RELATIONSHIPS OF SOCIOECONOMIC STATUS, SELF-CONCEPT AND PERSONALITY TO ACADEMIC ACHIEVEMENT OF STANDARD 7 PUPILS IN PHOKENG AREA OF BOPHUTHATSWANA.

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A B S T R A C T

The researcher attempted to explore relationships of socioeconomic background, self-concept and personality to academic attainment of Std. 7 school children at a middle school in Phokeng area of Bophuthatswana. The research problem arose because the current literature indicates that in addition to cognitive variables there are some noncognitive variables which influence academic achievement of school children. Among the identified noncognitive variables, socioeconomic background, self-concept and personality are prominent ones. The question arose: Do these variables also affect the achievement of an African child whose social, economic and educational background is very much different from a Western child? To find the answer of this question and to provide cross-cultural data, an empirical study was designed and carried out at a middle school in Phokeng area of Bophuthatswana. One hundred and seventy two Std.7 children participated in the study. They completed the scales to assess their socioeconomic background, academic self concept, and Eysenck's three personality dimensions (extraversion-introversion, neuroticism, and psychoticism). Their academic attainment scores for English, Setswana, Afrikaans, mathematics and Biology were collected from the shcool record. The data were analyzed by computing intercorrelations between the above mentioned variables. The results indicated that there is a significant negative relationship between socioeconomic background and psychoticism. This means that children from affluent homes are less considerate as compared with those from lower backgrounds. In addition to the above finding, high coefficients of correlation between the achievement scores of three languages were found and these results were consistent for both male and female subjects.

It should be pointed out here that this implies that a child with high achievement in Setswana is very likely to have high achievement in English and Afrikaans. As far as the original aims of the study were concerned, the researcher's hypotheses were not supported. The studied noncognitive variables did not consistently and significantly relate to academic attainment. This study was very limited in terms of a small sample drawn from only one middle school.

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CHAPTER ONE

1. INTRODUCTION

1.1 Background of Problem

This researcher has been teaching at a middle school in Phokeng area of Bophuthatswana for several years. It is her observation that academic attainments of this school had been quite low and it remained the concern of all teachers to look for possible reasons. It is now an established fact that intellectual abilities of school children are significantly related to their academic attainment. Recently, Eysenck (1990) pointed out that teachers are not yet aware that in addition to intelligence, personality and associated variables, such as self-concept, also play very significant role in school performance. A student may be very intelligent but his academic performance does not match with his level of intelligence. This researcher therefore became interested in examining whether or not personality variables are associated with academic attainment of Std 7 children of a middle school in Phokeng area of Bophuthatswana. In addition to personality variables, several researchers (Goleman, 1988; White, 1982) demonstrated that socioeconomic status of children tend to influence their academic performance. This study also looked into the association of socioeconomic background with academic attainment.

1.2 Self-concept

According to Marsh (1988), a positive self-esteem is valued as a desirable outcome in many educational settings and is frequently posited as a mediating variable that facilitates the attainment of other desired outcomes such as academic achievement. Marsh et al (1988) found that academic self-concept is significantly correlated with school grades in all school subjects and other academic behaviours. According to the self-enhancement model, self-concept is perhaps a primary determinant of academic achievement. In contrast, the skill development model posits that academic self-concept is primarily a consequence of academic achievement.

Calsyn and Kenny (1977) then proposed the method of cross-lagged panel correlation to ascertain which of the two variables, academic self-concept or academic attainment was causally predominant. The results showed a reasonably consistent predominance of academic achievement over academic self-concept in a variety of comparisons, thus supporting the skill enhancement model.

Staines (in Harrison 1971) held the view that the need to maintain a positive self-image is a strong motivator and the self is an integrating factor in personality.

Cattell (1950) considered the self as the fourth factor in the economy of the personality, the keystone of personality integrating the Id, Ego and Superego into one dynamic structure. Lewin (in Harrison 1971) regarded the self as a consistent factor of human personality. The self is in fact largely influenced by home and school environments.

The image pupils create of themselves and the self-value or esteem generated from this image affects their approach to learning and their levels of performance in solving their life's problems. The conceptions which we hold of ourselves as a result of interaction with significant others and which influence our behaviour are known collectively as the self-concept. Confidence in oneself and the need for respect from others are felt to be crucial in providing a base for intellectual pursuits (Harrison 1971). In Maslow's theory of motivation, a prominent position is given to self-esteem and self-actualization. THe studies conducted by Brookover et al (1967) showed a positive relationship between self-concept of academic ability and achievement. The higher the self-concept of academic ability, the higher is academic achievement and changes in self-concept correspond with changes in achievement. Teachers therefore have an important part to play in establishing positive and realistic self-concepts in their pupils. Bloom (1965) was also of the opinion that academic self-concept is the strongest of the affect measures in predicting school achievement. The teacher's role as a therapist is therefore to provide an atmosphere of trust and understanding, a "sympathetic climate".

1.3 Socioeconomic Status

Pupils from poor socioeconomic background may strive to improve their socioeconomic status through achievement motivation but several socioeconomic indices such as parental education, occupation, income and the living conditions may influence their achievement. Parents from well-to-do families set higher standards for positions in the society in future but this in most instances leads to the failure of many students. Looking deeply at the relationship between achievement motivation and academic achievement, one finds that academic achievement depends mainly on the ability and the intelligence of the individual. The highest academic attainment is seen in those who possess both high intelligence and a strong achievement motivation (Harrison 1971).

Goleman (1988) and White (1982) suggested that students of high socioeconomic status showed higher average levels of achievement on test scores, received better grades and stayed in school longer than students of low socioeconomic status. When the relationship between socioeconomic status and achievement was measured only in terms of parents' education, occupation and income, the relationship became weaker but when socioeconomic status was measured in terms that included family atmosphere variables such as parents' attitudes towards education, their aspirations for their children or the intellectual activities of the family, then the correlation became stronger (White 1982).

Children with poor socioeconomic status tend to have lower school achievement. This can be explained in terms of limited resources, poor health care for the mother and child, family stress, discrimination, interruptions in schooling. Garcia (1991) noted that because students from poor socioeconomic background wore old clothes, spoke ungrammatically because they were less familiar with books and school activities, other students and teachers assumed that those students were not bright. Teachers avoided calling on them in the classroom to protect them from the embarrassment of wrong answers they could give. That made children to believe that they were not very good at school work.

Many children from poor families dropped out of school and believed that it was impossible to advance in the mainstream by doing well in school (Goleman 1988). Researchers such as Ogbu (1987) found out that low-socioeconomic status students were part of a resistance culture group. To maintain their status and identity within the group, they were to reject the behaviours that would make them successful in school such as studying and cooperating with their teachers. Lower achievement of many students from poor socioeconomic backgrounds was due to the fact that they experienced a different academic socialization. They were taught to memorize and their classes were dominated by teachers.

1.4 Personality

Personality includes the combination of a person's thinking, feeling and acting. It is the state of being a person and not an abstraction. Warburton (1968) undertook the most comprehensive survey of researches into the correlates of scholastic attainment and personality traits. He used age groups of 5-11, 12-14, 15-17 and 18 upwards so as to correspond roughly with primary, secondary, sixth form and university age ranges. In his findings common to most high achievers was the likelihood of their being more intelligent, serious, conscientious, immaginative, self-assured, self-sufficient and self-controlled. Successful younger students of primary and early secondary age tended to be outgoing, stable, conforming, socially bold and tough-minded while older students who attained well appeared to be more reserved, emotional, excitable, competitive, shy, tender-minded and unfrustrated than other students.

The thoroughly introverted character who was timid and docile would hardly stand a chance in the competitive world of universities. This made the researcher to be curious to know whether there was any relationship between personality and academic performance of standard seven pupils of Matale Middle School.

1.5 Aims of this study

This study aimed at examining relationships of self-concept, socioeconomic status and some personality characteristics of Std. 7 pupils at Matale Middle School in Bophuthatswana to their academic attainment.

1.6 Definitions of terms

1.6.1 Self-concept

According to Coopersmith in Mussen (1983), self-concept is a personal judgment of worthiness that is expressed in the attitudes the individual holds toward himself. Mwamwenda (1987) explained self-concept as a person's

> way of perceiving himself which may be either positive or negative.

1.6.2 Socioeconomic Status was defined by Webster (1976) as a combination of social and economic factors such as income and social position of the family.

1.6.3 Personality

Meyer et al (1989) defined personality as the totality of all the physical, psychological and spiritual characteristics which determine the behaviour of an individual.

Hurlock (1980) aligned herself with them when saying personality is the sum of what a person is, why he is the way he is, the way he appears and the way he is interpreted by others. Eysenck (1990) suggested three dimensions of personality and constructed the scales to take measures of these dimensions. Eysencks's personality-dimensions are: introversion-extroversion emotional stability and psychoticism. For this study Eysenck's three dimensions will be correlated to measures of academic attainment.

1.7 Significance of the study

The study would indicate the extent to which some noncognitive and personality variables contribute to scholastic achievements of middle school children. Its results may assist teachers in understanding the reasons for underachievement of some school children.

1.8 Limitations

This study was limited to only one middle school in Bophuthatswana. Hence, generalizations may not be possible unless the results are confirmed by some other similar studies. The instruments used in this study to take measures of self-concept, socioeconomic status and personality may depict a false picture because the chances of faking were quite high.

CHAPTER TWO

2. REVIEW OF LITERATURE

The literature review focused on the following variables and how they influenced academic achievement of school children: socioeconomic background, personality and self-concept.

2.1 Socioeconomic background

McConnel (1974) pointed out that a pupil from a poor socioeconomic background may not perform well at school because whenever the body is deprived of something necessary for life, an urge or desire for that "thing" builds up that drives the organism to hunt for what it needs. However, there are some students, though few in number, whose school performances and home backgrounds are not consistent with the above idea. According to Harrison (1971), the presence of these inconsistent students can be detected in the research which has dealt with the nature of the relationship between home background and performance in school.

After an extensive survey of research literature on socioeconomic background and academic achievement, Bloom et al, (1965) concluded that the majority of the studies concerning the relationship between home background and school performance resulted in significant and positive correlations (which ranged

between 0.30 and 0.50) between sociological indices of home background and assorted measures of school achievement. Getzels (in Harrison, 1971) summarized that advantaged students tended to be successful at school and showed positive attitudes towards education.

Attitudes towards education are thought to be related primarily to both home background and school performance. Advantaged students have higher positive attitudes towards education than those who are less advantaged (Hieronymus, 1951, Charters 1953); and successful students have also been found to have the same attitudes than non-successful students (Harrison 1971).

Mannino (1962) reported that, with socioeconomic status controlled, staying on at school after the minimum leaving age related positively to parental encouragement and academic achievement. Children do better at school if their parents are interested in their progress but when their parents are not interested they show lower achievement scores. A supportive, democratic family life which encourages the development of personal confidence and satisfaction (with values which are accepted rather than imposed) can be seen as a stimulating environment which relates in a linear fashion to the need for educational achievement and hence educational success.

According to Seligman (1942), some students from poor socioeconomic backgrounds have learned helplessness and thus expect to perform badly in their school activities.

These students can be helped by breaking down tasks into activities that will help them to be successful, by providing immediate feedback about their performance, and by demonstrating consistent expectations of them. These students should not have external locus of control but internal locus of control, work hard in order to succeed, assume responsibility for their own work, and this may make them believe that they are responsible for their own success. Maslow (1970), on the other hand, pointed out that sustenance and physical comfort are crucial to a student's academic performance. Hungry and thirsty pupils from poor socioeconomic backgrounds may spend fruitless energy trying to learn. The learning of children who come from families where these needs are not satisfied can suffer a great deal.

2.2 Self-concept and academic achievement

A pupil with a positive self-concept stands a better chance of performing well than a pupil with a negative self-concept. Reck (1980) pointed out that educators have become increasingly interested in the ability of schools to enhance student self-concept, either as a means to the end of academic achievement or as an educational end in itself.

From the point of view of humanistic psychology, as expounded by Maslow (1954) and Roger (1969), the importance of self-concept cannot just be restricted to achievement, since 'A positive self-concept is viewed as the hall-mark not only of academic

achievement but more broadly, of the healthy person' Reck (1980).

Numerous studies, linking self-concept and academic achievement in subjects such as mathematics, languages and examination performance, have been carried out. Omizo et al (1981) carried out a study with a sample of 296 Mexican - American standard seven students. The purpose of the study was to relate students' self-concept and their performance in total language, total mathematics and their composite scores on the Iowa Tests of Basic skills. The study showed that more male subjects (168) than female subjects (128) had a high level of self-concept and that performance on the tasks was positively linked with self-concept. Similar results were reported by Wolf and Blix (1981) in their study of 2429 subjects drawn from standard 1 to standard 8. Their findings suggested that a pupil's attitude to mathematics serves as a predictor of his performance in maths. A pupil with a positive self-concept was more likely to have a positive attitude toward mathematics which would lead to higher maths performance. The findings of several other researchers (Bandura, 1977; Bloom 1976; Bolles, 1978) suggested that the self-concept is one of the predictors of academic achievement.

The relationship between self-concept and academic performance gained further support from research carried out in Africa. In Uganda, Hyneman (1979) conducted a research with 2293 randomly selected standard seven pupils from five districts in Uganda.

He found that the level of self-confidence was related to their school achievement in the areas of mathematics, English and general knowledge, irrespective of sex, ethnic group and district.

Maqsud (1983) conducted a study with 80 boys, chosen from a secondary school in Nigeria. According to his findings, self-concept was significantly related to better performance in Mathematics and English. He further observed that a change in self-concept meant a similar change in academic performance.

Mwamwenda and Mwamwenda (1989) proposed self-concept as one of the variables that contribute to quality education. The main objective of their research was to establish whether in the context of Botswana a pupil's self-concept could be used as a predictor of his or her academic achievement at the end of the seven-year period of primary education. The relationship of the two variables was to be examined on the basis of a pupil's overall performance as well as his or her performance in maths, English, Science and Social Studies. The sample consisted of 2559 standard seven pupils selected from 51 schools, covering every district of Botswana. The results indicated that there was a relationship between a pupil's self-concept and his or her performance in the final examinations.

Pupils with higher self-concepts performed significantly better than pupils with lower self-concepts. The hypothesis of the research was thus supported, confirming that a pupil's self-concept can serve as a reliable predictor of his or her future academic achievement.

Wylie (1979) reviewed numerous studies in which achievement test scores were related to self-regard in children. She found that the correlations tended to range from 0.10 to 0.50. When the self concept measures involved skills more specific to one's academic performance, then these correlations tended to be higher. Purkey (1970) concluded that enhancing the self-concept has a vital role to play in improving academic performance. Coleman et al (1966) suggested that the desegregation of the schools may enhance the self-esteem of minority children, which in turn would result in their improved academic achievement.

Recently, on testing causal models of the relationship between self-esteem and achievement, Bachman and O'Mally (1977) examined the relation between the self-esteem of high school males and their post-high school educational and occupational achievement. Even though they found no evidence that high school self-esteem bore any causal relationship to subsequent occupational attainment, their data suggested that academic ability and achievement exerted a causal influence on their occupational attainment.

In examining the causal relationship between achievement and self-concept, Calsyn and Kenny (1977) employed a cross-lagged panel correlation technique and their measures included self-concept of ability, student's perception of the evaluations of parents, teachers and friends, as well as grade-point average which was the major index of achievement. The results were more supportive of a skill development model in which academic achievement was causally predominant over self-concept of ability as well as perceived evaluation of others.

According to Rogers (in Morgan 1986), self-concept refers to the 'picture' which the person has of, and the value he attaches to, himself and how he sees and judges himself in the areas of appearance, ability, talents, motives, goals, ideals and social interactions. Intrinsic to Roger's self-concept theory is an essential faith in the individual's constructive potential, fundamentally goal-directed, nature, progressiveness and ability to change. The individual person is the central figure in the actualization of his own potential, the environment only plays a facilitating or inhibiting role. Here potential is actualized or realised in an atmosphere in which the individual is unconditionaly accepted for what he is and feels free to develop without external restrictions.

Coopersmith (in Mussen 1983) reported that the parents of children with high self-esteem, in contrast with parents of children with low self-esteem, set high standards for competence and obedience, and consistently enforce these standards.

In addition, they foster a democratic style of family decision-making in which children participate and are allowed to question parental viewpoints. Parental control is exercised in such a way that it appears fair and reasonable to the child. High parental control, on the contrast, implies lack of trust in the child and hence fails to foster the child's self-esteem. In self-esteem, the focus shifts to the value or worth that people attach to the self-descriptors.

How does the "I" evaluate the components as well as the totally of the the "Me"? According to Rosenberg (1979), self-esteem implies self-acceptance, self-respect and feeling of self-worth.

2.3 Personality (General)

Personality has been defined differently by various researchers. Meyer (1989) defined personality as the constantly changing but nevertheless relatively stable organisation of all physical, psychological and spiritual characteristics which determine an individual's behaviour in interaction with the environment. Mischel (in Meyer 1989) explained that personality consisted of distinctive patterns of behaviour that characterize each individual's adaptation to the situation of his or her life. Allport (1989), suggested that personality is the dynamic organisation within the individual of those psychophysical systems that determine his characteristic behaviour and thought.

Allport (1989) emphasized that the individual's attributes are hierarchically arranged and that the structure, function and development of the personality can only be seen as the result of integration and organization. He also stressed that this organization is constantly changing because of forces within the individual, such as motivation, habits and ideas as well as environmental factors.

According to Bulmer (1977) parental behaviour can have a great effect on children's academic performance. In the authoritarian pattern, the demands of parents on their children are not balanced by their acceptance of demands from their children. Assertive parents place strict limits on allowable expression of children's needs. Children are expected to inhibit their begging and demanding, parents attach strong value to the maintenance of their authority and suppress any effort their children make to challenge it. When children deviate from parental requirements, severe punishment is likely to be employed and this disturbs the child mentally, affects the personality development of the child negatively and may thus lead to poor academic performance.

The findings of some earlier studies of Baldwin (1954) identified two major dimensions of home discipline which emerged as predictive of children's characteristics and they are, the democratic/autocratic dimension and the permissive/controlling dimension.

The findings were as follows: children of autocratic parents were low in social interactions, tended to be obedient, were neither quarrelsome nor resistive, were dominated by their peers and lacked spontaneity, affection, curiosity and originality. In Baumrind and Black (1967)'s study, it was found that a group of children who were unhappy and socially withdrawn tended to have parents who fit the authoritarian pattern. These children showed little independence, and obtained middle-range scores on social responsibility. Children from a high socioeconomic standing were found being happy and free at socializing, were competent, and had positive loadings on setting standards and striving to meet them, liked and responded positively to intellectual challenge, and also showed originality in thought and had a clear sense of identity (Mussen 1983).

Erikson (1963) saw personality as the integration of all our traits, abilities and motives as well as our temperament, attitudes, opinions, beliefs, emotional responses, cognitive styles, character and morals. Both parents and teachers have an important task of helping the child who is in a period of establishing a sense of identity. The inability to come to an understanding of self or lack of identity, leads to confusion and poor academic performance. On the other hand, a healthy resolution of this crisis leads to have confidence and a sense of security which may help the child to carry out school activities well.

2.4 Eysenck's personality dimensions and academic achievement

When trying to prove whether there is any direct relationship between personality and school achievement, as there is between ability and school achievement, the evidence strongly supports the view that high scores on tests for neuroticism nearly always work against scholastic achievement even though the relation seems to be inverted for the youngest groups. Leith (1972) illustrated the relationships observed at three ages, i.e. at 12-13 years, at 13-14 years and at student level. For college and univeristy students, high neuroticism scorers tend to have lower achievement scores. Eysenck (1990) concluded that except in the primary school, neuroticism works against scholastic achievement of students in secondary school, at college and university levels.

As far as secondary school and university education are concerned, high extraversion scorers seem to be handicapped as compared with low extraversion scorers. High extroversion scorers in primary school seem to do well (Eysenck and Cookson 1969). The correlations between personality and scholastic achievement are more marked in higher reaches of secondary education and at university than in the lower reaches of secondary education. At the university level, personality may provide higher prediction of scholastic achievement than intelligence because selection procedures reduce the range of IQ among students (Wankowski 1973).

Neuroticism is nearly always a disadvantage and introversion an advantage as far as scholastic achievement is concerned. The high neuroticism scorer worries about his work, suffers from examination anxiety and lets his 'nerves' interfere with his studies. The extrovert socialises instead of concentrating on his work, seeks non-academic outlets such as sport for his energies and has difficulty in concentrating (Eysenck and Eysenck 1985).

Using the extroversion (E) and neuroticism (N) dimensions of Eysenck it would seem that certain extravert qualities are advantageous in primary and early secondary school. Whereas introvert qualities come into prominence more and more as one proceeds through the educational system, introverts conform more and this is an advantage in formal classroom settings. Older high attaining students are similarly serious and self-sufficient but they differ from younger students in showing the introvert qualities of being aloof and socially withdrawn, helpful for the studious (Eysenck and Eysenck 1985).

2.5 Summary

The main objective of this study was to examine the relationships of socioeconomic status, self-concept and personality to academic achievement of standard 7 pupils in Phokeng area of Bophuthatswana. Some literature on socioeconomic background showed that there is a positive relationship between socioeconomic status and academic achievement.

Advantaged students have higher positive attitude towards education than those who are less advantaged. The findings of other researchers however showed inconsistency between the two variables.

Several researchers generally suggested that pupils with good self-concepts performed significantly better than pupils with poor self-concepts. Many researchers found out that the inability to come to an understanding of self leads to confusion and poor academic performance. The pupils should be helped to develop healthy and integrated personalities.

CHAPTER THREE

3. METHODOLOGY

3.1 Introduction

The main purpose of this investigation was to examine the relationships of socioeconomic background, academic self-concept and Eysenck's personality dimensions to academic achievement of Bophuthatswana middle school pupils.

3.2 Variables Studied The following variables were involved in this study: self-concept of academic ability, socioeconomic background, extroversion, neuroticism, psychoticism and achievement in Setswana, Afrikaans, English, mathematics and biology.

3.3 Hypotheses

3.3.1 Estimates of socioeconomic background are significantly positively associated with measures of academic achievement of standard 7 pupils in Phokeng area of Bophuthatswana.

3.3.2 Measures of academic self-image and self-concept of academic ability are significantly positively related to academic achievement scores of standard 7 pupils in Phokeng area of Bophuthatswana.

3.3.3 Extroversion, neuroticism and psychoticism are significantly negatively related to academic achievement of standard 7 pupils in Phokeng area of Bophuthatswana.

3.4 Sample

Out of the population of all the standard seven middle school pupils in Phokeng area of Bophuthatswana, one hundred and seventy two standard seven pupils of Matale Middle School in Phokeng were randomly selected by the researcher as the sample of the study. The distribution of the sample is given below.

School	Boys	Girls	
Matale	74	98	Total 172

The ages of both boys and girls ranged from thirteen to nineteen years.

3.5 INSTRUMENTS

3.5.1 Socioeconomic Background Questionnaire (SBQ)

A short Socioeconomic Background Questionnaire (SBQ) in which the subjects were required to supply information on their parents' occupational and educational background as well as on some economic facilities available, such as means of transport for the family, was constructed by Maqsud (1992).

Educational backgrounds of the subjects' fathers and mothers were classified into five levels of formal education: no formal schooling, primary schooling, secondary schooling, college education and university. These levels of education were quantified by using a 5-point (1-5) scale for each parent.

Parental occupations were classified into six groups: labourer, messenger/cleaner, semi-skilled worker, junior professional worker, intermediate professional worker and super professional worker. A 6-point scale was used to quantify occupational information for each parent. The subjects were also asked to provide information on means of transport for the family; the following modes of transport were given: nothing, bicycle, motor bike, one car and two cars. Modes of transport were quantified by using a 4-point (0-4) scale.

The SBQ also containded three items requiring the subjects to give information as to whether or not their families own a TV, a VCR and whether the family lives in its own house. A positive response to each of the three items carried a numerical score of one whereas a negative response carried zero. The minimum and maximum scores on SBQ could be 4 and 29, respectively. For full details of the SBQ, see Appendix No.1.

3.5.2 Self-concept of Academic Ability Scale

Brookover (1967) Self-concept of Academic Ability Scale (BSCAAS) focuses upon the self in the school context, more specifically on school learning. The BSCAAS is used in a shorter version containing six items.

Each item requires the subject to compare himself/herself with others on the dimensions of academic ability in an expanding system of social relationships starting with his/her close friends moving beyond the bounds of school setting (Cohen 1976). For illustration purposes, instructions and one item of the BSCAAS are reproduced below (Maqsud 1993).

"Put a tick in the box next to the statement below which best shows how you see yourself. Put only one tick against one statement in each section".

1. How do you rate yourself in school ability compared with others in your class at school?

I am the best ☐

I am above average ☐

I am average

I am below average

I am the poorest

The items were scored 5 to 1 with higher self-concept alternatives (I am the best = 5, I am above average = 4) receiving higher values and lower self-concept alternatives (I am below average = 2, I am the poorest = 1), receiving lower scores. The scores on the BSCAAS could range from 30 (which reflects good academic self-concept) to 6 (reflecting a poor academic self-concept). The shorter 6-item version of the BSCAAS had been used for the sample of children taken from Matale Middle School in Bafokeng region of Bophuthatswana. The full scale is given in Appendix No.2.

3.5.3 Academic Self-Image Scale

Another scale which gives measures of academic self-concept was constructed by Barker-Lunn (1970). The Barker Lunn (1970) Academic Self-Image Scale (BLASIS) contains 9-items and is suitable for primary, middle and high school children.

It has high internal consistency (alpha-coefficient = .88) as reported by Barker-Lunn. Each item is followed by three responses and subjects are expected to choose one out of three alternatives. Three items of the BLASIS are given here as examples.

1. I am useless at school work. Never Sometimes Yes Often

2. I sometimes think I am no good at anything Yes Not sure False

3. I do not seem to be able to do anything well at school Yes Not sure No

For full scale, see Appendix No.3. A 3-point (2-0 or 0-2) scale is used to score responses of each item. The scores on the BLASIS range from 18 (reflecting good academic self-image) to 0 (poor-academic self-image).

3.5.4 The Junior Eysenck Personality Questionnaire (JEPQ)

Eysenck and Eysenck (1975) developed the Junior Eysenck Personality Questionnaire in order to measure extroversion (E), neuroticism (N) and psychoticism (P). The Junior Eysenck Personality Questionnaire (JEPQ) is based on 81 items. According to Maqsud (1993), Eysenck and Eysenck (1975) reported test-retest reliability of the three scales from 0.66 (for N) to 0.76 (for P) for 14-year-old boys.

Modgil and Modgil (1986) reported that the Eysenck Personality Questionnaires have been translated into many languages such as Greek, Chinese and Hungarian. The translated versions have been used in cross-cultural research and the basic structure has been the same in many cross-cultural situations; this suggests that human nature is universal.

The findings of a study by Ibrahim (1982) in Nigeria suggested that the JEPQ can be safely used with African children if it is carefully translated in their mother tongues.

3.5.5 Setswana Versions of the BSCAAS, BLASIS, and JEPQ

Maqsud (1993) got the above instruments translated into Setswana, mother tongue of the Batswana people. The method of translation-back translation was used by Maqsud. Since the subjects of this study were Batswana children, the Setswana versions were used to take estimates of academic self-concept, academic self-image, and personality.

3.5.6 Academic Achievement Scores of Setswana, Afrikaans, English, Maths and Biology.

The researcher, with the help of the Principal of Matale Middle School, got the scores of Setswana, Afrikaans, English, Maths and Biology from various subject teachers at school. The subject teachers have been giving monthly tests from January to September (1993). The total mark of each monthly test was 100.

After the eighth test the totals of the eight tests were added to get the Grand total mark of each subject for individual pupils. Each pupil's grand total mark was divided by eight to get the average mark.

The following example is given to indicate how Setswana score of Senne Given (a standard seven pupil at Matale Middle School) was obtained.

Test	Month	Marks Scored	Max. Mark
1	February	30	100
2	March	40	100
3	April	30	100
4	May	29	100
5	June	30	100
6	July	31	100
7	August	30	100
8	September	20	100
		240	800

$240 \div 8 = 30$

The Setswana score of 30, which is a year mark, reveals the academic performance of one student namely (Senne Given) for the year 1993. The same method was used to get the scores of other academic subjects for each subject of the study. Since all subjects were taught and evaluated by the same teachers, it was not felt necessary to convert the raw scores into standard scores.

3.6 Procedure

The researcher explained the objectives of the study to the Principal of the school from where the subjects were drawn. He assured the researcher to cooperate with her in collecting the required data. The assistance of his teachers was also sought to administer the instruments. All instruments were compiled in a booklet and each subject was given a copy of the booklet at the times of testing. Three testing sessions were arranged.

About sixty subjects, at a time, were seated in a large classroom and they were advised to read the instructions (in Setswana) carefully and provide their responses against each item. They were also advised to seek the assistance of the researcher or her assistant if they experience any difficulties in understanding the items of the instruments. The subjects completed the measuring instruments without any time limits. However, no subject took more than an hour to complete the scales.

CHAPTER FOUR

4. RESULTS AND DISCUSSION

4.1 Raw scores

Raw scores of 172 subjects on the 11 variables (SB, ASI, SCAA, E, N, P, S, Afr, Eng, M, and B) are given in Appendix No. 5.

4.2 Sex Differences

Table 1 gives the mean scores and standard deviations of all the 11 variables studied for male and female subjects.

The figural details in Table 1 indicated that mean scores of self-concept of academic ability, Setswana, Afrikaans, English, Mathematics and Biology of girls were significantly higher than those of boys.

Table 1: Means and Standard Deviations of Socioeconomic Background, Academic Self-image, Self-concept of Academic Ability, Extroversion, Neuroticism, Psychoticism and Academic Achievement in Setswana, Afrikaans, English, Mathematics and Biology.

Variables		Males (N = 74) $\bar{X}$	SD	Female (N = 98) $\bar{X}$	SD	t
Socioeconomic Background	(SB)	14.11	4.83	13.53	4.62	0.79
Academic Self-image	(ASI)	11.64	3.08	11.84	2.33	-0.47
Self-concept of Academic Ability	(SCAA)	19.96	3.88	21.17	3.06	-2.22*
Extraversion	(E)	12.92	2.97	12.10	3.48	0.65
Neuroticism	(N)	7.42	3.41	7.79	3.61	-0.69
Psychoticism	(P)	4.92	2.62	3.48	1.94	-0.17
Setswana	(S)	48.84	9.52	53.69	9.51	-3.31**
Afrikaans	(A)	38.92	8.93	43.44	10.66	-3.02**
English	(EN)	47.50	8.60	52.09	10.22	-3.12**
Mathematics	(M)	36.45	11.60	39.93	10.85	-2.00*
Biology	(B)	38.09	9.49	45.85	10.97	-4.96**

*p<.05; **p<.01

The figural details in Table 1 indicated that mean scores of self-concept of academic ability, Setswana, Afrikaans, English, Mathematics and Biology

4.2 Testing of Three Hypothethes

In order to test the three hypotheses of the study, intercorrelations of the eleven variables were computed for both male and female subjects separately and the values of the product-moment correlations are given in Tables 2 and 3.

4.2.1 Table 2: Intercorrelations for males (N = 74)

		1	2	3	4	5	6	7	8	9	10	11
1.	SB		.19	.10	.22	.10	-.29**	.05	.09	.01	.10	.19
2.	ASI		.	56**	.08	-.15	.28**	.08	.17	.04	.40**	.31**
3.	SCAA				.20	.02	-.18	.18	.09	.18	.23*	.10
4.	EX					.52**	.14	-.13	-.01	.01	.22	.08
5.	N						.11	-.01	-.06	.10	-.02	.01
6.	P							.04	-.18	-.01	-.04	-.12
7.	S								.63**	.51**	.30*	.56**
8.	A									.64**	.26*	.67**
9.	EN										.11	.59**
10.	M											.49**
11.	B											

*p<.05; **p<.01.

4.3.2 Table 3: Intercorrelations for females (N = 98)

	1	2	3	4	5	6	7	8	9	10	11
1. SB		.08	.11	.21	.13	.24*	-.09	-.01	-.03	-.10	-.06
2. ASI			.47**	.36**	-.13	-.14	.09	.18	.11	.17	.29**
3. SCAA				.38**	-.03	.04	.27**	.37**	.25**	.13	.37**
4. EX					.17	.14	.05	.12	.01	.06	.12
5. N						.22*	-.11	-.04	-.08	-.17	-.18
6. P							-.13	.10	-.09	-.07	-.06
7. S								.60**	.67	.56**	.67**
8. A									.74**	.51**	.66**
9. EN										.49**	.67**
10. M											.67
11. B											

*p<.05; **p<.01

The results given in Tables 2 and 3 may lead to the following findings:

1. Socioeconomic background is significantly negatively related to psychoticism; children from less affluent homes tend to be more psychotic.

2. Self-concept of academic ability is significantly positively associated with academic achievement in Setswana, Afrikaans, English and Biology for female subjects but there is no consistent significant association for male ones.

3. There are significant high intercorrelations for measures of three languages (Setswana, Afrikaans and English) and the high intercorrelations exist for both male and female subjects.

The data in Tables 2 and 3 tend to reject the researcher's hypotheses (i) and (iii). The researcher's hypothesis (ii) was partially accepted.

4.4 Discussion of Results

Schools in Bophuthatswana are divided into three categories, namely Primary, Middle and High schools. In reviewing literature, it was observed that researchers differ in as far as the relationship between socioeconomic background and academic performance is concerned. Harrison (1971) discovered that there are some students whose school performance and home background are not congruent. Bloom et al (1965) found positive correlations between sociological indices of home background and measures of school achievement. The data of this study indicated a significant negative association between socioeconomic background and psychoticism. These results lead one to believe that children from poor home background are more psychotic than children from affluent homes.

This finding tends to be educationally justifiable because cognitive thinking is not only determined by socioeconomic factors but by hereditary factors too.

The results given in Tables 2 and 3 reveal that self-concept of academic ability is significantly positively associated with academic achievement of girls but there is no consistency in such relationship for boys. There are several studies which showed a positive association between self-concept and academic attainment in mathematics and English. Hyneman (1979), for instance, carried out a study in Uganda and found that the level of self-concept of standard seven pupils was related to school achievement in the areas of mathematics, English and general knowledge, irrespective of sex. Omizo et al (1981) conducted a study with a sample of Mexican-American standard seven students, their results showed that more male subjects had a high level of self-concept than female subjects. The results of Mwamwenda and Mwamwenda (1987)'s investigation indicated that there was a significant positive relationship between a pupil's self-concept and his/her performance in the final set of examinations. Pupils with higher self-concept performed significantly better than pupils with poor self-concepts. This view may be understandable because a pupil with higher self-concept is able to actualize his own potential in his/her totality.

High intercorrelations for measures of three languages namely, Setswana, Afrikaans and English were found in this study for both males and females.

This indicates indirectly that both boys and girls tend to learn languages in similar manners. When looking at the school settings in Bophuthatswana, we find that both boys and girls attend school together, there is no segregation. Significant intercorrelations for males, and females as to language learning may be due to the fact that Setswana is the mother tongue of almost all the subjects, English is used as a medium of instruction in middle and high schools and they all struggle to learn Afrikaans which is one of the official languages.

4.5 Conclusion

It is not educationally justifiable to conclude that there is a negative relationship between socioeconomic background and psychoticism because this study was limited to the subjects of only one middle school in Phokeng area of Bophuthatswana. Further research along the lines of this study needs to be undertaken with larger samples in all the middle schools of Bophuthatswana. This study indicated a positive association between self-concept of academic ability and academic achievement. It further found high intercorrelations for measures of Setswana, Afrikaans and English for both boys and girls.

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APPENDIX No. 1

SOCIOECONOMIC BACKGROUND QUESTIONNAIRE (SBQ)

1. Indicate your parents' education

Education of your father

Did not attend school
Attended primary school
Attended secondary school
Attended college
Attended university

Education of your mother

Did not attend school
Attended primary school
Attended secondary school
Attended college
Attended university

2. Indicate your parents' occupations

Occupation or job of your father .....
Occupation or job of your mother .....

3. Indicate the means of transport used by your family

nothing
bicycle
motor bike
one car
two cars

4. Answer the following questions

Does your family own a TV?	Yes/No
Does your family own a VCR?	Yes/No
Does your family live in its own house?	Yes/No

APPENDIX No. 2

BROOKOVER SELF-CONCEPT OF ACADEMIC ABILITY SCALE

Baya letshwao mo lebokosong le le lebaganeng le ditlhaloso tse di neetsweng ka fa tlase e e tlhalosang go gaisa gore o ipona jang. Baya letshwao le le lengwe kgatlhanong le tlhagiso e le nngwe mo karolong nngwe le nngwe.

1. O ipaya mo maemong afe mo bokgoning jwa tsa sekolo fa o ipapisa le ditsala tsa gago?

   Ke ba gaisa botlhe _____

   Ke kwa godimo ga palogare _____

   Ke mo palogareng _____

   Ke kwa tlase ga palogare _____

   Ke bokoa go gaisa _____

2. O ipaya mo maemong afe mo bokgoning jwa tsa sekolo fa o ipapisa le ba bangwe mo phaposing ya lona kwa sekolong?

   Ke ba gaisa botlhe _____

   Ke kwa godimo ga palogare _____

   Ke mo palogareng _____

   Ke kwa tlase ga palogare _____

   Ke bokoa go gaisa _____

3. Akanya ka ga mephato e mengwe e e lekanang le wa gago mo sekolong. O ipaya mo maemong afe a bokgoni jwa tsa sekolo?

Gare ga ba ba gaisang _____

Kwa godimo ga palogare _____

Ke mo palogareng _____

Ke kwa tlase ga palogare _____

Ke fa gare ga ba ba bokoa _____

4. Go nna morutabana, ngaka, kgotsa monetetshi, o tshwanetse go ya kholetsheng kgotsa Yunibesithi mme o falole ditlhatlhobo tse dithata. O bona go kgonagala gore o ka fitlhelela maemo a?

Nka a fitlhelela thata _____

Gongwe nka a fitlhelela _____

Ga ke tlhamamisi gore a nka kgona kgotsa jang _____

Nka se fitlhelele _____

Le e seng, nka se fitlhelele _____

5. Motsotsonyana lebala gore barutabana ba tshwaya tiro ya gago jang. Mo kakanyong ya gago, o bona tiro ya gago e le ntle jang?

Tiro ya me e ntle go gaisa _____

Tiro ya me e ntle _____

Tiro ya me e mo bogareng _____

Tiro ya me e kwa tlasenyana _____

Tiro ya me e a gogoba _____

6. O bona maduo a o kgonang go a fitlhelela e le afe?

Gantsi	10/10	_____
Gantsi	7/10	_____
Gantsi	5/10	_____
Gantsi	3/10	_____
Gantsi	1/10	_____

APPENDIX No.3

BARKER-LUNN ACADEMIC SELF IMAGE SCALE

Buisa ntlha nngwe le nngwe ka kelotlhoko mme o tsibogele e le nngwe ya ditlhopho; se o se tsibogelang se go itumedise.

1.	Ke fosa dipalo tse dintsi	GA KE NKE	KA SEWELO	EE	GANTSI
2.	Ke nagana gore tiro ya me e ntle ke a kgona	EE	GA KE TLHOMA-MISI	NNYAA	
3.	Ke itlhobogile mo tirong ya sekolo	GA NKA KE	KA SEWELO	EE	GANTSI
4.	Morutabana wa me o nagana gore ke botlhale	EE	GA KE THOMA-MISI	NNYAA	
5.	Ke kgona dipalo thata	KA GALE	KA SEWELO	GA KE NKE	
6.	Fa re neilwe diteko ke bona maduo a a kwa tlase	DINAKI	KA SEWELO	GA KE NKE	
7.	Ke bona tiro e ntsi ya sekolo e le thata go tlhaloganyega	EE GANTSI	KA SEWELO	GA SE BOAMMA-RURI	
8.	Ka dinako dingwe ke nagana gore ga ke na mosola	EE GANTSI	GA KE TLHOMA-MISI	GA SE BOAMMA-RURI	
9.	E kete ga ke ko ke atlega go dira sepe sentle kwa sekolong	EE, KE BOAMMA-RURI	GA KE TLHOMA-MISI	NNYAA	

APPENDIX No. 4

EYSENCK PERSONALITY QUESTIONNAIRE (JUNIOR)

DINGWAGA ---------- BONG ----------

DITAELO: ARABA POTSO NNGWE LE NNGWE KA GO SEKELETSA MO GO EE KGOTSA NNYAYA E E LATELANG POTSO. GA GO NA DIKARABO TSE DI TSIETSANG. DIRELA KA BONAKO MME O SE KE WA AKANYA LOBAKA LO LEELE TEBANG LE SE POTSO E SE KAYANG.

GAKOLOGELWA GO ARABA POTSO NNGWE LE NNGWE.

1. A o rata tlhagafatso e ntsi e tsweletse fa o leng teng? ---------- EE NNYAYA

2. A o mabela? ---------- EE NNYAYA

3. A o rata go kgopisa batho ba ba tshwanang le wena? ---------- EE NNYAYA

4. A o kile wa nna megagaru ka go ikabela go feta selekanyo ka sengwe? ---------- EE NNYAYA

5. A o na le dikarabo tsa bonako fa batho ba bua nao ka gale? ---------- EE NNYAYA

6. A o tenega bonolo? ---------- EE NNYAYA

7. A o itumelela metlae e ka nako nngwe e kgopisang batho? ---------- EE NNYAYA

8. A o dira jaaka o laetswe ka gale? ---------- EE NNYAYA

9. A o eletsa go nna o le esi go na le bo kopana le bana ba bangwe? ---------- EE NNYAYA

10. A dikakanyo di tle di farasele mo tlhogong ya gago gore o be o palelwe ke go thulamela? ------ EE NNYAYA

11. A o kile wa tlola molao mongwe kwa sekolong? --- EE NNYAYA

12. A o eletsa fa bana ba bangwe ba ka go boifa/ tshaba? ---------- EE NNYAYA

13. A o matlhagatlhaga? ---------- EE NNYAYA

14. A o tenwa ke dilo tse dintsi? ---------- EE NNYAYA

15. A o ja monate go segaka diplologolo mo thutong ya saense? ---------- EE NNYAYA

16. A o kile wa tsaya (le fa e le konopi kana nnalete) ya mongwe? ---------- EE NNYAYA

17. A o na le ditsala tse dintsi? ---------- EE NNYAYA

18. A o tle o ikutlwe o tobekane maikutlo fela go

19. A o tle o rumole diphologolo? ---------- EE NNYAYA

20. A o kile wa itira yo o sa utlweng mongwe a go bitsa? ---------- EE NNYAYA

21. A o ka eletsa go utolola kagophemelo ya bogologolo e e pokang? ---------- EE NNYAYA

22. A o bona botshelo bo le leutu? ---------- EE NNYAYA

23. A o tlhobogana le go lwa go feta bana ka bontsi? ---------- EE NNYAYA

24 A o fetsa tiro ya gae pele o tshameka? ---------- EE NNYAYA

25. A o rata go dira dilo tse mo go tsona o potlakang? ---------- EE NNYAYA

26 A o akanya ka dilo tse di bosula tse di ka diragalang? ---------- EE NNYAYA

27. Fa o utlwa bana ba bua dipuo tse di maswe o a tle o ba kganele? ---------- EE NNYAYA

28. A o ka rulaganya moletlo? ---------- EE NNYAYA

29. A o kgopisega ka bonako fa batho ba go tshwaya diphoso? ---------- EE NNYAYA

30 Go ka go utlwisa botlhoko go bona ntswa e e sa tswang go gatiwa? ---------- EE NNYAYA

31. A o kopa maitshwarelo ka gala fa o ne o kgopisitse mongwe? ---------- EE NNYAYA

32. A go mongwe yo o ratang go ipusolosetsa mo go se ba ithayang o ba siamoletse ka sona? ---------- EE NNYAYA

33. A o bona go thedimoga mo metsing go ka go itumedisa? ---------- EE NNYAYA

34. A o tle o lape fela go se na lebaka? ---------- EE NNYAYA

35. A o rata go rumola bana ba bangwe? ---------- EE NNYAYA

36. A o a didimala fa bagolo ba bua? ---------- EE NNYAYA

37. Fa o nna le ditsala tse dintshwa a ke wena o simololang botsala jo? ---------- EE NNYAYA

38. A go dilo tse di dirang gore o etsaetsege? ----- EE NNYAYA

39. A o tseana mo dintweng tse dintsi? ---------- EE NNYAYA

40. A o kile wa bua maswe ka ga mongwe? ---------- EE NNYAYA

41. A o rata go bua metlae kgotsa dikgang tse di akabatsang mo ditsaleng tsa gago? ---------- EE NNYAYA

42. A o na le mathata a mantsi go gaisa a bana ba bangwe mo sekolong? ---------- EE NNYAYA

43. A ka gale o atisa go sela dipampiri le maswe a bangwe ba ba a gasaganyang mo phaposiborutelong? --- EE NNYAYA

44. A o na le ditlwaelo tse di farologaneng tse dintsi le dikgatlhego? ---------- EE NNYAYA

45. A maikutlo a gago a amega bonolo? ---------- EE NNYAYA

46. A o rata go tshameka ka batho ba bangwe? ---------- EE NNYAYA

47. A o a tlhapa ka metlha pele ga dijo? ---------- EE NNYAYA

48. A o ka mpa wa nna wa bogela go na le go tshameka mo meletlong? ---------- EE NNYAYA

49. A ka gale o nna o ngadile? ---------- EE NNYAYA

50. Ka dipaka dingwe a go monate go bona lekoko le tshwenya kana le rumola ngwana yo mongwe? ---------- EE NNYAYA

51. A o aga o didimetse mo phaposiborutelong le fa morutabana a seyo ka fa teng? ---------- EE NNYAYA

52. A o rata go dira dilo tse di tshosang? ---------- EE NNYAYA

53. A o atle o nne o tlhobaela ka dipaka dingwe gore o be o palelwe ke go nna mo setulong sebaka? ------- EE NNYAYA

54. A o eletsa go ya kwa ngweding ka bowena? ---------- EE NNYAYA

55. Mo thapelong a o a opela fa ba bangwe ba opela? ---------- EE NNYAYA

56. A o rata go tswakana le bana ba bangwe? ---------- EE NNYAYA

57. A batsadi ba gago ba go gagamaleditse molao? ------- EE NNYAYA

58. A o ka rata go fofa ka pharatshutu? ---------- EE NNYAYA

59. A o etsaetsega nako e telele fa o ikutlwa gore dirile bosilo? ---------- EE NNYAYA

60. A o ja sengwe le sengwe se o se neetsweng mo dijong? ---------- EE NNYAYA

61. A o ka ntsha bojotlhe wa itumela mo moletlong o o monate? ---------- EE NNYAYA

62. O tle o utlwe e kete botshelo ga bo monate? -------- EE NNYAYA

63. O ka utlwela phologolo e e tshwerweng ke seru botlhoko? ---------- EE NNYAYA

64. O kile wa tsogela batsadi ba gago kgatlhanong? ------ EE NNYAYA

65. A o tle o fetse mogopolo go dira selo ka tshoganyetso? ---------- EE NNYAYA

66. A tlhaloganyo ya gago e a tle e ye le naga fa o dira tiro nngwe? ---------- EE NNYAYA

67. O ja monate go ithobunyetsa kana go sapa ka mo lewatleng kana letamong? ---------- EE NNYAYA

68. A go thata mo go wena go thulamela bosigo ka ntlha ya gore o tlhobaela ka sengwe? ---------- EE NNYAYA

69. A o tle o kwale kana o thalathale mo bukeng kana ya laeborari? ---------- EE NNYAYA

70. A batho ba bangwe ba go kaya o le mafolofolo? ------- EE NNYAYA

71. A o aga o ikutlwa o bolawa ke bodutu? ---------- EE NNYAYA

72. A o kelotlhoko mo dilong tsa batho ba bangwe? ------- EE NNYAYA

73. A o kgaogana dimonamone tsotlhe ka gale? ---------- EE NNYAYA

74. A o lonao le bobe? ---------- EE NNYAYA

75. A o kile wa tsietsa mo kgaisanong? ---------- EE NNYAYA

76. O bona go le thata go ijesa monate mo moletlong o o monate? ---------- EE NNYAYA

77. A o tle o ikutlwe o itumetse ka dinako dingwe kana o sulafaletswe kwa ntle ga lebaka lepe? ---------- EE NNYAYA

78. A o latlhela dipampitshana tse di senyegileng fa fatshe fa go se na tlatlana e e di rwalang? ------ EE NNYAYA

APPENDIX No. 5

W SCORES

ANDARD 7 BOYS

SB	ASI	SCAA	E	N	P	SET	AFR	ENG	MATH	BIO
13	12	21	11	2	6	43	30	30	41	19
18	10	21	18	11	4	40	32	33	43	30
14	7	17	6	4	11	69	30	40	25	29
14	7	9	16	13	4	34	31	44	21	31
7	13	15	10	7	6	50	41	45	28	39
13	10	19	9	8	10	41	35	43	27	37
7	14	21	13	8	4	41	21	30	53	33
17	12	17	13	5	4	36	21	46	44	30
19	12	19	10	8	2	48	46	52	40	41
18	11	19	11	7	4	40	31	40	21	35
9	13	19	11	3	1	40	45	40	50	34
3	0	6	11	8	12	53	45	55	26	32
12	15	23	12	7	4	51	43	50	31	36
8	13	19	12	12	1	54	45	48	29	42
9	10	19	11	10	5	45	28	46	34	29
19	13	20	9	5	4	36	30	42	31	29
6	17	26	14	7	8	58	47	71	84	58
21	17	21	15	8	7	42	35	40	70	37
16	18	21	7	2	4	49	47	50	44	40
9	7	19	10	3	5	60	52	55	41	44
10	13	20	9	1	8	51	48	49	31	47
20	11	22	16	12	4	53	51	70	31	63
15	10	19	14	8	4	33	31	46	24	25
9	15	26	13	10	3	50	45	49	28	30
14	10	22	14	11	2	47	31	51	35	28
14	12	18	10	4	1	62	51	60	42	58
12	13	23	14	10	3	58	52	50	39	43
21	11	22	13	12	4	60	50	55	40	46
23	15	26	18	8	3	69	50	51	57	50
15	13	16	11	6	3	48	40	44	38	42
16	13	19	12	14	11	58	43	50	42	38
20	14	18	12	12	1	41	38	40	29	35
11	13	21	10	6	2	44	33	45	27	32
16	12	18	14	2	1	61	48	58	30	50
11	11	21	14	10	5	40	30	34	33	23
10	12	13	10	4	8	36	33	37	26	28

Y:

	:	Socioeconomic Background
I	:	Academic Self-image
AA	:	Self-concept of Academic Ability
	:	Extraversion
	:	Neuroticism
	:	Psychoticism
T	:	Setswana
R	:	Afrikaans
G	:	English

SB	ASI	SCAA	E	N	P	SET	AFR	ENG	MATH	BIO
17	14	19	6	0	3	57	37	45	37	37
10	13	20	15	4	5	43	29	30	17	23
17	11	18	17	10	8	55	42	37	65	50
17	11	18	13	2	3	58	47	53	46	50
20	14	22	12	3	1	60	57	54	43	48
19	16	23	16	13	2	62	48	51	44	50
13	13	20	11	7	5	40	27	43	33	31
17	9	17	7	3	3	49	44	50	31	42
18	13	21	15	10	2	51	37	52	47	52
20	12	21	18	9	2	60	47	50	38	42
22	7	9	8	9	4	51	44	46	39	48
5	11	19	5	3	3	66	51	57	42	50
12	12	19	18	7	4	34	34	37	38	37
17	10	20	11	7	7	44	30	40	29	42
14	12	17	15	9	4	44	35	37	57	47
22	9	20	13	11	5	40	32	49	27	30
11	13	26	12	7	6	46	51	62	25	40
13	16	23	13	1	0	48	43	48	52	46
18	9	22	15	10	1	35	38	40	27	28
17	15	24	15	8	3	58	51	54	31	42
6	11	30	11	7	5	43	27	42	34	29
12	8	21	15	7	6	53	48	51	38	36
13	13	21	11	3	3	46	45	58	32	34
16	12	25	8	3	3	44	27	31	30	32
23	10	24	11	8	2	69	30	45	38	28
3	6	20	10	10	8	62	42	54	33	33
11	11	24	14	11	6	48	32	56	38	42
12	7	15	14	10	2	49	41	47	40	45
12	2	16	13	7	5	30	26	46	23	21
21	11	19	16	5	3	30	35	43	23	28
12	10	21	15	11	5	49	31	61	21	29
8	11	19	14	10	2	46	34	44	33	31
14	15	20	13	11	6	52	39	53	33	56
18	12	21	12	11	4	60	59	61	43	42
14	11	22	15	12	11	58	34	51	34	38
17	15	24	10	5	7	45	34	53	27	33
16	15	26	17	9	4	46	38	54	46	47
8	12	16	12	8	5	42	25	41	28	27

W SCORES

ANDARD 7 GIRLS

SB	ASI	SCAA	E	N	P	SET	AFR	ENG	MATH	BIO
22	11	19	17	13	4	40	33	47	38	45
16	14	25	10	2	4	51	32	44	32	35
7	13	26	11	1	2	57	38	54	46	61
11	13	25	12	4	2	53	57	62	43	53
11	15	18	3	8	3	33	33	45	35	35
18	13	25	14	11	5	51	48	62	40	65
16	15	25	15	7	3	35	43	43	52	42
12	13	20	18	12	2	46	45	38	30	40
12	12	20	11	6	3	60	46	51	33	47
26	15	20	14	10	5	59	35	47	42	40
20	14	19	10	9	4	41	41	54	38	42
6	11	21	14	5	1	49	40	53	23	29
11	11	18	12	6	6	42	32	43	30	37
13	10	22	14	8	2	50	46	52	33	38
12	12	22	17	9	2	62	51	58	42	39
15	11	19	12	2	3	41	27	34	30	36
12	12	23	13	13	1	57	39	45	37	43
19	12	21	17	5	2	44	23	35	34	31
17	14	20	10	7	5	59	49	44	41	47
16	12	22	13	11	3	62	48	47	44	50
10	14	23	13	6	11	50	36	50	69	48
14	10	19	13	10	5	49	40	45	38	43
24	11	18	16	13	4	62	21	51	28	28
17	11	22	13	5	3	74	72	74	66	75
13	10	22	18	10	4	67	57	68	55	54
12	16	20	18	5	4	58	50	53	42	48
10	11	19	9	4	1	60	47	50	39	45
14	7	22	9	8	4	47	41	48	32	41
18	10	19	14	8	8	55	51	56	39	48
14	11	17	8	11	3	50	26	36	23	32
15	10	22	14	9	2	51	45	61	32	42
7	5	16	7	5	3	50	26	40	34	29
14	11	22	19	8	2	48	41	46	40	45
13	12	22	14	13	4	51	43	48	44	47
11	9	19	7	15	7	48	46	52	26	37

SB	ASI	SCAA	E	N	P	SET	AFR	ENG	MATH	BIO
20	10	18	4	7	2	47	33	54	40	45
12	14	19	12	7	4	40	37	48	38	49
7	14	24	14	4	1	74	40	64	52	83
20	14	22	14	4	6	43	69	58	35	40
13	14	22	12	11	6	50	48	48	24	45
16	15	22	13	1	1	44	36	32	42	45
11	12	24	11	11	4	54	44	48	38	43
10	14	18	13	5	1	50	42	47	40	49
13	11	24	13	5	2	58	44	55	20	51
13	12	20	6	5	1	75	56	72	64	57
17	4	16	2	3	3	57	45	65	43	44
4	12	18	5	4	1	53	38	65	46	46
9	14	23	12	3	7	46	36	37	49	40
6	12	16	8	5	1	59	41	55	41	51
13	11	19	18	7	7	37	40	42	37	38
13	11	20	15	13	4	45	35	50	52	47
7	11	22	16	7	0	70	50	69	48	47
22	14	21	16	11	1	45	34	45	35	41
11	10	13	6	5	3	45	39	43	32	45
11	9	18	7	4	2	54	36	46	36	43
14	11	21	9	7	4	60	50	60	61	51
19	8	18	7	3	2	45	36	53	30	33
9	13	26	14	4	3	53	38	44	39	42
13	12	19	12	12	3	47	39	49	36	36
17	12	24	18	6	6	62	62	66	49	60
7	13	26	14	11	7	54	49	40	57	46
11	10	20	11	9	3	42	40	40	25	34
6	13	25	13	8	3	76	68	74	67	85
8	13	21	12	12	3	55	43	56	44	51
7	12	21	11	8	3	44	27	42	24	45
13	14	22	12	2	1	53	34	53	35	56
16	11	20	12	9	7	49	40	43	30	38
17	12	24	11	7	4	50	43	45	39	43
20	13	23	13	11	3	56	51	57	46	64
18	15	27	11	8	2	54	57	69	38	55
11	10	15	10	5	4	40	21	30	26	26
16	9	23	8	14	4	48	33	34	25	28
11	14	26	12	6	3	59	46	55	31	41
25	17	29	16	6	4	66	43	58	47	55
11	15	22	15	5	2	54	26	57	28	41
14	14	26	13	11	2	47	45	55	29	34
10	7	22	6	3	3	55	48	51	35	44
8	11	21	9	12	2	76	60	68	62	62
15	11	20	14	9	3	69	52	58	53	61
6	11	18	10	15	1	51	45	59	38	33

SB	ASI	SCAA	E	N	P	SET	AFR	ENG	MATH	BIO
14	14	27	13	12	1	54	58	57	25	51
10	10	25	9	7	7	64	50	58	45	56
13	14	18	9	4	1	66	49	58	59	48
19	9	20	10	13	3	68	47	51	48	46
20	11	26	14	7	6	45	42	61	36	45
14	13	21	11	9	3	53	47	53	42	45
17	13	24	15	3	8	65	64	69	49	60
13	15	25	10	9	6	72	73	81	41	60
8	12	19	15	12	3	50	34	43	32	29
8	8	16	13	7	6	55	51	61	61	52
15	12	17	13	7	4	57	50	67	45	45
14	10	19	12	15	4	48	43	53	44	48
12	11	22	15	3	5	68	63	48	49	55
12	12	22	16	13	7	55	45	57	25	51
16	7	16	9	12	7	45	31	42	29	32
26	14	24	16	4	3	62	58	60	48	56
10	16	21	12	5	3	65	49	55	52	55
19	9	23	15	15	8	47	26	36	27	29