access to education by disadvantaged groups, especially women. The nomadic Fulani girls are disadvantaged and their academic performance is poor despite the concerted effort of NCNE and UBE in the last decade. The study therefore investigated to what extent nAch and demographic characteristics of nomadic Fulani girls affect their academic performance.

The Expost-Facto design was employed. The cluster sampling technique was used to sample the nineteen nomadic primary schools from the seven educational administrative areas of Adamawa state. Three hundred primary nomadic Fulani girls were used as sample size, including nomadic Fulani girls of varying ages, school distances, birth order, betrothal status, socio-economic status and parental educational vels.

Two instruments, the Achievement Motivation Rating Scale (AMRS) and Nomadic Girls Achievement Test (NGAT) adapted by the researcher were administered on nomadic Fulani girls of different demographic

characteristics. The responses were collected with the assistance of research assistants. The responses were tallied and the scores obtained. These scores were then tabulated, and the analysis carried out.

From the results of data analysis, the following can be summarized about the study.

1. The mean and percentage of nomadic Fulani girls' achievement motivation is high. However, their academic performance is low.
2. The demographic characteristics of school distance, birth order, betrothal, father and mother's education, affect achievement motivation whereas age does not.
3. In general, nomadic Fulani girls those that are last born have a higher need for success than those that are first or middle born.
4. Nomadic Fulani girls living near their schools and not betrothed have higher nAch than those living far away and those who are betrothed.
5. Also, nomadic Fulani girls of parents with Islamic education have higher nAch than those of parents with only primary or non-formal education.
6. Nomadic Fulani girls who live near the school have a higher desire to succeed than those far away from school.
7. Nomadic Fulani girls from high socio-economic status families performed better than those from low socio-economic status families.
8. Last born nomadic Fulani girls performed better academically than their first and middle born counterparts.
9. Nomadic Fulani girls who are not betrothed performed better academically than those betrothed.

10. There was an interaction effect between age and distance on nomadic Fulani girls' nAch. Nomadic Fulani girls who are younger and live nearer their school performed better academically than those who were younger and lived far away from their schools. However, there was no difference in the performance of older nomadic Fulani girls who lived near and far away from school.
11. There was an interaction between father and mother's educational levels on nomadic Fulani girls' academic performance. Nomadic girls of parents with Islamic education performed better than those with lower levels of education (non-formal and primary).

5.2 CONCLUSION

The following results were obtained. Nomadic Fulani girls have high achievement motivation, but low academic achievement. (Tables 7 & 8).Nomadic Fulani girls are of varying demographic characteristics (Table 9). All the demographic variables, with the exception of age, influence nomadic Fulani girls' achievement motivation and academic performance (Tables 10-33). Only school distance and age, and fathers' and mothers' educational levels were found to have interaction effects on nomadic Fulani girls' achievement motivation. Socio economic status and school distance were found to have interaction effects on nomadic Fulani girls' academic achievement

5.3 RECOMMENDATIONS

Based on the findings of this investigation, the following were recommended:

1. The academic performance of Nomadic Fulani girls' was found to be lowest where schools were far from their homesteads. To this end, the NCNE in collaboration with UBEC should locate nomadic schools appropriately close to nomadic homestead. The two commissions should embark on identification of nomadic location to ensure that schools are built within a walking distance to minimize long trekking of nomadic children to school. This will reduce fatigue and enhance punctuality and attendance which are determinants in high academic achievement.
2. Parents should be enlightened on the issue of betrothing their daughters at birth to ensure that they enrol in school and also perform well. Due to the sensitivity of the issue of religion and culture, this can be done through collaboration between ASUBEB and NCNE with their Ardos and Imams to avoid undue fear of undermining of their culture and religion
3. Enlightenment campaigns can be carried out through handbills, posters, and dramatization through radio on the need to halt the continuous withdrawal of nomadic girls for early marriage. Resource persons of nomadic descent, especially women that have excelled academically, can be invited during Parents Teachers Association meeting to highlight the importance of female education. This would go long in eliminating suspicion of most nomadic parents on the education of their children.
4. Modern techniques of pasturage, production and sale of diary products should be encouraged to increase the income of Nomadic Fulani

families. The National Veterinary Institute in Vom, in collaboration with other similar institutes in the country, can be commission to research new techniques of herding that can enhance production of dairy products to boost the income of the nomads. This would make it easier for families to fund the education of the girls.

5. It is also recommended that, considering the sensitive nature of religion and the importance attached to nomadic culture, Ardos, Imams and head of nomadic girls should be used by Adamawa State government and Local Government Chairmen to assist in halting and withdrawing of girls for early marriage.
6. The NCNE and UBEC should monitor the academic achievement of nomadic Fulani girls with a view to identifying the problems encountered and finding solutions towards improving their academic performance. Previous monitoring and evaluation reports have shown that infrastructures as well as teaching and learning materials are inadequate. High academic performance of nomadic Fulani girls is only feasible when teaching and learning materials are available. The responsibility for this lies with NCNE and UBEC.

5.4 LIMITATIONS OF THE STUDY

Some of the short comings in the present study which should have been taken into consideration in generalizing the finding are presented in this section. The data collecting exercise was tasking and quite expensive. Apart from the financial demand, the administration was very demanding because of difficult and impenetrable terrains separating nomads' settlements, such as swamps, hills, mountains, and forests.

5.5 SUGGESTIONS FOR FURTHER STUDY

In view of some perceived limitations of this study, the following suggestions are made for further researches:

1. Further research should be conducted to determine the effect of variables such as gender and child rearing style on achievement motivation and academic achievement.

2. A study of the relationship between school environment and academic performance of nomadic Fulani girls in Nigeria.

3. An investigation of psychosocial strategies of enhancing nomadic Fulani children's academic performance in Northern Nigeria.

4. Replication of the study with other nomadic populations like the different nomadic fishermen in the Delta region and Shuwa Arab of Daka Buzu of Borno state.

5. Comparison of the impact of the school environment of nomadic and conventional primary schools on pupils' motivation and academic achievement.

5.6 CONTRIBUTION TO KNOWLEDGE

The major purpose of conducting any educational research is to contribute to knowledge which will improve the standards of education. The findings of this investigation have made the following useful contributions to knowledge:

1. This investigation has discovered that Nomadic Fulani girls have high achievement motivation and low academic performance; the findings

have important implications for modalities to enhance nomadic Fulani girls' achievement motivation and academic performance.

2. The present study had also discovered that some demographic variables have negative affect on nomadic Fulani girls' achievement motivation. The study has therefore suggested measures such as sensitization campaigns, scholarships and partnerships with non-governmental organizations in checking the impact of these negative factors to enhance achievement motivation and academic performance of nomadic Fulani girls.

3. The study had also identified the demographic variables that have a negative impact on nomadic Fulani girls' academic achievement. This has important implications for stakeholders in nomadic education with respect to the modalities to be employed in improving nomadic Fulani girls' academic performance.

4. The present study has found major challenges in the provision of education to nomadic children. These are multi-faceted and need to be addressed with urgency to halt the high attrition and low completion rates of nomadic Fulani girls due to poor academic performance.

5. The study had provided evidence that high academic performance of nomadic Fulani girls is not feasible without addressing issues related to their motivation and home background.

6. The study had also revealed that demographic characteristics vary in their level of influence on nomadic Fulani girls' academic performance.

Their treatment therefore should depend on the nature and degree of influence.

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APPENDIX A1

ACHIEVEMENT MOTIVATION RATING SCALE (AMRS)

School of post graduate Studies
Faculty of Education
Department of Arts and
Social Science Education
University of Jos.

I am a Post-graduate student studying educational psychology of the above named address. The area I have decided to investigate is the influence of achievement motivation on Nomadic girl-child transition from primary to secondary school in Adamawa State. I am currently on a fact finding mission through the administration of this questionnaire to enable me gather information for the purpose of writing my thesis.

There are questions are about yourself. They are about the way you personally behave, feel and act. We are not trying to know who you are, so please feel tree to be as frank as possible. All answers will be strictly confidential.

Read each statement carefully and then decide whether it is similar to the way you behave, act or feel. Your responses are quantifiers representing the weight of your opinion. The following set of responses categories and their quantifiers are used in this (AMRS).

STRONGLY AGREED (SA) = 4

AGREE (A) = 3

DISAGREED (D) = 2

STRONGLY DISAGREE (SD) = 1

INSTRUCTIONS

This instrument is divided into two sections –SECTION A and SECTION B. Please tick e.g. (√) only one box per statement. Your information will not be revealed to any body. It is purely for this research only.

SECTIION A – QUESTIONS 1-7 RELATE TO PERSONAL INFORMATION ABOUT YOU

1. Name of school……

2 Age: a. 9-11( ) b. 11-13 ( ) c. 13-15 ( )

(d) Above 15 years ( )

3 School distance: I Near 0-1km( ) ii Far (Above 1km( )

4 Birth Order: i First ( ) ii Middle ( ) iii Last ( )

5 Betrothal: a. Yes ( ) b. I don't know ( ) c. No ( )

6. Father's education:

a. No formal education ( )

b. Highest level primary education ( )

a) c. Highest level Islamic education ( )

d. Highest level secondary education ( )

e. Highest level Tertiary Education ( )

7 Mother's Education :

a. No formal education ( )

b. Highest Islamic education ( )

c. Highest secondary education ( )

d. Highest tertiary education ( )

6 Herd size of the family:

0-50 ( )

201-300( )

300-400( )

above 400( )

ITEMS 1-38 AN “ACHIEVEMENT MOTIVATION RATING SCALE FOR NOMADIC PRIMARY SCHOOL FULANI GIRLS” (ARMS).
ITEMS 1-38 AN “ACHIEVEMENT MOTIVATION RATING SCALE FOR NOMADIC PRIMARY SCHOOL FULANI GIRLS” (ARMS).

S/No	Item	SA	A	D	SD
1.	I am unhappy when I do poorly in my class work.				
2.	I do better than my classmates.				
3.	I try to be the best in my class.				
4.	I only look for questions that I can answer correctly durir examination test or assignment.				
5.	I enjoy competing with others				
6.	I try different ways to make sure I get the correct answe for my assignments.				
7.	I compare my scores with what I earlier wanted to get				
8.	I attempt less difficult questions that I can answer correctly.				
9.	I attempt difficult questions I which I think I get correct answers.				
10.	I attempt some easy questions which I am sure of gettin correct answers.				
11.	I take part in class activities in order to avoid punishmen				
12.	I like working hard to get higher scores than my classmates.				

13.	I dislike working for other people (R).				
14	I am eager to work hard in all assignments given by my teacher.				
15.	I enjoy working hard in school to improve my scores.				
16.	I am eager to get the highest mark in every subject. .				
17.	I write and re-write my assignment carefully to avoid mistakes				
18.	I only look for questions I can answer correctly in my assignments.				
19	I enjoy doing better than my classmates				
20.	I enjoy working hard to improve my score				
21.	I am sure I can do well in school.				
22.	I am satisfied when I do well in my class work.				
23.	Getting corrections from my classmates over what I do annoys me.				
24.	I enjoy getting good comment from my parents over my performance in school.				
25.	I am always eager to see or hear my performance on class assignments.				
26.	I enjoy getting better scores in my examination .in satisfying.				
27.	I am always eager to see my scores after examination.				
28.	I find time to revise the topics taught in all my subjects.				
29.	I like to attempt solving difficult problems in the class.				
30.	I always like to finish my assignments well.				
31.	I feel good when I receive good grades.				
32.	I participate in class work to improve my understanding i school subjects.				
33.	I ask my classmates questions to improve the understanding of my class work.				
34.	I learn from my classmates who know more than me.				
35.	I like to learn from people invited to speak to us in any subject.				

36.	I feel good when I receive good grades.				
37.	I feel satisfied when I am praised.				
38.	I try to get good marks because I feel encouraged.				
39.	I like solving problems in groups.				
40.	I feel happy when I solve all my mathematics problems correctly.				
41.	I am satisfied from comments on the scores I get.				
42	I take part in class work to know more in all subjects.				
43	I ask questions to know more in all subjects				
44	I like the fairly difficult type of school work.				
45	I like reading more about some topics in different subjects,				

APPENDIX A2

NOMADIC GIRLS ACHIEVEMENT TEST (NGAT)

Section 1 – Personal Information

Name of Child----------

School----------

Section 2 Instruction: Answers all the questions. Time 1hr

ENGLISH LANGUAGE

A. Fill in the gap in each sentence with the correct form of the word given in brackets.

1. Amish has ……. her promise (break)

2. We have ……. Yakubu as head prefect (choose)

3. I have ……. whose turn it is (forget)

B. In question. 4-6, select the right word from the list A-E and fill in each blank.

4. My ruler is different …… yours.

A. From C. with D. at E. in

5. I have much respect …….. my parents

A. for B. from C. with D. by E. on

C. Complete each of the following sentences with one of the correct choices given in A to E below by ticking (√) the corresponding letter

6. To pass this test you must have

a. Liked a lot of books

b. Changed schools frequently

c. Played very much with your classmates

d. Studied very hard

e. Travelled around Adamawa State

7. Our teacher was strict because

(a) He was a good teacher. (b) He hated to teach (c) Of other babies

(d) He wanted some milk (e) Because of the heat.

D. In each of the following, fill in the gap with one of the words given in A to E which most suitably complete the sentence.

8. Dija was ……. tired as they were

(a) so (b) too (c) as (d) more (e) better

1. Umar likes English----------than social studies

(a) much (b) better (c) best (d) as (e) least

E. Choose from the list of words A to E the one word which has the opposite meaning or almost opposite meaning to the word underlined by ticking (√) the corresponding letter.

10. The teacher is <u>cruel</u> to his pupils

(a)friendly (b) polite (c) stern (d) just (e) kind

11. This table has a very <u>rough</u> edge

(a) soft (b) smooth (c) plain (d) curve (e) straight

12. Mr. Musa bought <u>all</u> the mangoes in the stall

(a) None (b) some (c) many (d) few (e) several.

F. In each of the following questions ticks (√) the one word that does not belong to the group.

13. (a) pen (b) pin (c) pencil (d) ruler (d) eraser

14. (a) mango (b)banana (c)paw paw (d) orange (e) cassava

15. (a) chalk (b) duster (c) black-board (d) Knife (e) Ink.

ARITHMETIC

Answer all the question by ticking (√) the correct answer.

16. Find the value of 101 + 98+314+5

(a) 199 (b)319 (c) 1081 (d)1400 (e) 518

17. Find the H.C.F of these numbers: 8, 12.. and 30

(a) 2 (b) 3 (c) 15 (d) 30 (e) 120

18. 37/1000 change to decimal is

(a) 3.0007 (b) 0.00037 (c) 0.370 (d) 3.7000 (e) 0.037

19. 10kg + 45g + 6g

(a) 10456 (b) 1051 (c)10051(d) 151 (e) 1456

20. Add 5,8, 11,14,and 17

(a) 62 (b) 65 (c) 71 (d) 55 (e) 76

21. N5.00-N3.75 is

(a) N1.25 (b) N1.75 (c) N0.95 (d) N0.85 (e) N1.15.

22. 9.12 x 0.25 is

(a) 2.22 (b) 1.24 (c) 2.28 (d) 3.26 (e) 1.35

23. If X –5=7, find X

(a) 13 (b) 15 (c) 12 (d) 22 (e) 2

24. What number multiplied by itself gives 144

(a) 7 (b) 14 (c) 12 (d) 13 (e) 72

25. Subtract 799.5 from 898.5

(a) 99 (b) 101.1 (c) 199.9 (d) 98.9 (e) 89.9

26. 75 x 6

(a) 150 (b) 350 (c) 450 (d) 550 (e) 400

27. Divide 240.06 by 6

(a) 4.1 (b) 4.01 (c) 40.01 (d) 40.1 (e) 400.01

28. Express 2/5 as a decimal

(a) 2.5 (b) 5.2 (c) 0.25 (d) 0.4 (e) 0.52

29. How many 25 kobo stamps could be bought with N25?

(a) 10 (b) 40 (c) 50 (d) 100 (e) 200.

30 . Which is the biggest of the fractions: ⅓, ¼, ¾, and ½?

(a)⅓ (b) ¼ (c) ¾ (d) ⅜ (e) ½

GENERAL PAPER

Instruction: Answer all the questions by ticking (√) the letter which corresponds to the correct answer.

31. Which is the most important duty of the police?

(a) to direct vehicles (b) for robbers (c) to protect people and property.

32. Wheel and ball are alike because both are

(a) round (b) big (c) toys

33 The number of weeks in a year is

(a) 40 (b) 52 (c) 56

34 How many States are there in Nigeria

(a) 21 (b) 28 (c) 36

35. Umbrella is useful because

(a) we carry it (b) it has a handle (c) it protects us from rain.

36. A knife is use for

(a) cutting (b) playing (c) putting in pocket

37. The sun sets in the

(a) south (b) east (c) west

38. What is the baby cow called?

(a) lamb (b) kitten (c) puppy (e) calf

39. What are seasons of the year in Nigeria?

(a) Rainy and dry season (b) Harmattan and summer (c) Winter and rainy season.

40. Nigeria got her independence in

(a) 1950 (b) 1960 (c) 1963

41. From what animal do we get milk? (a) pig (b) cow (c)cat

42. Who is a thief?

(a) Someone who steals (b) a man police tries to catch (c) someone who wears a mask over his head

43. How many kobo are in one Naira ? (a) 70K (b) 100K (c) 200K.

44. Why do we go to school? (a) to get car and travel fast (b) get education so that we can help ourselves and our country (c) to make money

45. Why do we get driving license? (a) to show we are of good behaviour (b) to show we can drive (c) to identify our car.

APPENDIX B1

TABLE OF SPECIFICATION FOR ACHIEVEMENT TEST

Topic: Levels of educational objective

	Knowledge	Comprehensio	Application	Analysis	Synthesis	Evaluatio
Languag	3	3	6		2	3
Arithmeti	3	3	9			
Cognitive	12			4		
Total	15	6	15	4	2	3

APPENDIX B2

ITEM ANALYSIS OF NGAT

Item Number	Difficulty Index $\frac{U+L}{N}$	Discrimination Index $\frac{U-L}{½ N}$
1	0.71	0.27
2	0.68	0.23
3	0.51	0.31
4	0.37	0.24
5	0.48	0.12
6	0.51	0.43
7	0.53	0.55
8	0.44	0.52
9	0.57	0.68
10	0.52	0.71
11	0.37	0.19
12	0.54	0.47
13	0.69	0.24
14	0.69	0.21
15	0.64	0.55
16	0.35	0.48
17	0.44	0.52
18	0.77	0.53
19	0.61	0.24
20	0.58	0.40
21	0.40	0.76
22	0.61	0.09

23	0.50	0.76
24	0.55	0.18
25	0.38	0
26	0.36	0.41
27	0.61	0.59
28	0.66	0.63
29	0.38	0.41
30	0.79	0.21
31	0.50	0.57
32	0.46	0.50
33	0.64	0.54
34	0.38	0.35
35	0.46	0.50
36	0.44	0.59
37	0.56	0.66
38	0.35	0.32
39	0.37	0.38
40	0.55	0.27
41	0.68	0.09
42	0.38	0.01
43	0.60	0.45
44	0.54	0.67
45	0.71	0.50

Note:V = Number of students in the upper group who answered the item correctly.

L = Number of students in the lower group who answered the item correctly.

N = Total number of students in both upper and lower groups.

APPENDIX B3

PRINCIPAL COMPONENT ANALYSIS OF AMRS

	Initial Eigen values		
Component	Total	% of Variance	Cumulative %
1	6.391	14.201	14.201
2	5.226	11.614	25.815
3	4.446	9.880	35.695
4	4.216	9.369	45.065
5	3.607	8.016	53.080
6	3.200	7.111	60.192
7	2.859	6.354	66.546
8	2.492	5.537	72.083
9	2.228	4.950	77.033
10	1.965	4.367	81.400
11	1.757	3.905	85.305
12	1.568	3.484	88.790
13	1.347	2.992	91.782
14	1.038	2.306	94.088
15	.855	1.899	95.987
16	.586	1.303	97.290
17	.515	1.145	98.434
18	.413	.917	99.351
19	.292	.649	100.000
20	1.197E-15	2.660E-15	100.000

21	1.045E-15	2.323E-15	100.000
22	8.190E-16	1.820E-15	100.000
23	6.752E-16	1.500E-15	100.000
24	6.107E-16	1.357E-15	100.000
25	4.733E-16	1.052E-15	100.000
26	3.833E-16	8.518E-16	100.000
27	2.970E-16	6.600E-16	100.000
28	2.888E-16	6.417E-16	100.000
29	2.534E-16	5.631E-16	100.000
30	1.830E-16	4.066E-16	100.000
31	7.797E-17	1.733E-16	100.000
32	2.879E-17	6.397E-17	100.000
33	1.837E-17	4.082E-17	100.000
34	-3.998E-17	-8.885E-17	100.000
35	-7.162E-17	-1.592E-16	100.000
36	-9.140E-17	-2.031E-16	100.000
37	-1.774E-16	-3.941E-16	100.000
38	-2.684E-16	-5.964E-16	100.000
39	-3.202E-16	-7.116E-16	100.000
40	-4.170E-16	-9.266E-16	100.000
41	-4.717E-16	-1.048E-15	100.000
42	-5.903E-16	-1.312E-15	100.000
43	-7.803E-16	-1.734E-15	100.000
44	-8.133E-16	-1.807E-15	100.000
45	-3.817E-15	-8.481E-15	100.000

APPENDIX B4

PRINCIPAL COMPONENT ANALYSIS NGAT

	Initial Eigen values			Extraction Sums of Squared Loadings		
Component	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	6.391	14.201	14.201	6.391	14.201	14.201
2	5.226	11.614	25.815	5.226	11.614	25.815
3	4.446	9.880	35.695	4.446	9.880	35.695
4	4.216	9.369	45.065	4.216	9.369	45.065
5	3.607	8.016	53.080	3.607	8.016	53.080
6	3.200	7.111	60.192	3.200	7.111	60.192
7	2.859	6.354	66.546	2.859	6.354	66.546
8	2.492	5.537	72.083	2.492	5.537	72.083
9	2.228	4.950	77.033	2.228	4.950	77.033
10	1.965	4.367	81.400	1.965	4.367	81.400
11	1.757	3.905	85.305	1.757	3.905	85.305
12	1.568	3.484	88.790	1.568	3.484	88.790
13	1.347	2.992	91.782	1.347	2.992	91.782
14	1.038	2.306	94.088	1.038	2.306	94.088
15	.855	1.899	95.987			
16	.586	1.303	97.290			
17	.515	1.145	98.434			
18	.413	.917	99.351			
19	.292	.649	100.000			
20	1.197E-15	2.660E-15	100.000			

21	1.045E-15	2.323E-15	100.000
22	8.190E-16	1.820E-15	100.000
23	6.752E-16	1.500E-15	100.000
24	6.107E-16	1.357E-15	100.000
25	4.733E-16	1.052E-15	100.000
26	3.833E-16	8.518E-16	100.000
27	2.970E-16	6.600E-16	100.000
28	2.888E-16	6.417E-16	100.000
29	2.534E-16	5.631E-16	100.000
30	1.830E-16	4.066E-16	100.000
31	7.797E-17	1.733E-16	100.000
32	2.879E-17	6.397E-17	100.000
33	1.837E-17	4.082E-17	100.000
34	-3.998E-1	-8.885E-17	100.000
35	-7.162E-1	-1.592E-16	100.000
36	-9.140E-1	-2.031E-16	100.000
37	-1.774E-1	-3.941E-16	100.000
38	-2.684E-1	-5.964E-16	100.000
39	-3.202E-1	-7.116E-16	100.000
40	-4.170e-16	-9.266e-16	100.000
41	-4.717e-16	-1.048e-15	100.000
42	-5.903e-16	-1.312e-15	100.000
43	-7.803e-16	-1.734e-15	100.000
44	-8.133e-16	-1.807e-15	100.000
45	-3.817e-15	-8.481e-15	100.000

APPENDIX B5

RELIABILITY ESTIMATE OF AMRS USING CRONBACH ALPHA

Cronbach Alpha is defined as follows:

$$\alpha = \frac{k}{k-1}\left[1-\frac{\Sigma S^2 items}{S^2 test}\right]$$

Where,

A = Cronbach Alpha

K = number of items

S^2 = variance

∑ = sum of

Reliability: AMRS

****** Method 1 (space saver) will be used for this analysis ******

R E L I A B I L I T Y A N A L Y S I S - S C A L E (A L P H A)

Reliability Coefficients

N of Cases = 20.0 N of Items = 45

Alpha = .5858

APPENDIX B6

RELIABILITY ESTIMATE OF NGAT USING CRONBACH ALPHA

Cronbach Alpha is defined as follows:

$$\alpha = \frac{k}{k-1}\left[1-\frac{\Sigma S^2 items}{S^2 test}\right]$$

Where,

α = Cronbcach Alpha

k = number of items

S^2 = variance

∑ = sum of

Reliability: NGAT

****** Method 1 (space saver) will be used for this analysis ******

R E L I A B I L I T Y A N A L Y S I S - S C A L E (S P L I T)

Reliability Coefficients

N of Cases = 40.0 N of Items = 45

Correlation between forms = .4992 Equal-length Spearman-Brown = .6660

Guttman Split-half = .6558 Unequal-length Spearman-Brown = .6660

23 Items in part 1 22 Items in part 2

Alpha for part 1 = .1219 Alpha for part 2 = .6064

****** Method 1 (space saver) will be used for this analysis ******

R E L I A B I L I T Y A N A L Y S I S - S C A L E (A L P H A)

Reliability Coefficients

N of Cases = 40.0 N of Items = 45

Alpha = .6080