AN INVESTIGATION OF INTER-RELATIONSHIPS OF REWARD PREFERENCES, HOME BACKGROUND FACTORS AND ACHIEVEMENT MOTIVATION OF PRIMARY SCHOOL CHILDREN OF ZARIA

BY

MUSA SULAIMAW

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APPROVAL SHEET

The undersigned have read and approved this thesis as meeting the requirements for the award of Masters Degree in Educational Psychology.

1. _____ 27/11/79
SUPERVISOR

2. _____
STAFF EVALUATOR

3. _____
STAFF EVALUATOR

4. _____
EXTERNAL EXAMINER

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DEDICATION

This thesis is dedicated to the young children of Nigeria whose yearnings are not met at school, in a system of education that is wholly alien to their values and expectations and to only a few of those who help them out of this dilemma.

> "I must state that your university (A.B.U) like others in Nigeria, is a cultural transplant whose roots lie in another tradition.....it is a part of cultural baggage bequeathed to us through our association with those traditions. Wise men know that change is a part of the necessary process through which all societies must pass if they are to grow and survive in improved state. Wiser men know that change can have other faces whose influence might well lead to the impoverishment of the very society we wish to nourish.....Always remember that knowledge is at best when it is universally useful and that the best scholars are those whom the ordinary man fears neither to encounter nor to address" (Waziri Junaidu, 1971).

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ABSTRACT

The aim of this study was to examine the interrelationships of reward preference, and achievement, and achievement motivation and home background factors of primary school children of Zaria. The research evidence on this kind of study is mainly available from western countries and the summary of such evidence is as follows: viz:-

(a) Children from different social classes seek different forms of reward; (b) working class children usually prefer monetary or consumable forms of rewards; (c) upper middle class children go for competitions; (d) bright and successful children prefer independence; (e) working class and lower middle-class children are usually keen for the approval of their respective peer groups; and (f) children not usually successful or confident about their own performance, usually depend on the approval of their adults and superiors; (Dun Rankin et. al. 1969).

It has been observed by the investigator that the reward preference types of behaviour and achievement motivation are products of socialisation which includes incorporation of religious social and cultural values and norms into the self-concepts of individuals growing under their influence. The values of western societies being different from those prevalent in northern Nigeria, the attention of the investigator was naturally drawn to an examination of the value systems prevalent in the typical Nigerian homes of Zaria.

The sample (N = 403) of this study was obtained randomly from class VI children of the following schools, viz:-

(1) Kofan Kuyamban Primary school, (N_A =33)

(2) Rafin Albasa Primary school, (N_B = 33)

(3) Fada Primary school (N_C = 33)

(4) Anguwan Kafu Primary school (N_D = 33)

(5) Kofar Bai Primary school (N_E = 66)

(6) Lemu Primary School (N_F = 33)

(7) Babban Dodo Primary School (N_G = 33)

(8) Unguwan Fatika Primary School N_H = 33)

(9) Kaura Primary School (N_I = 33)

(10) Kofan Gaya Primary School N_J = 73)

The investigator then administered the following tests, viz:-

(a) Reward preference Questionnaire (Dunn-Rankin, Shimuzu and King, 1969).

(b) Achievement Motivation Questionnaire (by Entwistles, 1968) and

(c) Home Background Questionnaire designed by the investigator

The scoring of the test was objectively done and this has been detailed in chapter IV of this thesis. Analyses of the data revealed the following results, viz:-

(a) Adult approval, consumable reward, competitive rewa rd, independence reward, peer approval and academic motivation scores revealed positive significant intercorrelations.

(b) There were two types of children; the majority was a group (by factor analysis) characterised by its high positive loadings on the reward preference manifestations excepting academic motivation; and the minority group similarly classified manifested two significant loadings, i.e. academic motivation and adult approval variable; (c) Children of self employed fathers were significantly more academically motivated than others; (d) Children having self employed mothers were significantly higher in their levels of consumable reward preference than others (e) Primary school boys were significantly lower in their levels of consumable reward preference than primary school girls; (f) children coming from G.R.A. manifested significantly higher levels of independence reward preference than others and (g) children of rich homes manifested significantly lower

levels of preference for peer approval than those from poor homes. On the basis of the above significant results the respective hypotheses asserted in this study were supported and corresponding Null hypotheses were rejected. The above results raised several interesting issues which are discussed in this thesis. The thesis ends with some recommendations which can be meaningfully applied to meet the needs and aspirations of the primary school children of Zaria

CHAPTER I

Introduction

This is a study in the field of Educational Psychology, examining the inter-relationships, if any, among home background factors, intrinsic and extrinsic reward preferences, and academic motivation of primary school children of Zaria. A careful observation of a Nigerian home will reveal, even to a superficial observer, that it is a fabric of complex forces at work, each having its distinct features of influence. The complexity of a Nigerian home of the North lies in its difference between a monogamous family - versus a polygamous family, between Islamic - versus Christian faiths of the home, between Government Reserved Area (G.R.A.) - versus townships and rural settlements, between educated - versus uneducated parents, and between personal wealth, cars, and servants - versus lack of them in the home, etc.

A child is influenced during the process of his socialisation, and gradually comes to hold some values, expectations, aspirations, and orientations of behaviour, etc, towards life and education. Some go for external consumable rewards, some crave for satisfaction generated out of successful undertakings in various tasks. There are others who value opinions and expectations of their elders and superiors - while there will be some who will value the expecations of their peer groups.

There may still be a category of children who will love competitions and success following them. These are called 'reward preferences' - in psychological literature. Some of these reward preferences as can be seen from the types mentioned above, are extrinsic i.e. dependent on outside factors, or instrinsic, i.e. dependent on factors within the individual concerned. The question that arose in the mind of the investigator was to ask: What underlying factors are related to these different types of reward seeking behaviour? Are there different types of children who can be classified on the basis of their reward - preferences? This study is an attempt to find answers to the above questions.

As regards the 'underlying factors', the investigator believes that the source lies primarily at home. To explore such factors, it would then be necessary to measure and assess the different home background factors responsible for the socialisation of the primary school childden. This is one aspect which this study wants to accomplish. In any attempt to analyse the home background factors of any research, it is useful to classify them into sociological, economic, and cultural types. Since it has been briefly cited at the beginning, that the typical Nigerian home and family in the North is just as complex as any other home of a heterogeneous society, it will be a duty of the investigator to look at these underlying factors from such viewpoints.

In so doing, the investigator will attempt to answer an additional question: What special features of sociological, economical and cultural aspects of the Nigerian home and family influence or shape the different types of reward - preference behaviour of the primary school children of Zaria? This serious question demands a full examination and analysis of the situations concerned which this study is desirous to achieve.

Motivation, including academic motivation, is a behaviour predisposition shaped by the history of socialisation process a child undergoes. Broadly speaking motivation relates to aspiration of individuals. Tests of motivation are so constructed that they tend to measure individual achievement motivation as opposed to group 'affiliation' motivation of individuals (Vernon 1969). This distinction has to be understood at the beginning for a proper grasp of this study and its findings, whatever they must be. Individual achievement motivation does not take into consideration his fellow member's expectations or aspiration. Recently, we hear quite a lot about group motivation or 'affiliation' motivation of a number of individuals taken together. It has been reported that the level of affiliation motivation' of an individual is usually lower than his own "achievement motivation" (Vernon, 1969).

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The feeling of "affiliation" or belongingness is seldom shared by individuals brought up in social backgrounds of western homes where individual competition seems to be the norm of behaviour. The author feels that the western saying 'Keep up with the JONES' ' - may not be relevant in a different social background of communal sharing of love, success, failure, achievements and expectations, as may be found in typical northern Nigerian homes and families. This is another issue which this study wants to explore as well.

In summary therefore, the objectives of this study can be stated as:-

1. To examine and locate the types of children that manifest different types of reward preferences.
2. To measure and evaluate their level of academic motivation, and its relationship with other variables.
3. To look at the relationship, between instrinsic and extrinsic levels of motivation.
4. To examine the influence of home and family background factors affecting the life styles of primary school children in shaping their reward preferences and academic motivation.
5. Lastly, to examine the distribution of children who may be classified according to factors comprising some or all of the above types of variable measures as a contribution to a typological investigation of social science in Nigerian context.

* * * * * * * * * * *

The next chapter deals with the relevant background literature.

CHAPTER II

Background Literature.

Of the different studies in the field of psychology of motivation conducted in Nigeria, there is not sufficient work done on academic motivation relevant to this study. Among the studies made in Nigerian situation most of them are subject to errors of sampling, measurement and inferences. They are works of under-graduates of different universities, and hence most of the background literature reported in this chapter comes from studies made abroad. Hence, to do justice in giving a resumé of the background literature, the investigator has to rely on the various theories and research evidence of role playing, socialisation, levels of aspiration and achievement motivation from overseas sources which are as follows, namely:-

1. Goals of Learning:

This is another aspect of motivation measurement, done by examining the attractiveness of different goals sought through learning. This can be divided into two aspects: Long-term and short-term goals. In long-term goals, the learner may express his interest in different types of school subjects, leisure activities or in occupational preferences. Short-term goals are however, immediate

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in nature and they may be expressed by rewards children hope to achieve by succeeding in a particular school task such as school marks, praise from the teacher or peers, promotion to the next grade and so on.

The assessment of children's short-term learning goals or reward preferences, though of considerable relevance for teaching has received very little attention of educationists. This is more so with developing countries including Nigeria. Some of the works that have been carried out in this area have investigated the individual differences in the rewards children seek through learning as a basis for an effective reinforcement strategy. An example of this approach is a questionnaire designed by Dunn-Rankin, Shimuzu, and King (1969), to assess children's reward preferences. This questionnaire was designed around five general categories of reward, 'Adult Approval', 'Competitive Approval', 'Peer Approval', 'Independence Rewards', and 'Consumable Rewards'. From the successive pilot studies with different sets of reward items derived from an original pool of over eighty items, four items were finally selected to represent each reward preference category.

The test items can be read aloud to young children or presented to older children in a self-completion questionnaire. Scores of each reward category can be obtained by simply counting the number of times the particular category is endorsed.

This gives five scores ranging from 0 to 16 for any child. Dunn-Rankin, Shimuzu and King presented evidence of the test's reliability from results obtained in testing the same group of children twice with an interval of one week.

Reward preferences seem to be associated with academic motivation of children Entwistle (1968) designed an academic motivation inventory which attempted to measure the academic motivation of school children. The tests of academic motivation and reward preferences are useful research instruments, as they provide objective methods for investigating individual differences in reward preferences and academic motivation. Reward preference profiles can be correlated within a group and between different groups of children.

It may at this point be asked: What are the determinants of children's educational goals and motives? An answer to this question may come from an examination of the history of reinforcements of the child's school career. In the Skinnerian sense, a child is reinforced positively when he succeeds and is punished when he fails. This type of manipulating a child's enviroment is also undertaken by the parents, the neighbourhood and the peer group of the child concerned during his process of socialisation.

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The main issue at stake is that if we want to control factors that impede the progress of the child in learning we have to start somewhere. Obviously the home is bound to come first. We need to know the characteristics of a child's home background that influence his motivation to succeed at school. Entwistle (1968) investigated the performance of children whose school attainment appeared to be deteriorating in relation to their ability over one school year, and of those whose school attainment appeared to be improving during the same period. He found among both the primary and the secondary school children that the "improving" pupils had higher achievement motivation scores than the "deteriorating" pupils. But how can we ascribe this to home background? There is plenty of evidence that the social class of a child's family as assessed from the father's occupation is strongly related to the child's educational attainment (Floud, Halsey and Martin, 1957), and it might be the case that the superior achievement scores of the "improving" pupils could be due to nothing more than a social class difference. Entwistle found that although achievement motivation scores were related to social class, within each social class there was a clear difference in achievement motivation between the improving and the deteriorating pupils.

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These findings suggest that there is an element of achievement motivation which is independent of pupil's home background, at least as far as family's social class is concerned, though other elements may have social class background bearings. Swift (1964) reviews the evidence on the bearings of social class on achievement motivation. Among children of comparable ability, it has been found that those from middle class were consistently higher in school attainment than those from the working class families which clearly shows that social class as assessed from a classification of parent's occupations is strongly related to children's school performance. Associated with this are the values which distinguish one class from the other. Whereas the value of achievement for its own sake is imparted by middle class parents to their children so that immediate gratification of desires are frowned at, and competitiveness is cherished, the working class, though hoping that their children will also do well at school, do not impart a set of supporting values to them which will enable this to occur. The children are taught to respond to externally imposed rules and standards, rather than develop independence of judgement and personal self-confidence, as it is the case with middle class children. In fact the danger of aspiring to achieve higher than parents, so as to be free from the difficulties of life, which is more common among working class children, tends to generate some anxiety for success which is bound to have some negative effects on their overall performance.

At this point we need to pause a bit and ask ourselves: Is the adoption of middle class methods the only route to educational achievement? It has been argued by Swift that it is an oversimplication to think that social class is a continuous variable representing the foundations of levels of achievement. He argues that the effects ~~des~~ of different parentallvalues need to be examined separately, so as to have a more proper insight in the whole situation. With the existence of sub-cultures in various social classes, any generalisation will hardly be reliable and valid. He brings to light, the existence of a type of family, usually in skilled working class or lower middle class whose distinguishing feature is strong 'mobility pessimism' a belief that society has presented insurmountable obstacles to the parents' own social advancement. They use 'traditional' methods of discipline to force their children to ensure their success at school in order to compensate for their own frustration. Incentives for such children are high marks and other external indicators of success which represent the hallmarks of success for higher social class, to the parents.

Even though many psychologists may indicate their reluctance in going all the way with Swift's criticism of the use of social class as a variable, yet they are likely to consider seriously his views on the emphasis on the social context outside the school as an influence on the learner.

It is common knowledge that parental positive attitudes to school help in encouraging a child that would otherwise be affected negatively by the poor and miserable marks he may earn at school. Events and influences at home will have to be carefully controlled, if at all the child is to develop self-confidence and positive attitudes towards learning.

One may as well doubt whether the home is the only influencing factor in the child's learning.

The use of rewards does have an influence on learning. Whether implicitly or explicitly, teachers continue to reward children in various ways. Praise is bestowed on those who secure good marks and other tokens of competitive achievement, awarded at times. But are these equally effective? The work of Dunn-Rankin, Shimuzu, and King (1969) looked at the relative effectiveness of reward preferences and it suggests that they are not equally effective for the children of different types of homes and families. Marked differences were found between children within a school and between different schools, in the rewards children hoped to receive for a good performance in a school task. Whereas children of high ability were found to show more interest in independence rewards, in one elementary school, less able children were found to be more in favour of adult approval and competitive rewards.

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Swift has indicated that what underlay the possible sources of differences in the children's reward preference was that academically successful children were motivated either by the goal of achievement for its own sake (if they were from middle class families) or by the extrinsic rewards the school set (if they were from lower middle class families). An interesting study by Higgins and Archer (1967) lends further support to Swift's hypothesis and also points to the educational implications. They divided sixth-grade American children into four groups - two upper social class and two lower social class or working class. One group in each pair received 'extrinsic rewards' for raising the class average score on various tests. These consisted of (a) class party in one hour of school time with soda, ice cream, potato crisps etc. and five dollars for the class to spend in any way they chose; and/or (b) a bus ride through countryside on the way to a movie-theatre for a private showing of 'Circus World' in school time with refreshments while in the theatre. The other group in each pair was rewarded in the traditional way: They were praised and given marks for good performance on the tests. In the middle class group, it was found that performance in the test was unaffected by the type of reward given. Among the working class children, those offered the extrinsic rewards showed a superior performance on the school tests to those who gained the traditional rewards.

The authors of this study seem to refute the old view that deprived children suffer from cognitive impairment. They also seem to agree with Swift that deprived children are 'alienated' from the school and its values, which in turn affect their performances.

These findings raise a number of implications in our educational system. But perhaps the area which calls for a more urgent re-evaluation is the traditional concept of evaluating school performances which tend to brand some students as intelligent and some as dull, the arbitrariness of the criteria notwithstanding.

The present study is however not concerned with the various underlying factors that influence the different reward preferences of children, but is really concerned to examine whether Nigerian children also differ in their types of reward preferences.

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II. Development of Achievement Motivation and Values.

(a) Achievement Motivation and Technological Progress

Given the advancement of technological development, coupled with its attendant loss of most of the moral standards, many romantics, dream of other times when men were supposedly far more noble than they are today. Modern society is supposed to have spoiled things and values. The peasant and primitive seem to lead a simple and hence good "life", whereas their more civilised counterparts are frustrated in the pursuit of ephemeral and 'artificial' goals. It was in this consideration that a noted writer in social sciences, advised a group of Mexican peasants to desist from modern technology (cited in McClelland, 1961).

But despite its good intent, there seems to be little inclination to such advice. Many nations seem to insist on new and better high ways, and new and extra added comforts. People everywhere seem convinced that they want automobiles, and television sets, and hence rather than turning away from technological advancement, they seem to ask how they can achieve it.

For any society to get a head in achievement motivation, however, it is vital that the dominant members of the society must be involved, as they play a major role in spurring economic and technological developments.

Similarly, the society at large must be ready to develop the appropriate motivations in its members (David McClelland, 1961).

On the other hand, if people are to engage in those activities leading to technological advances, it is natural for some people to suggest that capital must be available. This is because human motivation is fairly simple to the economic determinist, whether he is a marxist or a capitalist: it is money and economic gain that make the world go round. Such a foundation, however, is at its best an oversimplification. It has been found that some religious beliefs, though preventing people from spending money on themselves, make them to work hard and long (Max Weber, 1930). McClelland (1961) seems to agree that there is nothing wrong with such motivations. He and his colleagues (McClelland, Atkinson, Clark and Lowell, 1953) have studied what seemed to be this type of instigation - the achievement motive. In simple terms, the achievement motive is generally regarded as the impetus to do well relative to some standard of excellence. A person with strong achievement motivation needs to be successful at some challenging task, not for status or profit, but merely for the sake of doing well.

(b) Measuring Achievement Motive:

The initial studies of this motive were carried out in the experimental laboratory (Atkinson, 1964).

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McClelland and his co-workers be an their research by first developing projective measures of aroused need for achievement. Male college students wrote five-minute stories in response to scenes portrayed on cards shown to them after being placed in one of two fundamentally different conditions. In some cases subjects constructed stories after becoming concerned with how well they had worked on some preliminary tasks, i.e. with their achievement. The stories were then analysed to see the level of achievement motivation. Those with more achievement categories were rated as high in achievement motivation than those with relatively fewer categories. These categories were developed as scoring techniques by McClelland and his school. Though most of the research on achievement motivation employs scores derived from stories told about pictorical scenes (i.e. on Thematic Apperception Test ("TAT") or similar cards), other methods have also been used. For example in one procedure by Elizabeth French (Atkinson, 1958), sentences were given about behaviour of some persons, and children were asked to explain why they think the person behaved in that way. These explanations were then coded in the same way at TAT stories; other more elaborate ways have also been used (Atkinson, 1958; McClelland, 1961). This method of measuring achievement motivation is however very subjective, and depends on the expertise and training of the scorers.

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In this study, the investigator will prefer to use an alternative objective tool of measuring achievement motivation.

(r) Achievement Motivation And Behaviour:

To help us see some of the characteristics of people with high achievement motivation, we may as well need to observe how they behave. Some studies have indicated that they tend to show greater preference for difficult tasks than people with low achievement, subject to their skill and ability. High achievers have also been observed to have strong self-confidence, without depending on fate. It was also noted by McClelland that the task must be so challenging as to call for some personal initiative, or even inventiveness rather than complete assurance of winning. An anticipation of a hundred percent success may, on the other hand, imply to most high achievers that the task is not worth undertaking. It has also been indicated that a high achievement motiviation in primitive societies has been due to the full-time entrepreneurial occupations (Child, Storm, and Veroff, in McClelland, 1961). This has been established by investigating selected folk tales from forty five primitive cultures and then coding each story for signs of achievement motivation.

McClelland has also noted that achievement motivated person may at times be interested in monetary rewards for his endeavours, although the money may only serve as the concrete sign that he has done well.

Mischel (1961) has indicated that high TAT scorers on achievement motivation were more willing to defer their pleasures in order to obtain a larger reward in future than low achievers. This finding supports the present observation of the investigator.

It can therefore be summed up thus: the individual with a strong need to achieve is highly motivated to succeed when performance has "achievement significance" for him, and he is willing and able to take risks in order to reach his goals. With other factors held constant, a society with people of such characteristics is surely likely to have a fairly rapid rate of economic and technological growth.

(e) Development of Achievement Motivation:

There are many factors that influence the development of achievement motivation such as cultural factors and religious influences. It is these factors that the investigator will examine to assess their bearings on achievement motivation.

(i) Cultural Factors: Much of the period of economic boom may not be the sole index of achievement motivation, it may mirror at least in part, the 'mood or motivational level' of a nation at a given period. A nations' motivational mood is subject to vary with time so that countries with high achievement motivation in, say, 1925, were not necessarily so in the 1950's.

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At one time a nation can rise but later begins to decline (DeCharms and Moeller, 1962). A reason might be due to easy life and its temptation to relax. It can be recalled in our earlier discussion on achievement motivation that some challenges are necessary to make the people motivated and thus if members of a given society lack sufficent difficult challenges in their environment their conern with achievement motivation might decline. This has been supported in a study of 104 societies (Barry, Child, and Bacon, 1959). They found that those with little accumulated food with imminent hardships, tended to train their children to be assertive to a greater extent than societies having great stores of accumulated food and a more or less assured future. Another explanation is that high achieving societies like America, under the influence of population growth could in turn produce concomitant decline in achievement motivation through increasing the level of affiliation motivation - a need for pleasant social relationship with other people (Riesman, 1950).

Whatever might be happening at cultural level, another research (Moss and Kagan, 1961) indicates that the level of achievement motivation in an individual is fairly stable between early childhood and adulthood (Kagan, et. al., 1959). Achievement strivings exhibited during the first four years of school are good indices of later achievement behaviour at adolescence and adulthood.

~~(ii)~~ Religious Influence: Weber (1930) discovered that Protestantism with its emphasis on hard work and self-reliance for salvation has a major role in achievement motivation, than Catholics Church's concept of intervention by priestly authorities. Thus protestants may have stronger needs for achievement than Catholics (McClelland 1955; 1961; Mayer and Sharp, 1962). According to Child,, Storm, and Veroff (1958), achievement motivation seems fairly weak in a society in which its people cannot reach the Divine Being by means of their individual activities. Rosen, et al, (1959) tended to corroborate McClelland's initial expectations. Lenski (1961) has suggested that Catholics emphasise individual's attempt to actively manipulate his environment. Though Veroff, Atkinson, Feld and Gurin (1960, cited in McClelland) failed to obtain similar differences between religious groups, yet it still remains that Catholics do not favour intellectual independence as Protestants do. Lenski (1961) lends support to this view. In a study (Zuk et al, 1961) it was found that Catholics are more fatalistic, and hence tend to be more accepting to their handicapped children. Even if people work hard, strong tradtionalism can be an impedement to rational economic behaviour. Achievement motivation and hard work cannot overcome "the dead hand of the past". The mind must be prepared to study and continue to improve one's environment.

Some research evidence has indicated that a minority group with its attendant features of insecurity, tries hard to compensate so as to achieve security and assert its worth (Mayer and Sharp, 1962; Glazer 1957; Katz and Braly, 1933). It has also been established that insecurity has a role to play in aspiring to achieve higher though it has a side effect of generating mental neurosis (Myers and Roberts 1957), as was found among Jews. In a survey of group differences in achievement motivation, Veroff, et. al. (1962) noted that high achievement motivation occurred most in American Jews. Judaism, it is to be noted, prescribes an individualistic approach to God. Jewish mothers lavish a great deal of love and attention on their children and their fathers are less dominant on their children (Strodt-beck, 1957).

(iii) Social Class. In American society, it has been found that social class plays a great role in achievement motivation. Davis (1944) pointed out that middle-class youngsters are subjected to social pressure to do well at school. These adolescents should have strong achievement needs to the extent that they internalise such pressures. It has also been established by Florence Klukhohn et al. (1961) that achievement motivation flourish in the middle class. In support of Kluckhohn's analysis, Mc Arthur (1955) demonstrated that men from middle-class public schools told more achievement oriented stories in response to a TAT card than did upper-class private school - educated men (Rosen et.al., 1959; Rosen, 1961).

In a test of achievement motivation, Donvan (1956) gave mid-western high school seniors, a series of preliminary tasks after telling them that either good performers would receive a $10 prize (material reward present) or that there will be no such prize (material reward absent). In order to arouse their motivation, they were told that they had failed on these preliminary tasks, and a thematic projective test was administered. It was found that middle-class students obtained relatively high achievement scores on projective test both when a material reward was present and when it was absent. The threat presumably had generated achievement motivation that was readily aroused by the possibility of symbolic as well as concrete reason. In contrast the working-class students tended to have strong achievement motivation (not different from middle-class level) only when material reward was present. Consistent with this finding, middle class children were found to show less variation in I.Q. test from situation offering reward to one with no reward incentive. The lower-class were more likely to show good performance only when a material reward was present (Hoffman, Mitsos and Protr, 1958). Some comparable results were obtained on a discrimination learning task supporting the above findings (Terrell, Durkin, and Wiesley, 1959).

Notwithstanding these findings one must always be on the guard as not to generalise such differences too far.

In Brazil, boys from lower social hierarchy seem to have stronger achievement needs than boys from the highest strata (Rosen, 1962). Parent's nature of occupation is also at times a stronger influencing factor in achievement motivation than social class. Miller and Swanson (1958) found that entrepreneurial middle-class people who are self-employed are more likely to possess the values of achievement motivation than bureaucratic middle-class.

Finally, we should certainly not make the mistake of thinking that a person who grew up in any part of the world would necessarily have strong achievement desires just because he was an upper- or middle class Protestant or Jew. The family, friends, associates, and even culture or the religion of an individual will all influence his motives and aspirations.

(iv) Social Mobility.

Some research evidence suggested that class cultures, by fostering particular values and motives (such as achievement motivation) may affect the amount of social mobility shown by their members - some people move up, while others move down in the social ladder, as dictated by circumstances. This accounts for why American business leaders have come mostly from prosperous families and why the working class has contributed relatively few business leaders (Lipset and Bendix, 1959).

Education and occupational selection are the major factors for upward mobility and members of working class tended to place less emphasis on the value of college education But in choosing an occupation they placed greater stress on factors which probably would impede upward mobility, such as job security (Hyman, 1953). Inconsistent with this view, students from a background of high social status were observed to have higher educational aspiration than students from lower-level families, even when intelligence was held constant (Sewell, Haller, and Straus, 1957). This was also supported by Hieronymus (1951). It needs to be understood that high status occupations, frequently require a college education and a long period of training or apprenticeship. The boy who wants to attain this has to defer gratification of short-term nature (Mischel, 1961), and be prepared to take moderate risks (Atkinson, 1964).

(v) Deferred Gratification and Social Mobility

The importance of deferred gratification in entrepreneurial activity and social mobility, has long been established (Miller and Swanson, 1958). Further documentation has also been provided by two studies. First, Douvan and Adelson (1958) investigated whether the occupational hopes of teenage American boys were higher, lower, or at the same level as their fathers' jobs - with social status held constant. It was found that those who aspired higher than their parents were more achievement oriented than those whose level of aspiration was lower.

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More interestingly, the upward mobile boys were more prepared to forego immediate gratification in the interest of long-range goals. Straus (1962) constructed a series of scales dealing with deferment of various adolescent needs, and found that high achievers were prepared to defer their gratification of needs for affliation, aggression, and consumption.

From the above studies, it thus becomes evident that people who want to climb the social ladder must be ready to forego their short term needs in favour of their long-range goals.

(v) Values and Social Mobility:

Some research studies have suggested that particular values may also be important for social mobility. Rosen (1959) has suggested that achievement motivation is translated into social mobility through the medium of achievement values: - Values which forces the person's attention on the means toward improvement of status. Three basic values have been listed by Rosen in his modification of Florence Kluchhohn's studies: (1) Preference for activity and manipulation of one's environment rather than passivity, (2) Preferance for individualistic rather than a collectivistic orientation, so that the person is free from servitude to the wishes of other persons, and (3) Preference for planning for the future, and deferring pleasures. Various studies (McClelland, 1961; Strodtbeck, 1957; Douvan and Adelson, 1958; Dynes, Clarke, and Binitz, 1956) have lent support to Rosen's results.

/30.

It is in agreement with Rosen's findings that high achievement motivation is associated with occupational mobility, also supported by the findings of Crockett (1962).

Is it however at all important for people to seek to move up the social ladder? It has been found (Arnold Green, 1946) that the desire to climb the social ladder often generates anxieties, insecurities and neurosis. Earlier findings with regard to the fact that American psychiatrists have established that American Jews tend to be the majority in psychiatric hospitals. The situation is however rather confounded by the findings of Sewell (1961) and Hollingshead (1958) which suggest that school youths from lower status and indeed people in lower social strata tend to have the highest rate of psychosis. It is however not sure whether it is the exploitation by the higher classes that generates these frustrations and not the social set up per se!

(vii) Parental Influence.

How should parents treat their children if they are to have a high level of achievement motivation? The influennce of parents can be seen from the fact that the cultural, and social class conditions only tend to shape the attitudes and values that parents teach their children. This is not to say that parents are the sole determinants as it has been found that boys are evidently influenced by their friends (Simpson, 1962).

Hyman (1953) wonders how a working-class boy usually takes risks (an important element of achievement motivation) under economically precarious conditions, beyond his family's control.

Nevertheless, for achievement motivation to develop in a child, his parents must take an active role in his training by establishing high standard of performance for him and assuring him that he can attain these standards through his own activity. This has been attested to by various studies (Winterbottom; cited in McClelland, 1962; Child Storm and Veroff; cited in McClelland, 1961; Krebs, 1958). Rosen and D'Andrade (1959) also found that parents of high achievers set for their children higher standards of excellence than did other parents. McClelland (1961) has commented that parental indulgence or carelessness can apparently produce weak achievement needs in boys.

It must however be borne in mind that excessive parental demands may constitute too great a restrictiveness, authoritarianism, or even parental rejection (McClelland, 1961). Extreme father-dominance casts a shadow over a boy- which inhibits the growth of his desires for independent achievement.

From the foregoing, it thus becomes clear that it is not enough for parents to avoid frustrating their children and encourage them to be independent in their thoughts. The parents also have to teach their children proper values and teach them to aspire for success in their tasks.

The mother and father must play an active role in inculcating these standards of excellence. Parents must realise that just as they pulled themselves up the social ladder, optimal challenge must be given to their children, rather than satisfying every whim of their children so that they never meet failures and frustrations which may at time be relevant for achievement motivation.

* * * * * * *

In the foregoing section, much evidence has been cited on the factors helping some children to be more achieving than others. All such factors, viz, parental values, social class differences, aspirations of families and deferred rather than immediate gratification etc, are also likely to be present in our urban community of Nigerian children. Granting that the underlying factors are at work, it is likely that Nigerian children will also manifest individual differences in their achievement motivation and reward preferences. This present study is concerned, as has been mentioned before, not so much with the examination of the underlying factors but with the examination of those possible individual differences in reward preferences of children, and hence the justification of the foregoing literature as being relevant to this study.

/33.

III. Learning, Levels of Aspiration and Achievement Motivation.

For any educational system to be of some significance, it must aspire to meet the motive systems and interests of the children who take part in it, and must move them forward to-wards realising them to it. They will be shaped to a substantial degree according to the principles of level of aspiration and achievement motive. A discussion of these issues seems therefore to be relevant here.

(a) Definition of Level of Aspiration: 'Level of aspiration' refers to how well an individual wishes to perform in the future, visa-vis his past performance. Thus it seeks to explain for us whether the individual would like to do better than in the past or has a bleak future due to his past and present performances. Level of aspiration is related to goal seeking behaviour (Lewin et al, 1944). How difficult are then the goals an individual seeks? If they are found to be higher than those he has already reached, then he is said to have a high level of aspiration. On the other hand if his goals are lower than or as low as the goals he obtained, then he is said to have a low level of aspiration. Thus level of aspiration has a personal connotation in that it refers to a person's ambitions about his own performance.

Level of aspiration can however have an absolute content. A great but aging scientist may set his goals such that he will achieve less, say, in 1980 than in 1979.

/34.

Viewed from his personal framework of reference, his level of aspiration is low. However, it will be high when absolutely compared with an average man in the society. A vigorous young day-labourer may aspire to achieve more in 1980 than in 1979. Defined in his personal context, his level of aspiration is high, but when viewed in absolute terms, it will be low vis-a-vis that of the scientist of our example. In research however, we are more concerned with level of aspiration in its personal and relative context than its absolute one. It is defined by what the individual aspires to, in comparison to what he has already done.

(b) Measurement of Level of Aspiration: Little and Cohen (1951) on the basis of observations of asthmatic children referred for treatment at a university hospital, were led to suspect that mothers of asthmatics pushed their children harder than typical mothers did. They designed a simple but practical level of aspiration task, i.e. shooting darts at bull's - eye target. Each child was given twenty-one trials at this task. Shooting at the bull's-eye earned the highest possible score; attaining the concentric ring next to the bull's-eye gave him the next highest score; and hitting next rings concentrically outward resulted in progressively lower scores.

At his first trial with a dart thrown at the target, the child was asked how well he believed he had done, and he was warned that he would be penalised if his predictions fell too far away from his next actual performance.

/35.

The difference between his prediction and his actual performance in a previous trial was called his discrepancy (D) score. If his shot was for the third ring away from the bull's-eye he would be assigned a D score of +1, since his aspiration was one circle better than his previous performance. But had he predicted the fifth ring from the bull's eye, his D-score for that trial would have been -1. The study allowed for twenty such predictions and D-scores were averaged for each child.

In the study, thirty asthmatic children and their mothers were included. They were compared with thirty non-asthmatic children, either their brothers or sisters who were not asthmatic or children who were hospitalised for ailments other than asthma. The subjects ranged from 4 to 12 years of age. Before each child would make a prediction, his mother (who was watching) predicted privately how well he would do next time.

The results supported the prediction Little and Cohen had made in their study: mothers of asthmatic children appeared to expect more of their children than mothers of non-asthmatic did. The average D-score for the mothers of asthmatics was +1.6, whereas that of mothers of non-asthmatics was only +0.1 (a statistically significant difference). In other words, mothers of asthmatic children expect their children to better their performance by two bull's-eye rings, whereas mothers of non-asthmatic children predicted that their youngsters would do about the same next time as they had done last time.

/36.

The children's aspiration patterns followed their mother's, which perhaps indicate that their levels of aspiration were modelled after what they thought their mothers expected of them. The average D-scores (ambitions) of asthmatic children were twice as high as those of non asthmatic children (+1.85 and +.93 respectively). This study gives a pointer relevant in the present study. It is evidently known and believed that children's aspirations are shaped by their parents' - especially their mothers. In a study of reward preferences with heterogeneous population of children, it is very likely that some children will be more aspiring than others as their type of reward preferences will also be different from those of others.

The second illustrative study indicates that children in relaxed and permissive circumstances change their level of aspiration in the direction of assuring themselves maximal success (Pauline Sears and Levin, 1957). The authors used nineteen 4 - and 5 - year old children as subjects. Each child was given a pegboard, with different sections pointed differently to represent the levels of difficulty of the task, as follows, viz, - green to indicate the easiest task, yellow for next easy, brown for intermediate difficulty, blue for rather difficult task, and red for the most difficult task of all. The child inserted a peg into the coloured section to indicate the level of difficulty of performance he planned to undertake. The tasks were: jumping for ball at different heights over the children's head; copying designs with blocks, the designs ranging from very easy to quite complex; pulling weights on a pulley, the weights ranging from light to heavy, matching designs to a model; and board jumping.

The children were given six trials for each task; for a first experiment session, the order of tasks was predetermined by the experimenters. All children had a second session a few days later, in which they chose the order of their tasks.

After a success, the children were found to be more ambitious and went on for a more difficult task. They however, showed no consistent pattern after a failure. During the second session with very permissive experimenters, the childrens' choices were for lower levels of difficulty than during the first session. In other words, under circumstances of general relaxation and friendliness, the children 'aimed' lower than when they are new to a situation. It is well known that children work harder under a serious task master, partly because of fear, and partly in an effort to please him who is difficult to be pleased, than an ordinary one who is usually kind and relaxed in his attitudes towards his children. In a heterogeneous population of children, the above types of differences are likely to tell in the actual differences in reward preferences of theirs, and their levels of aspiration will also be determined on the basis of these differing extraneous factors. A consideration of these background variables seems therefore, to be relevant in this study.

(c) Outlines of Level of Aspiration Findings: There are many factors at work that influence an individual's level of aspiration. History has taught him to be generally optimistic or pessimistic about how well he can do at a given type of endeavour. Before we (say) cross a road, the probability of our success must be high for us to attempt to do so.

/38.

At times human beings tend to vary in their odds according to their needs. If we are going for an important task, we will take no chances in crossing the street than if the task is not highly significant or urgent. The urgency of his goals may push an insecure child into behaviour with low probability of success; he will take great chances with his physical safety to impress his peers. Showing-off and all dare-devil behaviour are perhaps attempts to obtain such goals. Other things being equal however, the individual will take the one he estimates to have the highest probability of success. Studies by such authors as Brunswik (1951), Lewin (1935), Rotter (1954), and Tolman (1932) are relevant in this regard. In some studies (Rotter, 1954; Nunally, Duchnowski, and Parker 1965) it has been found that expectancies are learned. They are based on the information the individual has, or thinks he has about an immediate situation. For instance, a girl of somewhat above average ability who goes to a school with low standards and subsequently becomes the brightest child in her class may develop a set of expectancies predicting success for herself as a doctor or as a psychologist. When she moves to a college the falseness of her expectancies may be finally revealed if they are based on fantasy, rather than reality. For the first time in her life she does badly.

Regarding development of expectancies, Piaget holds that the child only begins to master the concept of probabilities and expectancies at about 11 years. /39.

Various studies have however proved this to happen much earlier (Davies, 1965; Goldberg, 1966; Weir, 1967; Spiker, Gerjuoy and Shepard, 1956).

Although the literature is not conclusive about rise and fall of aspiration, it is significant to note from the findings that the level of aspiration of an individual will vary according to the importance of the goal he is seeking. He may be more cautious about important goals than those that hold no significant value for him. Depending on the goal, he may tend to be more daring or the opposite. If he is competing against a group he considers about equal to him in ability, his level of aspiration will be higher than if he thinks he is 'competing' against the standards of a group much superior to him. We also know that a coward may take a chance of being killed when he is applauded by a host of people. In such a case it is only the dare-devil attitude of the person that forces him to take a risk at which he has no chance of any success. These are however exceptions to which the present study is not concerned generally.

Notwithstanding the fact that no sufficient experimental evidence are available, yet a tentative and a more generalised, and over-simplified general review of results in the area of level of aspiration can be attempted; following success the level of aspiration is raised (Nuttally, Duchnowski, and Parker, 1965); it is lowered after a failure.

/40.

Following either success or failure, maladjusted children and adults react either more extremely, more variably, or both, than do normals. The evidence of a coward cited above may very likely fit in with the behaviour of a psychotic person. Following failure, the level of aspiration of maladjusted subjects may shoot far up, unrealistically as some may go up very high, others down very low. Their reactions following success may be more predictable than those following failure, but remain more erratic than those of normal subjects. Horney (1937) describes the well adjusted as normal as against the neurotic who is continually aspiring to achieve higher and higher. For a normal person, there is hardly any risk of failure, but failures and successes are equally possible for high achievers and high aspirers. For a normal middle class population of children, the level of aspiration is moderately positive, but not unrealistically so.

The principles implied by the level of aspiration research appear already to be well established by the ages of 4 and 5 Under permissive non-demanding circumstances, individuals appear to relax their level of aspiration to assure themselves the greatest chance of success, while they remain optimistic.

(d) Implication for Child-Training: Normal children, apparently seem both to expect and to hope that they will do better "next time", than they did the time before. Both the Little and Cohen, and the Sears and Levin's studies seem to illustrate this trend.

/41.

On the basis of their research, the general practical prediction seems to reveal that children actually like to 'stand on their toes'. Reaching for concepts and skills which are perhaps a little too difficult for them at a moment, but which can hopefully be attained, is both natural and challenging for children. In other words, the following practical recommendations can be made: Keep each child reaching, but see to it that he has some hope of grasping what he reaches for. Atkinson's (1964) theory of motivation will be a supporting evidence in this regard. But Pauline Sears and Levin's findings seem to suggest that under relaxation and friendliness, the children aimed lower than when they were new to the situation. The investigator has already explained how children work and aspire differently under the presence of a serious task master. It also seems clear that the level of aspiration seems to scale down under relaxed and permissive atmosphere. Granted so, then parents and scholars in Nigeria more especially in the Northern States will have to re-evaluate their attitudes and curriculum. This however, calls for more research findings in Nigeria for it to be reliable and valid, and this study is just one attempt in this regard.

Experimental work on level of aspiration demonstrated that experiences of success result in a person raising his level of aspiration, while, on the average, experiences of failure result in its lowering.

It is reasonable to suggest in this regard that if patterns of success or failure persist over long periods of time, the level of aspiration may be affected relatively permanently. Long term experiences of success may result in increasing confidence and optimism, and in redoubled effort, whereas persistently repeated failures may result in resignation, pessimism and possibly reduction of effort. Johnson's findings (1950) concerning mentally retarded youngsters in regular classrooms fit well with these predictions. The retarded children feel academically further and further behind in their standards of their class in each advancing year of elementary school.

All that this finding seems to suggest is that the school curriculum, more especially in Nigeria, must be designed such as to assure success for the learner. The unfortunate system of having permanent failures does not augur well for the future of our educational system and society in general.

* * * * * *

From the summary of the foregoing pages in this section, it is seen how the levels of aspiration, risk-taking adventures, and continual expectations of achieving further and higher - are modelled shaped, influenced, and affected by the various underlying or background factors, viz- aspiring or pushing mothers and parents, normal-versus-maladjusted personalities, and realistic-versus-unrealistic ai etc. In a heterogeneous population of Nigerian children, it is only likely that all such factors will be working differently behind the scenes for the Nigerian children to manifest differences in their reward preferences and academic achievement motivation with which thi study is concerned, and hence the relevance of the theories and research evidence of this section is eminent.

IV: Theories of Roles and Socialisation.

(a) If modern parents are confused on how they should bring up their children, part of the blame can be attributed to the changes in advice given them by "experts" in the past thirty years or so (Brim, 1959; Bronfebrenner, 1958; Miller and Swanson, 1958; Wolfenstein, 1953).

In the period between the two world wars, parents were mostly advised to impose a regular if not rigid discipline on their children. It was thought that if children were left alone, they would easily go off on paths of wickedness. Thus even if children were not potentially evil they were at least so malleable that they could easily be "spoiled" to develop bad habits. Parents should therefore be firm. Should parents give in to the cries and desires of their children, they would grow up to be uncivil, demanding "monsters".

Due to strong influences by psychoanalytic writings the 1940's witnessed a drastic departure from this rigid approach to child rearing. Instead of warning against spoiling the child, these authorities now cautioned the parents against restraining the child. They insisted that harsh frustrations could result in the persistence of infantile wishes. Mildness and permissiveness became the order of the day.

With the 1950's however, the pendulum has swung back somewhat (Bronfenbrenner, 1958; Wolfenstein, 1953). There has been a return to restraints, even if half-heartedly

Many prominent writers in the field of child training now suggests that the parent imposes some limits on his child. Much as love and attention are certainly necessary, they state that the child should not be gratified continually. Furthermore he is too young to realise the dangers in his environment. The child must be controlled for his own protection.

Amidst this dilemma, we may enquire: Where do we stand now? Contemporary descendants of Freud, as well as present day behaviourists generally agree on the necessity of both love and training for the child. Other theorists such as Kurt Goldstein, Erich Fromm, Abraham Maslow, and Carl Rogers, place greater emphasis on gratifying the child's needs. We however need to spell out these views in greater detail.

Although Freud has advocated extreme permissiveness, Freud himself thought that some frustration is necessary for both individual personality development and an effective social order. Although the ego, the personality's executive agency, has its origin in the thwarting of the infant's wishes, it cannot presumably deal adequately with the frustrations of adult life unless it has been strengthened by encountering and overcoming occasional frustrations in the individual's formative years.

More so, it was Freud's belief that society itself rests ultimately on restraint and force. He condemned the repressivenss of society in various ways, assuming that the individual's desires are often opposed to social interests.

War, he told Albert Einstein (Freud, 1932), has its roots in an innate aggressive drive. Man has an instinctive urge to destroy either himself or others. Given this drive, brute violence can only be controlled by the power of the organised community. Similarly the irrational urges and weaknesses of the masses often justify powerful leaders and strong social controls. Reiff (1961) commented that Freud definitely did not look at coercion as only the result of defective social organisation.

Even though only few psychoanalysts share Freud's conception of an innate destructive drive (Berkowitz 1962) most contemporary Freudians favour some kind of direct parental control and supervision of the child. Love and attention are imperative, but adequate superego and ego development theoretically call for some parental frustrations and admonitions. According to some psychoanalysts, the superego - the constellation of moral and ideal standards within the personality - arises primarily through the child's identification with parental figures. "The outstanding identification", says Fenichel (1945) "takes place with that parent who was regarded as the source of decisive frustrations".

Whereas psychoanalytic theory places particular stress on the child's identification, with the parental figure largely responsible for the thwarting of his Oedipal desires, recent behavioural research suggests that youngsters often model themselves after adults who are capable of frustrating them (i.e. have the power to reward and punish them) in various ways (Bandura, Ross

Thus young boys evidently identify with their fathers most readily when the fathers are generally both nurturant and punitive (Mussen and Distler, 1959). The parent who would have his child copy him should be able to control and punish the child as much as love and nurture him. It must be realised that more than just thwarting the child, parental standards define 'right' and 'wrong' for him when he is too young to understand the difference. Admonitions and demands imposed on the child are therefore also vitally important in the foundation of the child's conscience (Munroe, 1955). Similarly, parental standards have an important part probably in the origin of ambition (Blum, 1953). Psychoanalytic theory definitely regards the parents as doing much to shape the child's motives and ideals.

Modern behaviourists have somewhat similar conception of child rearing. Like the psychoanalysts, they believe that the child has to learn to behave in a socially adaptive manner. Both groups point out that the acquisition of inner controls is an important aspect of the socialisation process. Both schools believe that most of the motives involved in social behaviour are derived from a smaller number of biological drives, and that parental figures are often instrumental in the development of such self-controlling mechanisms (Bandura and Walters, 1963). In summary, it can be seen that the child's personality is eventually shaped out of his experiences of childhood controls at home.

/47.

The roles that children take up are nothing but shadows or reflections of what they have been allowed to go for. On the basis of these differing roles, children's reward preferences and expectations will differ and hence the relevance of the foregoing discussion.

(b) Self-Actualisation and Child Development: The opposing doctrine of child rearing with which we shall be concerned, manifests a much greater faith in the instrinsic goodness of human nature. It contends that if the child's basic needs were not thwarted in the course of his growth, an inherent 'growth process', or self-actualisation tendency would lead man inevitably into paths of creativity and genuine morality. Such a conception is usually associated with the Gestalt - phenomenological theorists, such as Fromm, Goldstein, and Maslow. If society's frustrations could be eliminated, they argued, Europeans would be as good as the 'noble savages' living in the unspoiled wilds of the New World.

One of the foremost exponents of the growth-through-gratification doctrine has been A.H. Maslow (1954). According to him, there is a hierarchy of needs, with less potent ones emerging on gratification of the more potent ones. The process runs as follows. First, the physiological needs (e.g. hunger, thirst, sex) dominate the organism, when they are unsatisfied. When they are satisfied, then the next higher set of needs, the safety needs, emerge and dominate the organism. If these desires are met in turn, the needs of love, affection, and belongingness would supposedly arise.

/48.

Finally, with the satisfaction of these needs and after the person has gratified his desires for esteem a new source of discontentment will arise - the need for self-actualisation. The individual seeks self-fulfilment: what he can be, he must be. Maslow, however, held that it is not necessary to completely satisfy lower order needs before higher - order desires can emerge. Maslow is explicit: psychological health theoretically increases with increaing need gratification. According to his formulation, the healthy organism, being need - gratified and hereby released for self-actualisation, develops according to its intrinsic growth tendencies rather than being affected by environmental conditions. According to Maslow, it is the neurotic organism, lacking satisfactions from the external environment, which is shaped by the environment more than by its own inherent nature. According to such analysis, if a child were to experience constant gratification of his emerging needs, he will be less likely to become psychopathic.

It may sound strange to cite here that Freud held a view similar to this. Thus if the needs of the superego are poorly developed, say due to inadequate identification with parental figures, the child will fail to adopt appropriate adult standards (Munroe, 1959). There is some relevant empirical evidence on this point. Many hyperaggressive youngsters who exhibit frequent hostility and relatively little self-control have suffered serious thwartings in the early years of their life (Baudura and Walters, 1959; Berkowitz, 1962).

/49.

It is apparent that all are agreed on the detrimental affects of too little love in child's early years, but still one has to wonder whether love and gratification are enough to ensure social development.

According to Fromm (1947), the self-actualised person follows a rational policy of self interest. He acts not according to subjective feelings of what his interest is, but more objectively in pursuit of the development of his potentialities. Self-actualisation is supposedly identical with virtue. Fromm believes that the superego is basically authoritarian conscience, as it is derived from external agents. Its contents stem from the dictates and taboos of authority, whereas its strength rests on fear of and admiration for authority. An authoritarian conscience feels good when he believes he will be approved by the authority and feels guilty when he thinks he will be disapproved. In contrast, the humanistic conscience of a self-realised person is the inner voice of the person himself. The guilt feeling of this latter conscience arises when the self goes unfulfilled.

Maslow (1954) contends that self-actualising people know the difference between right and wrong, but says that "their notions of right and wrong are often not the conventianal ones". Each man can be a law unto himself.

As far as we are concerned these views can at best serve for the purpose of intellectual speculation. It is very difficult to explain when the individual is behaving in terms of his "real" self interest.

In general, the growth - through - gratification view of child rearing is doubtful philosophically and highly questionable empirically. It has been observed by Ausubel (1952), that Fromm's 'psychological theory strays from the conditions of human moral development'. Just because some people may be struggling against their excessive inner restraints does not necessarily mean that other people do not require at least some inhibitions to ensure their creativity, social progress, and harmony.

Notwithstanding the fact that the roles children play are either products of reinforcements during socialisation according to the behaviourists, or self-actualised personalities realised out of growth-through-gratification, or not - there is little doubt that these roles are different. Depending on these roles, the expectations of the children also differ, and so would their aspirations, achievement motivation, and reward preferences with which this study is concerned. In a heterogeneous population of Nigerian children, it is reasonable to expect such differences in roles and their corresponding behaviour, and hence the relevance of the discussion of this section.

V. Social Class and Achievement Motivation:

(a) It has been reported in some research literature, that there are some relationships between social class and school performance (Douglas, 1964; Floud et al., 1957; Fraser, 1959; Swift, 1965).

/51.

Swift (1965) found that the children of middle class-parents had six times as good a chance of selection at 11+ as working-class children. Some psychologists have attempted to explain this by contending that the children of middle-class parents tend to score higher in intelligence tests. However, a recent study found that all the factors which are usually thought to be bad for the intellectual development of the child, were infact related to poor performance in the school (Fraser, 1959). Fraser found that parental education and reading habits, income, occupation and living space all related significantly with I.Q and school performance. Since these aspects are important social class elements, a question arises as to whether if the population were separated into groups representing culture patterns, they would still maintain their significance, or does it derive from the fact that they are simply dimensions of certain social class sub-culture. This is an aspect which still calls for more investigation. The sociological stream of thought which has provided the most valuable theory concerning the relationship between socio-cultural learning and the development of intellectual and motivational skills is the clash of values' approach which began with Allison Davis's (1948) lecture on social class influences upon learning (see, also, Davis, 1949, and 1960). It was Davis's view that barriers to the understanding of differences <u>within</u> societies are as serious as those existing <u>between</u> societies. These barriers are all the more serious because participating members do not realise their existence.

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Similarly, Toby (1957) analysed the problems involved in the maladjustment which occurs when the lower-class child brings the attitude towards education of his culture into the school.

(b) Child-Rearing Techniques, Motivation and School Achievement:

There is interdependence between child rearing practices and parental value-systems. This therefore, raises the danger of any reserach work concentrating on one, at the negligence of the other, and runs the risk of discovering irrelevant relationships since important factors in the other perspective are left uncontrolled. Child rearing research has suffered greatly from this weakness despite attempts to take a synoptic view of the many non-comparable and contradictory findings (Bronfenbrenner, 1958; Clausen and Williams, 1963). As an example of the contradictory conclusions which these studies have produced, we can compare Drews and Teaman (1957) with Fraser (1959), Drews found that mothers of high achievers were more authoritarian and restrictive than mothers of low achievers. In contradiction, Graser's research implies that the friendiness and spontaneity of a lenient 'democratic' atmosphere provided the 'best' (in terms of school motivation and achievement) family environment. Similarly, Elder (1965) investigated the association between perceived parents' dominating attitudes and behaviour of adolescents, and the likelihood of the adolescents reaching secondary school, and found a negative association between parental dominance and access to secondary education in all the five countries where he conducted his studies.

/53.

For Bronfenbrenner, middle-class parents in America have changed from a 'restrictive' to a 'permissive' approach. However, Kohn (1963) points out that the researches summarised by Bronfenbrenner represent faddish alterations in superficial techniques which are not symptomatic of changes in the basic relationships between parents and children. In a research finding by Veroff (1965) he suggests theoretical background to the problem in motivational research of distinguishing between situational and personality factors and his major hypothesis is:

> "that there is a critical stage for learning the effective associations attendant to the development of motives and motivational expectancies. If the environment supports learning these associations during the critical period, their strong motivational dispositions will develop; if the environment supports at a time earlier than the critical time, anxiety connected with these motivations will develop; and if the environment supports learning at a date later than the critical time very specific motives and expectancies will ensure".

This finding has indicated the delicacy of the environmental forces and their bearings on motivation. Further, the study has implied that we should take a gestaltic concept of the environment, rather than studying its effect from one perspective only. The study has also esplained why inconsistencies abound in various research findings that seek to study only one aspect of the environment of the child or the individual, and its bearings on achievement motivation.

The 'situation' must be seen as a matrix of interelating factors which is destroyed when a single crude factor is abstracted, since the factor derives its meaning from its context.

Research findings have also indicated that parental encouragement does have an important bearing upon school motivation and performance (Manning, 1962; Wall, 1962; Douglas, 1964). Children tend to do well if their parents are interested in their school progress and the reverse tends to ensue if parents are uninterested in their school progress.

(c) Social Class Values and Achievement Motivation:

Many studies have shown a positive association between the level of educational and occupational aspirations on the one hand, and various measures of social status on the other. A part of this association is thought to be due to an intervening variable called 'intelligence'. Sewell at al. (1957) attested to this view. However, tests conducted in the state of Wisconsin, confirmed that the relationship between aspiration and social class was not simply due to the common relationship of these variables to intelligence, when intelligence was controlled as a variable. Thus the importance of social status showed through even though it was weakened by controlling intelligence.

With Sewell as justification and Davis as inspiration we can now consider the value-systems of the different social classes to the learning environments which participate in the development of motivation and achievement levels.

/55.

Davis had urged the use of class analysis in investigating the environment for factos in intellectual and personality development. As Kohn (1963) puts it; "It is so useful because it captures the reality that the intricate interplay of all these variables creates different basic conditions of life at different levels of the social order".

Social class is a vital factor in achievement motivation. One of the factors to be considered in this regard is the outlook of parents in professional occupations. This influences them to assume that their children will not leave school as early as 15.

Kahl (1953) documented a similar phenomenon in the American educational system. Kahl observed that "IQ and family status were useful predictors of the educational and occupational ambitions of high school boys".

In the common-man class, Kahl explained that discontented parents, saw education as a way out for their sons. They tended to coach their children to take school seriously. Only sons who internalised such values were sufficiently motivated to overcome the obstacles which faced the common-man boys in school. In another survey, Elizabeth Cohen (1959) who studied fifty matched pairs of boys in 'common-man' group, noted that a significant difference in motivation is found amoung children of working class parents who have close-'in the job' - associations with people of higher status. Reissman (1953), found that the two important aspects of the individual's value - system were his reference group and certain life - orientations. Low level of aspiration can be based on a feeling of achievement in relation to the normal achievement of his reference group. Orientations other than success or mobility can be dominant in some individuals as to lead them to exact their energies in different direction, or prevent them from aiming for mobility.

In an interesting study by Himmelweit (1955) it has been reported that middle class children show more concern with how well they do at school, as are their parents, yet no evidence of greater overall anxiety or tension was located.

Hyman (1953) saw a system of beliefs and values peculiar to the lower class acting as an intervening variable mediating between low position and lack of upward mobility.

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The components of the value system were:

(i) Less emphasis on traditional high success goals

(ii) increased awareness of lack of opportunity to achieve success.

(iii) less emphasis on achievement of goal which in turn would be instrumental for success.

These, added up together, imposed barriers to mobility. Thus apart from structural barriers they have their own self-imposed barriers.

The contention among some psychologists that the greater achievement of the middle class has been due to a process of social selection - the middle class being more intelligent, healthier and more attractive; or by the differential opportunities open to the two classes, has been challenged, as neither view takes into account the psychological and cultural factors which affect social mobility by influencing the individual's willingness to develop and exploit his talent, intelligence and opportunities (Rosen, 1956), Rosen held that there were two components in achievement orientations. Firstly, a psychological factor - the personality characteristic of achievement motivation, provides internal impetus to the child. Secondly, there is a cultural factor consisting of certain value orientations which define and implement achievement motivational behaviour. He suggested that values affect mobility in three ways:

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1. they provide a definition of goals

2. they focus the attention of the individual on achievement

3. they prepare him to translate motive to action.

He summarised the situation as:

> "Middle class children are more likely...to embrace the achievement value system which states that given the willingness to work hard, plan and make proper sacrifices, an individual child should be able to manipulate his environment so as to ensure eventual success" (Rosen 1956).

Having discussed the theoretical framework of family value-patterns along social class lines, it is now neccessary to look at some research evidence in this direction.

The achievement want of the middle class child was found to be more generalised than that of the working class children and was less likely to vary with changes in reward offered for achievement (Douvan 1956). In another study, Douvan and Adelson (1958) explained that upward aspiring boys tended to explain their actions in terms of promises to their parents, whereas downward aspiring boys tended to explain their actions in terms of fear of their parents. Thus upward aspiring boys tend to internalise their personal controls while downward oriented child shows tendency to internalise external standards. The upward-aspirer was found to be more independent of his parents whereas the downward-aspierer was more dependent and rebellious against his family.

Downward-aspirer was more ambivalent in his actions as against social confidence of the upward-aspirer. These findings seem to fit with Kohn's (1959) findings that child-rearing values of middle-class parents stress internalised standards for governing relationships with other people. Apart from showing the importance of social class (Kohn and Caroll, 1960) the finding support Douvan's findings. Katz (1964) found that middle-class adolescent's meaning of success was prestige achievement attained through personal effort, while adolescents from working class had little concern for social status.

The middle-class life and language encourage the development of an attitude to the world, distinct from the more passive perception of working class (Basil Bernstein 1962).

Duvall (1946) explained that middle-class tend to do work which demanded skills in the manipulation of ideas and persons, while workings-class prefer things.

Argyle and Robinson (1962) have suggested that introjection or projection of parental ambitions is important in parent-child relationship. Swift (1964) related the 11+ performance of lower middle-class children to the mobility pessimism of their parents. It was found that father's disatisfaction with his job related significantly to the likelihood of child's success at the 11+.

It can thus be seen that the generally positive level of aspiration, the desire to do better than one's father, - seems to be associated with complex and positive factors:

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greater optimism, greater orientation towards doing the job well, and greater self-determination. There is no research to establish that more lower class than upper - or middle -class boys are resigned to their status.

* * * * * * * * *

The main theme of evidence in the foregoing paragraphs of this section seems to centre around the differential effects of social class affiliations, their respective orientations, and demands, etc., on their children's expectations, achievement motivations, and reward preferences - and hence the relevance of this part of the background literature to this present study. In a heterogeneous population of Nigerian children, it is expected that those factors will have their respective different marks in the reward preferences, and achievement (academic) motivations of their children-with which the investigator is concerened in this study.

VI. The Role of Reinforcement:

To effect learning, the teacher needs on-the-spot good instructional contigencies. punishments were the first to be used and are still in use. The rod or cane and the stripping of privileges are naturally aversive. They can be used in contingencies of learning which 'make the student study'. Such contingencies often work and the result may be superficially reinforcing to the teachers.

But serious by-products must be taken into account. The danger here is that the student will be studying mainly to avoid the consequences of not studying under aversive control as they force themselves to study. "Here we want to generate behaviour, but it is not enough to 'suppress not behvaing! We do not teach him to learn quickly when he learns slowly or to recall what he has learnt by punishing him when he forgets, or to think logically when he thinks illogically" (Skinner, 1968). Under these conditions, he may occasionally discover for himself how to be industrious, and learn to remember. But this is not effective learning. Moreover, he often satisfies the contingencies in the most superficial way; he attends only by looking at the teacher, he is 'industrious' only in the sense of keeping busy. The cultre starts this, but aversive education carries it on.

From time to time, positive alternatives have been suggested. 'Avoid compulsion', said Plato in the Republic, 'and let your children's lesson take the form of play'. While Horace advocated for rewarding a child with cakes, Erasmus indicated some educationist teaching without punishment. Privileges and favour are often suggested, and the teacher himself may be personally reinforcing, as a friend. Certain explicitly contrived reinforcers, Such as marks, grades, and diplomas, are characteristics of education as an instruction.

They suggest progress but like every progress, they must be reinforcing other things as well. Although they are free from by-products of aversive control, positive reinforcers of this sort are not without their problems. We cannot all get prizes and if some students are to get high grades, others must get low ones.

But the main problem again is the contingency. Grades are almost always given long after the student has stopped behaving as a student. We must know that such contingencies are weak because these are powerless to reinforce the behaviour for which these are awarded. Personal reinforcers, both positive and negative, raise special problems. When we speak of approval, we mean the behaviour of the teacher as he looks at the students, as he talks to them and says: "Right" or Good", Wrong" or"Bad" etc.

It is necessary to mention here that according to Skinner (Hilgard, 1958, p.89) the probability of an operant behaviour is always increased by (a) the presence of a positive reinforcer and (b) the absence of a negative reinforcer.

Psychologists agree that reinforcements with adequate safe-guards on their contigencies shape behaviour of individuals and children and also increase the probability of the reinforced operants or behaviour.

Idaya (1966) in a study with pre-adolescents in Nigeria found that the most favourable incentive for children of high S.E.S. was praise, while that of the middle and low S.E.S. children was obtaining "high makrs". It was observed by the author of the above study that there was a hierarchical manner of preference for incentives of different types as manifested by the children of different S.E.S.. High S.E.S. children ranked praise first, middle S.E.S. children ranked it third, while the low S.E.S. children ranked it fourth. This study reveals that (a) incentives act as reinforcements and (b) different types of incentives have different preferences manifested by children of pre-adolescence.

On the basis of this consideration, it is reasonable for the investigator to believe that Nigerian children will manifest different reward preference behaviour which are already shaped out of their differential experiences of past reinforcements, and hence the relevance of these background factors and the discussion for this study.

VII. The Nigerian Context:

Any research looking at the different types of Nigerian children manifesting different levels and nature of academic motivation and extrinsic reward preferences must take into consideration the characteristics of a typical Nigerian home. Since this study concerns itself with Nigerian children of Zaria, it is necessary for the investigator to consider and examine the peculiar and unique features of the home background in northern Nigeria.

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Hake (1972) reported cultural variations in child rearing habits and practices of different countries with special emphasis on those in northern Nigeria. It has been reported that contrasted with the prevalent attitude in U.S.A. where children are seen as economic liabilities (Sears, et al, 1957), child rearing is seen as a happy aspect of raising one's family in Northern Nigeria. Children are welcomed to parents and are not seen as burdensome either economically or socially. The Nigerian father is regarded as the head of the family, responsible for food, shelter and overall needs of the family, while the Nigerian mother is entrusted with the duty of looking after the day to day affairs of the house. Polygamy is one of the typical features of most of the houses. This particular feature stands out in sharp contrast to the normal expectations of people of the western countries where monogamy is the norm and the concept of peaceful coexistence between cowives and step-siblings is completely inconcievable. In polygamous homes, it is not unreasonable for the investigator to expect lack of competition between siblings of the same home and lack of desire to achieve personal property at the expense of others, since the Islamic value predominant in northern Nigeria compels the parents and neighbourhood to inculcate the values of peaceful co-existence, communual sharing of means and striving for equality and brotherhood.

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It is no exaggeration of statement for the investigator to observe in this connection that it is a common practice and it is deemed as an honour if one family can open its door of hospitality to one's neighbours whenever the need arises. Such are however values of Islam and the Islamic home make the continual effort to meet with these values.

The family system in northern Nigeria is however an extended family system, in contrast with the nuclear type of families in the western societies. In nuclear families it may be likely that children grow up under the influence of the doctrine: survival of the fittest. In Islamic culture, one can survive especially in the extended family system of northern Nigeria even if one is not fit enough to survive under similar conditions in western countires. Some western countries like U.K., Sweden and others, have however taken over the roles of looking after their inhabitants and safeguarding their future survival. In northern Nigeria, similar roles are the duties of extended families, the clan and religious bodies. This study is not a comparative study of the achievements of the above role - playing agencies, but since this investigation is concerned with the types of children manifesting their different levels and nature of aspiration, it is necessary for the investigator to point out the qualitative differences existing between the rolesof different agencies, namely the governments of western countries - versus - the extended family system of northern Nigeria. The first qualitative difference crossing the mind of the investigator is that in the former, the role is

formal while in the latter it is informal. Informal roles are personal in nature of their interaction while formal roles remain impersonal. Extrapolating from this observation, it can be seen why peace and contentment of children growing up in northern Nigeria seem to be their life styles, while discontentment and anxiety neurosis among the western children may be the by-products of western systems. The above observation may be at the root of student discontentment and students' rebellion against authority. This may also explain the mushroom growth of cults, namely hippy movement, skin-heads etc, which are so common in western countries. Such things or events are still unknown in northern Nigeria. This is not to say that there are no children staying outside the school or playing truant, but the underlying factors of the above type of abnormal behaviour are entirely different from those of the western causal factors. The drop out in northern Nigeria is not necessarily outcast from extended family system, as he still enjoys and shares the same values and beliefs prevalent among his mates. A child who lives at home, whether a drop out or not, is equally welcomed to his relatives as any other children of Islamic home in northern Nigeria. It is to be remembered here that the parents are not the sole socialisation agents (Hake, 1972), but the entire extended family system is responsible for the 'slow silent socialisation' process of a Nigerian child growing up in Northern homes. The socialisation process in northern Nigerian homes is a mixture of good-natured freedom coupled with strict controls (Hake, 1972).

The author reports from his investigation that only 3.7 percent of males and 5.9 percent of females of his sample showed their respective childhood as a "sad" period. The development of humility is an important task of child rearing in northern Nigeria and children are taught to be polite in their conversation with others - which gets some psychological support if, one cares to analyse the greetings and conversations between persons in northern Nigeria.

School learning is essentially western in character which the parents believe corrupts society and promotes material gain, immorality and individualism. The parents also contend that western system of education makes girls lose interest in marriage and child rearing. Most of the muslim parents prefer Quranic schools because it teaches belief in and fear of one's Creator and shapes the moral character of one's children. The Quranic system of education enjoins sacrifice in the interest of other fellow human beings and stresses that this world is basically a transitional period and that there is something beyond this mundane world. There is something more important than exploitation, self interest and cut-throat competition of western culture. Given this type of orientation right from childhood to adulthood the investigator, can reasonably expect a lesser degree of desire for consumable and cut-throat competitive rewards in the final outcome of this study.

The home of a typical northern Nigerian child, socialises him continually to feel <u>proud</u> and contented with his own origin, his family, and <u>not</u> to envy others.

The conception of the child in this area of study is that, if left on his own, he will do many harmful things, if not on himself, but to others. Hence strict discipline is maintained and various types of punishments are meted to reflect the nature of crime or offence, but most common are beating and scolding.

An interesting observation came from a study by Hake (1972) in which it was observed that fathers are seen as best friends by 49.2 percent of females, while most the males in his sample saw their mothers as their best friends. It will be interesting to carry out a further research work in this regard, more particularly to find out the factors that are responsible.

Another cultural norm in the northern Nigerian home is that, it is regarded as immoral and corrupting, to give boys and girls sex education. Thus sex training is conspicuously absent in northern Nigerian homes as it is seen as a conflict to the values of northern Nigerian homes.

From the above picture, it is reasonable for the investigator to assume that the typical child of northern Nigeria including the area of study, will grow up with his cherished values such as peaceful co-existence with others, remaining contented with what he has got, and not being jealous of others' prosperity and achievement, not being competitive with a cut-throat attitude for not running after more and still more consumable things, not showing individual achievement motivation as such, but maintaining a sense of comradeship and affiliation with his group members and looking towards adults and superiors in the community for guidance. The above points are what the

investigator expects in the majority of orthodox Islamic homes of northern Nigeria.

There are however, other considerations which must not be overlooked in this study. Recent days have seen some considerable emphasis on education which is essentially western in character. People are beginning to see education as a means of being recognised and established in the society. This is apparently at variance with the cherished values of the traditional homes and at present it is quite clear to even a most superficial observer that education and industrialisation with diversity in occupations and various interets, are slowly creating social class differences even in the traditional concept of classless society of Islam. The concept of feeling different from others in the soceity is however, a recent outcome of disparity in private property and wealth. More and more children are being educated and quite a considerable number of children from educated homes are going for higher education and professional training of the west. Such trends are mainly responsible for the creation of a middle class value in educated homes, where children are being pushed and encouraged to achieve more and more in their careers, so that suitable profession will be automatically ensured for them. In these homes, even if they are in minority, as far as the homes of all primarly school pupils are concrened, it is quite likely to witness some contrasting values with the traditional norms. Such homes are still in the minority when we consider that primary school education has become almost universal since the last three years.

Primary school children will therefore still come from a majority of traditional homes and values and a minority of them will come from the rising middle class homes of northern Nigerian children.

In this investigation therefore, it is expected that several types of children will be discovered, a majority of whom will manifest differently in their reward preferences compared to a minority in similar behaviour manifestations.

VIII. Summary:

In the foregoing pages the investigator discussed the background literature, both theory and research evidence relevant to this study. From the foregoing discussion, the following main points can be summarised viz:-

(a) Goals of Learning:

There is evidence that the goals of learning are acquired by children as they grow up. While some go for deferred gratification, some demand immediate gratification. Children from middle class and upper working class fairly aspire to achieve more and their goals tend to be far above their parents ever attained. Out of their differential experiences at school and at home, children either increase or lower their goals of learning and achievement. On the basis of these findings, it is reasonable for the investigator to expect that the Nigerian children of this study will also manifest differential goals of expectations, aspirations and reward preferences.

(b) Achievement Motivation and Values:

The relevant literature of this section shows that parental values, social-class differences, family aspirations, deferred rather than immediate gratifications and so on, determine the differential levels of achievement motivation and aspects of dominating values of children. Granting that all these underlying factors are continually at work in urban community of Nigerian homes, it is reasonable for the investigator to locate different aspects of manifestations of reward preferences and achievement motivation among the Nigerian students with which this study is concerned.

(c) Levels of Aspiration:

Levels of aspiration are however leanred during the process of socialisation a child undergoes. The desire to take risk and continual expectation to achieve further and higher are modelled, shaped and affected by a host of differences in underlying factors, namely, aspiring and pushing parents, relaxed versus task-minded situations, normal versus maladjusted personalities, and realistic verus unrealistic aims. Granting that a heterogeneous Nigerian population of children will also be subject to the influence of the above factors, it is the expectation of the investigator that his study will reveal differences in aspiration, academic achievement motivation, and reward preferences among the Nigerian children of this investigation.

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(d) Roles and Socialisation:

Children learn to play roles as they grow up in their respective and different environments of socialisation. Some of these roles are the products of reinforcements in the past and some are the behaviour manifestations of self-actualised personalities realised out of growth-through-gratification. These different roles are likely to have telling effects on achievement motivation and reward preferences of children, including children of Nigerian urban communities with which the present study is concerned.

(e) Social Class and Achievement Motivation:

There is a considerable literature and evidence to show how differences in social class affiliation manifest in the differences in childrens' expectation, academic motivation and reward preferences. Nigerian urban community can be thought of as consisting of different social classes even though the concept of Islam is classless. Modern life style and social problems have however, created differences in the social class affliation of predominantly muslim children. All these differences are likely to be effective in the different manifestations of motivation and reward preferences of Nigerian children - a concern of this study.

(f) Role of Reinforcement:

The psychology of reinforcement maintains that re-inforced bahaviour will not only be shaped but also be increased in the probability of its occurence. Different families reinforce

their children differently. This explains why childrens' behaviour are different when compared with one another. Some are continually striving to achieve more in academic undertaking than others and some children are preferring to go for a particular type of reward as an extrinsic motivational factor than others. In other words reinforcers and their differences are shaping the differences in the levels and direction of academic motivation and reward preferences of children, including northern Nigerian children which are the concern of the investigator in the study.

(g) The Nigerian Context:

It has been argued by the investigator that the values of the typical northern Nigerian home are tradional Islamic in nature, even though the rising middle class educated families are bringing in their influence of contradicting values in line with their own expectations of life. In such background context, it is expected that the majority of Nigerian primary school children are likely to manifest reward preferences, of the following types, namely, Peer Approval and Adult Approval. A minority will go for Independence, Competitive, and Consumable reward preference types of behaviour. The investigator, is tempted to hazard a long-shot that a number of children from poor homes, will manifest their conspicuous lack of interest in consumable rewards in sharp contrast to what was found among the lower working class (low) poor children of western origin (Dunn-Rankin, Shimuzu and King, 1969).

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The next chapter deals with aims and hypothesis of this

CHAPTER III

Aims and Hypotheses

From the foregoing resume, of the relevant background literature the aims of this study can be stated as follows, namely:-

1. To examine the nature of interrelationships between the reward preference variable measures of different primary school children of Zaria.
2. To locate and identify the types of children who may be classified on the basis of their behaviour manifestations of reward preference and Academic motivation.
3. To examine the differences if any, among the children of opposite sex, professional - versus- non-professional homes, employed - versus - unemployed parents, township - versus- rural homes and rich - versus - poor homes - in their reward preference and Academic Motivation types of behaviour manifestations.
4. To analyse the differences, if any, among children of upper -, middle-, and lower - socio-economic status homes, in their reward preference and Academic motivation types of behaviour manifestations.

From the above aims, the following hypotheses about primary school children's behaviour are proposed namely-

Hypothesis - I (H):

Children with high academic motivation will manifest preference for the following type of rewards namely, adult approval, consumable reward, competitive reward, independence reward and peer approval.

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Hypothesis- 2 (H_2):

There will be at least two significant and independant clusters of behaviour accounting for the different reward preference and academic motivation of the children in the study.

Hypothesis - 3 (H_3):

There will be significant differences in the variable measures of reward preference and achievement motivation between children of (a) the two sexes, (b) professional and educated parents- versus- others, and (c) wealthy homes - versus - others.

* * * * * * *

The next chapter deals with the methodology of this study.

The above schools will hereinafter be referred to as School A, School B, School C, School D, School E, School F, School G, School H, School I and School J, respectively.

Once the schools were obtained, it was necessary for the investigator to select subjects from each of the above ten schools for the purpose of his investigation. A preliminary enquiry revealed that schools A to D and schools F to I, had three sections of class six children in each while schools E and J, had six sections of class six children in each. In order to get an adequate sample size from each of the above ten schools, the investigator, decided to obtain a sample of about 33% of these children as his sample for the purpose of this study.

Once this number for the sample size from each of the above schools was decided, the investigator was able to obtain thirty-three class six children from each of the schools A to D and schools F to I, and sixty-six children from school E and seventy-three children from school J, the last school being a school of over sized classes. These children were selected from each of the above schools randomly by the investigator, by assigning serial numbers 001, 002... etc. to the children of the above respective schools and obtaining the respective sub-samples from the predicted first 33, or 66, or 73 numbers as the case may be, from the table of random numbers.

This method of random sampling was obviously, a case of stratified step-wise random sampling technique. This method ensures that the subjects chosen from the sample were representative, not only of their own respective classes of children, but also of the entire parent population of class six primary school children of

The size of the sample was 33% of the 25% of the randomly selected primary schools of Zaria. This meant that the overall sample size of the investigator was 33% X 25% of the parent population. A sample of 8-9% of the parent population is however, not an adequate representation of any parent population if the sample is not obtained by proper random sampling technique. The investigator used the step-wise stratified random sampling technique to prevent this bias of sampling errors, and hopefully claims that the sample of his investigation was representative of the parent population, i.e the primary school children of class VI of Zaria.

This sampling method has been justified in a situation similar to the investigation by Butcher (1966) and Guilford (1965).

The sample of the investigator, thus consisted of 403 class six primaryschool children. The average age of the sample children was between 11 and 12 years.

The Test and Test Administration:

To measure academic achievement motivation and Reward preferences of children, the investigator used a modified version of Dunn - Rankin, Shimuzu and Kings, (1969 op.cit)Reward preference Questionnaire, developed by the Open University, and a test of academic motivation, also developed by the Open university as a modified version of Entwistle's(1968) Academic motivation Questionnaire These questionnaires are attached to this thesis in Appendix I.

The test-re-test reliability of these questionnaires, have been reported to be 0.85 on the average by the Open university undergraduates, who have used these tests in their project requirements. Further, Dunn-Rankin, Shimuzu and King (1969 op,cit) have presented the reliability of the Reward preference Questionnaire from results obtained in testing the same group of children twice at an interval of one-week. The reliability coefficient reported by the authors is 0.84. The content validity of such questionnaires, both Academic motivation and Reward preference are apparent to any reader. Further, the investigator will add some evidence on the construct validity of Reward preference and Academic Motivation questionnaires in the ~~results section~~ last chapter of the study. The reliability of the Academic motivation questionnaire has also been reported in the Open university undergraduate project as being 0.84. using test-re-test method and by Entwistle (1968) as being 0.86.

The academic motivation questionnaire consisted of seven positive and eight negative items presented in the form of a five point Likert scale. The range of academic motivation questionnaire scores was thus from fifteeen to seventy five. The reward preferences were classified into five categories each having four sets i.e. statements.

The categories of Reward preference were:

1. Adult Approval
2. Consumable Reward
3. Competitive Reward
4. Independence Reward

The questionnaire was so constructed, that one particular statement of a certain category of Reward preference was paired with every item of the other four categories, so that forty of such item pairs were obtained. A child had to choose only one from any pair. These questionnaires were administered by the investigator as a group test for the subjects of each school at any single time. Children were instructed to answer all items of both questionnaires, and they finished the tests in twenty-five minutes.

Test Scoring

The scoring of the children's responses to the questionnaire was objectively done. The Reward preference Questionnaire responses, were simply counted for each category of Reward Preference, which represented the subject's different scores for the different categories of Reward Preference.

Scoring of the Motivation Questionnaire was done by crediting a score of 5, 4, 3, 2, or 1, for the child's response to a positive item ranging from "very true of me", to "partly or usually true of me", "cannot say, no feelings one way or the other", "partly or usually untrue of me", to "very untrue of me", as the case may be. The scoring of the negative items was exactly the opposite of that of the positive items e.g. 1, 2, 3, 4, and 5, as the case may be. A child's total scores for Motivation and each of the five Reward preferences were thus obtained.

The investigator was also interested in obtaining information about the backgrounds of the subjects. For this purpose, the investigator designed a Pupil Background Questionnaire, where some information about the following was sought for, viz-

1. Type of family (i.e., monogamous or polygamous)
2. Parent's occupation.
3. Annual income of parents.
4. Parent's education.
5. Situation of house.
6. Number of cars.
7. Domestic help.

A copy of this questionnaire is attached to this thesis in Appendix-II. The method of scoring the responses initially and then how these initial nominal scores were recoded finally by grouping the several responses of each of the different categories for subsequent statistical analysis has been shown on the first page of Appendix-III. The necessity of grouping the nominal scores of the responses of each of the items of the Pupil Background Questionnaire together was justified since chi-square tests depend on the criterion that none of the cells should be too small which would have been the case if the investigator had not grouped them together. It is useful to recall here that the investigator assumed that there would be a class difference between the responses of the subjects in their reward preferences and academic motivation. It has been argued by the investigator at the end of the chapter on background literature that children of upper socio-economic status would differ from others in their reward preference and academic motivation.

It is now necessary for the investigator to explain the rationale of scoring the Pupil Background Questionnaire.

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It was assumed by the investigator that the upper S.E.S. children will have the following characteristics, viz, -

(a) they will come from monogamous families.

(b) their parents will be either civil servants or teachers.

(c) their parents income will be above ₦3000.00;

(d) their parents will have at least secondary education, and

(e) their parents will possess at least one or more "cars" and domestic helps.

The scoring keys of Appendix III show that the nominal scores of the above aspects were the same, i.e. I. In other words, the lower figures suggest upper S.E.S, while the higher figures suggest the rest of the S. E.S. of the children in a hierarchical manner.

In brief, the rationale of awarding different nominal values to the above categories of pupil backgrounds depended on an assumption of the investigator that children coming from monogamous families, professional parents, higher income and standard of living of parents, will behave differently from other children coming from opposite polarities of the above aspects of home background in their reward preference and academic motivation. The method of this scoring will be apparent from Appendix III, which is a micro-photo of the computer programme cards for the analyses of interaction of the variables of the pupil Background Questionnaire.

Data Matrix

The data matrix of the study thus consisted of the scores of every subject on the following, namely, sex, age, religion, family type,

father's and mother's occupation, father's and mother's income, father's and mother's education, situation of house, number of cars and home-help, adult approval, peer approval, consumable, competitive, and independence reward preferences, and academic motivation.

** ** ** ** **

The next chapter deals with the analyses of the data and their results.

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CHAPTER 5

Analysis of Data and Results.

For the purpose of statistical analysis of the data, of this study the investigator punched cards for using them in various computer programmes of the university's I.B.M. computer.

All computer programmes were S.P.S.S. programmed packages used in this study. During computer analyses, the investigator experienced some problems in the print-outs reported to be due to some technical faults and occasional voltage fluctuation etc. To safeguard the accuracy of the results the investigator cross checked some of these results by means of desk calculators whenever necessary. The calculation of the means, standard deviations and correlations were performed by desk calculators and other statistical analyses by the computer when the programmes ran smoothly without difficulties.

1. Means and Standard Deviations

Firstly the investigator calculated the means and standard deviations of the Reward preference and academic motivation variables for the entire sample. Table 5.1.1., shows the means and standard deviation of these variables, viz:-

Table 5.1.1.
All Schools.
Means and Standard Deviations of Variables.
(N = 403)

Variable	Means	Standard Deviation
Adult Approval	13.000	7.269
Consumable Reward	5.000	4.016
Competitive Reward	10.000	6.428
Independence Reward	5.000	4.670
Peer Approval	7.000	4.129
Motivation	58.628	13.015

The means of the above variables appear to be reasonably high when we consider that the 'average' of the means of the reward preference variables is 8 and the range of scores possible for academic achievement motivation lies between 5 - 75. On further inspection of the score distributions it appeared that they were all positively skewed. It is worthwhile to record here that the median values of the above positively skewed distributions were lower than their corresponding means. This point will be taken up again during the discussion on the decision about the cut-off points of the variables, to be made for subsequent statistical analyses.

2. Correlation

It was deemed necessary at this point to look into any existing pattern of interrelationsips between the variables of Reward preferences and Academic Motivation, Since the data of the above variables were in an interval scale of measurement, the investigator used Pearson's Correlation Analysis, to obtain the Correlation Matrix Table 5.2.1. reproduces the correlation Matrix of the above variables for the entire sample, viz:-

Table 5.2.1.
All Schools.
Correlational Matrix
(N = 403)

Variable	Adult App.	Consum.	Comp	Indep.	Peer App.	Motiva-tion.
Adult Approval Reward	1.000	x .172	xx .207	xx .408	xx .324	xx .209
Consumable Reward		1.000	xx .342	xx .318	xx .304	.020
Competitive Reward			1.000	xx .507	xx .381	x - .174
Independence Reward			1.000	1.000	xx .358	xx - .218
Peer Approval Reward					1.000	x .184
Motivation						

indicates $p < 0.05$ df = 401, for a two-tailed test.
indicates $p < 0.01$, df= 401, for a two-tailed test.

Note: The significance of the above correlation coefficients were checked from Guilfords table of significant correlations

The following significant correlations were observed namely: Adult Approval revealed significant positive correlations with Consumable, Competitive, Independence , and Peer Approval reward preference, and Academic Motivation Variables. "Consumable reward" revealed significant positive correlations with "competitive", "Independence", and "Peer Approval" rewards. "Competitive reward" revealed significant positive correlations with both "Independence" and "Peer Approval" reward variables and significant negative correlation with Academic motivation. "Independence" reward revealed a significant positive correlation with "Peer Approval" and a significant negative correlation with Academic motivation variable, while "Peer Approval" revealed a significant positive correlation with Academic motivation variable.

From a summary of the above signifcant correlation, it is noted that there were significant positive inter-correlations between the variables of reward preference and academic motivation thereby lending support to Hypothesis-1 of the study which states that "there will be significant positive inter-correlations among the different reward preferences and academic motivation of the children" - within the context of the significant results obtained and the corresponding Null hypothesis was therefore rejected.

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Comments will be made later on the signifcant negative correlation between academic motivation on the one hand and competitive and independent reward on the other hand in this chapter.

Correlations suggest association between variables. It was felt necessary to have a look at the patterns of relationships among the variables of the sample and hence an appropriate further statistical analysis was deemed necessary. An appropriate statistical technique to look at the pattern of inter-relationships of different variables revealing different types of significant relationship with one another is the method of factor analysis.

Factor analysis serves at least two purposes namely (a) it sorts out the pattern of inter-relationship into classes or factors in hierarchical order, starting from the most prominent one, and (b) it reveals to the researcher the types of associated variables which are statistically interrelated. The investigator has already hypothesised on the possible different independent types of clusters of behaviour (i.e. pupil - responses to the tests and questionnaires) and hence he undertook factor analysis.

3. Factor Analysis:

Of the different methods of Factor analysis, the method of Alpha factoring (Kaiser and Caffery 1965) is useful especially when some degree of consistency is expected among the different variables, revealing significant inter-relationship.

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This is also useful when the researcher wants to generalise from the consistent nature of interrelationship of variables about a wider population of individuals.

Table- 5.3.1, shows the factor matrix of these variables for the entire sample.

Table 5.3.1.
Factor Matrix
All Subjects
(N = 403)

Variables	Factor I	Factor II	Communality
Adult Approval	.495	.710	.722
Consumable Reward	.608	(-.195)	.406
Competitive Reward	.684	(.013)	.468
Independence	.794	(.060)	.637
Peer Approval	.604	(0.042)	.368
Motivation	(-.224)	.531	.333
Eigen value	4.38	1.650	Total V=
Variance	72.6%	27.4%	100%

Note: Significant loadings are shown without bracket.

A look at the above table reveals the following , namely - Two Principal common factors were extracted explaining a total variance of 100%. Factor 1 revealed significant positive loadings for all variables except Academic Motivation, while Factor 2 revealed significant positive loadings for Adult Approval and Academic Motivation variables only. According to Guilford (1965) "the proportion of a total variance, contributed by one component may be regarded as a coefficient of determination of the total by the part. The square root of each proportion of variance contributed by a common factor may therefore be regarded as the correlation between the total variable and the factor.

The square root are correlation coefficients are known as factor loadings or factor saturations". It is usual to consider factor loadings below ± 0.30 as insignificant[1] The above table shows the loadings both significant and insignificant. The second factor revealed a substantive drop of its Eigen value from that of the first principal common factor. This criterion has been reported to be a sufficient satisfactory test to ensure the purity and specificity of the common factors[1]

A careful look at the factor matrix shows that Factor -1 manifested highest positive loading for "Independence" reward preference variable and the next positive loading for "Competitive" reward preference variables Both these two types of responses are the outcomes of "ego-assertion" of the children. On this basis Factor - 1 may be called "Ego-assertion". Factor - II manifested on the other hand highest positive loading for "Adult Approval" reward preference variable, and the only other significant positive loading was for "Achievement Motivation" variables On this basis, Factor-II may be called "Parental Wish"

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1. See R.B. Cattell "Factor Analysis" Harper, N.Y. 1952.

4. Interaction Analyses.

A significant part of this study was aimed at examining the existence of any interaction between the variables of the pupil's background and his Reward Preference and Academic Motivation scores. An appropriate statistical test was therefore necessary to examine if there were any difference between the males and females, the young and old subjects, the different religious groups of the subjects, the type of family, parents' occupation, income and education, the type of house and the number of cars and home help of the subjects, in their Reward Preference and Academic Motivation types of behaviour. The family background variables were however, measures of nominal scales of measurement, while the criterion variables, namely, Reward Preference and Academic Motivation measures, were of interval scale of measurement. Since parametric statistical test cannot be applied where nominal measures on the one hand, and interval measures on the other hand are to be analysed together, two things were deemed necessary: (i) finding a suitable non-parametric statistical test for the Interaction analysis and (ii) converting the interval measures of the criterion i.e. Reward preference and Academic Motivation into nominal measures.

The suitable statistical test for this interaction Analyses is Chi-square Analyses (X^2) and a satisfactory S.P.S.S. computer programme is that of Cross Tabulation or Cross-Tabs.

The investigator undertook Cross-Tab analysis of all the variables after recoding the interval measures into nominal measures (vide Appendix III). The significant result of the series of Chi-square Analyses are reproduced in Tables -5.4,1, 5.4.2, 5.4.3, 5.4.4, and 5.4.5. Appendix III collectively shows the microphotos of the significant Chi-square tables from which the above tables were extracted, viz-

Table 5.4.1

SEX-VS-CONSUMABLE REWARD:

Chi-Square Analysis (2x2)

(N= 403)

NOTE:Observed frequency, expected frequency, and X^2-value for each cell are shown in that order from top to bottom for every cell.

Variable		CONSUMABLE REWARD		TOTAL (N)
		LOW	HIGH	
Sex	Male	199 189.4 0.487	38 47.6 1.936	237
	Female	123 132.6 0.695	43 33.4 2.759*	166
Total	N	322	81	403

X^2 = 5.877, df= 1, P < .021

* The most significant X^2 contribution.

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TABLE-5.4.2

FATHER'S OCCUPATION-VS-MOTIVATION:
Chi-Square Analysis (3x2)
(N=403)

Note: Observed frequency, expected frequency and X^2-value for each cell are shown in that order from top to bottom for every cell.

VARIABLE		MOTIVATION		TOTAL(N)
		LOW	HIGH	
Father's Occupation	Professional	19 17.1 0.211	218 219.9 0.016	237
	Self Employed	2 8.1 4.594**	110 103.9 0.036	112
	None	8 3.9 4.310*	46 50.1 0.336	54
Total	N	29	374	403

X^2 = 9.501, df= 2, $P < 0.007$

** The most significant X^2 contribution

* The next most significant X^2- contribution.

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TABLE - 5.4.3

MOTHERS OCCUPATION-VS-CONSUMABLE REWARD

Chi-Square Analysis (3x2)

(N = 403)

Note: Observed frequency expected frequency and X^2-value for each cell are shown in that order from top to bottom for every cell.

Variable		CONSUMABLE REWARD		TOTAL (N)
		LOW	HIGH	
Mother's Occupation	Professional	96 93.5 0.067	21 23.5 0.266	117
	Self Employed	48 55.9 1.116	22 14.1 4.426*	70
	None	178 172.6 0.169	38 43.4 0.672	216
TOTAL	N	322	81	403

$X^2 = 6.716$, df = 2, $P < 0.034$

* The most significant X^2 contribution.

TABLE 5.4.4.

HOUSE-VS-INDEPENDENCE:
Chi-Square Analysis (3x2)
(N=403)

Note: Observed frequency, expected frequency and X^2-value for each cell are shown in that order from top to bottom for every cell.

Variable		INDEPENDENCE LOW	INDEPENDENCE HIGH	TOTAL (N)
House	G.R.A.	68 74.9 0.636	18 11.1 4.289*	86
	TOWN	157 151.5 0.199	17 22.5 1.344	174
	VILLAGE	126 124.5 0.018	17 18.5 0.122	143
Total	N	351	52	403

$X^2 = 6.608$, df, = 2, $P < 0.037$

* Note. The most significant X^2 contribution.

/95.

Table 5.4.5.

Cars-Vs-Peer Approval
Chi-Square Analysis (3x2)
(N=403)

Note: Observed frequency, expected frequency and X^2-value for each cell are shown in that order from top to bottom for every cell.

Variable		Peer Approval LOW	HIGH	TOTAL (N)
Cars	Rich	178 167.2 0.698	52 62.8 1.857	230
	Poor	115 125.8 0.927	58 47.2 2.471*	173
Total	N	293	110	403

X^2= 5.953, df= 1, p<0.020

* The most significant X^2 contribution.

In interpreting results from significant X^2 values it is usual to look for the highest contribution to the overall X^2 value made by a particular cell which is calculated by using the following formular (King, 1969, P. 105), viz:-

$\frac{(fo - fe)^2}{fe}$, where fo = observed frequency
fe = expected frequency in the cell.

At the bottom of the above X^2-tables, the most significant contributions to the respective X^2- values have been mentioned.

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A significant X^2-value indicates significant differences in the proportions of cell distributions of the subjects. For the purpose of detailed interpretation of a significant X^2-table, one has to look for the most significant contribution in the cells, and also notice the direction of change in the observed frequency of that cell. Bearing the above points in mind, the following conclusions are made, viz, - (a) Female children manifested significantly higher level of consumable reward preference than males (table-5.4.1). (b) From the two cells of most significant X^2- contributions of table-5.4.2, we notice that the observed frequency of self-employed low motivation cell was less than its expected frequency while that of un-employed low motivation cell was higher than its corresponding expected frequency. On the basis of these significant features it can be said that children of self-employed fathers manifested significantly highest level of Academic motivation, while those of unemployed fathers manifested lowest level of academic motivation. (c) Children of self-employed mothers manifested significantly higher level of preference for consumable reward (table-5.4.3.) than others. (d) children coming from G.R.A. homes manifested significantly higher level of preference for Independence reward (table 5.4.4.) than others. (e) Children coming from families without cars (i.e. poor) manifested significantly higher level of preference for Peer approval as reward (table 5.4.5) than others.

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5. Effects of Socio-Economic Status (SES)

A number of interesting trends were discovered from the results of cross-Tabulation analyses revealing some interesting trends of differences between the rich and the poor, the male and the female, the professional and the rest, the town boys and the rest and so on, in their reward preference and academic motivation.

The investigator was therefore keen to undertake some post-hoc analysis to see if some of these home background variables, namely parent's occupation, parent's education, type of house, and having cars or not, could be computed together to workout a socio-economic status (SES) variable having three levels namely, upper, middle, and lower, which may reveal differences in the Reward Preference and Academic Motivation type of behaviour of the children of the entire sample. For the purpose of recoding the SES score, the investigator took the average of the pupil background variables namely, Father's Occupation, Mother's Occupation, Father's Education, Mother's Education, House and cars and then recoded the S.E.S score into three nominal measures of upper, middle, and lower levels. Appendix IV shows the details of computation of those levels of SES variable of this analysis.

Following the assumption of the invesigator mentioned before, it will be clear that nominal values of 1,2, and 3 represent in hierarchical fashion, the upper, middle and lower levels of father's occupation, mother's occupation, father's and Mother's education, house and cars respectively.

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The above variables however, manifest their corresponding measures of social class differences for every subject of this study. When the SES measures are computed, these measures of "average" nominal scale values for each subject will also manifest the differences due to social class differences among the subjects.

The investigator took the average" of the above pupil background variables as it satisfied the following, e.g., - (a) instead of having many measures only one measure for SES was needed; and (b) the measure must reflect the differences in nominal scale values of the above variables among the subjects. By taking the "average" of the above variables' nominal scale values, both these requirements have been satisfied.

Once the SES indices were calculated it was necessary for the investigator to decide on the cut-off points for the SES indices so that upper, middle and lower SES indices can be calculated and their interaction analysed. These cut-off points were arbitrarily decided by the investigator as follows, viz,- (a) upper SES nominal scale value as "from lowest to 1.34", (b) middle SES nominal scale value as "from above 1.34 to 2.67"; and (c) lower SES nominal scale value as "from above 2.67". These cut-off points were justified since the ranges or spreads of indices were equal for the different social classes. Appendix-IV makes the situation clear.

Against these 3 levels of SES variables, the investigator decided to use 2 levels of the measures of reward preference and academic motivation variables.

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The cut-off points for these variables had to be decided upon. Usually, the medians are selected as the cut-off points when a variable is to be categorised into 2 levels, namely, low and high. In this investigation, the investigator took the mean instead of the median as the cut-off point for the above variables for the following reasons, viz:-

(a) It has been mentioned before that the distributions of the scores of all the interval measures of reward preference and achievement motivation were positively skewed which implied that the median values of the above variable measures were all lower than the respective mean values (Guilford, 1965, P.61);

(b) a limitation of the computer programme used in this analysis was that the programme counts the frequencies up to the value selected as the cut-off point and not up to the position of a particular scale value e.g. the median; (c) had the median-value been selected as the cut-off point then the cut-off values would have been perhaps too low for the high scorers' groups;

(d) if there was any difference between Low' and high' levels of the above variable measures, then the investigator assumed such differences to exist if a high cut-off point is decided upon for each of the above variable measures than otherwise.

On the basis of the above assumptions the means of the above interval-scale variables were chosen as their respective cut-off points.

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The results of the SES interaction analyses were however not significant and comments will be made on the implications of these analyses in the final chapter.

6. Results:

The significant results of this investigation for the entire sample (N=403) are summarised below, viz- (i) Reward preference and achievement motivation variable measures of primary school children of Zaria yielded significant positive inter-correlations. Competitive and Independence reward preferenee variables however, manifested significant negative correlations with achievement motivation variable.

The negative correlation between competitive reward preference score and Academic motivation suggests that the sense of competition is perhaps lacking in the children who may prefer affiliation or other type of motivation to their own individual achievements. This interesting significant trend needs discussion in the concluding chapter. "Independence" reward revealed negative significant correlation with academic motivation, a point which will be taken up later.

On the basis of these significant positive inter-correlations, hypothesis - 1 (H_1) stating that "there will be significant positive inter-correlations among the different reward preferences and academic motivation of the children" was supported within the context of significant correlation and its corresponding null hypothesis was rejected.

(ii) Fact r-1 of factor analysis reproduced in table, 5.3.1., revealed significant positive loadings of all reward preference measures but not academic motivation, while Factor-2 of the same analysis revealed only two significant positive loadings one for "Adult Approval" type of reward preference variable and the other for Academic Motivation. Factor-1 explains 72.6% of the total variance while Factor-2 explains only 27.4% of it (vide table-5.3.1), and these two factors were orthogonal, i.e. independent of each other.

On the basis of the above significant results, hypothesis-2 stating that "there will be at least two significant and independent clusters of behaviour accounting for the different reward preferences and academic motivation of the children in the study", was supported and the corresponding Null hypothesis (H_0) was rejected. The implications of these two factors will be discussed in the chapter. (iii) The results of interaction analyses have shown certain significant differences (vide tables-5.4.1 to 5.4.5). It is to be recalled that Hypothesis -3 (H_3) stating that "there will be significant differences in the variable measures of reward preferences and achievement motivation between children of (a) the two sexes, (b) professional and educated parents - versus others, and (c) wealthy homes-versus-others" is not a directional hypothesis.

On the basis of the significant differences revealed in the interractional analysis, Hypothesis-3 (H_3) is supported and its corresponding Null hypothesis (H_0) is rejected.

CHAPTER 6

Critique, Conclusion and Implication

In this section, the investigator will have a critical look at the research and its findings, and draw some conclusions, and finally, consider the implications arising out of the study.

1. Critique:

Campbell, et al (1969) suggested safeguards to be adopted in social science investigations by listing several factors of internal and external validity. The investigator wishes now to check if these factors were safeguarded against in his study. Since this study was not a protracted one, there were no risks of experimental mortality, as no subject selected for this study dropped out of the investigation. On the same grounds it can be reasonably held that there was no question of "experimenter decay" as the initial enthusiasm of the investigator remained almost at the same level throughout this study, and the question of fatigue or set formation in the investigator's scoring of the test questionnaires was either absent or hardly felt. The investigator established rapport and familiarity with the subjects adequately and assured them of their anonymity and this helped to prevent any bias creeping from "reactive responses" of the subjects. Since data collection was over in a period of one week, it can be held that the children did not "mature" significantly during that period and thus the effects of bias due to "maturation" factor were also eliminated.

Nothing spectacular did happen during the experiments which could have otherwise changed and affected the responses of the subjects, and hence the effect of 'history' could not have affected or influenced the responses of the subjects of the study. Furthermore, the investigator did not go for 'extreme' groups of subjects but went for randomly selected subjects, and thus kept the effects of statistical regression towards the mean, at a very minimal level and hence, it can be concluded from the above arguments that this study took care of bias of the above internal validity factors mentioned by the authors (Campbell, et. al, 1969.. In other words this study can be held to be internally valid.

"External validity" refers to the representativeness of the findings and results to a wider population. It has been argued by the investigator before that the sample was a representative 8.25% of the entire parent population. This is a fair representation since it was arrived at two steps of randomised sampling, once in the selection of the schools (25% of all 40 schools), and then in the selection of the subjects (33% of all subjects of the selected schools)- the selection being predicted by the table of random numbers. On this basis, the investigator claims that his sample was representative of the parameters of the entire parent population of class six primary school children of Zaria and hence this study is held to be externally valid.

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The content validity of the items of the background questionnaire is self-evident from the wide coverage of the test items as can be seen from Appendix II. Further, the results of this study lend support to construct validity of the test instruments used.

Since the experimental validity factors of this study, the reliability, and the validity of the test instruments have been justified as being adequately taken care of, and safeguarded, the findings of this study can therefore be held as valid and representative.

II. Conclusions:

The following conclusions can therefore, be drawn from the significant results reported at the end of chapter V supporting the hypotheses asserted in this study, viz-.

(a) The primary school children of Zaria are characterised in their behaviour manifestations by a cluster of positively inter-related reward preference, viz, - adult approval, consumable reward, competitive reward, independence reward, and peer approval, and their academic motivation (vide Results 6 (i, ii, iii, and iv) of chapter-V). (b) The behaviour of primary school children of Zaria as measured by the test of reward preference and achievement motivation variables can be classified into two groups on the basis of their reward preference and achievement motivation types of behaviour manifestations. Factor -1 (Table-5.3.1) manifest the behaviour, i.e. responses of the children as measured by the different reward preference variable items.

Factor II manifests the behaviour, i.e. responses of the children as measured by their "adult approval" reward preference and achievement motivation.

(c) Female children manifested significantly higher level of consumable reward preference than others.

(d) The primary school children of Zaria having self-employed fathers are significantly more academically motivated than others, while children of unemployed fathers were significantly at low levels of academic motivation.

(e) The primary school children of Zaria having self employed mothers manifested significantly higher levels of preference for consumable rewards.

(f) The primary school children of Zaria coming from G.R.A. homes seek significantly higher levels of independence as a reward preference than others.

(g) The primary school children of "poor" homes seek significantly more "Peer approval" type of reward than others.

These conclusions and results, however, call for some discussions.

Implications:

A number of issues of sociological, educational and cultural importance arise from this study which the investigator wishes to discuss one by one.

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It has been noticed that the children of Zaria primary schools manifest a common reward preference to seek adults' approval. This particular type of reward preference seems to show in many types of analysis adopted in this study. In other words, this characteristic seems to be very prominent in almost all children of this study. It is therefore, necessary for the investigator to explain why this feature was so prominent.

One explanation which may be offered at this stage may rest in the typical Islamic home background of the majority of the children of this study. For us to understand a typical Zaria home background, we have to consider the strong Islamic influence at work. Basically Islam teaches that the parents' first obligation is to teach their children to worship Allah only. Then it further teaches that the next duty of a child is to obey his parents irrespective of the status of their parents. It can therefore be extrapolated that the child is oriented towards obedience to his parents and elders right from his early years. It is therefore no wonder to find Zaria children going all out for adult approval.

Looking at the communual nature of the extended family system, with many adults (such as grand parents, uncles, aunts etc.) empowered to socialise the child (Hake, 1972) "to respect adults" is bound to be a typical value firmly embedded in the socialised personality of the child.

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In the light of this pwerful value to respect adults, it can further be extrapolated that a typical Nigerian child of the North, will expect a greater amount of cooperation and acceptance from his teacher than his western counterparts who grow up in nuclear families.

Examining carefully the results of this study, we notice that academic motivation explained considerably less amount of the total variance (vide factor-II) compared with "reward preference" of the children (vide factor-I). A child is motivated from the values he incorporates into himself, from the reinforcements of praise, optimal encouragements, inspirations, and help he gets in his modest efforts to control his environment. This sort of situation flourishes best where children are accepted at home and at school with equal affection, dignity, and respect. As far as the home of a typical Nigerian child of Zaria is concerned, it seems that the child has very little problem - since ~~their~~ his 'adult approval' type of reward seeking behaviour is almost ensured. A child of this type is likely to extend his tentacles towards the teachers and other adults in his school in the hope of being reciprocated by them. The investigator can only hazard that this reciprocation of acceptance and reinforcement of the child are perhaps lacking in the primary schools of Zaria.

Given the fact that the family is an extended one with many children, and also given the fact that these children eat together (and not in separate dishes), and play together, it is understandable as to why a sense of communal belongingness, communal sharing of resources and communal feeling of glory and success

at the achievement by a member of the community is firmly stamped in. There is evidence that people who are used to clan living in communities and extended family systems usually take pride in the achievement of the group when any member becomes a success. Bruner (1966) includes the concept of 'affliation motivation' in his theory of motivation where "reciprocity" of the members of the community becomes an essential elements for group motivation. The concept of reciprocity of Bruner's theory has all the connotations of affiliation and group cooperation as depicted by the investigator in the foregoing paragraph. In the affiliation type of motivated behaviour the levels of individual achievement motivation are rather low, while in the achievement type of motivated behaviour, the levels of individual achievement motivation are usually high (Vernon, 1969). In spite of lower levels of motivation among the group members acting for a common goal, the evidence seems to suggest that individuals under "affiliation motivation" conditions achieve more as a group than when they are acting on their own (Fromm, 1956). The children of this study were perhaps similarly characterised and if they were measured by a test of 'affiliation motivation', instead of 'academic achievement motivation', then perhaps the result would have been different and the motivation variable would have come up with a significant positive loading in Factor-I.

There is an old saying: "When in Rome do what the Romans do" The simple wisdom in the above saying is no less applicable in Zaria schools than anywhere else. The point is that we are perhaps not doing justice to the expectations of our children at schools. The western methods of education, life-styles and socialisation teach children to be competitive, independent and to consume more than others. This system, even though it may be very meaningful and productive for the western societies is hardly relevant and surely damaging in the context of Nigerian situation. If the educational authorities want to help our children then the entire system and approach in the primary school teaching needs reshuffling and modifications. Teachers, the investigator ventures to suggest, must go for group work, group undertakings, group projects, and group performance. All this is possible and when made possible, the investigator has reasons outlined above to expect better achievement, better education, better performance and less problems of discipline and maladjustment at school. It is worthwhile to remember that"what we sow today we shall reap tomorrow". This saying is more applicable to the primary school sector is we are to get out of the ruts that have settled in the secondary sectors of our education, where not a single day passed without the soldier being called in to discip'ine a child whom we can control, and help in other meaningful ways.

If there has been any educational system which Holt (1973) labels as institution producing drop-outs, then the Nigerian primary schools of Zaria may be some of them.

Before leaving this section, the investigator wishes t draw the attention of his readers to the following, viz, "A few, like myself were strongly sympathetic towards the traditional Islamic system and suspected that the educational westernisation in this Islamic area was altogether too pervasive, that it bull dozed the past and created cultural distortion" (Brown and Hiskett, 1975).

It has been noticed that against the children of self-employed mothers manifesting higher levels of consumable reward prefernce, other children were manifesting significantly lower levels of consumable reward preference. This is an interesting sociological finding that stands in contrast with most findings in this field within the investigator's knowledge. A question may be raised as to why the children of the self-employed mothers would seek high levels of consumable reward, when it does not seem to be a norm among their counterparts. No definite answer can be given to this issue unless some further research is undertaken in this field.

Another finding is that the children of this study came out into two groups or factors. The majority were characterised by their reward preference behaviour excepting academic motivation.

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At this stage we need to remind ourselves that even though the society is basicelly Islamic with bias for Islamic values, western education has gained some prominence in the area of this investigation. As a result some parents have been highly influenced by the western education and its attendant values of individualism and high desire to orientate their children to this direition. This is more so, if we realise that it is the beneficiaries of this education that gain prominence and control of the social, political, and even economic systems of the society. They constitute the permanent secretaries, managers, and indeed are the custodians of the western educational system. It is no surpirse therefore, if we observe some traits of western society beginning to manifest themselves in the behaviour of this category of people and their children, e.g. individualism and high pride in material accumulation. In short, capitalistic class of people is emerging, amidst a society the majority of which may shun these values.

The issue is that the children of these western oriented parents are likely to have been influenced by their parents, so as to strive for higher and still higher success in Academic achievement - a typical characteristics of western society (Davis 1960; Kluckholn et al, 1961; Douvan, 1956). Furthermore, some research evidence has attested to have influencing power of the child's home in shaping his aspirations, expectancies etc, through a process of socialisation, so that the child ends up by internalising the cherished values of his parens (Floud, Halsey and Martin, 1957).

With regard to the question as to why "adult approval" also revealed positive significant loading in factor - II explaining only a part of 27.4% of the total variance, it can be stated that "obedience to elders of the society" seems to be a prevailing norm of northern Nigerian value-systems.

Another finding in this investigation is that primary school boys manifested significantly lower values of consumable reward preference than primary school girls. This phenomenon is likely to be explained in the Nigerian context from the teachings of Islam. For instance in the holy Quran 4:43 Allah says Men are the maintainers of women because of that excellence which Allah has given to some of them....more (strength) than the other. The above verse points to the fact that men are biologically stronger than women and hence must protect them and spend their wealth for the women. Thus while Islam enjoins males to spend for the women it leaves it voluntary for the women to spend for males. This is why it is very common to see that males give women special status in every aspect of life. If a typical Zaria man is travelling with his wife even in commercial vehicle, he will strive to get her the front seat where she seats alone. If he buys some food, he gives the women the largest share. All these go to show that women are given a special referential treatment including consumable reward.

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The children of Zaria homes are growing up in this situation. The boys learn quite early in their life that they have to be the 'givers', while the girls learn the opposite i.e. they are the 'receivers'. It is therefore no wonder that the results of this study, indicated that boys were significantly lower scorers than the girls in consumable reward preference behaviour.

Another feature of this study is that none of the results from analyses using socio-economic status factors were found to be significant. This analysis was aimed at finding out whether the society can be broadly categorised into upper-class, lower-class, and middle-class. It is to be realised that Islam, the predominant religion of this part of the country advocates for human equality and brotherhood, and sets up institutions that will achieve these objectives, such as congregational prayers where rich and poor pray together; pilgrimage, where rich, poor, rulers and ruled, wear the same dress and perform the same actions. The holy Qur'an thus says "Oh mankind! we have created you from a single (pair) of male and female and made into nations tribes that ye may know each other. Verily the most honoured of you in the sight of Allah is the Righteous of you. And Allah has full knowledge and is well acquainted (with all things)". From the above verse, it is evident that the criterion for superiority in the society is one's piety, honesty and fear of Allah. It is therefore inconsistent with this social set-up of Islam that any attempt to picture the society on social class basis will hardly stand the test of validity.

The implication of this finding is that any educational system which fails to meet this social set up of the people of Zaria, is bound to generate sociological and educational conflicts. Perhaps it is in anticipation of this trend that the Waziri of Sokoto in hif famous speech (published in New Nigerian December - 9th 1971) at Graduation Ceremony of the Ahmadu Bello University called our attention in the following way, viz- "I must state that your university (A.B.U) like others in Nigeria, is cultural transplant whose roots lie in another tradition...it is a part of cultural baggage bequeathed to us through our association with those traditions. Wise men know that change is part of the necessary process through which all societies must pass if they are to grow and survive in an improved state. Wiser men know that change can have other faces whose influence might well lead to the impoverishment of the very society we wish to nourish..... Always remember that knowledge is at best, when it is universally useful and that the best scholars are those whom the ordinary man fears neither to encounter nor to address".

Even though the above findings suggest the classless nature of a typical Islamic community, some disquieting trends have been witnessed. It may be that a minority but influential middle-class is emerging who are essentially individualistic, with little regard to what happens outside their own 'world' It may also happen in not so distant a future that the Zaria society will become stratified into social classes, the bourgeois upper class, the middle class and the impoverished lower class.

In summary therefore, the investigator ventures to recommend the following to the educational authorities, viz;-

(a) To understand and act according to the expectations and aspirations of the Nigerian children of Zaria. This calls for re-training of teachers and re-shaping the educational system in the primary school sector by emphasising the objectives for group achievement, group undertakings and group performances.

(b) Following the above, competitions, and greed for individual consumption of resources should be avoided at all costs since they are in conflict with the expectations of the majority of the society.

(c) The children should be accepted and treated with kindness and sympathy, and every attempt should be made in the classroom to reinforce even their modest attempts to control the environment of education and learning.

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Codes: A= Direct Source
B= Indirect Source

Note: See also p.127

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APPENDIX- I

QUESTIONS ABOUT SCHOOL AND SCHOOL WORK

The questions on the following pages are NOT a test. We are using them to find out what you think and feel about different things. There is no right or wrong answer to them so there is no point in talking to anybody about what to put. We want to know what you think. Do NOT write your name on the papers.

SECTION A ACADEMIC MOTIVATION QUESTIONNAIRE by Entwistle (1968)

First of all two questions about yourself:

PUT A TICK IN THE RIGHT BOX.

A1. Are you a boy or a girl? boy☐ girl☐

A2. When were you born? day_____month_____year_____

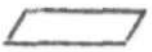
SECTION B

Instructions.

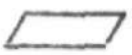
On the following pages there are some questions about what you think of school. Each question has a statement followed by FIVE possible answers which show how you feel. Put a tick ( ) in the box next to the answer that BEST describes your feelings. Try this question for practice You must choose only ONE out of the five, so only ONE box should have a tick in it.

I ENJOY GAMES LESSONS AT SCHOOL — Very true of me ☐

Partly or usually true of me ☐

Cannot say, no feelings one way or the other 

Partly or usually untrue of me 

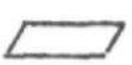
Very untrue of me 

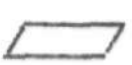
ANSWER THE QUESTION THAT FOLLOW IN THE SAME WAY

PUT A TICK IN THE BOX WHICH BEST DESCRIBES YOU

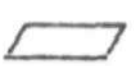
B1

I ENJOY MOST LESSONS

Very true of me 

Partly or usually true of me. 

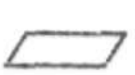
Cannot say, no feelings one way or the other 

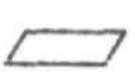
Partly or usually untrue of me. 

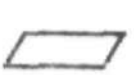
Very untrue of me 

B 2

I WORK HARD MOST OF THE TIME.

Very true of me 

Partly or usually true of me. 

Cannot say, no feelings one way or the other. 

B 3

I FEEL SCHOOL IS LARGELY A WASTE OF TIME.

- Very true of me ☐
- Partly or usually true of me. ☐
- Cannot say, no feelings one way or the other. ☐
- Partly or usually untrue of me. ☐
- Very untrue of me. ☐

B 4

I LEAVE MY SCHOOL WORK UNTIL THE LAST MINUTE.

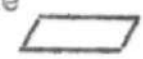
- Very true of me. ☐
- Partly or usually true of me ☐
- Cannot say, no feelings one way or the other. ☐
- Partly or usually untrue of me. ☐
- Very untrue of me. ☐

B 5

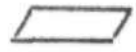
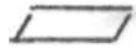
I GENERALLY FIND LESSONS RATHER DULL.

- Very true of me. ☐
- Partly or usually true of me ☐
- Cannot say, no feelings one way or the other. ☐
- Partly or usually untrue of me. ☐
- Very untrue of me. ☐

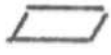
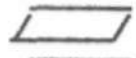
B 6
I HATE TO MISS SCHOOL BECAUSE I ENJOY IT SO MUCH.

- Very true of me. 
- Partly or usually true of me. 
- Cannot say, no feelings one way or the other. 
- Partly or usually untrue of me. 
- Very untrue of me. 

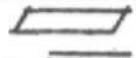
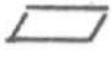
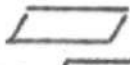
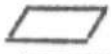
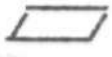
B 7
I TRY ME HARDEST TO GET MY SCHOOL WORK RIGHT.

- Very true of me. 
- Partly or usually true of me 
- Cannot say, no feelings one way or the other. 
- Partly or usually untrue of me. 
- Very untrue of me. 

B 8
I AM QUIET IN THE CLASSROOM AND GET ON WITH MY WORK.

- Very true of me. 
- Partly or usually true of me 
- Cannot say, no feelings one way or the other. 
- Partly or usually untrue of me. 
- Very untrue of me. 

B 9
I THINK SCHOOL WORK IS A BORE.

- Very true of me. 
- Partly or usually true of me 
- Cannot say, no feelings one way or the other. 
- Partly or usually untrue of me 
- Very untrue of me. 

B 10 I FIND IT DIFFICULT TO KEEP MY MIND ON MY WORK.	Very true of me Partly or usually true of me Cannot say, no feelings one way or the other. Partly or usually untrue of me Very untrue of me.
B 11 OFTEN I AM JUST NOT IN THE MOOD FOR WORK AND THEN I DON'T DO IT.	Very true of me. Partly or usually true of me Cannot say, no feelings one way or the other. Partly or usually untrue of me Very untrue of me.
B 12 I TRY HARD TO PLEASE MY TEACHER WITH MY WORK.	Very true of me. Partly or usually true of me Cannot say, no feelings one way or the other. Partly or usually untrue of me Very untrue of me.
B 13 I NEVER TAKE WORK SERIOUSLY.	Very true of me. Partly or usually true of me Cannot say, no feelings one way or the other. Partly or usually untrue of me Very untrue of me.
B 14 I DON'T LIKE SCHOOL	Very true of me. Partly or usually true of me. Cannot say, no feelings one way or the other. Partly or usually untrue of me. Very untrue of me

B 14
I LIKE SCHOOL WORK

Very true of me. 

Partly or usually true of me 

Cannot say, no feelings one way or the other. 

Partly or usually untrue of me 

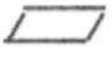
Very untrue of me. 

SECTION C REWARD PREFERENCE QUESTIONNAIRE, by Dunn-Rankin Shimuzu and King (1969)

Instructions

We now want you to suppose that you had worked very hard on a particular piece of school work, and you think that you have done it very well. After you had finished which of the two things given below would you MOST like to happen.

(a) Teacher tells you that you have done a good piece work 

(b) Your best friend tells you he likes your work. 

Please put a tick, like this ( ), in the box opposite 'Teacher tells you that you have done a good piece of work' if this is what you would most like to happen. Or if you choose 'Your best friend tells you he likes your work' put a tick in the box opposite that. You can only choose ONE of them so you should only put a tick in ONE of the boxes. Please do that now.

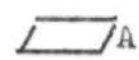
On the pages that follow there are more questions like the one you have done. Remember for each of the questions you

must choose between the two things, and you must put a tick in the box opposite the ONE you choose. For each question you are to choose the ONE you would most like to happen after you have finished a piece of school work. So you will have only ONE tick for each question.

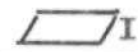
PUT A TICK IN THE BOX WHICH IS RIGHT FOR YOU

C1	Teacher writes A (or 10/10) on your paper	A
	Be first to finish your work.	C
C 2	A bar of chocolate.	E
	Friends ask you to join them in something they are doing.	F
C 3	Be free to do what you like	I
	Teacher writes A (or 10/10) on your paper	A
C 4	Friends ask you to join them in something they are doing.	P
	Be first to finish your work.	C
C 5	Be free to do what you like.	I
	A bar of chocolate.	E
C 6	Teacher writes A (or 10/10) on your paper	A
	Friends ask you to join them in something they are doing.	P
C 7	Be first to finish your work	C
	Be free to do what you like.	I

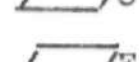
C 8 A bar of chocolate 

Teacher writes A (or 10/10) on your paper 

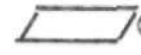
C 9 Friends ask you to join them in something they are doing. 

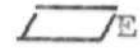
Be free to do what you like. 

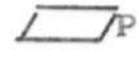
C 10 Be first to finish your work. 

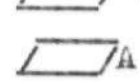
A bar of chocolate. 

C 11 Teacher writes excellent on your paper 

Be the only one who can answer a question correctly. 

C 12 An ice cream. 

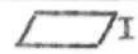
Friends ask you to sit with them. 

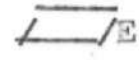
C 13 Be free to go outside 

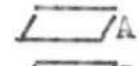
Teacher writes excellent on your paper

C 14 Friends ask you to sit with them. 

Be the only one who can answer a question correctly. 

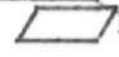
C 15 Be free to go outside 

An ice cream 

C 16 Teacher writes excellent on your paper 

Friends ask you to sit with them. 

C 17 Be the only one who can answer a question correctly. 

Be free to go outside. 

C 18 An ice cream ☐/E

Teacher writes excellent on your paper ☐/A

C 19 Friends ask you to sit with them ☐/P

Be free to go outside ☐/I

C 20 Be the only one who can answer a question correctly ☐/C

An ice cream ☐/E

C 21 Teacher gives you full marks ☐/A

Have only your paper shown to the form ☐/C

C 22 A packet of crisps ☐/E

The form chooses you as form leader(Monitor) ☐/P

C 23 Be free to play outside ☐/I

Teacher gives you full makes ☐/A

C 24 The form chooses you as form leader (Monitor) ☐/P

Have only your paper shown to the class ☐/C

C 25 Be free to play outside ☐/I

A packet of crisps. ☐/E

C 26 Teacher writes excellent on your paper ☐/A

Form chooses you as form leader (Monitor) ☐/P

C 27 Have only your paper shown to the class. ☐/C

Be free to play outside ☐/I

C 28 A packet of crisps ☐/E

Teacher writes excellent on your paper ☐/A

C 29 The form chooses you as form leader (Monitor) ☐ P
Be free to play outside ☐ I

C 30 Have only your paper shown to the class ☐ C
A packet of crisps ☐ E

C 31 Teacher writes very good on your paper ☐ A
Have your paper put up on the notice board ☐ C

C 32 A bag of sweets ☐ E
Friends ask you to work with them. ☐ P

C 33 Be free to work on something you like ☐ I
Teacher writes very good on your paper ☐ A

C 34 Friends ask you to work with them ☐ P
Have your paper put up on the notice board ☐ C

C 35 Be free to work on something you like ☐ I
A bag of sweets ☐ E

C 36 Teacher writes very good on your paper ☐ A
Friends ask you to work with them ☐ P

C 37 Have your paper put up on the notice board ☐ C
Be free to work on something you like ☐ I

C 38 A bag of sweets ☐ E
Teacher writes very good on your paper ☐ A

C 39 Friends ask you to work with them ☐ P
Be free to work on something you like ☐ I

C 40 Have your paper put up on the notice board ☐ C
A bag of sweets ☐ E

Pupil Background Questionnaire

This questionnaire is primarilly desiged to find out the background of the pupil. Since identity is not required, you need not write your name. Put a tick/ X / against appropriate one.

Personal Information

1. Sex of student
   (c) Male
   (b) Female
2. Age
   (a) 8 - 9
   (b) 9 - 10
   (c) 10 - 11
   (d) 11 - 12
3. Religion
   (a) Islam
   (b) Christianity
   (c) None of the above.
4. What type of family Do you come from?
   (a) Monogamous
   (b) Polygamous
5. What is your father's Occupation?
   (a) Civil Servant
   (b) Teacher
   (c) Businessman
   (d) Unemployed
6. What is your mother's Occupation?
   (a) Civil Servant
   (b) Teacher
   (c) Businessman
   (d) Housewife.
7. What is the annual income of your father?
   (a) ₦0 - ₦1,000
   (b) 1,000-2,000
   (c) 3,000-5,000
   (d) 5,000-7,000
   (e) Above 7,000

8. What is the annual income of your mother?
   (a) ₦0 - ₦1,000
   (b) 1,000-3,000
   (c) 3,000-5,000
   (d) 5,000-7,000
   (e) Above 7,000

9. What is your mother's education?
   (a) Illeterate
   (b) Primary School
   (c) Secondary School
   (d) Above Secondary.

10. What is your father's education?
   (a) Illeterate
   (b) Primary School
   (c) Secondary School
   (d) Above Secondary School

11. Where is your hose situated?
   (a) G.R.A.
   (b) Township
   (c) Village

12. How many cars do you have at home?
   (a) None
   (b) One
   (c) More than one

13. Do you have a house servant?
   (a) None
   (b) One
   (c) More than one.

S P S S - - STATISTICAL PACKAGE FOR THE SOCIAL SCIENCES

VERSION 6.50 -- APRIL 1, 1976

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RUN NAME*       REWARD PREFER ENCES OF ZARIA PRIMARY PUPILS
FILE NAME       MUKERJI MUSA REWARD AND MOTIVE STUDY ONE
VARIABLE LIST   SEX,AGE,REL,TYPEFAM,FOCC,MOCC,FINC,MINC,/
                MEDUC,FEDUC,HOUSE,CARS,HOMEHELP,ADULTAPP,CONSUME,COMPETE,/
                INDEPEND,PEERAPP,MOTIVE
INPUT MEDIUM    CARD
SUBFILE LIST    SCHA (33) SCHB (33) SCHC (33) SCHD (33) SCHE (66)
                SCHF (33) SCHG (33) SCHH (33) SCHI (33) SCHJ (73)
INPUT FORMAT    FIXED(5X,3F1.0,2X,10F1.0,6F2.0)
```

ACCORDING TO YOUR INPUT FORMAT, VARIABLES ARE TO BE READ AS FOLLOWS

VARIABLE	FORMAT	RECORD	COLUMNS
SEX	F 1. 0	1	6- 6
AGE	F 1. 0	1	7- 7
REL	F 1. 0	1	8- 8
TYPEFAM	F 1. 0	1	11- 11
FOCC	F 1. 0	1	12- 12
MOCC	F 1. 0	1	13- 13
FINC	F 1. 0	1	14- 14
MINC	F 1. 0	1	15- 15
MEDUC	F 1. 0	1	16- 16
FEDUC	F 1. 0	1	17- 17
HOUSE	F 1. 0	1	18- 18
CARS	F 1. 0	1	19- 19
HOMEHELP	F 1. 0	1	20- 21
ADULTAPP	F 2. 0	1	21- 22
CONSUME	F 2. 0	1	23- 24
COMPETE	F 2. 0	1	25- 26
INDEPEND	F 2. 0	1	27- 28
PEERAPP	F 2. 0	1	29- 30
MOTIVE	F 2. 0	1	31- 32

E INPUT FORMAT PROVIDES FOR 19 VARIABLES. 19 WILL BE READ
PROVIDES FOR 1 RECORDS (*CARDS*) PER CASE. A MAXIMUM OF 32 *COLUMNS* ARE USED ON A RECORD.

```
VAR LABELS      SEX,SEX OF SUBJECT/AGE,AGE OF SUBJECT/
                REL,RELIGION OF SUBJECT/
                TYPEFAM,TYPE OF FAMILY/
                FOCC,FATHERS OCCUPN/MOCC,MOTHERS OCCUPN/
                FINC,FATHERS INCOME/MINC,MOTHERS INCOME/
                MEDUC,MOTHERS EDUCN/FEDUC,FATHERS EDUCN/
                HOUSE,TYPE OF HOUSE/CARS,NO OF CARS/
                HOMEHELP, NO OF SERVANTS/ADULTAPP,ADULT APPROVAL/
                CONSUME,CONSUMABLE REWARD/COMPETE,COMPETITIVE REWARD/
                INDEPEND,INDEPENDENCE REWARD/PEERAPP,PEER APPROVAL/
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                MOTIVE,ACHIEVEMENT MOTIVAGN
VALUE LABELS    SEX(1)MALE (2)FEMALE/AGE (1)VERY YOUNG (2)YOUNG
                (3)AVERAGE (4)OLDER/REL (1)ISLAM (2)CHRISTIAN
                (3)OTHERS/TYPEFAM
                (1)MONOGAM (2)POLYGAM/FOCC (1)CIVIL SERVANT (2)TEACHER
                (3)BUSINESS (4)UNEMPLOYED/MOCC (1)CIVIL SERVANT (2)TEACHER
                (3)BUSINESS (4)UNEMPLOYED/FINC TO MINC (1)ABOVE 7666
                (2)5833-7499 (3)3166-5833 (4)1666-3000 (5)UNDER 1666/MEDUC TO
                FEDUC (1)ABOVE SECONDARY (2)SECONDARY (3)PRIMARY (4)NONE/HOUSE
                (1)GRA (2)TOWN (3)VILLAGE/CARS (1)MORE THAN ONE (2)ONE
                (3)NONE/HOMEHELP (1)MORE THAN ONE (2)ONE (3)NONE
RECODE          AGE (1 THRU 2=1)(2 THRU 4=2)/REL (1 THRU 2=1)(3 THRU HIGHEST=2)/
                FOCC TO MOCC (1 THRU 3=1)(4 THRU 5=2)(6 THRU HIGHEST=3)/
                FINC TO MINC (1 THRU 3=1)(3 THRU 4=2)(4 THRU HIGHEST=3)/
                MEDUC TO FEDUC (1 THRU 2=1)(2 THRU 3=2)(3 THRU HIGHEST=3)/
                CARS TO HOMEHELP (1 THRU 2=1)(2 THRU HIGHEST=2)/
                ADULTAPP TO PEERAPP (LOWEST THRU 8=1)(8 THRU HIGHEST=2)/
                MOTIVE (LOWEST THRU 48=1)(48 THRU HIGHEST=2)
VALUE LABELS    AGE (1)CHILD (2)GROWNUP/REL (1)RELGIOUS (2)NONRELIGIOUS/
                FOCC TO MOCC (1)PROFESSIONAL (2)SELFEMPLOYED (3)NONE/
                FINC TO MINC (1)HIGH INCOME (2)MIDDLE INCOME (3)LOW INCOME/
                MEDUC TO FEDUC (1)EDUCATED (2) SEMI EDUCATED (3)NONE/
                CARS TO HOMEHELP (1)RICH (2) POOR/
                ADULTAPP TO MOTIVE (1)LOW (2)HIGH
*RUN SUBFILES   ALL
* CROSSTABS     TABLES=SEX TO HOMEHELP BY ADULTAPP TO MOTIVE
 OPTIONS        3
```

FILE MUKERJI (CREATION DATE = 79/05/16.) MUSA REWARD AND MOTIVE STUDY DA..
SUBFILE SCHA SCHB SCHC SCHD SCHE SCHF SCHG SCHH SCHI SCHJ

* C R O S S T A B U L A T I O N O F * * * * * * * * * * * * * * * * * * *
FOCC FATHERS OCCUPN BY MOTIVE ACHIEVEMENT MOTIVASN
* PAGE 1 OF 1

		MOTIVE		
	COUNT / ROW PCT / COL PCT / TOT PCT	LOW 1.	HIGH 2.	ROW TOTAL
FOCC				
1. PROFESSIONAL		19 8.1 65.5 4.7	218 92.7 58.3 54.1	237 58.8
2. SELFEMPLOYED		2 1.8 6.9 .5	111 98.2 29.4 27.5	113 28.0
3. NONE		8 14.8 27.6 2.0	46 85.2 12.3 11.4	54 13.4
COLUMN TOTAL		29 7.2	374 92.8	403 100.0

RAW CHI SQUARE = 9.84184 WITH 2 DEGREES OF FREEDOM. SIGNIFICANCE = .0073
CRAMER'S V = .15627
CONTINGENCY COEFFICIENT = .1544.
LAMBDA (ASYMMETRIC) = 0 WITH FOCC DEPENDENT. = 0 WITH MOTIVE DEPENDENT.
LAMBDA (SYMMETRIC) = 0
UNCERTAINTY COEFFICIENT (ASYMMETRIC) = .01423 WITH FOCC DEPENDENT. = .05177 WITH MOTIVE DEPENDENT.
UNCERTAINTY COEFFICIENT (SYMMETRIC) = .02245
KENDALL'S TAU B = -.0318 SIGNIFICANCE = .4985
KENDALL'S TAU C = -.03116 SIGNIFICANCE = .4985
GAMMA = -.09165
SOMERS'S D (ASYMMETRIC) = -.06137 WITH FOCC DEPENDENT.= -.03089 WITH MOTIVE DEPENDENT.
SOMERS'S D (SYMMETRIC) = -.04614
ETA SQRD = .02899 WITH FOCC DEPENDENT.
= .15627 WITH MOTIVE DEPENDENT.

AAYIADF. 73/05/16. ABUGC INTERACTIVE SYSTEM - V4.0.72

13.33.29.MUKERJI.
13.33.29. *

REWARD PREFER ENCES OF ZARIA PRIMARY PUPILS 73/05/16. PAGE 4

FILE MUKERJI (CREATION DATE = 73/05/16.) BOSS REWARD AND MOTIVE STUDY SEC
SUBFILE SCHA SCHB SCHC SCHD SCHE SCHF SCHG SCHH SCHI SCHJ

* C R O S S T A B U L A T I O N O F * * * * * * * * * * * * * * * * * * *
SEX SEX OF SUBJECT BY CONSUME CONSUMABLE REWARD
* PAGE 1 OF 1

CONSUME

SEX	COUNT / ROW PCT / COL PCT / TOT PCT	LOW	HIGH	ROW TOTAL
MALE	1.	134	83	217
		84.3	15.7	53.3
		61.3	96.5	
		49.4	30.6	
FEMAL	2.	123	43	166
		74.1	25.9	46.7
		38.2	50.1	
		31.5	11.7	
COLUMN TOTAL		322	91	413
		79.3	22.1	100.0

CORRECTED CHI SQUARE = 8.32311 WITH 1 DEGREE OF FREEDOM. SIGNIFICANCE = .0041
PHI = .12122
CONTINGENCY COEFFICIENT = .12034
LAMBDA (ASYMMETRIC) = .03512 WITH SEX DEPENDENT. = 0 WITH CONSUME DEPENDENT.
LAMBDA (SYMMETRIC) = .02404
UNCERTAINTY COEFFICIENT (ASYMMETRIC) = .1570 WITH SEX DEPENDENT. = .1445 WITH CONSUME DEPENDENT.
UNCERTAINTY COEFFICIENT (SYMMETRIC) = .1223
KENDALL"S TAU B = .12122 SIGNIFICANCE = .0079
KENDALL"S TAU C = .11964 SIGNIFICANCE = .0079
GAMMA = .29348
SOMERS"S D (ASYMMETRIC) = .24833 WITH SEX DEPENDENT. = .167 WITH CONSUME DEPENDENT.
SOMERS"S D (SYMMETRIC) = .21370
ETA SQRD = .12122 WITH SEX DEPENDENT.
= .12122 WITH CONSUME DEPENDENT.

FILE MUKERJI (CREATION DATE = 79/05/16.) NUSA REWARD AND MOTIVE STUDY 04E
SUBFILE SCHA SCHB SCHC SCHD SCHE SCHF SCHG SCHH SCHI SCHJ

* C R O S S T A B U L A T I O N O F *
MOCC MOTHERS OCCUPN BY CONSUME CONSUMABLE REWARD
* PAGE 1 OF 1

MOCC	CONSUME LOW	CONSUME HIGH	ROW TOTAL
1. PROFESSIONAL	96	21	117
	82.1	17.9	24.0
	29.8	25.9	
	23.8	5.2	
2. SELFEMPLOYED	44	22	66
	66.7	33.3	13.6
	13.7	27.2	
	10.9	5.4	
3. NONE	178	38	216
	82.4	17.6	44.4
	55.3	46.9	
	43.8	9.4	
COLUMN TOTAL	322	81	406
	79.3	20.2	100.0

RAW CHI SQUARE = 6.77672 WITH 2 DEGREES OF FREEDOM. SIGNIFICANCE = .0338
CRAMER"S V = .12968
CONTINGENCY COEFFICIENT = .1286
LAMBDA (ASYMMETRIC) = 0 WITH MOCC DEPENDENT. = 0 WITH CONSUME DEPENDENT.
LAMBDA (SYMMETRIC) = 0
UNCERTAINTY COEFFICIENT (ASYMMETRIC) = .02773 WITH MOCC DEPENDENT. = .01636 WITH CONSUME DEPENDENT.
UNCERTAINTY COEFFICIENT (SYMMETRIC) = .01928
KENDALL"S TAU B = -.03526 SIGNIFICANCE = .2622
KENDALL"S TAU C = -.02655 SIGNIFICANCE = .2622
GAMMA = -.06635
SOMERS"S D (ASYMMETRIC) = -.04136 WITH MOCC DEPENDENT. = -.03219 WITH CONSUME DEPENDENT.
SOMERS"S D (SYMMETRIC) = -.02888
ETA SQRD = .02351 WITH MOCC DEPENDENT.
= .12968 WITH CONSUME DEPENDENT.

FILE MUKERJI (CREATION DATE = 79/05/16.) NOS4 REWARD AND MOTIVE STUDY ONE
SUBFILE SCHA SCHB SCHC SCHD SCHE SCHF SCHG SCHH SCHI SCRJ

* C R O S S T A B U L A T I O N O F *
MOCC MOTHERS OCCUPN BY CONSUME CONSUMABLE REWARD
* PAGE 1 OF 1

		CONSUME		
	COUNT / ROW PCT / COL PCT / TOT PCT	LOW	HIGH	ROW TOTAL
		1.	2.	
MOCC				
1. PROFESSIONAL		96 / 82.1 / 29.4 / 23.8	21 / 17.9 / 25.9 / 5.2	117 / 29.0
2. SELFEMPLOYED		66 / 58.6 / 14.4 / 11.9	22 / 31.4 / 27.3 / 5.6	70 / 17.4
3. NONE		178 / 82.4 / 55.8 / 44.2	38 / 17.6 / 46.9 / 9.4	216 / 53.6
COLUMN TOTAL		322 / 79.9	81 / 20.1	403 / 100.0

RAW CHI SQUARE = 6.77672 WITH 2 DEGREES OF FREEDOM. SIGNIFICANCE = .0338
CRAMER"S V = .12968
CONTINGENCY COEFFICIENT = .1286.
LAMBDA (ASYMMETRIC) = 0 WITH MOCC DEPENDENT. = 0 WITH CONSUME DEPENDENT.
LAMBDA (SYMMETRIC) = 0
UNCERTAINTY COEFFICIENT (ASYMMETRIC) = .03273 WITH MOCC DEPENDENT. = .01636 WITH CONSUME DEPENDENT.
UNCERTAINTY COEFFICIENT (SYMMETRIC) = .01928
KENDALL"S TAU B = -.03526 SIGNIFICANCE = .2622
KENDALL"S TAU C = -.02655 SIGNIFICANCE = .2622
GAMMA = -.06635
SOMERS"S D (ASYMMETRIC) = -.04133 WITH MOCC DEPENDENT. = -.13219 WITH CONSUME DEPENDENT.
SOMERS"S D (SYMMETRIC) = -.02888
ETA SQRD = .02351 WITH MOCC DEPENDENT.
= .12968 WITH CONSUME DEPENDENT.

FILE MUKERJI (CREATION DATE = 79/05/16.) HOUSA REWARD AND MOTIVE STUDY DATA
SUBFILE SCHA SCHB SCHC SCHD SCHE SCHF SCHG SCHH SCHI SCHJ

* C R O S S T A B U L A T I O N O F *
HOUSE TYPE OF HOUSE BY INDEPEND INDEPENDENCE REWARD
* PAGE 1 OF 1

HOUSE	INDEPEND LOW	INDEPEND HIGH	ROW TOTAL
1. CRA	69	17	86
	79.1	2.3	21.3
	19.4	34.6	
	16.9	4.3	
2. TOWN	157	17	174
	90.2	9.8	42.2
	44.7	32.7	
	38.3	4.2	
3. VILLAGE	125	17	143
	88.1	11.9	35.5
	35.4	32.7	
	31.5	4.2	
COLUMN TOTAL	351 87.1	52 12.9	403 100.

RAW CHI SQUARE = 6.58182 WITH 2 DEGREES OF FREEDOM, SIGNIFICANCE = .0372
CRAMER"S V = .1276
CONTINGENCY COEFFICIENT = .1267
LAMBDA (ASYMMETRIC) = .0 437 WITH HOUSE DEPENDENT. = 0 WITH INDEPEND DEPENDENT.
LAMBDA (SYMMETRIC) = .0356
UNCERTAINTY COEFFICIENT (ASYMMETRIC) = .0177 WITH HOUSE DEPENDENT. = .01348 WITH INDEPEND DEPENDENT.
UNCERTAINTY COEFFICIENT (SYMMETRIC) = .01637
KENDALL"S TAU B = -.1781 SIGNIFICANCE = .161
KENDALL"S TAU C = -.15594 SIGNIFICANCE = .061
GAMMA = -.18458
SOMERS"S D (ASYMMETRIC) = -.12355 WITH HOUSE DEPENDENT.= -.34329 WITH INDEPEND DEPENDENT.
SOMERS"S D (SYMMETRIC) = -.19417
ETA SQRD = .08362 WITH HOUSE DEPENDENT.
= .12796 WITH INDEPEND DEPENDENT.

REWARD PREFERENCES OF ZARIA PRIMARY PUPILS

FILE MUKERJI (CREATION DATE = 79/05/16.) MUSA REWARD AND MOTIVE STUDY ON
SUBFILE SCHA SCHB SCHC SCHD SCHE SCHG SCHH SCHI SCHJ

* * * * * * * * * * * * * * * * * * C R O S S T A B U L A T I O N O F * * * * * * * * * * * * * * * * * * *
BY PEERAPP PEER APPROVAL
CAPS NO OF CAPS PAGE 1 OF 1
* *

PEERAPP

CAPS	COUNT / ROW PCT / COL PCT / TOT PCT	LOW 1.	HIGH 2.	ROW TOTAL
RICH	1.	174	69	243
		71.4	28.6	57.1
		61.3	47.7	
		44.2	17.5	
POOR	2.	110	76	182
		60.4	39.6	42.9
		38.7	52.3	
		27.9	19.3	
COLUMN TOTAL		284 72.7	145 27.3	425 100.0

CORRECTED CHI SQUARE = 8.33257 WITH 1 DEGREE OF FREEDOM. SIGNIFICANCE = .003
PHI = .1213.
CONTINGENCY COEFFICIENT = .1210
LAMBDA (ASYMMETRIC) = .03468 WITH CAPS DEPENDENT. = .0000 WITH PEERAPP DEPENDENT.
LAMBDA (SYMMETRIC) = .0212.
UNCERTAINTY COEFFICIENT (ASYMMETRIC) = .01140 WITH CAPS DEPENDENT. = .01047 WITH PEERAPP DEPENDENT.
UNCERTAINTY COEFFICIENT (SYMMETRIC) = .01092
KENDALL'S TAU B = .1213. SIGNIFICANCE = .003
KENDALL'S TAU C = .11600 SIGNIFICANCE = .003
GAMMA = .26644
SOMERS'S D (ASYMMETRIC) = .13479 WITH CAPS DEPENDENT. = .12147 WITH PEERAPP DEPENDENT.
SOMERS'S D (SYMMETRIC) = .12143
ETA SQRD = .1213. WITH CAPS DEPENDENT.
= .12130 WITH PEERAPP DEPENDENT.

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VOGELBACK COMPUTING CENTER
NORTHWESTERN UNIVERSITY

S P S S - - STATISTICAL PACKAGE FOR THE SOCIAL SCIENCES

VERSION 6.50 -- APRIL 1, 1976


                RUN NAME        REWARD PREFERENCES OF ZARIA PRIMARY PUPILS
                FILE NAME       MUKERJI MUSA REWARD AND MOTIVE STUDY ONE
                VARIABLE LIST   SCHOOL,SUBJECT,SEX,AGE,REL,TYP_FAM,FOCC,MOCC,FINC,MINC/
                                MEDUC,FEDUC,HOUSE,CARS,HOMEHELP,ADULTAPP,CONSUME,COMPETE,/
                                INDEPEND,PEERAPP,MOTIVE
                INPUT MEDIUM    CARD
                SUBFILE LIST    SCHA (33) SCHB (33) SCHC (33) SCHD (33) SCHE (66)
                                SCHF (33) SCHG (33) SCHH (33) SCHI (33) SCHJ (75)
                INPUT FORMAT    FIXED(F2.0,F3.1,3F1.0,2X,10F1.0,6F2.0)


                ACCORDING TO YOUR INPUT FORMAT, VARIABLES ARE TO BE READ AS FOLLOWS

                VARIABLE  FORMAT  RECORD    COLUMNS

                SCHOOL    F 2. 0      1     1-  2
                SUBJECT   F 3. 1      1     3-  5
                SEX       F 1. 0      1     6-  6
                AGE       F 1. 0      1     7-  7
                REL       F 1. 0      1     8-  8
                TYPEFAM   F 1. 0      1    11- 11
                FOCC      F 1. 0      1    12- 12
                MOCC      F 1. 0      1    13- 13
                FINC      F 1. 0      1    14- 14
                MINC      F 1. 0      1    15- 15
                MEDUC     F 1. 0      1    16- 16
                FEDUC     F 1. 0      1    17- 17
                HOUSE     F 1. 0      1    18- 18
                CARS      F 1. 0      1    19- 19
                HOMEHELP  F 1. 0      1    20- 20
                ADULTAPP  F 1. 0      1    21- 22
                CONSUME   F 2. 0      1    23- 24
                COMPETE   F 2. 0      1    25- 26
                INDEPEND  F 2. 0      1    27- 28
                PEERAPP   F 2. 0      1    29- 30
                MOTIVE    F 2. 0      1    31- 32

THE INPUT FORMAT PROVIDES FOR  21 VARIABLES.   21 WILL BE READ
  PROVIDES FOR  1 RECORDS (*CARDS*) PER CASE.  A MAXIMUM OF   32 *COLUMNS* ARE USED ON A RECORD.

                VAR LABELS      SCHOOL,SCHOO OF SUBJECT/SEX,SEX OF CHILD/AGE,AGE OF SUBJECT/
                                REL,RELIGION OF SUBJECT/
                                TYP_FAM,TYPE OF FAMILY/
                                FOCC,FATHERS OCCUPN/MOCC,MOTHERS OCCUPN/
                                FINC,FATHERS INCOME/MINC,MOTHERS INCOME/
                                MEDUC,MOTHERS EDUCN/FEDUC,FATHERS EDUCN/
                                HOUSE,TYPE OF HOUSE/CARS,NO OF CARS/
                                HOMEHELP, NO OF SERVANTS/ADULTAPP,ADULT APPROVAL/
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                                CONSUME,CONSUMABLE REWARD/COMPETE,COMPETITIVE REWARD/
                                INDEPEND,IND_PENDENCE REWARD/PEERAPP,PEER APPROVAL/
                                MOTIVE,ACHIEVE MENT MOTIVATN
                VALUE LABELS    SCHOOL(1)SCHOOL A(2)SCHOOL B(3)SCHOOL C(4)SCHOOL D
                                (5)SCHOOL E(6)SCHOOL F(7)SCHOOL G(8)SCHOOL H(9)SCHOOL I
                                (1.)SCHOOL J/SEX(1)MALE(2)FEMALE/AGE(1)VERY YOUNG(2)YOUNG
                                (3)AVERAGE (4)OLDER/REL (1)ISLAM (2)CHRISTIAN
                                (3)OTHERS/TYP_FAM
                                (1)MONOGAM (2)POLYGAM/FOCC (1)CIVIL SERVANT (2)TEACHER
                                (3)BUSINESS (4)UNEMPLOYED/MOCC (1)CIVIL SERVANT (2)TEACHER
                                (3)BUSINESS (4)UNEMPLOYED/FINC TO MINC (1)ABOVE 7500
                                (2)5000-7500 (3)3500-5000 (4)2000-3500 (5)UNDER 2000/MEDUC TO
                                FEDUC (1)ABOVE SECONDARY (2)SECONDARY (3)PRIMARY (4)NONE/HOUSE
                                (1)GRA (2)TOWN (3)VILLAGE/CARS (1)MORE THAN ONE (2)ONE
                                (3)NONE/HOMEHELP (1)MORE THAN ONE (2)ONE (3)NONE
                PRINT FORMATS   SCHOOL TO MOTIVE(1)
                COMPUT          SES=(FOCC+MOCC+MEDUC+FEDUC+HOUSE+CARS)/6
                RECODE          AGE (1 THRU 2=1)(3 THRU 4=2)/REL (1 THRU 2=1)(2 THRU HIGHEST=2)/
                                ADULTAPP TO PEERAPP (LOWEST THRU 0=1)(0 THRU HIGHEST=2)/
                                MOTIVE (LOWEST THRU 40=1)(41 THRU HIGHEST=2)
                RECODE          SES (LOWEST THRU 1.34=1)(1.34 THRU 2.67=2)(2.67 THRU HIGHEST=3)
                VALUE LABELS    AGE (1)CHILD (2)GROWNUP/REL (1)RELIGIOUS (2)NON-RELIGIOUS/
                                ADULTAPP TO MOTIVE (1)LOW (2)HIGH
                VAR LABELS      SES,SOCIO ECONOMIC STATUS
                VALUE LABELS    SES(1)UPPER (2)MIDDLE (3)LOWER
                RUN SUBFILES    ALL
                CROSSTABS       TABLES=SES BY ADULTAPP TO MOTIVE
                OPTIONS         3
                STATISTICS      ALL
                CONTINUE DATA
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