THE RELATIONSHIP BETWEEN HOME VARIABLES AND ACADEMIC ACHIEVEMENT IN ENGLISH AND SCIENCE

by

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Psalm 12:14

SUMMARY

THE RELATIONSHIP BETWEEN HOME VARIABLES AND ACADEMIC ACHIEVEMENT IN ENGLISH AND SCIENCE

The purpose of this study was to determine, by means of a review of literature and an empirical investigation, the influence of home and other variables on pupils' academic achievement in English and Science.

From the review of literature it was concluded that home variables have an influence on academic achievement. Different families create different environments that influence children's academic performance in different ways.

It was concluded from the literature review that school-related variables such as teacher-pupil relationships, discipline, curriculum, subject matter, teaching method and peer-group have an influence on academic achievement.

From the literature review it was also concluded that learning strategies enhance the learning of students. Attributions of success to stable factors such as aptitude, ability and effort make a student work harder and persist longer at a task and thereby increase his level of performance.

A student with a high sense of efficacy achieves better than the one with low efficacy, because obstacles make him intensify his efforts more than the one who doubts his capabilities.

By means of an empirical investigation it could be concluded that there is a relationship between home variables and academic achievement with reference to family structure. The hypothess that there is a relationship between motivational variables and academic achievement could only be accepted with reference to anxiety. The hypothesis that there is a relationship between cognitive variables and academic achievement had to be rejected.

OPSOMMING

DIE VERHOUDING TUSSEN TUISVERANDERLIKES EN AKADEMIESE PRESTASIE IN ENGELS EN WETENSKAP

Die doel van hierdie studie was om, deur middel van 'n literatuuroorsig en 'n empiriese ondersoek, vas te stel wat die invloed van tuis- en ander veranderlikes op leerlinge se akademiese prestasie in Engels en Wetenskap is.

Uit die literatuuroorsig het dit geblyk dat tuisveranderlikes 'n invloed het op akademiese prestasie. Verskillende gesinne skep verskillende omgewings wat kinders se akademiese prestasie op verskillende maniere beinvloed.

Daar is uit die literatuuroorsig afgelei dat skoolverwante veranderlikes, soos onderwyser/kindverhoudings, dissipline, die kurrikulum, vakinhoude, onderrigmetodes en portuurgroep 'n invloed het op akademiese prestasie.

Dit is ook uit die literatuuroorsig afgelei dat leerstrategieë leerlinge se leer versterk. Die toeskrywing van sukses aan stabiele faktore soos aanleg, vermoë en inspanning help 'n leerling om vir langer en met meer toewyding aan 'n taak te werk en verhoog daardeur sy vlak van prestasie.

'n Leerling met positiewe selfdoeltreffendheidsoortuigings doen beter as een met lae selfdoeltreffendheidsoortuiging, omdat hindernisse hom eerder aanspoor as om hom, soos iemand wat aan sy eie vermoëns twyfel, te laat moed opgee.

Deur middel van 'n empiriese ondersoek kon daar tot die gevolgtrekking gekom word dat daar 'n verhouding is tussen tuisveranderlikes en akademiese prestasie met verwysing na gesinstruktuur. Die hipotese dat daar 'n verhouding is tussen motiveringsveranderlikes en akademiese prestasie kon slegs met verwysing na angstigheid aanvaar word. Die hipotese dat daar 'n verhouding tussen kognitiewe veranderlikes en akademiese prestasie is moes verwerp word.

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CHAPTER 1

1 THE PROBLEM AND OVERVIEW OF THE STUDY

1.1 Introduction and statement of the problem

The high rate of failure in black schools has been of great concern over the years and has been specifically voiced at many meetings where school matters are discussed. There are a number of variables in the child's environment which influence his achievement, but the home produces the first and perhaps the most insistent and subtle influence on the mental ability and development of the child (Marjoribanks, 1979:28).

The home environment influences the individual's acquisition of knowledge, development of intellectual skills, abilities and the formation of specific attitudes to learning (Engelbrecht & Lubbe, 1981:67). Thus an environment which is culturally poor and which lacks opportunities may hamper the child's development and learning to such an extent that his potential cannot develop fully (Sherron, 1991:67). Environments that are not suitably conducive to learning, thus hindering the development of the child's potential, are referred to as disadvantaged environments (Kikot, 1992:172).

Most black children in South Africa live in poor socio-economic environments (Harker, 1991:12), they are faced with multiple handicaps - genetic, medical, psychological and social - each of which decreases their chances of success at school

(Wolff, 1983:142). Mwamwenda (1989:95) states that the poor academic achievement of most black children is attributable to a poor home environment.

The effect of continued failure on the student is destructive, hence the need for understanding home conditions which lead to poor academic performance. Poor academic achievers must be helped, and in the process their backgrounds must be assessed to identify the variables which lead to poor performance. Knowledge of the variables which cause poor academic performance can help to establish ways of helping a poor academic achiever to achieve more in accordance with his potential.

The answer to the following questions must be found in relation to academic achievement:

1 How do home variables contribute to academic achievement?

2 Do motivational and cognitive variables have an influence on academic achievement?

Motivational variables comprise, inter alia, anxiety, intrinsic motivation and self-efficacy. Self-efficacy refers to personal judgments of capabilities to organize and execute courses of action required to attain designated types of performance (Bandura, 1986:391). Self-efficacy judgments are considered to be relevant to students' academic achievement because they have motivational effects (Norwich, 1987:384). Motivation to learn can be defined as the degree to which learners exert an effort to achieve academic goals that they perceive as being meaningful and worthwhile (Johnson & Johnson, 1984:250). It is because of motivation that a specific activity is chosen by an individual, and the longer an individual persists with a task depends on the intensity of

the motivation she or he has (McCombs, 1988:742). Self-efficacy is thus related to motivation which also leads to attainment of higher levels of performance.

Cognitive variables, which include cognitive strategy use and self-regulation, also have an influence on learning. Self-regulated students are those students who actively seek and process information in the teaching-learning situation (Zimmerman, 1988:339). Consequently, more emphasis is placed on students' readiness and ability to exercise control over their learning strategies.

Home, motivational and cognitive variables thus play an important role in the academic performance of students. Awareness of these variables by both teachers and students may improve academic achievement of black students, which is at present of much concern, especially during this crucial period of political, social and educational reform.

1.2 Aim of the study

The aim of the study was to determine the relationship between home and other variables, inter alia, motivational and cognitive variables and academic achievement.

1.3 Research hypotheses

To achieve the aims set in paragraph 1.2, the following three hypotheses were tested:

Hypothesis 1

There is a relationship between home variables and the academic achievement of Std. 7 students in English and science.

Hypothesis 2

There is a relationship between motivational variables (inter alia self-efficacy and intrinsic motivation) and the academic achievement of Std. 7 students in English and science.

Hypothesis 3

There is a relationship between cognitive variables (inter alia cognitive strategy use and self-regulation) and the academic achievement of Std. 7 students in English and science.

1.4 Method of research

The method of research for this study comprised a literature review and an empirical investigation.

Literature in the field under investigation was studied. Use was made of journals, periodicals, books and thesis that dealt with aspects of the problem. A DIALOG-search was performed with the following keywords: home environment, academic achievement, motivational variables and cognitive variables.

An empirical investigation was undertaken to determine whether there is a relationship between home variables, motivational and cognitive variables and academic achievement.

1.5 Procedure and overview of the study

As already stated in paragraph 1.2, the aim of the study was to determine the relationship between home and other variables namely motivational and cognitive variables and academic achievement. To achieve this aim a review of literature on home variables was made which is reflected in chapter 2. In chapter 3 other variables which influence academic achievement namely motivational and cognitive variables are discussed. In chapter 4 the methodological procedures adopted to determine the relationship between the home, motivational and cognitive variables are described. Chapter 5 entails the statistical analyses and interpretation of results. In chapter 6 a summary of the study is given as well as the implications, limitations and recommendations.

CHAPTER 2

2 THE INFLUENCE OF THE HOME ENVIRONMENT ON ACADEMIC ACHIEVEMENT

2.1 Introduction

The most important variables in the child's environment are the home, the school and the community (Engelbrecht, Griessel, Vorster & Yssel, 1981:5). Of these three variables, the home produces the first and perhaps the most insistent and subtle influence on the mental ability and development of the child (Marjoribanks, 1979:28). The home environment influences the individual's acquisition of knowledge, development of intellectual skills, abilities and the formation of specific attitudes to learning (Engelbrecht & Lubbe, 1981:6). The extent to which the child's intellectual potential for success in the educative process can be realized depends initially upon how the parents who transmit this potential can provide the environmental influences to nurture it (Durojaiye, 1976:28).

The home is a place of learning: learning about the world, people, ways of behaving, and developing attitudes towards health, work, people, places, things and life in general (Durojaiye, 1976:28). It is also at home that the child should have the opportunity to review the teaching of the school, to practice the good points and discard the bad ones (Clark, 1983:5). The home is a place for the application and further preparation of what was taught at school (Clark, 1983:5).

To further emphasize that performance at school and attitudes towards learning are influenced by the home in which the child lives, Engelbrecht et al., (1985:53) say that the child's home circumstances are revealed in the classroom in terms of the way he behaves and relates to others. Indeed a child who comes from a home which provides security and safety feels more free and bold to explore at school than the child from a home which provides no security (Clark, 1983:5). When uncertainty overwhelms a child from a secured home, he is able to find consolation and renew his self-reliance in the loving attention of his home (Farrant, 1988:87). So once a particular child is afraid to venture into the unknown at school, there may be a possibility of the home environment being a contributory factor.

Since the present study concentrates on the influence of the home environment on the achievement of the child at school, it is important that the following concepts be explained: academic achievement, underachievement and environment.

2.2 Explanation of concepts

2.2.1 Academic achievement

Academic achievement refers to successful accomplishment or performance in a particular subject or courses (Mwamwenda, 1989:334). Matseke (1984:44) states that academic achievement is the proficiency of performance in a given skill or subject whilst Mwamwenda, (1989:334) states that it is an accomplishment acquired usually

with reference to school subjects. It implies the passing of an examination set for a particular group of pupils at the end of an academic year or course.

Academic achievement is of importance to pupils because it is an indication of their ability in a particular field (Matseke, 1984:44).

2.2.2 Environment

The environment is the conditions and influence under which one lives (Van den Aardweg & Van den Aardweg, 1988:85), and refers to things and people in the real world surrounding the child that he might perceive or that might have some effect on him (Rowntree, 1981:82).

Mwamwenda (1995:516) defines the environment as the totality of, or any aspect of, the physical and social phenomena which surrounds or affects an individual organism or part of an organism. The environment as conceived by Mwamwenda (1995:516) is capable of interacting with the individual. Though the environment is capable of interacting with the individual, it does not affect each individual in the same way (Van Aardweg & Van Aardweg, 1988:85), because of individual differences.

An environment which is culturally poor and lacks opportunities may hamper the child's development and learning to such an extent that his potential cannot develop fully (Sherron, 1991:67). Mwamwenda (1989:95) states that the poor academic achievement of most black children is attributable to a poor home environment.

2.2.3 Underachievement

Whitmore (1988:168) and Tlale (1991:16) define underachievement in terms of an individuals' performance which are below the expected level of achievement. In other words underachievement is a significant discrepancy between a students' expected and actual performance levels.

Most studies define underachievers by the large gap between the underachievers' school performance and potential (Butler-Por, 1987:6). However, since it is not possible to assess potential accurately, investigators usually define potential on the basis of I.Q. scores while achievement is assessed on the basis of teacher grades or achievement test scores (Butler-Por, 1987:6).

2.3 Causes of underachievement

Causes of underachievement can be classified in three main categories namely biological deficiencies, socio-cultural deprivation and psychological disturbances (Engelbrecht et al., 1985:65).

2.3.1 Biological deficiencies

In this category frequent illnesses, poor health, undernourishment and chronic ailments resulting in regular absence from school and a lack of energy to perform at an expected

level may cause underachievement (Wolff, 1983:145). Sensory deficiencies not attended to such as visual and hearing defects affect concentration and reading ability thus causing underachievement (Engelbrecht et al., 1985:62).

2.3.2 *Socio-cultural deprivations*

Common factors in this category are parents showing no interest in their child's schoolwork (Engelbrecht et al., 1985:64). If parents are indifferent to their children's schoolwork, their children will not experience the joy of learning. If parents show no interest in their children's academic progress, the children will have no real incentive to work hard and function according to their capabilities. Also the socio-economic status of the family defined by Monteith (1979:119) as the grouping of people according to the income and the ways whereby such income is earned, may contribute to underachievement. Children from lower socio-economic status families will deteriorate cognitively because of inferiority, hunger and poverty (Steelman & Mercy, 1983:159).

2.3.3 *Psychological disturbances*

Psychological disturbances include feelings of inferiority and lack of confidence (Tlale, 1991.18). With some children the possibility of failure is perceived as so great a threat that they are prevented from attempting to cope with learning experiences even though these are within their capabilities (Tlale, 1991:18). This inability to reconcile conflicting desires and fears usually leads to underachievement (Tlale, 1991:18).

2.4 Characteristics of underachievers

The traits or characteristics of underachievers have been reported in many studies, although not one pupil would be expected to have all or even more than a few traits mentioned in this study.

A finding repeated in most studies is the low self-concept of underachievers (Clark, 1988:471). They are negative in their evaluations of themselves. Their feelings of inferiority may be demonstrated by distrust, indifference, lack of concern, and even hostility towards others and they believe no one likes them (Clark, 1988:471).

Underachievers have weak motivation for academic achievement (Clark, 1988:471). They forget homework, misplace books, daydream and they don't listen attentively (Rimm, 1988:2). They also tend to have poor study habits, do less homework, frequently nap when trying to study and leave of their work incomplete (Clark, 1988:471).

Because of a feeling of helplessness, underachievers take no responsibility for their actions, they externalize conflict and problems (Clark, 1988:471). As a result of a lack of confidence, underachievers may covertly manipulate parents or teachers to give them less challenging assignments (Rimm, 1988:3).

Parents and teachers can help cure underachievement if they learn to identify causes of underachievement (Rimm, 1988:3).

Duminy (1980:163) says that if the underachiever is not identified early and special attention paid to his problem, he will be caught up in a vicious circle of failure and frustration. To fail implies personal inefficiency and no one develops steadily in confidence while remaining in a situation where he fails. Underachievers are thus children in need of help to achieve according to their potential, hence the purpose of this study to identify home variables leading to underachievement, in order to help children out of this tragic situation.

2.5 Family types and children's academic achievement

2.5.1 Definition and structure of the family

The family is the group of persons consisting of the parents and their children, whether actually living together or not, and in a wider sense, the unity formed by those who are connected by blood or affinity (Simpson & Weiner, 1989:707; Dalta, 1987:63).

The structure of the family varies from society to society. The smallest family unit is known as the nuclear family (Harlambos, 1985:326). The nuclear family consists of a husband and wife living together in a household with their own or adopted children (Giddens, 1989:385). Units larger than the nuclear family are usually known as extended families. The extended family, unlike the nuclear family, may cover the parents of the couple and their children, the brothers and sisters of the couple and the grand and great grandchildren of the couple, living in the same household (Ezewu, 1983:40).

The extended family may also include many parents' substitutes, such as aunts, uncles and grandparents to mention but a few. All these people to some degree play a parental role (Ezewu, 1983:40), so when discussing the parental influence of an extended family the influence of other adults in the extended family are not excluded.

2.5.2 The role of the family in preparing the child for school

The family is the basic institution through which children learn who they are, where they fit into society, and what kind of future they are likely to experience (Clark, 1983:1X). The family plays an important role in making the child ready for school. The attitude and values the child holds when he enters school for the first time have mostly been acquired in the family situation. A child who is exposed to activities such as dressing himself, tying shoelaces before attending school will find it easy to handle a pencil, crayons and a pair of scissors when he starts school (Engelbrecht et al., 1985:20).

A school beginner who comes from a home which has taught him to control his emotions as well as his impulses, will find it easy to adjust at school (Farrant, 1988:87).

Engelbrecht (et al, 1985:20) further state that a child who comes from a family which has taught him to share, to consider the feelings of others, will find it easy to adjust to other children and teachers. A child who is socially ready for school will be co-

operative in working with other children and share the teacher's attention (Engelbrecht et al., 1985:20).

As a result of family influences, some children come to school eager to learn while others are much less eager or actually resistant to learn (Duminy, Dreyer, Steyn, Behr & Vos, 1991:38). A family which inculcates love, security, respect and authority paves the way for better adjustment of children at school. A child who comes from a family which inculcates love and respect feels secure and when confronted with a problem at school will readily approach a teacher for help (Duminy et al., 1991:98).

On the other hand, some children may find the transition from home to school very difficult, often very traumatic because of parents who do not treat their children with love and respect (Farrant, 1988:87). Children from families which do not shower them with love may feel insecure and unwanted (Farrant, 1988:87). Children who feel rejected may not even be brave enough to share their problems with parents (Duminy et al., 1991:98). This unhealthy relationship may also be carried to school, where a child may find it difficult to seek guidance from a teacher when doing his schoolwork.

When the child enters school, other persons such as his teachers and schoolmates may increasingly affect his development, but the child's home still remains a focal point in many of his daily experiences at school (Clark, 1983:1).

2.5.3 Family types and their influence on academic achievement

Family types have a marked effect on children's learning at school. The family types to be focused on are the single-parent family, the broken family, step-parents, nuclear family and the type of family which has both parents working.

2.5.3.1 Single-parent family

Single-parent family refers to a family with one parent either mother-only or father-only (Marsh, 1990:329).

Children from single-parent families are characterized by lower school achievement than children from two-parent families (Marsh, 1990:328), as the usually lower income of single-parent families may have a negative effect on the academic achievement of a child (Lawson, Gaushell & Karst, 1993:288). With a single-parent family, especially a mother-only family, she may not find it easy to be the breadwinner, the figure of authority and a mother at the same time.

2.5.3.2 The broken family

The broken family is the type of family in which one of the parents is absent due to death, divorce, desertion or separation, (Barton, 1988:18). Massive rural urban migration has resulted in a higher incidence of the broken family among blacks, especially in urban areas (Datta, 1984:174), as a result of the long absences of the father from home.

Divorce, which is the greatest area of social concern, has serious effects on children (Bell, 1983:532). Most divorced women experience downward economic mobility because of economic discrimination, less secure jobs and infrequent or non-existent support payments (Bell, 1983:537). For children to be given proper food, proper clothing and whatever is needed at school in the form of books, a divorcee, if she doesn't have a good income, may find it difficult to provide adequately for children. A hungry and not adequately clothed child will find it difficult to give full attention to his schoolwork (Bell, 1983:537).

As a result of the parents' divorce, the child may also be caught in the middle of parental conflict and suffer a strong conflict of loyalty and emotional commitment (Bell, 1983:354). This may be particularly true if one of the divorced parents criticizes the other (Bell, 1983:533).

If the marriage is broken, adequate social provision for the security and identity of the child may not be provided (Morgan, 1985:29). The most commonly cited behaviours and concerns of a child from a broken family at school include guilt, anxiety, fantasies and social problems with peers (Morgan, 1985:29). Social pressures also arise because the child may be embarrassed over the divorce, especially if it means the mother must take the child to an activity normally meant for father and son (Morgan, 1985:29). Other stresses occur when comparisons are made with children from intact families (Morgan, 1985:29).

Other divorce reactions seen in children include grief, shame, resentment, phobias, anorexia and sleeping problems all accompanied by difficulties with academic school work (Morgan, 1985:29). In more than half of the children of divorced parents, teachers note a negative response of behaviour in school (Morgan, 1985:29).

In terms of low academic achievement, it is thought that the child's education becomes a low priority of the family in the midst of a divorce, with the result that the child receives little attention and recognition for academic achievement (Clark, 1983:175). It may also be that the intense emotional upheaval experienced by the child inhibits his or her ability to attend well at school (Jubber, 1990:8).

Sometimes parents do not divorce legally but separate due to differences between them. The mother or father leaves the home to live elsewhere, but visits the family whenever she or he wishes.

To children separation results in an unsettled life-style. The child may wish both parents were permanent household members, or the child may feel that the parent who has left the family should have no say in the matters of the family (Clark, 1983:171). In these circumstances, the child may grudgingly see the parent who has left home as an intruder. Family cohesiveness is at these times difficult to maintain (Clark, 1983:171). For the parents, effective educational encouragement of the child is almost impossible, since the child has little respect for the parents' life-style (Clark, 1983:171).

The death of a parent in a family may result in a child's fear of being abandoned by the remaining parent (Morgan, 1985:48). If the child attends school but internalizes fears

of abandonment, then total preoccupation with the possible loss of the remaining parent can result in reduced motivation and loss of interest in school activities (Morgan, 1985:48). Defense mechanisms such as withdrawal or daydreaming may be utilized as a method of protection from inner anxieties and insecurities (Morgan, 1985:48).

2.5.3.3 Step-parents

When the single parent remarries, the family undergoes drastic change. Step-parents are very often said to do more harm to their stepchildren than help them to become good adult members of the society (Ezewu, 1983:80), because they may not adequately dedicate themselves to the child.

The children of a step-parent or parents acquire a sense of insecurity and they also often feel a loss of autonomy (Bell, 1983:563). A child who acquires an ill-treating step-parent will be emotionally disturbed, and an emotionally disturbed child will find it difficult to concentrate and learn effectively at school (Bell, 1983:563).

Children who feel that they are unloved or unacceptable by a step-parent may transfer some of these feelings to interpersonal relationships with peers as well as adults such as teachers (Morgan, 1985:151). Such children begin to doubt their self-worth, and this combination of a breakdown in self-esteem and a fear of further rejection becomes extremely anxiety-producing with detrimental results to academic achievement (Morgan, 1985:51).

However, children who are able to overcome their immediate reactions of fear, unacceptability and worry, are able to become content with their step-parents, and they eventually return to their prior level of academic performance (Morgan, 1985:51).

2.5.3.4 The nuclear family

It is a commonly held view that a secure home environment with two parents is needed for the satisfactory normal development of children, and that where family relations are disrupted, emotional and educational development may suffer (Barton, 1988:2).

Furthermore, the presence of two parents in the home allows for an expanded arena of learning (Barton, 1988:2). The child learns through observing the communication of the two adults. Through the communication of the two adults, the child learns sharing, compromise, mutual respect, support in decision-making, especially when the relationship between the two adults is that of mutual respect (Barton, 1988:2).

When a child from a nuclear family with a cordial relationship goes to school, he will know that when he is faced with a problem he must approach another person for help as a result of the home practice of mutual support during difficult times (Barton, 1988:11). This kind of relationship helps the child to share his learning problems with his or her school mates or with other teachers. In this way learning becomes easier because of support and assistance (Barton 1988:11).

2.5.3.5 Both parents working

When a child goes home and finds not even one of his parents there, he has no supervision, and there is no one to see that he does his homework or to help him with it (Engelbrecht et al., 1985:134).

When the parents eventually reach home in the evening they are tired, and the domestic chores which have not been done during the day also claim their attention. The result is that there is very little time left to give real and genuine attention to the children and their school work (Engelbrecht et al., 1985:134). The lack of parental assistance at home concerning schoolwork may result in underachievement at school (Engelbrecht et al., 1985:134).

2.5.4 Family relations and academic achievement

The way parents and other members relate to children is revealed in the classroom (Engelbrecht et al., 1985:133). Tlale (1991:18) states that poor relations between parents and children will result in emotional instability which is not conducive to effective learning. Family relations to be discussed in this paragraph are rejecting parents, parental expectations, parental indifference and neglect, and casual parents.

2.5.4.1 Rejecting parents

Rejection of the child by the parents can have a serious effect on his school performance. According to Engelbrecht et al. (1985:55) the rejected child reveals characteristics of lack of concentration, hostility towards the school and especially the teacher and carelessness as regards his school work. Indeed, if a child lacks concentration and shows hostility towards the teacher, his academic achievement will be adversely affected. (Engelbrecht et al. (1985:55).

2.5.4.2 Parental expectations

Parental academic attainments, as well as parental occupation and knowledge of the relationship between formal education and life prospects are all factors, which in conjunction with actual demonstrated abilities and performance of the child, help to shape expectations which parents might have for the child as regards school performance (Jubber, 1988:8). When parents' expectations are unrealistically high, the children may become discouraged when they fail to reach the very high goals set by parents, and this may result in the child underachieving at school (Tlale, 1991:18). A child who is pressurised to achieve goals he feels are beyond him may resist the pressure by not exerting himself at school (Tlale, 1991:18).

2.5.4.3 Parental indifference and neglect

If parents are indifferent to their children's work, their children will not experience the joy of learning (Tlale, 1991:18). Children who never receive enthusiastic reinforcement from their parents when it is needed, will usually be discouraged from persisting in doing well (Engelbrecht et al., 1985:36) If parents show no interest in their children's academic progress, the children will have no real incentive to work hard and function according to their capabilities (Butler-Por, 1987:17).

2.5.4.4 Casual parents

Casual parents generally do not have a consistent method of dealing with their children (Duminy et al., 1991:100). Casual parents leave their children very much to themselves to solve their problems. Fourie, Griessel and Vorster (1991:100) state that selfishness, love of comfort, carelessness and unwillingness to associate responsibly with children are often the causes of an uncaring attitude. Norms and values are not transmitted selectively to the child who is left alone to make a choice between right and wrong (Fourie et al., 1991:100).

Children from casual homes tend to be inactive, withdrawn, in need of consistent guidance and are dependent on the teachers' guidance (Duminy et al., 1991:100). In the teaching learning situation, a child who is dependent upon special attention and guidance of the teacher will find it difficult to work on his own if a teacher is unable to attend to him because of, for example, overpopulation or children in the classroom. (Duminy et al., 1991:100).

Poor family relations have a detrimental effect on children's academic performance. Duminy et al.,(1991,99) state that children whose parents express love, exercise patience with them and take interest in them, are able to deal fairly easily with learning at school.

2.6 The influence of the socio-economic status of the family on the children's academic achievement

The socio-economic status of a family is defined by Wolff (1983:44) in terms of the occupation of the head of the household, income, residential area and the education of the parents. In support of Wolff's view, Ezewu (1983:23) also explains socio-economic status as the social and economic position of an individual or family in any given society, determined by such factors as the level of education, occupation and income.

Marjoribanks (1982b:655) has indicated that socio-economic status contributes to the variation in academic achievement, and also that social class is a factor on which parental motivations and attitudes towards academic success are dependent.

There are various variables emanating from low and high socio-economic status which have a bearing on academic achievement. The following are variables from a low socio-economic status which contribute to poor performance at school.

2.6.1 Poverty

One way in which the socio-economic status of the family can impinge on the educability of the child is through the environment with which he is associated (Datta, 1983:165). Life conditions of people who are generally poor, exposed to long hours of heavy physical work, giving rise to severe fatigue are marked by a pattern of disadvantages such as arriving home too tired to give assistance to children in school work, resulting in poor performance at school (Datta, 1983:165).

Most black children come from poverty stricken families, and poor health is one of the primary variables affecting the achievement of children from impoverished environments (Havighurst & Levine, 1979:177). Scholtz (as quoted by Chawinsky, 1988:54) has found that the less healthy the student, the lower his or her level of academic achievement. Children from low-income families also depend on school-related opportunities to develop literacy skills, particularly when home supports are weak or ineffectual because parents from low-income families do not engage themselves with the learning activities of their children (Sherron, 1991:69).

Parents of poor children also have had less positive experiences with schools than the parents of advantaged children. Many poor parents failed to complete high school themselves, and only remember school as a difficult and trying experience (Osland, 1990:256).

2.6.2 Malnutrition

Another aspect of a low-socio-economic status which is related to school performance is malnutrition (Havighurst & Levine, 1979:77). Malnourished children are most frequently from impoverished homes (Havighurst & Levine, 1979:77). Severe early malnutrition does have an effect on the development of the brain (Havighurst & Levine, 1979:177). Children suffering from malnutrition are found to be irritable and inattentive at school, a condition which contributes to poor school performance (Havighurst & Levine 1979:177).

2.6.3 Diseases

Although the common diseases of childhood now respond very readily to medical treatment and are usually resolved without permanent complications, each such event in the life of the child is associated with anxiety, with restriction of activities, and often with pain and admission to hospital (Wolff, 1983:145).

Diseases like diarrhoea and respiratory infections often bring children from large, poorly-housed families into hospitals (Wolff, 1983:146). The illness must be very severe indeed before a child from a high socio-economic status is parted from his family on this account (Wolff, 1983:146).

Children whose schooling is interrupted by long absence from school due to illness, may perform poorly academically.

2.6.4 Financial problems

Financial problems in a family are also linked to poor academic achievement (Mortimore & Blackstone, 1982:28). As a result of low income, parents may have less money to spend on books, school uniform and educational excursions (Mortimore & Blackstone, 1982:28). Parents who fail to meet school requirements may demotivate a child to the extent that he may find it difficult to perform well at school.

There may also be pressure on older children to take evening or weekend jobs to earn extra money, which means they will have less time and energy for their studies, either at home or at school (Mortimore & Blackstone, 1982:28).

2.6.5 Socio-economic status and the quality of the school

Socio-economic status is generally strongly associated with the quality of the area in which families live and the access they have to the areas' schools and schools of the parents choice (Jubber, 1990:3). As a rule the higher a family's socio-economic status, the better the residential location, and the greater its access to a good school (Jubber, 1990:3).

Ezewu (1983:25) states that research results have shown that the prestigious schools in many countries are usually attended by children from high socio-economic families, because these highly placed schools also attract the best qualified teachers. Such differences stemming from socio-economic status suggest that the socio-economic

status could have a strong impact on educational opportunities and also on school achievement for a child who is exposed to a well trained qualified teacher as compared to one exposed to an unqualified teacher.

2.6.6 Encouragement to achieve in school

In his investigation of parental reaction to poor performance at school, Ezewu (1983:26) found that high socio-economic status families tend to show more concern over their children's poor performance at school than parents from low socio-economic status. Most parents from high socio-economic status either teach their children those subjects in which the children perform poorly, or they appoint part-time teachers for them (Ezewu, 1983:26).

It must be noted that even if low socio-economic status families are worried over their children's poor performance, they are not always able to give academic assistance to their children. In the first instance, the parents themselves have had little education and so they may both be able to help their children. Secondly, such families belong to the low income group and so they may not be able to afford the appointment of part-time teachers. Thus high socio-economic status families are in the position to give more parental help and better motivation to their children than those of low socio-economic status (Ezewu, 1983:26).

2.6.7 *Academic achievement and the educational levels of parents*

Another variable which influences the achievement of pupils is the educational level of the parents (Matseke, 1981:147). For most children, it is their mother who has the most important influence on their intellectual development in early school years, because it is generally the mother who interacts most intensely and most frequently with the young child and from whom its first language is learnt (Jubber, 1990:5). It follows therefore that mothers who have the appropriate cognition-enhancing attitudes, approaches, knowledge and experience of formal school will be in a better position to help children with for example reading, listening and writing skills (Jubber, 1990:5). The experience and the support the child gets from a mother who attended school make him better prepared for school than a child raised by a mother who cannot even read and write (Clark, 1983:193).

The relationship between the father's level of education and the child's school performance is much weaker and not statistically significant (Jubber, 1990:6). Poston and Falbo (1990:449), on the other hand, state that there is no difference between the educated mother's influence on a child's intellectual development and that of the educated father.

According to Pilot and Falbo (1987:310), as is the case with mothers, better educated fathers interact with their children in ways conducive to intellectual development, for example, better-educated fathers are more likely to provide stimulating toys and to encourage their children to explore their environment than less-educated fathers.

From the above discussion, it can be seen that the low socio-economic status of a family has been acknowledged to affect academic achievement negatively.

2.7 The influence of parental attitudes and aspirations on children's academic achievement

Educationists regard parental attitudes as playing a very vital role on the academic achievement of children (Mortimore & Blackstone, 1982:48). Engelbrecht and Lubbe (1981:6), state that in the child's home circumstances, the one factor which contributes most to his progress at school is the attitude of parents towards, and their interest in, his day-to-day educational work.

Parental expectations are highly correlated with school performance (Jubber, 1980:8). Whether a young person values education, and the knowledge and skill that it offers, will depend largely on the point of view of his parents (Mortimore & Blackstone, 1983:40).

Parents who regard what is done at school as valuable, will encourage their children to work hard in order to do well at school. Those who do not appreciate and value what is done at school will not encourage their children to work hard. This lack of encouragement from parents will have an adverse influence on the children's academic achievement. The discouraged child who feels he cannot do well, develops inferiority feelings and lack of security which are a stumbling block towards academic achievement (Mortimore & Blackstone, 1983:49).

2.8 The influence of child-rearing on academic achievement

Different patterns of child-rearing have been found to be associated with academic achievement of children (Wolff, 1989:173). Child-rearing patterns to be discussed are democratic, authoritarian and permissive ones.

2.8.1 Democratic child rearing

Democratic child-rearing refers to the type of upbringing which encourages the child to make responsible choices independently (Gravett, 1988:26). Child-rearing patterns assessed as democratic are most commonly found in educated parents (Wolff, 1983:173).

Children raised by parents who exercise democratic child-rearing have a sense of autonomy (Engelbrecht et al., 1985:158). This autonomy is cultivated by frequent explanations, relaxed parental control, and democratic decision-making.

2.8.2 Authoritarian child-rearing

Authoritarian child-rearing is a mode in which the parent exercises very strong control over the child's behaviour, demanding strict obedience rather than willing co-operation (Farrant, 1988:75). In the families of some under-achieving pupils, authoritarian parents give little warmth or affection, and are more restrictive, aggressive and severe in their punishment (Tlale, 1991:17). Dornbusch, Carlsmith, Bushwall, Ritter, Liederman, Harstorf and Gross (1985:327) contend that this authoritarian type of

parenting, has been associated with low self-esteem, contributing to poor performance of the child at school. Many pupils, contend (Engelbrecht et al. (1985:144), do not perform well at school, not because of low intelligence, but because they consider themselves unable to do academic work resulting in underachievement.

2.8.3 Permissive child-rearing

Permissive parenting allows children to make their own decisions as much as possible, with few demands for control or for maturity (Dornbusch et al., 1985:327). Permissive parents are likely to have children who are lacking in social responsibility and independence (Dornbusch et al., 1985:327). In such family situations, where children do what they like, there is no incentive to work, and at school children may underachieve (Tlale, 1991:16).

From the above discussion, it is clear that parenting styles in child rearing have an effect on academic achievement. A child who feels unloved and insecure may not venture to explore the unknown at school which may lead to poor performance.

2.9 The influence of sibsize on academic achievement

Research on home environment and cognitive development has been concerned with such variables as size of the family, number of siblings, and order of birth within the family (Havighurst & Levine, 1979:174). Walberg and Marjoribanks (1976:528) explain sibsize as the number of children in the family.

It is assumed that the intellectual growth of every member of a family is dependent on that of all other members, and that the rate of growth depends on the family's configuration (Marjoribanks, 1976:195). Cognitive ability decreases with family size because the larger the sibship the poorer the intellectual environment (Marjoribanks, 1976:195), and the lower the child's abilities (Walberg & Marjoribanks, 1976:532).

Marjoribanks and Walberg (1976:532) argue that, since children share adult resources of intellectual stimulation in the family, the mathematical relationship between sibsize and parental stimulation is not linear but is of a hyperbolic form involving the term "One divided by the number of children in the family". That is, the amount of parental attention received by each child decreases as the number of children in the family increases (Walberg & Marjoribanks, 1976:532). With each additional child the successive decrements in shared attention becomes smaller (Walberg & Marjoribanks, 1976:532).

Jubber (1990:8) also argues that increasing family size impacts progressively negatively on school performance. This is partly due to the reduction that such increases imply in the attention that children receive from their parents and the reduction in living standards, living space, learning resources and privacy that is generally associated with increasing family size (Jubber, 1990:8).

Walberg and Marjoribanks (1976:532) further argue that the amount of parental attention received by each child decreases as the number of children in the family

increases in such a way that with each additional child the successive decrements in shared attention becomes smaller.

On the other hand, Datta (1983:174) states that the argument put forward that in a larger family a child gets less maternal care, is of doubtful validity in African societies. Datta (1983:174) says the implicit assumptions of this approach are that it is only the biological mother who can take care of the child and that multiple mothering is a kind of maternal deprivation. Multiple mothering is the practice of the child given maternal care by several women including the mother (Datta, 1983:174).

In African societies the routine tasks of the mother such as feeding, caring, dressing the baby, are often performed by her sisters, sisters-in-law or older daughters (Datta 1983:174). This is considered normal in the extended family and is not regarded as a form of maternal deprivation for the child (Datta, 1983:176). Thus a large family need not necessarily mean a reduction in maternal care - it may on the contrary be argued that in a larger family the child is likely to receive more adult company and guidance which may help his speech development because of verbal stimulation from other members of the extended family (Datta, 1983:174).

2.10 The influence of birth order on academic achievement

Havighurst and Levine (1979:175) report that the brightest children are generally those born early in the family (thus often first-borns), perhaps because they have a good deal of undivided adult attention in their early years. Walberg and Marjoribanks (1976:532)

also state that first-borns may tend to be brighter, either because some of them are single children and receive all the available parental attention, or because they receive 100 percent of the parental stimulation until the second child is born, whereas later born children usually have to share parental attention.

When one baby is born after another in rapid succession, the toddler is forced to be independent and socially competent earlier than if he remained the youngest child in the home for a long period (Wolff, 1983:149). Hendricks (1980:114) explains competence as effectiveness in dealing with the environment. Hendricks (1980:114) further contends that this competence contributes to the child feeling masterful and thus independent in performing school work. Thus competence and independence are worth enhancing for good school performance.

Wolff (1983:148) also states that children from large families, especially latecomers, are doubly at risk: they are poorly socialized and they miss out on language learning. Most of the time they are at play with other children outside and intimate conversations with adults under quiet conditions are rare (Wolff, 1983:148). The lack of frequent conversation between parents and children may result in a child going to school with a restricted vocabulary which may have a negative effect on his school performance.

Though there is cause for suspecting that sibsize and birth order are related to school performance, at this point in time it is not entirely clear how these variables contribute to school achievement other than that these variables appear to be connected with school achievement (Havighurst & Levine, 1979:178).

2.11 Conclusion

The foregoing discussion has indicated that home variables have an influence on children's academic achievement. Different families create environments that influence children's intellectual growth and educational motivation in different ways.

Since social class tends to provide differing home environment, it is thus not only the teacher's duty, but also his privilege to know and understand the child's home background in order to be able to help the child perform well by using appropriate styles and strategies in teaching.

CHAPTER 3

3 OTHER VARIABLES WHICH INFLUENCE ACADEMIC ACHIEVEMENT

3.1 Introduction

Underachievement is an acquired form of behaviour which results from a variety of variables (Tlale, 1991:16). Though there are many variables contributing to underachievement, the majority of studies have focused on personality, social and family factors (Bow, 1988:18). In this chapter, variables other than the family, which influence academic achievement, are discussed. Variables relating to the school, learning strategies, attributions and self-efficacy are discussed.

3.2 School-related variables

For many children, school provides thrills, pleasure and a sense of achievement and belonging, compensating in some cases, for stress and disadvantages in the home and neighbourhood (Wolff, 1983:156). For others school itself is stressful, for, whenever school work fails to challenge children's capabilities or capture children's interests, the likely outcome is dislike for what is being taught and lack of interest in school (Richards, Gaver & Golicz, 1984:273). This lack of interest in school may partly be responsible for underachievement (Whitmore, 1980:165).

The failure of underachievers to realize their intellectual potential represents a tragic loss to society and the world in its need for leadership, innovation and competence (Whitmore, 1980:165). There is thus a need to alleviate the problem of underachievement.

The following are some of the school-related variables responsible for underachievement: Teacher-pupil relationships, discipline, unrewarding curricula, subject matter, teaching methods and competition.

3.2.1 Teacher-pupil relationships

For a pupil to perform well at school, he must relate well with the teacher as the co-operation between the teacher and the pupil results in good performance (Matseke, 1981:121).

A teaching-learning situation is one of involvement and interpersonal relationship (Matseke, 1981:123). The teacher is the main person to promote a sound relationship between himself and the learner (Engelbrecht et al., 1985:128). Unfortunately this is not always the case in schools (Matseke, 1981:123).

Where the teacher controls his class with a whip and by handing out smacks, there will be a hostile atmosphere in the classroom (Engelbrecht et al., 1985:128). Pupils, as a result of the teacher's highhandedness, may be openly rebellious, refusing to do schoolwork, criticizing assignments and disrupting the order in the classroom by refusing to take punishment (Engelbrecht et al., 1985:128).

When the relationship between the teacher and the pupil is not sound, leading to rebellion on the part of the pupil, low or inconsistent achievement is inevitably part of the act (Matseke, 1981:123).

Some teachers become angry with the child when he asks questions (Matseke, 1981:24). In such cases, pupils are not free to communicate with the teacher. They are even afraid to ask questions where they do not understand, nor are they encouraged to do so by the teacher (Matseke, 1981:124).

Lack of respect for women teachers by older boys, who still regard women as inferior, is another problem that teachers have to contend with in black schools (Matseke, 1981:124). This lack of respect of teachers may adversely affect learning because pupils may not be keen to do the work given to them by women teachers because of lack of respect (Matseke, 1981:124).

For pupils to perform well in a teaching-learning situation, it is important that a relationship of mutual trust, respect and understanding should prevail between the teacher and the pupil (Butler-Por, 1987:25) so that he can be brave enough to ask questions in class. The underachieving child is sensitive to resentment and lack of trust by the teacher and other pupils (Whitmore, 1980:192).

3.2.2 Discipline

The achievement of pupils at school does not only depend on their ability and on the attitude of teachers but to some degree on the discipline of the school (Matseke, 1981:148).

Lack of discipline leads to a restless school atmosphere (Engelbrecht et al., 1985:132). Teachers and pupils walk around during lesson time, and in the classroom children make noise (Wolff, 1983:188). This restless atmosphere leads to lack of concentration, which may have an influence on pupils achievement at school (Wolff,

1983:188). A restful and calm atmosphere is required in the classroom so that pupils can attend to their work without interruption (Wolff, 1983:189).

The way students are disciplined also has an influence on achievement. Disciplining students by keeping them in for recess to complete school assignments is not appropriate for underachievers (Rimm, 1983:233). They may actually prefer the time alone with their teacher to the peer group recess relationship which they actually may find uncomfortable (Rimm, 1988:232). Thus the threat of a lost recess either may serve no appropriate purpose or may even reinforce their non-completion of assignments (Rimm, 1988:233).

Disciplining children by writing names on the board because of unfinished work is also inappropriate (Rimm, 1988:233). This exercise highlights children's inadequacies to the class and serves only to confirm the children's suspicions that they do not measure up to typical student performance (Rimm, 1988:233). For most children, whose names may appear only occasionally, it does no harm, and the exercise may serve as a reminder to stay on the task (Rimm, 1988:232). Children who perform poorly will see their names on the board daily, an exercise which may not motivate them to perform better.

Disciplining children by means of withdrawal of privileges based on incomplete work should be used sparingly, for frequent use will only prevent these children from participating in the important and rewarding activities. Withdrawal of privileges as a means of discipline is only effective if children personally feel that they can do something to change their consequences (Rimm, 1988:233). Unfortunately they often feel doomed to failure, depressed, sad and helpless (Klein, 1991:273).

3.2.3 The curriculum

The concept curriculum covers a wide area and is often used rather loosely (Bray et al., 1986:144). When most people refer to the official curriculum, they are thinking about syllabus documents and timetables (Bray et al., 1986:144). Broader definitions, however, include official statements of goals, the structure of education systems, and the content and style of examinations (Bray et al., 1986:144).

In this study the discussion of the curriculum is centred on the syllabus.

Underachievers sometimes experience intense conflict between internal desires for high levels of mastery and perfection on advanced, complex, challenging tasks and the external demands to conform to routine completion of an unchallenging curriculum (Whitmore, 1986:66). A curriculum which does not cater for interests and abilities of students may lead to underachievement (Whitmore, 1980:193). Children are often anxious to question, criticize, discuss and learn but unfortunately sometimes the regular school curriculum does not normally provide opportunities for this (Tlale, 1991:18).

3.2.4 Subject matter

The subject matter taught at school may lead to boredom and underachievement. Causes of such lack of interest range from lack of purpose to lack of understanding (Laurens, 1992:13). A pupil who finds subject matter confusing is most unlikely to find it interesting (Laurens, 1992:13), and lack of interest in subject matter leads to poor performance.

Subject matter which is too difficult is an obvious reason for underachievement (Rimm, 1988:89). If children are expected to learn content for which they are not ready, they may feel justifiably defeated and give up (Rimm, 1988:89). Unfortunately, children who feel defeated in one skills area easily generalize that underachieving style to other subject matter (Rimm, 1988:89).

Subject matter which, on the other hand, is too easy is another cause of underachievement (Rimm, 1988:90). Too easy subject matter can be boring and unsatisfying, making escape into stimulating daydreams or social interaction more rewarding (Whitmore, 1986:66).

When a student is confronted with subject matter that promises to be intrinsically rewarding because the content and process are related to the student's special interest and career goals, the natural response is one of high motivation to participate, leading to good performance in the subject matter concerned (Whitmore, 1986:66).

3.2.5 Teaching methods

Teaching methods which do not allow the child to exercise the need for autonomy and develop initiative can contribute to underachieving behaviour (Butler-Por, 1987:27).

With children who are socialized into autonomous behaviour and encouraged at home to exercise initiative, a restrictive classroom situation, with conventional teaching methods can lead to frustration (Butler-Por, 1987:30). Prolonged frustration and boredom may drive such children to "opt-out" of the learning situation in school and "choose" to become underachievers (Butler-Por, 1987:30). These children may show

their frustration in passive resistance to learn, or by becoming aggressive and disruptive in class (Tlale, 1991:17).

A teacher who understands the complex process of divergent thinking by using a variety of teaching methods, attractive and effective teaching aids will instil interest in learning (Tlale, 1991:17). A teacher who allows and caters for individual differences in learning, will instil joy in learning, resulting in good school performance (Tlale, 191:17).

3.2.6 Competition

Underachievers do not handle competition well. They are poor losers. They get angry and quit or they sulk, whine and find excuses and give up (Rimm, 1988:79). They tend to see things in a competitive framework but fear failure because they want so desperately to win (Rimm, 1988:79). The more frequently they see themselves as losers the less they work (Tlale, 1991:17).

In a classroom where competition is heavily stressed, pupils who do not have a clear sense of their own competence perceive, on a daily basis, that they are not measuring up to the standards of excellence expected of the class (Tlale, 1991:18). The pupils who more frequently see themselves as losers, in a competitive class are likely to dislike students who surpass them, and other competitive class activities (Rimm, 1991:79).

Of course there should be competition in the classroom because society is competitive (Rimm, 1988:79). Classroom contests and games which vary from subject to subject help children to meet competitive situations later in life with courage and a certain

degree of emotional stability (Matseke, 1981:22). Practices which though should be avoided are the open announcement of individual grades, public criticism of individual children's poor work, exclamations of surprise when a child performs well who usually doesn't, the invidious comparison of class papers and children's criticism of each others work, especially in the early grades before they are able to handle such criticism (Rimm, 1988:80).

3.2.7 Peer-group influence

Peer-group refers to a group of people who have an equal social status and are usually of similar age (Papenoe, 1986:136).

The child's need to be accepted as a person leads him to associate with the peer-group and to do everything in his power to get them to accept him (Vrey, 1990:170). A popular saying among pupils especially in high school is "I'd rather be dead than out" (Engelbrecht et al., 1985:130).

Because it is so important to children to belong and "fit in", children who are placed in classrooms where they are alone in their differentness, without "buddies" or clusters of peers with similar abilities, are at risk of learning difficulties and underachievement (Whitmore, 1988:13). An isolated student may cope with the sense of ostracism by repressing anger and resentment and working hard to achieve (Whitmore, 1988:13). In such a situation the child often seeks peer acceptance by masking good performance to peer behaviour patterns, and purposely underachieving (Alvino, 1991:177).

If there is an excessive amount of criticism, failure experiences, or competition with pressure for grades or being a "winner", children will suffer emotionally and socially

(Whitmore, 1980:158). Their performance makes them vulnerable to feelings of failure, and their supersensitivity can cause them to perceive very subtle messages of peer resentment or rejection (Whitmore, 1980:158). In such a context, the child is very vulnerable to anxiety and diminishing self-esteem and if there is a demand for conforming to peer standards at the expense of good school performance, he will do so (Whitmore, 1980:158).

Anytime an individual enters into a relationship with another person, there is an unconscious assessment intended to determine whether or not the interaction will be rewarding or not (Whitmore, 1980:186). If the interaction with the teacher is not rewarding to the child through lack of acceptance, the pupil can be expected to seek the reward of acceptance from peers (Whitmore, 1980:187). This is usually seen by the teacher as the child becoming disruptive in class, as she may wander around the class socializing instead of working, may gain attention by constant talking, or may be the classroom clown (Whitmore, 1980:187). If the rewards are not forthcoming from the peer group, the child will become withdrawn and function entirely as a loner, or will become aggressively dominating in an effort to demand the needed attention (Whitmore, 1980:187). The "problem behaviour" of not working effectively in class to try and draw attention for acceptance from peers may lead to underachievement.

It sometimes happens that a child becomes a member of a group which is not interested in schoolwork (Engelbrecht et al., 1985:130). Social pressure by a peer group unmotivated toward educational goals and antagonistic toward authority figures such as teachers, will have a negative effect upon school performance in any child striving for peer recognition (Glaser, 1974:39).

In some cases, where peers are extremely negative because of one's performance in class, changing schools might be a reasonable alternative. Moves from one school to the other, coupled with new achievement efforts may facilitate positive peer acceptance (Rimm, 1988:179).

Students who do not perform well at school need the support of teachers against peer pressure because peers assign rejecter status to underachievers (Horne, 1982:79).

3.3 Learning strategies

3.3.1 Definition

The term "strategy" refers to the implementation of a set of procedures aimed at accomplishing something (Schmeck, 1988:5). A learning strategy can thus be defined as a sequence of procedures employed by the student to accomplish learning (Schmeck, 1988:5). Examples of learning strategies include underlining key ideas in a passage, outlining the key or main ideas of a chapter or lecture, paraphrasing, analysing and monitoring information during learning, organizing and monitoring information and trying to put some newly learned information into one's own words (Mayer, 1988:11; Pintrich, 1988:75).

3.3.2 The influence of learning strategies on academic achievement

It is very important for students to know the characteristics of the task, and the nature of materials which influence their learning. The important issue concerning learning strategies is learning with awareness (McKeachie, Pintrich & Lin, 1985:154). Knowledge regarding their own abilities will help students adapt their learning to the learning task (McKeachie et al., 1985:154).

Learning strategies also help students to know themselves and the student's knowledge of himself as a learner, his knowledge of the learning task and learning strategies are important variables that influence academic achievement (Flavell, 1979:907).

Learning strategies help students retrieve stored information (Weinstein, 1987:590). In retrieving this stored information effectively, strategies such as rehearsal, elaboration and organizational strategies are used (Weinstein & Mayer, 1986:316).

Students who prepare for complex tasks such as learning material for a test may include rehearsal strategies such as taking notes as one reads, and underlining (Pintrich, 1989:130). The act of note-taking, independent of whether or not notes are retrieved, enhancies learning because it both increases attention to, and encourages elaboration of information presented (Kardash & Kroeker, 1989:323).

Underachievement may thus sometimes be caused by students who do not take notes when studying because Kardash and Kroeker (1989:323) contend that students who take notes remember more than those who do not, and that performance on tests is enhanced for students who are given an opportunity to review their notes compared to these who are not.

The use of metacognitive strategies, defined as a student's knowledge of cognition and his control of that knowledge (Pintrich, 1989:132), also has an impact on academic achievement. Pintrich (1989:132) notes that there are three general processes that make up metacognitive control strategies: planning, motivation and self-regulation.

Planning strategies include setting goals for studying, skimming, generating questions before reading the text, and doing a task analysis of the problem (Pintrich, 1989:132). Clear, attainable goals set by students when preparing for a test produce higher levels of performance and it is this higher performance that indicates to the learner that he is capable, which leads to good academic performance (Bandura, 1986:472).

How much effort learners expend to attain a goal depends on the level at which it is set and the more challenging the goal, the more the effort expended (Schunk, 1985:217). Bandura (1986:472-473) postulates that in situations where one has control over activities, and when one sets oneself higher goals one's performance level improves.

Self-regulated learning strategies are related to monitoring strategies, because for "example" as learners monitor the comprehension of a text, they can regulate their reading speed to adjust to the difficulty of a material (Pintrich, 1989:133). These self-regulated activities are assumed to improve performance by assisting learners in checking and correcting their behaviour as they proceed with a task (Pintrich, 1989:133).

Resource-management strategies, defined as assisting students in managing their environment and the resources available (Pintrich, 1989:133), also have a positive impact on learning. These resources include persistence, effort management and seeking help from teachers and peers (Pintrich, 1989:133).

Students need to know when and how to seek and obtain help. Sternberg (1985, quoted by Pintrich, 1989:134), contends that good students know when they don't know something and are able to identity someone to provide some assistance. The source of this help can be a teacher or a peer. This resource management strategy boosts academic performance because it fosters high social interaction and more

individual involvement; mutual support and emotional involvement; a sense of independence; self-esteem and a belief that one is capable (Radenbaugh & Kazemek, 1989:416)

To enhance the learning of students it is important that teachers should focus instruction on the acquisition of learning strategies (Cliff, Ghatala, Naus & Poole, 1990:253) for strategies are not ends in themselves, but deliberate means to an end, the end being enhanced task performance (Bjorkland, 1990:97).

3.4 Attributions

Attributions may be described as the individual's search for understanding and quest to discover why an event has occurred, and is inferred from self-evaluation of the results and consequence of behaviour (Weiner, 1984:18).

Attributional theories postulate that individuals use information to arrive at causal ascriptions for outcomes primarily in terms of ability, effort, task difficulty and luck (Schunk, 1985:49). These attributional ascriptions which vary along the dimensions of stability, controllability and locus affect student performance either positively or negatively.

3.4.1 Stable versus unstable attributional ascriptions

When an individual attributes success to stable factors such as aptitude, ability and other personal traits, he is likely to have expectations of future success (Weiner, 1981:25). On the other hand, however, when an individual attributes failure to stable

factors such as aptitude, ability and personal traits, he will have expectancies of future failure (Schunk, 1989:24).

Attributions of failure to stable factors such as ability will lead to helplessness since people can change their effort but not their ability (Klein, 1991:283). On the contrary, attributions of failure to unstable factors will lead to hope for future success, because unstable factors such as effort are controllable (Schunk, 1985:216). The student therefore expects outcomes ascribed to stable causes to be repeated in the future with a greater degree of certainty than outcomes to unstable causes (Weiner, 1985:559).

3.4.2 Controllable versus uncontrollable attributional ascriptions

Success ascribed to a controllable cause such as effort, furthers future expectancies of success (Klein, 1991:282). Failure ascribed to an uncontrollable cause such as ability, however, evokes feelings of helplessness (Klein, 1991:272).

Exposure to uncontrollable events produces helplessness because of the development of an expectation that these events are independent of behaviour. Once individuals acquire the belief that they cannot influence the occurrence of aversive events, helplessness ensues (Klein, 1991:275). Apparently, individuals' expectations of future events depend on their belief that they can control past and present experiences (Klein, 1991:277).

3.4.3 Locus of control

The construct of "locus of control" has been used to describe whether individuals' belief that the reinforcements they receive are the consequences of their own actions (internal control) or are due to the factors beyond their personal control (external

factors) (Pearl, Bryan & Donahue, 1980:3). Locus of control thus emphasizes perceived control over outcomes.

Belief in "internal control" indicates that outcomes are perceived as the result of one's own effort and ability (Pearl et al., 1980:56). For example, if a student wants to pass an exam, and believes that hard work will make him pass, he will then spend hours studying for the exam (Klein, 1980:44). The student will then be reflecting the belief that obtaining a goal depends upon his own actions (Klein, 1991:44).

Belief in "external control" reflects the perception that outcomes are the result of luck, task difficulty or other factors over which the individual has no influence (Pearl et al., 1980:56). If a student believes that luck will determine his grade in the exam, he will not exert much effort in studying, because luck is an external factor beyond his control (Klein, 1980:45).

Students who believe that they possess a large measure of control over outcomes in achievement situations should be more inclined to engage in activities and persist at them, than students who believe that their success or failure is caused by their own actions (Klein, 1991:45). Externally oriented individuals on the other hand, assume that they have no control over their fate (Klein, 1991:45).

It is important that teachers should help students to attribute success or failure to internal forces. If students hold themselves responsible for their performance outcomes, they will believe that the improvement of their performance depends upon their own actions and they will thus work harder. If they attribute success or failure and will make little or no effort to improve their performance.

3.4.4 The influence of attributional ascriptions on achievement

Failure attributed to an unstable, controllable variable such as effort makes a student work harder, because when a student believes that increased effort will produce success, he would persist longer at a task and thereby increase his level of performance (Schunk, 1984:50). On the other hand, however, if failure is ascribed to a stable uncontrollable variable such as aptitude, a student lacks the enthusiasm to work harder (Weiner, 1981:30). The student lacks enthusiasm because the future is expected to remain as bad as the past, and as a result helplessness is elicited which will adversely affect achievement (Weiner, 1984:30).

A student who believes that he will not be able to succeed in doing a task because of uncontrollable variables such as ability, experiences a traumatic emotional state and becomes helpless and exhibits motivational deficits (Klein, 1991:277).

Students who attribute their failure to external factors such as luck do not have a feeling of helplessness when they face difficulties in executing tasks since they do not consider themselves responsible for their failure (Klein, 1991:282). However, the attribution of failure to internal factors makes one feel incompetent (Klein, 1991:282). A student who feels incompetent does not exert himself when faced with a task because he believes that his incompetence is unlikely to change (Klein, 1991:283), an attitude which may result in underachievement.

If success or failure has been attained, and if the conditions or causes of that outcome are perceived as remaining unchanged, then success or failure will be anticipated again with a reasonable degree of certainty (Weiner, 1984:24). But if the conditions or the causes of failure are subject to change, then there is reasonable doubt of repetition of the previous outcome (Weiner, 1984:25).

3.5 Self-efficacy

Bandura (1986:390) maintains that among the different aspects of self-knowledge, perhaps none is more influential in people's everyday lives than conceptions of their personal efficacy.

Bandura (1986:391) defines self-efficacy as personal judgments of capabilities to organize and execute courses of action required to attain designated types of performance. Schunk (1989:14) further states that self-efficacy for learning refers to students' beliefs about their capabilities to apply effectively the knowledge and skills they already possess, and thereby learn new cognitive skills. To produce desired outcomes, it is important for an individual to be convinced that he or she is capable of executing the necessary tasks successfully (McAuley, Duncan & McElroy, 1988:65).

Skills which one already possesses are not the determining factor for the accomplishment of a task, because one might have the necessary skills, but if one is not adequately self-efficacious, one may not accomplish the task (Bandura, 1986:39). The student thus has to believe that his behaviour can generate desired outcomes if he is to persist with the behaviour despite difficulties (Czerniak & Chiarelotte, 1990:50).

3.5.1 Sources of self-efficacy

Knowledge about one's self-efficacy, whether accurate or faulty, is based on some sources of information (Bandura, 1986:399). These sources of information contribute to the development of one's judgments of self-efficacy (McCombs, 1988:144). In this discussion the following sources are discussed, namely enactive experiences, vicarious

experiences, verbal persuasions, psychological reactions and sources related to learning practices.

3.5.1.1 Enactive experiences

Enactive experiences refer to performance outcomes resulting from one's own actions (Schunk, 1991:87). Performance outcomes exert an important influence on self-efficacy. However, an occasional failure after many successes may not have a great impact. Similarly, one success after many failures may not raise self-efficacy much (Schunk, 1985:212).

Continued failure serves to reduce efficacy cognition, particularly if that failure occurs in the early stages of performance (McAuley, Duncan & McElroy, 1988:66). Success promotes increased effort and enjoyment, as well as attempts at more difficult and complex skills (McAuley et al., 1988:66).

Failure often results in reduced effort and decreased participation. Thus information which is rooted in mastery experiences appears to provide the most potent efficacy information (McAuley et al., 1988:66).

The extent to which people may have their self-efficacy perceptions changed on the basis of their enacted experiences, depends on variables such as amount of effort they expend, the difficulty of the task, amount of outside help and failures (Bandura, 1986:401). Success at an easy task does not raise the individual's self-efficacy level, while on the other hand mastering difficult tasks results in a high sense of efficacy (Bandura, 1986:402).

A person who attains success after help by other people will not have his self-efficacy level raised because this success will be ascribed to external factors rather than to personal capabilities (Schunk, 1985:210).

3.5.1.2 Vicarious experiences

Vicarious experiences refer to observing other people perform tasks successfully, more especially people who are similar to the observer (Bandura, 1986:399). An observer who sees other similar people perform tasks successfully can have his or her perceptions of self-efficacy improved, because this conveys to the observer that he or she possesses the same capabilities to accomplish the task as well (Schunk, 1985:215).

In classrooms, students acquire much information about their own capabilities through knowledge of how others perform (Schunk, 1985:209). The vicarious capability lends the student the capacity to gain self-knowledge by observing the behaviour and behavioral results of similar others, on condition that the modelled behaviour is important to the observer (Schunk, 1989:13). The student thus acquires rules for generating and regulating behavioural patterns and reduces trial and error with the accompanying feelings of failure (Bandura, 1986:19).

Observing similar peers succeed at a task can convey a vicarious sense of efficacy to students that they too can accomplish a task (Schunk, 1985:209).

Observing similar others perform a task that is dependent not only on inherent characteristics but also on skills, strategies and knowledge, serves as a source of outcome expectancies and self-efficacy (Schunk, 1985:209). This peer observation is a

reliable source of self-efficacy to students because the observed peer might be similar in perhaps age, gender, ethnicity or socio-economic background (Schunk, 1989:24).

Though one attains a vicarious sense of efficacy when observing others succeed, this vicarious increase in efficacy can be negated by subsequent personal failures (Schunk, 1985:209).

3.5.1.3 Verbal persuasions

In learning contexts and elsewhere, verbal persuasions are used to convince people to believe that they are capable to achieve what they want (Bandura, 1986:400). These persuasions have an effect on people's perceptions of self-efficacy.

Students often receive persuasory information from the teacher, such as "you can do this" (Schunk, 1985:209). Persuasory feedback enhances self-efficacy to a student who may find a task to be accomplished difficult (Bandura, 1986:406). Students who are persuaded verbally that they possess the capability to master given tasks, are likely to mobilize greater sustained effort than if they harbour self-doubts (Bandura, 1986:400).

Although positive persuasory feedback can promote a student's sense of efficacy for performing a task well, this increase is apt to be short-lived if the student subsequently performs poorly (Schunk, 1985:209).

3.5.1.4 Physiological reactions

The emotional experiences that one goes through while busy with a task or approaching a task enable one to judge one's capabilities (Bandura, 1986:401).

Emotional reactions such as excessive perspiration or accelerated heartbeat, before tackling a task could be interpreted by students as indicating that they may not be capable of performing well (Schunk, 1991:122). When students notice that they are reacting in a less agitated fashion before tackling a task, they may experience a heightened sense of efficacy for mastering the task (Schunk, 1985:209).

3.5.1.5 Sources related to teaching practice

3.5.1.5.1 Instruction presentation

Instruction refers to the teacher's explanations demonstrations and re-teaching along with students' learning activities (Schunk, 1988:8).

How instruction is presented can affect student's learning efficacy (Schunk, 1985:214). Teachers who not only explain in presenting subject matter, but also model the application of cognitive or utilize symbolic models like films and videotapes help students comprehend the learning material better (Schunk, 1985:214). Students who readily comprehend the teacher's instructions and explanations are apt to feel more efficacious for learning than those who experience less understanding (Schunk, 1985:24).

Though teacher modelling leads to a higher sense of efficacy, low achievers may view the teacher as vastly superior in competence (Schunk, 1985:214). Peer modelling may therefore be more effective than teacher modelling, due to the similarity perceived in age and competence (Schunk, 1985:214).

Schunk (1988:199) states that instructional presentation also includes a variety of variables such as the setting of the classroom, instructional format, materials to be learned and equipment used. The use of a variety of instructional approaches and learning settings make students comprehend the subject matter better, and better comprehension of the subject matter raises self-efficacy.

3.5.1.5.2 Performance feedback

It is important that students get feedback from the teacher when learning so that they can assess whether they are making progress or not. To develop self-efficacy, students need clear information that they are acquiring knowledge and skills, and also mastering the material (Schunk, 1985:214).

Performance feedback such as "That is correct" and "You're doing better" informs the students that they are acquiring skills and knowledge, and this enhances self-efficacy (Schunk, 1985:216).

Performance feedback may not be in terms of verbal feedback only, as students can also gain capability information through graphic presentation, charts and grades (Schunk, 1985:216).

3.5.1.5.3 Goal-setting

Goal-setting involves comparing one's present performance to some desired standard (Schunk, 1985:217). When students have set themselves or are given goals for learning, they may experience a sense of self-efficacy when they attain these goals (Schunk, 1985:217).

Goals incorporating specific performance standards are more likely to enhance self-efficacy than general goals (Schunk, 1990:74). Specific goals boost performance by greater specification of the amount of effort required for success and self-satisfaction anticipated (Schunk, 1990:74).

Proximity of goals refers to how far goals project into the future (Schunk, in press). Proximal goals result in greater self-efficacy than distant goals because it is easier to gauge progress towards a proximal goal, and the perception of progress raises self-efficacy which invariably affects achievement (Schunk, 1990:74).

Goal difficulty also has an influence on self-efficacy, because students who attain difficult goals have their efficacy boosted more than when standards are lower (Schunk, 1990:74). Lower standards may not motivate students to exert themselves when given a task, a situation which may also promote laziness and unwillingness to do extra work.

3.5.2 The influence of self-efficacy on academic achievement

To show that self-efficacy has an influence on academic achievement, Zimmerman (1985:331) states that students' self-efficacy perceptions are closely related to the tasks that they are engaged in as well as to their performance levels and outcomes. Therefore an assumption can be made that self-efficacy has an influence on students' learning activities.

Choosing a task and continuing with it depends on an individual's perceptions of self-efficacy (Schunk, 1988:4). Students who have a low self-efficacy may fail to do the

task or even not attempt to do the task (Miller, 1989:234). The apparent choice of doing a task is the first indication of motivation which leads to achievement.

High self-efficacy stimulates effort and persistence when problems are encountered, while low self-efficacy leads to doubts, avoidance of techniques and lack of effort (Schunk, 1990:121). Thus a student with a high sense of efficacy will achieve better than the one with low efficacy because obstacles make him intensify his efforts whereas an inefficacious one might easily give up when faced with problems in a learning situation.

3.6 Conclusion

This chapter focused on the influence of the school, learning strategies, attributions and self-efficacy on academic achievement.

To promote good academic performance, it is important that teachers in instructional presentation should use a variety of learning settings, material and equipment, for students believe that they can be successful when learning under these conditions and this boosts their self-efficacy.

Attributions also enhance a sense of personal responsibility for failure, and increase motivation, heightened attention and reduce threat on academic tasks (Platt, 1988:569). Learning strategies also positively influence the process and outcome of learning (Mayer, 1988:11).

There is thus a strong influence of self-efficacy, attributions and learning strategies on academic achievement because self-efficacy and attributions influence students' use of learning strategies (Schunk, 1990:3).

CHAPTER 4

4. METHOD OF RESEARCH

4.1 Introduction

In this chapter the empirical investigation adopted for this study is described. The aim of the study is stated in paragraph 4.2, while the population and sample are discussed in paragraph 4.3. The instruments used to collect data are discussed in paragraph 4.4. The research design is outlined in paragraph 4.6. Finally, the statistical techniques used to analyse the data are outlined in paragraph 4.7.

4.2 The aim of the research

The aim of the research was to determine the relationship between home and other variables, inter alia, motivational and cognitive variables and academic achievement.

The effect of continued failure on the student is destructive, hence, the need to identify those variables that have the largest impact on academic achievement.

4.3 Population and sample

The Middle School Students in Std. 7, in the MABOPANE Circuit, both from rural and urban areas, formed the study population for this research. The study population comprised 1316 students. Random cluster sampling, consisting of two steps, was used to draw a sample from the population. A random cluster sample of five (5) out of thirteen (13) schools was first drawn (see Table 4.1), thereafter, random cluster sampling was again used to draw one (1) class from each of the these five (5) schools (see Table 4.2)

TABLE 4.1 Classes and number of students drawn by random cluster sampling

School	No. of Classes	No. of Students
1	4	232
2	6	342
3	3	168
4	4	232
5	6	342
Total number of students		1316

Through the second random cluster sampling, one (1) class from each of the five schools was drawn (see Table 4.2).

TABLE 4.2 School, classes and number of students drawn by random cluster sampling

School	Selected Classes	No. of Students
1	7A	40
2	7B	54
3	7A	48
4	7C	61
5	7B	45
	Total number of students	248

4.4 Instruments

The following questionnaires were used to gather the data needed to test the hypotheses:

4.4.1 Socio-economic Status and Biographical Questionnaire (SESQ)

The Socio-economic Status and Biographical Questionnaire (see Appendix A) was designed to depict students' socio-economic background.

As some students were shy about revealing the socio-economic status of their families, they were especially encouraged to be honest in their response to questions.

4.4.2 Self-efficacy Questionnaire (SEQ)

The Self-efficacy Questionnaire (see Appendix B) was developed (by Monteith & Mathebula, 1992:53) as a paper-and-pencil test to assess students' perceived capability to correctly perform a variety of learning-related tasks. The questionnaire consisted of two parts:

PART ONE

Part 1 of the SEQ assessed self-efficacy in a way similar to that used by Berry, West and Dennehey (1989). Part One initially consisted of 62 statements (see Appendix B), each describing a task related to effective learning and studying, such as:

Planning	Items: 10,27,29,32,37,41
Connecting ideas	Items: 2*,6,26,28,30,59
Help-seeking	Items: 1,22*,24,52*,57
Outlining	Items: 11*,53
Paraphrasing	Items: 16,47,58
Note taking	Items: 35,61*
Selecting main ideas Items:	Items: 38

Knowledge of learning strategies	Items: 13,21
Expectations	Items: 4,7,8
Sense of responsibility	Items: 56*
Perseverance	Items: 3,33,42,62
Concentration	Items : 5*,31,40,50
Environmental regulation	Items: 9,15,54*
Environmental/monitoring	19,34,44,46*,48,49
Self-confidence	Items:12,14,17,18,23,36*,39*,43,51,55
Self-knowledge	Items: 12,20,25,45,60*

Scale:

No	Yes	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%

Items eliminated because of a low index of discrimination.

For each item, the subjects had to indicate whether they could perform the task described by circling "no" or "yes". If "yes" was circled, subjects had to rate their certainty (i.e. strength of perceived self-efficacy) to perform a task by circling a confidence rating. Following Bandura, (1984:205) and Bandura and Schunk (1981:589), the confidence ratings ranged from 10% to

100% confidence in 10-unit increments. The confidence rating is an indication of perceived strength of self-efficacy.

As there were no right or wrong answers, subjects were advised to be honest and to circle the efficacy value that most accurately reflected their own judgments and confidence.

The capability to perform a task had to be judged and not the certainty for being able to successfully perform the task (Schunk, 1982:90; 1987:10). The higher the scale value, the stronger the perceived self-efficacy (Bandura & Schunk, 1981:589). Self-efficacy scores were calculated by summing the scale values of the "yes" responses with at least a 20% confidence (Berry et al., 1989:703) and averaging the 50 items that eventually constituted Part 1 to render a maximum self-efficacy score of 10 for Part 1.

Item discrimination

As no pilot test was run on the SEQ, 62 items of Part 1 of the SEQ were completed and scored to reduce the number of items and eliminate items which did not differentiate between students with a low and high self-efficacy. A discrimination index was calculated for each item by correlating each item with the total score on the questionnaire. As an external criterion was not available, the score on the items (i.e. the total score) was used as the criterion (Brown, 1976:280).

All items with a correlation less than 0,45 were eliminated reducing the number of items to 50. Part one of the SEQ, as used in this study, thus consisted of 50 items. The following items were eliminated: 2, 5, 11, 22, 36, 39, 52, 56, 60, 61 (see Appendix B).

PART TWO

Following Schunk and Rice (1991), Part 2 of the SEQ consists of 12 passages of which two were used as a sample passage to train the subjects in completing part two (see Appendix B). The passages described events familiar to the culture of the subjects. From two to three questions with multiple choice answers were set on each passage. Both passages and questions ranged from easy to difficult, and corresponded in reading level to that expected from Std. 7 students.

The tester explained the procedure for completing Part 2, and then first read example passage E1 aloud with the subjects, followed by the question and multiple choice answers on the passage. After explaining the scale for Part 2, the subjects had to complete each question by indicating how sure they were that they could answer the question by encircling a confidence rating on the answer sheet using the following scale:

SCALE:

10%	20%	30%	40%	50%	60%	70%	80%	90%	100%

The likelihood that subjects judged whether they actually could answer particular questions was minimized by not allowing them to consult passages while making efficacy judgments, by not putting questions on the same pages, and by the tester reading only the questions. As there were no right or wrong answers, subjects were advised to be honest and to circle the efficacy value that most accurately reflected their own judgments and confidence.

As some of the subjects in the sample had language deficiencies, precautions were taken to ensure they understood the directions by including the two example passages and explaining difficult words from the passages, questions and answers. After explaining the instructions, the tester also required a sample of subjects to tell him the instructions until he was satisfied that they understood them.

A self-efficacy score for part two was calculated by adding and averaging the 25 judgments.

Total self-efficacy score

The scores of the subjects on Part 1 and Part 2 were added to render a maximum self-efficacy score of 20 for the SEQ.

Reliability of the self-efficacy questionnaire

The reliability of the self-efficacy questionnaire was calculated by using the Cronbach-alpha reliability coefficient:

Where,

k equals the number of items in the test;

$\sum Vi$ equals the sum of the variance of the individual items in the test; and

Vt equals the variance of the total sub-test (Cronbach 1949:160)

* The reliability of Part 1 was:

  Alpha co-efficient = 0,99

* The reliability of Part 2 was:

  Alpha co-efficient = 0,95 (Mathebula, 1992:57).

4.4.3 Motivated Strategies For Learning Questionnaire (MSLQ)

The MSLQ (see Appendix C) includes 56 items on student motivation, cognitive strategy use, metacognitive strategy use and management of effort. Students were instructed to respond to the items on a 7-point Likert scale (1 = "not at all true of me" to 7 = "very true of me") in terms of their behaviour in learning English and science. The items of the MSLQ were adapted by its developers from various instruments used to assess student motivation, cognitive strategy use and metacognition. Factor analysis was used to guide scale construction, resulting in the exclusion of some of the items from the scales, because of a lack of correlation (Pintrich & De Groot, 1990:34).

An analysis of the motivation items revealed the following motivation factors: self-efficacy, intrinsic value and test anxiety. The self-efficacy scale (Alpha=0,89[1]/0,81 consisted of nine items regarding competence in executing class work e.g. "I am so nervous during a test that I cannot remember facts I have learned"(3), and "I expect to do very well in this class" (8). (Pintrich & De Groot 1990:35).

The Intrinsic Value Scale (Alpha = 0,87/0,84) was constructed by taking the mean score of the students' response to nine items concerning intrinsic interest e.g. "I like what I'm learning

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The Alpha levels as reported by **Pintrich and De Groot (1990)**

The Alpha levels after the / are for South African conditions.

in this class" (5) as well as one's self-assessment e.g. "compared with others in this class, I think I am a good student". (9)

Four items, e.g. "I am so nervous during a test that I cannot remember facts I have learned" (3), "I worry a great deal about tests" (20), concerning worry about and cognitive interference on tests were used in the Test Anxiety Scale (Alpha = 0,75/075) (Pintrich and De Groot, 1990:35).

On the basis of the results of the factor analysis two cognitive scales were constructed, namely, cognitive strategy use and self-regulation. The Cognitive Strategy Use Scale (Alpha = 0,83/0,74) consisted of 13 items pertaining to the use of rehearsal strategies e.g., "I work on practice exercises and answer end of the chapter questions even when I do not have to" (32) and elaboration strategies such as summarizing and paraphrasing e.g. "when I'm studying this topic, I try to make everything fit together" (39) (Pintrich &De Groot, 1990:35).

The Self-Regulation Scale (Alpha=0,74/0,55) was constructed from metacognitive and effort management items. The items on metacognitive strategies, such as planning, skimming and comprehensive monitoring are, for example, "I ask myself questions to make sure I know the material I have been studying" (25), "I find that when the teacher is talking, I think of other things and don't really listen to what is being said" (38) and "I often find that I have been reading for class, but I don't know what it is all about" (37). The latter two items were reflected before scale construction and were adapted from Weinstein et al. (1987) and

Zimmerman and Pons (1986). They included students' persistence at difficult or boring tasks and working diligently e.g. "Even when study materials are dull and uninteresting, I keep working until I finish" (33) and "When work is hard I either give up or study only the easy parts" (27), with the latter item reflected before scale construction. (Pintrich and De Groot 1990:35)

4.4.4 School marks

School marks in English and Physical Science in the half-yearly examination in the schools were used as dependent variables in the study.

4.5 Variables used

4.5.1 Independent variables

Age

Sex

Fathers' educational level

Mothers' educational level

Whether both parents are employed

Father's place of work in the neighbourhood or not

Mother's place of work in the neighbourhood or not

Family size

Sibsize

Birth order

Aspirations of parents for child with regard to educational level to be obtained

Aspirations of parents with regard to future job/occupation

Child's own aspirations with regard to future career

Having a TV at home

Having a radio at home

Having a hi-fi at home

Having books for leisure reading at home

Having newspapers at home

Description of home with regard to physical characteristics

Intrinsic motivation to learn

Test anxiety

Cognitive strategy use

Self-regulation

Self-efficacy

Also see paragraph 5.4 for information on how the variables were grouped together for the purpose of testing the hypotheses.

4.5.2 Dependent variables

Marks in English

Marks in Physical Science

4.6 Experimental design

An **ex post facto** design was used to determine the influence of the independent variables on the dependent variables.

4.7 Statistical procedures and techniques

The data were processed with a mainframe computer of the PU for CHE. Correlation coefficients were calculated with the CORR Procedure of SAS Program (SAS INSTITUTE INC. 1985) to determine the relationship between the independent variables (paragraph 4.5) and the dependent variables.

T-test for independent samples were performed with the t-test procedure of SAS (SAS INSTITUTE INC. 1985) while a one-way analysis of variance was performed by means of the GLM procedure of SAS.

To determine the collective and individual influence of the independent variables on the dependent variable, a multiple regression analysis was performed. The BMDP-9R Computer Program (Dixon & Brown, 1979) was used for the calculation of the regression analysis.

Multiple regression is a method for analysing the collective and separate contributions of the two or more independent variables, X1, X2 X3 ... to the variation of a dependent variable Y (Kerlinger & Pedhazur, 1973:3 and Kerlinger, 1966:360; 1975:659; 1969:187). This method is appropriate in this research in which the collective and the separate contributions of self-efficacy and learning strategies on academic achievement in English, are to be determined.

Multiple regression analysis also helps "explain" the variance of a dependent variable and also to study the influence of several independent variables on academic achievement (Kerlinger et al., 1973:4)

The means, standard deviations, smallest and largest values of each variable were considered.

The practical or educational significance (effect size) was calculated by using two equations. To determine the educational significance of the difference between two groups means the following equation was used:

$$d = \frac{\overline{X}E - \overline{X}K}{SK}$$

Where:

d = effect size;

$\overline{X}E$ = mean of group E;

$\overline{X}K$ = mean of group K;

SK = the largest standard deviation of either group K or group E (Steyn 1990:10-12)

To determine the educational significance of the contribution of a single variable to R^2, the following equation was used:

$$f^2 = \frac{\text{Contribution to } R^2}{1 - R^2}$$

(Steyn, 1990:13-23)

4.8 Procedure

The researcher went to 5 randomly selected schools, falling under the MABOPANE Circuit, to make arrangements with headmasters for the administration of tests. Tests were not administered on a continuous basis, because extra-curricular activities had to be accommodated to ensure the minimum disruption of school programmes.

In all the schools, the students first completed the self-efficacy questionnaire, followed by the MSLQ and lastly the socio-economic status questionnaire. There was a break of 10 - 15 minutes or 20 - 30 minutes, depending on the length of the test. Time was recorded from the beginning to the end of every test.

Before the commencement of every questionnaire, instructions were thoroughly explained to the students. Difficult words, such as self-efficacy, learning strategies and economic status, were explained. To make sure that all students had understood the instructions, a few of them were asked questions pertaining to the instructions before answering the questionnaires. Scales pertaining to each questionnaire were also thoroughly explained to students before the commencement of a questionnaire.

After the administration of all the questionnaires, English and Physical Science marks were then recorded from the JUNE mid-year schedules. The questionnaires were then scored and read into a computer for statistical analysis.

CHAPTER 5

5 STATISTICAL ANALYSES AND INTERPRETATION OF RESULTS

5.1 Introduction

As mentioned in paragraph 1.2, the aim of this study was to determine the relationship between home and other variables, inter alia, motivational and cognitive variables and academic achievement. To achieve these aims three hypotheses were tested (paragraph 5.2). The subjects used in this study are discussed in paragraph 5.3. Paragraph 5.4 focuses on the descriptive statistics of the independent variables used and correlation co-efficients with academic achievement. The influence of the independent variables on the dependent variables is discussed in paragraphs 5.5 and 5.6.

5.2 Hypotheses

The following hypotheses were tested.

Hypothesis 1

There is a relationship between home variables and the academic achievement of Standard 7 students in English and Science.

Hypothesis 2

There is a relationship between motivational variables (i.e. anxiety, intrinsic motivation and self-efficacy) and the academic achievement of Standard 7 students in English and Science.

Hypothesis 3

There is a relationship between cognitive variables (i.e. cognitive strategy use and self-regulation) and the academic achievement of Standard 7 students in English and Science.

5.3 Discussion of the subjects

A number of analyses of variance and t-tests were performed to get a clear view of the subjects used in this study.

5.3.1 Age of the subjects

The average age of Standard 7 students who have never failed and started school at 6 years ought to be 14 years and 15 years for those students who started school at the age of 7. The mean age of Standard 7 students can therefore be considered to be 14 to 15 years. Table 5.5 reveals that 27 of the 248 subjects were below the mean age of Standard 7 students. Only 118

of the subjects were on age and 103 were above the average of Standard 7 students, which implies that 130 of the 248 subjects have either failed or missed more than one year of schooling or started school at an age later than 7 years.

TABLE 5.1: Age distribution of subjects

Age in years	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19 &older**
Subjects	**1**	**26**	**68**	**50**	**33**	**27**	**21**	**22**

Research (Weinstein & Mayer, 1986:317) has revealed that students who are below age may not perform well academically, because younger children have limited knowledge resources. Those students who are above age may also not perform well academically, because it is reported that the academic achievement of students, deteriorates progressively according to the number of years they failed or missed school (Mathebula, 1992:66). Thus in terms of Table 5.1 only 118 of the students who are on age should stand a chance of academic achievement or success according to their potential, while those below or above age may not perform well academically.

In this study a one-way analysis of variance revealed a statistically significant difference in academic achievement in English between younger and older students in the same standard ($F(7,240)=10,83$; $p < 0,0001$). Tukey's post hoc comparison revealed that younger students achieved higher marks in English than older students (see Table 5.2).

TABLE 5.2: Mean academic achievement in English per age group

Age group	Mean academic achievement	Age group comparison	Difference between means
12 years	73,00	13 - 15	11,94 *
13 years	62,12	13 - 16	10,93 *
14 years	56,43	13 - 17	12,41 *
15 years	50,18	13 - 15	18,35 *
16 years	51,18	13 - 19	15,25 *
17 years	49,70		
18 years	43,76		
19 years and older	46,86		

* $p < 0,05$

A one-way analysis of variance also revealed a statistically significant difference in academic achievement in Science between younger and older students in the same standard ($F(7,240) = 7,06$; $p < 0,0001$). Tukey's post hoc comparison revealed that younger students achieve higher marks in science than older students (see Table 5.3).

TABLE 5.3: Mean academic achievement in Science per age group

Age group	Mean academic achievement	Age group comparison	Difference between means
12 years	56,00	13 - 16	13,51 *
13 years	55,58	13 - 17	11,80 *
14 years	52,10	13 - 18	9,82 *
15 years	49,34	13 - 19	12,99 *
16 years	46,06	14 - 16	10,04 *
17 years	43,78	14 - 17	8,33 *
18 years	45,76	14 - 19	9,51 *
19 and older	42,59	15 - 16	7,28 *

* p < 0,05

5.3.2 Father's and mother's level of education

An analysis of Table 5.4 reveals that only 68 of the subjects' fathers have Standard 10 or higher qualifications while an analysis of Table 5.6 reveals that 46 of the mothers have attained Standard 10 and above. It can thus be deduced that most of the subjects' parents may not have the ability to effectively encourage and stimulate their children to learn effectively, because of lack of formal or academic knowledge. It has been proved that mothers and fathers with college education have a positive influence on the academic achievement of their children because they have formal education (Caldas, 1993:206).

A one-way analysis of variance revealed a statistically significant difference in academic achievement in English ($F(5,242) = 3.61$; $p < 0,0036$) and Science ($F(5,242) = 3.11$; $p < 0,0097$) between students with fathers with a higher educational level and students with less educated fathers. Tukey's post hoc comparison revealed that students whose fathers had a Standard 8 and higher qualifications achieved significantly better in English than students whose fathers who had Standard 6 or lower qualifications, and that in Science students whose fathers had post matric qualifications achieved significantly better than students whose fathers who had Standard 6 or lower qualifications (see Tables 5.4 and 5.5).

TABLE 5.4: Mean academic achievement in English per fathers' level of education

Fathers' level of education '	Number of subjects	Mean academic achieve-ment	Comparison between levels of Fathers' education	Difference between means
Std. 6 or lower	116	50,20	Std. 6 or lower- Std 8	9,28 *
Std. 7	26	52,92		
Std. 8	23	59,48		
Std. 9	15	52,20		
Std. 10	35	52,91		
Post matric	33	54,94		

* p < 0,05

TABLE 5.5: Mean academic achievement in science per fathers' level of education

Fathers' level of education	Number of subjects	Mean academic achievement	Comparison between Fathers' level of education	Difference between means
Std. 6 or lower	116	45,65	Std. 6 or lower-Post-matric	7,17*
Std. 7	26	49,38		
Std. 8	23	49,00		
Std. 9	15	49,47		
Std. 10	35	51,09		
Post matric	33	52,82		

* p < 0,05

A one-way analysis of variance also revealed a statistically significant difference in academic achievement in English ($F(5,242) = 5.61$; $p < 0,0001$) and Science ($F(5,242) = 5.63$ $p < 0,0001$) between students with mothers with a higher educational level and students with less educated mothers. Tukey's post hoc comparison revealed that students whose mothers had passed matric achieved significantly better in English than mothers who had Standard 6 or lower qualifications and that in Science students whose mothers had passed Standard 7 achieved significantly better than mothers who had Standard 6 or lower qualifications (see Tables 5.6 and 5.7) and that students whose mothers had a post-matric qualification achieved higher marks in Science than those with a Standard 6 or lower qualification.

TABLE 5.6: Mean academic achievement in English per mothers' level of education

Mothers' level of education	Number of subjects	Mean academic achievement	Comparison between Mothers' level of education	Difference between means
Std. 6 or lower	132	49,86	Std. 6 or lower - Post-matric	10,73 *
Std. 7	15	56,47		
Std. 8	37	53,05		
Std. 9	18	52,94		
Std. 10	22	55,27		
Post matric	24	60,58		

* p < 0,05

TABLE 5.7: Mean academic achievement in science per mothers' level of education.

Mothers' level of education	Number of subjects	Mean academic achievement	Comparison between Mothers' level of education	Difference between means
Std. 6 or lower	132	45,70	Std. 6 or lower - Std. 7	8,83 *
Std. 7	15	54,53		
Std. 8	37	50,00		
Std. 9	18	46,78		
Std. 10	22	49,41	Std. 6 or lower - Post-matric	
Post matric	24	56,21		10,50 *

* p < 0,05

5.3.3 Family size

Family size is defined as the number of people that constitute a family. An analysis of Table 5.12 reveals that 33 subjects come from families with between 2-5 members. The Table further reveals that 97 subjects are from families with 6-7 members, and 68 subjects are from families with 8 or more members. A small family can be defined as a family which has 2-5 members and a large family can be defined as a family with 6 or more members. The Table thus depicts that 165 subjects are from large families.

Small families are associated with higher academic achievement of the child, because in small families parents have more time to attend to their children than in large families (Mwamwenda, 1979:21). Research has also proved that cognitive ability decreases with family size, because the larger the sibsize the poorer the intellectual environment and the poorer the child's academic performance (paragraph 2).

A one-way analysis of variance revealed a statistically significant difference in academic achievement in English between students from small families and those from large families in the same standard ($F(4,243) = 3.36$; $p < 0,0001$). Tukey's post hoc comparison revealed that students from smaller families achieve higher marks in English than students from larger families (see Table 5.12).

No difference in academic achievement in Science was found in relation to family size.

TABLE 5.8: Mean academic achievement in English per family size

Level	Family size	Number of subjects	Mean academic achievement	Family size comparison	Difference between means
1	1	16	52,31	Level 2-4	5,85*
2	2-3	67	54,67		
3	4-5	97	53,68		
4	6-7	40	48,83		
5	10 or more	28	48,39		

* $p < 0,05$

5.3.4 Sibsize

Sibsize is defined as the number of children in the family (paragraph 2). An analysis of Table 5.9 reveals that 93 of the subjects have 1-3 brothers and/or sisters, 98 of the subjects have 4-5 brothers and/or sisters and 57 of the subjects have 6 or more brothers and/or sisters. A small sibsize can be regarded as 1-3 brothers and/or sisters and a large sibsize can be one with 4 or more brothers and/or sisters. The Table thus reveals that 155 subjects are from families with large sibsize.

Children who have few siblings may perform effectively in academic tasks. According to Marjoribanks and Walberg (1976:532) the amount of parental attention received by each child decreases as the number of children in the family increases, because with each additional child the successive decrements in share of attention becomes smaller. A family with a smaller sibsize is also associated with a conducive learning environment because parents can be better able to

financially support the children in comparison with a family with large siblings (Steelman, 1986:374).

In this study a one-way analysis of variance revealed a statistically significant difference in academic achievement in English between students with small and large sibsize in the same standard ($F(4,243) = 4,68$; $p < 0,0012$).

Tukey's post hoc comparison revealed that students from smaller sibsize achieve higher marks in English than students from larger sibsize (see table 5.9).

No difference in academic achievement in Science was found in relation to sibsize.

TABLE 5.9: Mean academic achievement in English per sibsize

Level	Family size	Number of subjects	Mean academic achievement	Comparison between level of fathers' education	Difference between means of fathers' education
1	1	21	51,14		
2	2-3	72	56,28	2-4	6,06*
3	4-5	98	51,98	2-5	10,54*
4	6-7	42	50,21		
5	10 or more	15	45,73		

* $p < 0,05$

Table 5.10: Means, standard deviations and t-values of family status, some physical characteristics of the home and academic achievement in English

Variables	Number of subjects	Mean academic achieve-ment	Std dev	t-value	DF	p-value	Effect size (d)
Boys	104	52.44	11.67	-0.05	246	0.96	0.01
Girls	143	52.51	9.91				
Only one parent employed	128	51.38	9.50	-1.59	245	0.11	0.2
Both parents employed	119	53.55	11.66				
Fathers' work not in neighbourhood	186	51.45	10.67	-1.22	210	0.23	0.3
Fathers' work in neighbourhood	26	54.08	10.26				
Mothers' work not in neighbourhood	169	51.52	10.97	-1.13	224	0.26	0.2
Mothers' work in neighbourhood	57	53.33	10.25				
Parents home before sunset	114	53.23	11.46	0.93	237	0.35	0.1
Parents home after sunset	125	57.92	10.04				
Subjects living in shacks	25	50.04	9.18	-1.48	235	0.15	0.3
Subjects not living in shacks	212	52.98	10.87				
House not built with bricks	202	53.68	10.70	4.59**	244	0.0001	0.6
House built with bricks	44	46.84	8.54				
TV at home	109	52.88	11.34	0.62	230	0.54	0.07
No TV at home	123	52.00	10.28				
No books for leisure reading	164	53.05	11.11	1.20	245	0.23	0.1
Have book for leisure reading	83	51.41	9.67				
Doesn't read two or more newspapers a week	84	49.52	8.76	3.65**	243	0.0003	0.4

Reads two or more newspapers a week	161	54.09	11.24				

* $p < 0.05$
** $p < 0.01$

Small effect $d = 0.2$
Medium effect $d = 0,5$
Large effect $d = 0,8$

Table 5.11: Means, standard deviations and t-values of family status some physical characteristics of the home and academic achievement in science

Variables	Number of subjects	Mean of academic achieve-ment	Std. Dev.	t-value	DF	p-value	Effect size (d)
Boys	104	48.00	11.89	-0.35	245	0.72	0.04
Girls	103	48.52	10.50				
Only one parent employed	128	47.88	10.43	-0.57	245	0.57	0.07
Both parents employed	119	48.68	11.75				
Fathers' work not in neighbourhood	186	46.89	11.11	-2.55*	210	0.02	0.5
Fathers' work in neighbourhood	26	53.15	11.83				
Mothers' work not in neighbourhood	169	46.75	10.90	-1.84	224	0.07	0.3
Mothers' work in neighbourhood	57	49.84	11.00				
Parents home before sunset	114	48.59	10.88	0.59	237	0.56	0.07
Parents home after sunset	125	47.74	11.39				
Subjects living in shacks	25	45.16	11.32	-1.37	235	0.18	0.3
Subjects not living in shacks	212	48.44	11.04				
House not built with bricks	202	49.66	10.93	4.57**	244	0.0001	0.7
House built with bricks	44	42.27	9.43				
TV at home	109	50.07	10.35	2.35*	230	0.02	0.3

No TV at home	123	46.73	11.27				
No books for leisure reading	164	49.68	10.25	2.79*	245	0.0006	0.4
Have book for leisure reading	83	45.39	12.01				
Doesn't read two or more newspapers a week	84	45.10	11.20	3.32**	243	0.001	0.4
Reads two or more newspapers a week	161	50.01	10.56				

* $p < 0.05$ Small effect $d = 0.2$
** $p < 0.01$ Medium effect $d = 0.5$
Large effect $d = 0.8$

5.3.5 Sex

To determine whether boys and girls differ in academic achievement in English and Science, t-tests were performed. A comparison of the mean academic achievement indicated that there were no differences in academic achievement in English and science between boys and girls (see Table 5.10)

No differences in academic achievement in English and Science were also found between the following variables or groups of students:

1 Students with only one parent employed and students with both parents employed;

2 Students with mothers working in the neighbourhood and students with mothers not working in the neighbourhood;

3 Students with parents arriving home from work before sunset and students with parents arriving home from work after sunset;

4 Students living in shacks and students not living in shacks.

5.3.6 *Fathers' place of work*

Students whose fathers worked in the neighbourhood were compared with students whose fathers did not work in the neighbourhood (by means of t-tests). Students whose fathers worked in the neighbourhood performed better in Science $t(210) = 2,55$; $p < 0,02$) than students whose fathers did not work in the neighbourhood (see Table 5.11). This difference is of average educational significance ($d = 0,5$). A comparison of means indicated that there were no differences in academic achievement in English between students whose fathers worked in the neighbourhood and those whose fathers did not work in the neighbourhood.

5.3.7 *House built with bricks or not*

Differences were found between students who lived in houses built with bricks and those students who did not live in houses built with bricks. Students who lived in houses built with bricks scored statistically significantly higher marks in English $t(244) = 4,59$; $p < 0,0001$ (see Table 5.10) and in Science $t(244) = 4,57$; $p < 0001$ (see Table 5.11). The differences in English are of medium educational significance ($d = 0,6$) and in Science they approach large educational significance ($d = 0,7$).

5.3.8 *Availability of TV*

To determine whether students with TV at home differ from those without TV in academic achievement in English and Science, t-tests were performed. A comparison of the means

indicated that there were no differences in academic achievement in English between students with and those without TV (see Table 5.10). Differences were found with relation to Science, though - t (230) = 2,35; $p < 0,02$ (see Table 5.11). The difference in science is of small educational significance (d = 03). Students with TV scored lower in Science than students without TV. This difference in academic achievement could be that though a TV is a source of intellectual stimulation for children, it may distract the attention of children when learning.

5.3.9 Books available for leisure reading

Students who have books for leisure reading were compared to those who do not have books for leisure reading by means of t-tests. A comparison of means indicated that there were no differences in academic achievement in English between students with and those without leisure books in English. Differences were found with relation to Science. Students who do not have books for leisure reading scored higher than students who have books for leisure reading t(245) = 2,79; $p < 0,006$ (see Table 5.11). This difference is of average educational significance (d = 0,4). This difference in academic achievement could be caused by students spending a lot of time reading books for leisure reading rather than attending to their schoolwork.

5.3.10 Availability of newspapers

Differences were found between students who read one or two newspapers per week, and those who do not read newspapers. Students who read newspapers scored statistically significantly higher marks in English t (243) = 3,65; $p < 0,0003$ (see Table 5.10) and in Science t (243) = 3,

32; $p < 0,001$ (see Table 5.11). The differences in English are of medium educational significance ($d = 0,04$), and in Science the difference is also of medium educational significance ($d = 04$).

5.3.11 Summary of results

According to the results of the ANOVAs and t-tests used to get a clear view of the subjects, it emerged that younger students achieved higher marks in both English and Sience. It further emerged that students whose parents had higher qualifications achieved better than students whose parents had lower qualifications in both English and Science. In terms of family size it was revealed that students from smaller families achieved highter marks in English than students from larger families. With sibsize, it was revealed that students from smaller sibsize achieved higher marks in English than students from larger sibsize.

5.4 Descriptive statistics of the independent variables used and correlation coefficients with academic achievement

The variables listed in paragraph 4.5 were grouped into five compound variables on the basis of common characteristics. These compound variables with the individual variables that constituted them were socio-economic status, family structure, aspirations, home stimulation and self-efficacy. English and Science were used as dependent variables.

Socio-economic status was defined as the father's and mother's level of education, whether both parents were employed, the status of the fathers' and mothers' work and the size and status of the home.

Family structure was defined in terms of family size, sibsize and birth order, while aspirations were defined as the parents' aspirations for their child's education and future career, as well as the child's career aspirations.

Stimulation was defined as availability of a TV, radio, hi-fi, books and newspapers. Self-efficacy was defined as the subjects scores on the self-efficacy questionnaire and the score on the self-efficacy subscale of the MSLQ.

These compound variables were used together with age, sex, intrinsic motivation, anxiety, cognitive strategy use and self-regulation as independent variables with English and science as dependent variables.

The independent variables can be categorized into three categories, i.e. family variables, comprising socio-economic status, family structure, aspirations and stimulation. Motivational variables comprise anxiety intrinsic motivation and self-efficacy whereas cognitive variables are constituted by cognitive strategy use and self-regulation. By categorizing the independent variables in this way it was possible to test the hypotheses.

Table 5.12: Descriptive statistics and correlation coefficients

	1	2	3	4	5	6	7	8	9	10	11	12
1. Age	1.00											
2. Sex	* -017	1.00										
3. Socio-economic status	* -.38	.10	1.00									
4. Family structure	* .20	* .31	* -.25	1.00								
5. Aspirations	* -.45	* .26	.09	.01	1.00							
6. Stimulation	* .13	.05	* .24	.10	-.01	1.00						
7. Intrinsic motivation	-.03	.01	.02	-.01	-.05	.04	1.00					
8. Anxiety	* .26	.07	* -.16	.07	.08	.05	.07	1.00				
9. Cognitive strategy use	-.02	.03	-.02	.03	-.06	.02	* .62	* .15	1.00			
10. Self-regulation	-.05	.06	.11	.01	-.03	.07	* .44	-.07	* .58	1.00		
11. Self-efficacy	-.02	.01	.08	.09	-.01	-.03	* .64	* .20	* .63	* .49	1.00	
12. English	* -.41	.00	* .24	* -.21	.04	.00	* .14	* -.24	.10	* .16	.08	1.00
13. Science	* -.35	.02	* .23	* -.15	.10	-.06	* .18	* -.24	.12	* .17	* .14	1.00
14. Mean	15.52	1.57	24.49	12.31	22.07	7.01	50.91	17.24	68.90	42.51	59.31	52.48
15. Standard Deviation	1.96	.50	8.55	5.13	4.64	1.17	7.64	4.67	10.11	7.19	9.75	10.64

* All correlation coefficients > .13, $p>0.05$

The 0 before the comma has been omitted, thus .20 should be read as 0.20.

Effect size:
Small effect = 0.10
Medium effect = 0.30
Large effect = 0.50

An analysis of Table 5.12 reveals that there is a negative relationship which approach medium educational significance between age and academic achievement in English ($r = -0,41$; $p < 0,05$) and science ($r = -0,35$; $p < 0,05$). This means that age and academic achievement in English and Science are inversely related, i.e. a higher age is related to a low score in English and Science.

An analysis of Table 5.12 further reveals that there is a statistically significant relationship between socio-economic status and academic achievement in English ($r = 0,24$; $p < 0,05$) and Science ($r = 0,24$; $p < 0,05$) which approaches medium educational significance.

Table 5.12 reveals a below medium negative effect between family structure and academic achievement in English ($r = -0,21$; $p < 0,05$) and science ($r = -0,15$; $p < 0,05$). This means that family structure and academic achievement in English and Science are inversely related which means that family structure has a medium negative effect on academic achievement in English and Science.

There is also a statistically significant relationship between intrinsic motivation and academic achievement in English ($r = 0,14$; $< p\ 0,05$) and Science ($r = 0,18$; $p < 0,05$). This relationship though is of little educational significance.

Table 5.12 reveals a statistically significant relationship between anxiety and academic achievement in English ($r = -0,24$; $p < 0,05$) and Science ($r = -0,24$; $p < 0,05$) which

approach medium educational significance. This means that anxiety has a medium negative effect on academic achievement in English and Science.

There is a statistically significant relationship between self-regulation and academic achievement in English ($r = 0, 16$; $p < 0,05$) and Science ($r = 0, 17$; $p < 005$), though it is of neglegilible educational significance.

Though the Table does not reveal a statistically significant relationship between self-efficacy and academic achievement in English, the table does, however, reveal a statistically significant relationship between self-efficacy and academic achievement in Science ($r = 0, 14$; $p < 0,05$). This latter relationship is of little educational significance, though.

From Table 5.12 it can therefore be concluded that there is a statistically significant relationship between age, socio-economic status, family structure, intrinsic motivation, anxiety, self-regulation and academic achievement in English and Science. The statistical relationship between self-efficacy and academic achievement is only related to Science.

5.5 The influence of the independent variables on academic achievement in English

To determine the collective and individual contribution of the independent variables to R^2 a multiple regression analysis was performed.

It can be inferred from Table 5.13 that the independent variables collectively explain 24,8 percent ($R^2 = 0, 2480$) of the subjects' academic achievement in English. Of the individual variables only age, family structure and anxiety contribute in a statistically significant way to academic achievement in English. Age explains 9.07 percent (contribution to $R^2 = 0,0907$; $p < 0,01$; $f^2 = 0,12$), family structure 1,44 percent (contribution to $R^2 = 0,0144$; $p < 0,05$; $f^2 = 0,02$) and anxiety 1,55 percent (contribution to $R^2 = 0,0155$; $p < 0,05$; $f^2 = 0,02$) of the variance in academic achievement in English. The contribution of family structure and anxiety to variance in academic achievement in English, although statistically significant, is of little educational value because of the low effect size. The contribution of age does approach medium educational significance. The conclusion can therefore be made that age specifically, and family structure and anxiety to a lesser degree are important variables that influence academic achievement in English.

TABLE 5.13: Contribution of the independent variables to R^2. Criterion: Achievement in English

R^2 = 0,2480 (N = 248)

Variables	Contribution to R^2	F-Value	Effect size (f^2)
Age	0,0907	29,25 **	0,12
Sex	0,0051	1,65	0,00
Socio-economic status	0,0027	0,87	0,00
Family structure	0,0144	4,65 *	0,02
Aspirations	0,0039	1,26	0,00
Stimulation	0,0053	1,71	0,00
Intrinsic motivation	0,0048	1,55	0,00
Anxiety	0,0155	5,0 *	0,02
Cognitive strategy use	0,00	0,00	0,00
Self-regulation	0,0042	1,35	0,00
Self-efficacy	0,00	0,00	0,00

* p < 0,05
** p < 0,01

Small effect (f^2)= 0,02
Medium effect (f^2)= 0,15
Large effect (f^2)= 0,35

5.6 The influence of the independent variables on academic achievement in Science

It can be inferred from Table 5.14 that the independent variables collectively explain 21,3 percent (R^2 = 0,2130) of the subjects' academic achievement in Science. Of the individual

variables age, anxiety and aspirations contribute in a statistically significant way to academic achievement in science. Age explains 5,44 percent (contribution to $R^2 = 0,0544$; $p < 0,01$; $f^2 = 0,07$), anxiety 2,66 percent (contribution to $R^2 = 0,0266$; $p < 0,05$; $f^2 = 0,03$) and aspirations 1,43 percent (contribution to $R^2 = 0,,0143$; $p < 0,1$; $f^2 = 0,02$) of the variance in academic achievement in science. The contribution of age to academic achievement in science approaches medium educational significance. The contribution of anxiety and aspirations to achievement in science, although statistically significant, is of little educational value, because of the low effect size. The conclusion can therefore be made that age specifically, and also anxiety and aspirations to a degree are important variables that influence academic achievement in Science.

TABLE 5.14: Contribution of the independent variables to R^2. Criterion: Achievement in Science

R^2 = 0,2130 (N = 248)

Variables	Contribution to R^2	F-Value	Effect size (f^2)
Age	0,0544	13,95***	0,07
Sex	0,0024	0,62	0,00
Socio-economic status	0,0028	0,72	0,00
Family structure	0,0043	1,10	0,00
Aspirations	0,0143	3,27*	0,02
Stimulation	0,00	0,00	0,00
Intrinsic motivation	0,007	1,79	0,00
Anxiety	0,0266	6,83**	0,03
Cognitive strategy use	0,00	0,00	0,00
Self-regulation	0,0017	0,44	0,00
Self-efficacy	0,0019	0,49	0,00

* p < 0,1
** p < 0,05
*** p < 0,01

Small effect (f^2) = 0,02
Medium effect (f^2) = 0,15
Large effect (f^2) = 0,35

5.7 Conclusion

On the basis of the results of the multiple regression analyses and the ANOVAs it can be concluded that only three variables, i.e. age, family structure and anxiety, contribute to academic achievement in English and that only age and anxiety contribute to academic achievement in Science. These result imply the following with regard to the hypotheses:

Hypothesis 1

That there is a relationship between home variables and academic achievement in English and Science can only be accepted with reference to family structure and academic achievement in English. It can therefore be concluded that family size (paragraph 5.3.3) and sibsize (paragraph 5.3.4) are important family variables that affect achievement in English.

Hypothesis 2

That there is a relationship between motivational variables and academic achievement in English and Science can only be accepted with reference to anxiety. As a relationship between self-efficacy, intrinsic motivation and academic achievement in English and science could not be established it can't be concluded that self-efficacy and intrinsic motivation influence academic achievement in English and Science.

Hypothesis 3

That there is a relationship between cognitive variables and academic achievement has to be rejected as no relationship between cognitive strategy use, self-regulation and academic achievement in English and Science could be established.

An important finding to take cognisance of is the relationship between age and academic achievement in both English and Science, especially between age and English academic achievement (also see paragraph 5.3.1). It can therefore be concluded that the age of the student is an important variable that influences academic achievement.

CHAPTER 6

6 SUMMARY AND CONCLUSION

6.1 Introduction

This chapter consists of a summary of the research. A statement of the problem is given in paragraph 6.2. A summary of the literature review is given in paragraph 6.3, as well as a discussion of the method of research in paragraph 6.4. The procedure of the research is stated in paragraph 6.5, followed by the concluding remarks in 6.7. The results of the research are summarized in paragraph 6.6. The limitations are discussed in paragraph 6.8. The chapter is concluded by the recommendations and concluding remarks in paragraph 6.9 and 6.10 respectively.

6.2 Statement of the problem

Harker (1991:28) states that the majority of disadvantaged black students in the North West Province of South Africa perform below average and have higher failure and drop-out rates than white students. In accordance with Matseke (1981:IV) the academic achievement of pupils is dependent on home conditions.

Since home conditions have a bearing on the academic achievement of students, it is of crucial importance to identify home and other variables which influence academic achievement to counteract underachievement by striving to produce self-efficacious students who attribute success or failure to unstable controllable factors which promote achievement.

The aim of the research was therefore to determine the relationship between home and other variables, inter alia, motivational and cognitive variables and academic achievement of Std. 7 students in English and Science.

6.3 Review of the literature

6.3.1 The influence of home variables on the academic achievement of students

The home produces the first and perhaps the most insistent and subtle influence on the cognitive development of the child (paragraph 2.1). The home environment influences the individual's acquisition of knowledge, development of intellectual skills, abilities and the formation of specific attitudes to learning (paragraph 2.1).

According to Marjoribanks (1992:266) the activities of the family, i.e., intellectuality in the home, language, academic guidance, and work habits in the family, contribute positively to

the cognitive development of the child as he learns from parents in the family, for example, by listening and imitating them when they talk, and when performing the family work.

6.3.2 The influence of self-efficacy on academic achievement

The influence of self-efficacy on academic achievement is revealed by Zimmermann (1985:331) in stating that students' self-efficacy perceptions are closely related to the tasks that they are engaged in as well as to their performance levels and outcomes. Choosing a task and continuing with it depends on an individual's perceptions of self-efficacy (paragraph 3.6.2). Students who have a low self-efficacy may fail to do the task or even not attempt to do the task (Miller, 1989:234). Thus a student with a high sense of efficacy will achieve better than the one with low efficacy, because obstacles make him intensify his efforts, whereas an inefficacious one might easily give up when faced with problems in a learning situation (paragraph 3.6.2).

6.3.3 The influence of attributions on academic achievement

Attributions can be described as the individual's search for understanding and quest to discover why an event has occurred, and is inferred from self-evaluation of the results and consequences of behaviour (see paragraph 3.5). Following the attributional theory, individuals make causal ascriptions for the outcomes of their actions; that is, they would

like to discover why an event has had particular outcomes (Weiner, 1984:19). These attributional ascriptions affect student performance either positively or negatively.

Failure attributed to an unstable, controllable variable such as effort, makes a student work harder, because when a student believes that increased effort will produce success, he would persist longer at a task and thereby increase his level of performance (paragraph 3.5.4). On the contrary, if failure is ascribed to a stable uncontrollable variable such as aptitude, a student lacks the enthusiasm to work harder (Weiner, 1981:30).

6.3.4 The influence of learning strategies on academic achievement

Learning strategies can be defined as that behaviour of a learner intended to influence how the learner processes information (paragraph 3.4). According to Mayer (1988:11), knowledge and effective application of learning strategies positively influence the process and outcome of learning. It is this outcome that in turn influences good academic performance.

To enhance the learning of students, it is important that teachers should focus instruction on the acquisition of learning strategies, for strategies are not ends in themselves, but deliberate means to an end, the end being enhanced task performance (paragraph 3.4.2.2).

6.4 Methods of research

6.4.1 Subjects

All the Std. 7 students (N = 1316) in the middle schools in the MABOPANE Circuit of the North West Province of South Africa constituted the population of this study. From the population a random cluster sample of 5 schools was first drawn (Table 4.1), and then random cluster sampling was again used to draw one (1) class from each of these five (5) schools (Table 4.2), to constitute the sample of the study.

6.4.2 Instruments

The following instruments were used:

6.4.2.1 Socio-Economic Status and Biographical Questionnaire (SESQ)

The Socio-Economic Status and Biographical Questionnaire (SESQ) (paragraph 4.4.3) was developed to elicit descriptive personal and family information of the students.

The Socio-Economic Status and Biographical Questionnaire prompted students to give information on age, sex, home language, parents' level of education, parents' employment, sibling size, family size, aspirations, size of the dwelling, household possessions such as

possessions of a car, TV, radio, hi-fi set, refrigerator, deep-freezer, cart, bicycle, bike, books, newspapers and magazines.

6.4.2.2 Self-Efficacy Questionnaire (SEQ)

The Self-Efficacy Questionnaire (SEQ) (see paragraph 4.4.1) was developed as a paper-and-pencil test to assess a student's perceived capacity to correctly perform a variety of learning related tasks. The questionnaire consisted of two parts.

Part I (one) of the SEQ assessed self-efficacy in a way similar to that used by Berry et al., (1980). In Part one, 50 items of the 62 statements were used as a yardstick. These items assessed a student's perceived capacity to perform learning related tasks.

Two of the twelve passages which make up Part 2 of the SEQ were taken as sample passages. The passages were chosen as the events they describe are culturally identifiable to the subjects. A multiple choice evaluation of two to three questions were set on each of the two passages. Both passages and questions ranged from easy to difficult and corresponded in reading level to that expected from Std. 7 students (see paragraph 4.4.1).

6.4.2.3 Motivated Strategies for learning Questionnaire (MSLQ)

The Motivated Strategies for Learning Questionnaire (MSLQ) (paragraph 4.4.2) included 56 items on students' motivation and their use of self-regulated learning strategies. The three motivational factors of self-efficacy, intrinsic value and test anxiety constituted motivation while cognitive strategy use and self-regulation constituted the use of self-regulated learning strategies. Students responded to the items on a 7-point Likert scale (1 = "not at all true of me" to 7 = "very true of me") in terms of their behaviour in academic achievement.

6.5 Procedure

A sample of 248 subjects were selected (see paragraph 4.3) from a population of 1316 Std. 7 middle school students in the MABOPANE Circuit of the North West Province of South Africa. After completion of the questionnaires, these were scored and the data analyzed.

6.6 Results

6.6.1 Hypothesis 1

Hypothesis 1, that there is a relationship between home variables and academic achievement of Std. 7 students in English and Science, proved acceptable only with

reference to family structure and academic achievement in English. It can therefore be concluded that family size (paragraph 5.3.8) and sibsize (paragraph 5.3.4) are important family variables that affect academic achievement in English.

6.6.2 Hypothesis 2

Hypothesis 2, that there is a relationship between motivational variables and academic achievement of Std. 7 students in English and Science, can only be accepted with reference to anxiety. No relationship could be established between self-efficacy, intrinsic motivation and academic achievement in English and science, thus it can't be concluded that self-efficacy and intrinsic motivation influence academic achievement in English and Science.

6.6.3 Hypothesis 3

Hypothesis 3, that there is a relationship between cognitive variables and academic achievement of Std. 7 students in English and Science, is rejected as no relationship between cognitive use, self-regulation and academic achievement in English and science could be established.

An important result to take cognisance of is the relationship between age and academic achievement in both English and Science, especially between age and English achievement.

It can therefore be concluded that the age of the student is an important variable that influences academic achievement.

6.7 Conclusion

In this study it has been established that there is a relationship between home factors and academic achievement with reference to family structure. A relationship between motivational variables and academic achievement could only be found with reference to anxiety. Another finding in terms of this study is that there is a relationship between age and academic achievement.

6.8 Limitations

The self-efficacy questionnaire is a new instrument that has not yet been thoroughly evaluated and is still in the process of improvement. It may thus have some limitations that may make it not a sensitive enough instrument to determine students' self-efficacy.

Though the concept self-efficacy was explained to the students they also may not have understood its meaning clearly because of lack of familiarity with the concept, thus not responding properly to the items.

Despite the fact that students were encouraged to be free and open in responding to the questionnaire, when it came to the Socio-Economic Status and Biographical Questionnaire, some students were shy to disclose conditions of their homes, especially the ones from very poor environments, thus a possibility of dishonesty in responding to some of the items in the questionnaire cannot be ruled out.

This research was conducted during the period of political unrest at schools. The unrest caused instability both at home and school, and the instability could have impacted itself on the mind of the child, thus affecting the response of the students to questionnaire items.

6.9 Recommendations

The study represents, not a finality, but instead a start on which improvements, modifications and further research are based. The study will thus have served an important purpose if it provokes further research of home and other variables which have an influence on academic achievement in other areas of the North West Province of South Africa on a larger sample.

Teachers should be encouraged to realize that poor academic performance may be influenced by various variables such as the home, motivational and cognitive variables. Teachers should therefore make efforts to provide individual assistance to children with learning problems.

Teachers are encouraged to inculcate openness in pupils. The teacher-parent relationship should embody communication even on issues affecting the family like in the event of a divorce, death in the family or loss of job. The above-stated issues may cause anxiety which may negatively affect a student's academic achievement.

It is also recommended that students who are above age in a particular standard should be given special attention by making special arrangements for them to do remedial work, perhaps after school, as it has been proved in this research that students who are above age, have a poor academic achievement. Mathebula (1992:66) also reports that the academic achievement of students who failed more than one year or missed school decreases progressively according to the number of years they failed or missed school.

Students who have missed a number of years of schooling and/or failed a number of years should not be put in the same class as younger students because they may develop a negative self-concept, because it has been found that students who are on age perform better academically than those above age. Special programmes in or out of school should be designed for the older students to cater for their special needs. ABET programmes for example, may be used for these students.

Teachers should also be made sensitive to the special needs of older students to afford them special attention.

A programme should be developed to train teachers on how to identify any other variables which affect students achievement. The reason being to make teachers aware that there are other variables other than those related to cognitive ability which may have a bearing on academic achievement.

6.10 Concluding remarks

In this research home factors and other variables such as motivational and cognitive variables that influence the academic achievement of students were studied. It is hoped that the findings of this research will make teachers aware that there are various variables which have an influence on the academic achievement of students. The knowledge of various variables affecting academic achievement will assist the teachers in identifying and helping students to improve their academic achievement.

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APPENDIX A

BIOGRAPHICAL QUESTIONNAIRE

Questionnaire number [ ][ ][ ] (1-3)

Card number [6] (4)

1. Name of Student: .....

2. Age: [ ][ ] (5,6) Years [ ][ ] (7,8) Months

3. Sex: Male [1]
Female [2] (9)

4. Home language: Setswana [1]
Other [2] (10)

5. Indicate with a cross your father's highest level of education.

Std 6 or lower	1
Std 7	2
Std 8	3
Std 9	4
Std 10	5
Post matric qualification	6 (11)

6. Indicate with a cross your mother's highest level of education.

Std 6 or lower	1
Std 7	2
Std 8	3
Std 9	4
Std 10	5
Post matric qualification	6 (12)

7. Are you living with both your father and mother?

Yes	1
No	2 (13)

. If not, indicate with an X with whom you are living.

Mother	1	
Father	2	
Relatives	3	
Friends	4	
Alone	5	(14)

. Are both your father and mother employed?

No	1	
Yes	2	(15)

0. If not, indicate with an X which one is unimployed.

Mother	1	
Father	2	
Both	3	(16)

1. Name or describe in the space provided the work your father is doing

..... (17,18)

2. Name or describe in the space provided the work your mother is doing

..... (19,20)

3. Is your father's place of work in your neighbourhood?

No	1	
Yes	2	(21)

4. Is your mother's place of work in your neighbourhood?

No	1	
Yes	2	(22)

5. When do your parents arrive home from work?

Before sunset	1	
After sunset	2	(23)

16. Which highest standard would your parents like you to pass?

Std 7 or lower	1	
Std 8	2	
Std 9	3	
Std 10	4	
Post matric qualification	5	(24)

My parents leave the decision to me	No	1	
	Yes	2	(25)

17. Which career would your parents like to see you follow?
(Write career parents wish in the space provided.)

Career parents wish		
		(26,27)
My decision		
		(28,29)

18. How many people (including yourself) live at your home where you live?

2	3	4	5	6	7	8	9	10	11	12	more	
												(30,31)

19. How many children do your parents have including yourself?

1	2	3	4	5	6	7	8	9	10	more	
											(32,33)

20. How many of these children (brothers and sisters) are older than you?

0	1	2	3	4	5	6	7	8	9	10	
											(34,35)

21. How would you describe your house? Indicate your choice with a cross.

1. It is a shack	No	1	
	Yes	2	(36)
2. Built with concrete or brick walls	No	1	
	Yes	2	(37)

3. Number of rooms	1	2	3	4	5 or more	(38)

4 Sitting room

No	1
Yes	2

(39)

5. Dining room

No	1
Yes	2

(40)

6. Kitchen

No	1
Yes	2

(41)

7. Bathroom

No	1
Yes	2

(42)

8. Number of bedrooms

1	2	3	4	5 or more

(43)

9. Garage

0	1	2 or more

(44)

10. Electrified

No	1
Yes	2

(45)

22. How many cars do you have at home?

0	1	2	3	4

(46)

23. Give the names and models of these cars?

.....

.....

.....

.....

(47)

24. Are these cars in working conditions?

No	1
Yes	2

(48)

25. How many T.V. sets do you have at home?

0	1
1	2
more	3

(49)

26. Is it a colour T.V.?

No	1
Yes	2

(50)

27. Does it work?

No 1
Yes 2 (51)

28. Do you have a radio at your home?

No 1
Yes 2 (52)

29. Does it ever play?

No 1
Yes 2 (53)

30. Do you have a Hifi set?

No 1
Yes 2 (54)

31. Does it play?

No 1
Yes 2 (55)

32. Do you have a refrigirator?

No 1
Yes 2 (56)

33. Does it work?

No 1
Yes 2 (57)

34. Do you have a deep freezer?

No 1
Yes 2 (58)

35. Does it work?

No 1
Yes 2 (59)

36. Do you have a donkey-cart?

No 1
Yes 2 (60)

37. Do you use it?

No 1
Yes 2 (61)

38. Do you have a horse-cart?

No 1
Yes 2 (62)

39. Do you use it?

No 1
Yes 2 (63)

40. Do you have a bicycle?

No 1
Yes 2 (64)

41. Do you have a motor bike?

No 1
Yes 2 (65)

42. Do you have books for leasure reading in your home?

No 1
Yes 2 (66)

43. Do you read two or more newspapers or magazines per week?

No 1
Yes 2 (67)

44. Academic achievement in English [ ][ ][ ] (68-70)

45. Academic achievement in Mathematics [ ][ ][ ] (71-73)

46. Academic achievement in Physical Science [ ][ ][ ] (74-76)

47. Academic achievement in History [ ][ ][ ] (77-79)

APPENDIX B

SELF-EFFICACY QUESTIONNAIRE (SEQ)

SELF-EFFICACY QUESTIONNAIRE

1992

J.L. de K. Monteith

Department of Educational Psychology, Guidance and Orthopedagogics

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and

M.J. Mathebula

SELF-EFFICACY QUESTIONNAIRE

Self-efficacy is your appraisal of your ability to master a task.

Self-efficacy includes your judgments about your ability to perform a task as well as your confidence in your skills to perform that task.

There are no right or wrong answers to this questionnaire.

This is not a test.

We want you to respond to the questionnaire as accurately as possible, reflecting your own judgments and confidence.

SELF-EFFICACY QUESTIONNAIRE

PART ONE

INSTRUCTIONS

Read the following statements and indicate if you can perform the task by circling NO or YES. If you circle YES indicate **how** sure you are that you can perform the task by circling a confidence rating. If you circle NO don't circle a confidence rating.

No	Yes	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%

1. I can make the teacher explain classwork I don't understand.
2. When I study I can find connections between what I am studying and my own experience.
3. Even when I don't like a subject I still work hard to obtain good marks.
4. I expect to do well in school.
5. When writing a test I can concentrate on the answering of the questions for more than half the time.
6. When I study I can relate information in one subject to information in other subjects.
7. I will receive good marks in school.
8. I know that I will be able to learn the material taught in class.
9. When interruptions disturb my studies when studying at home, I see to it that the interruptions are removed.
10. When I study I have no trouble figuring out just what to do to learn the material.
11. When studying, I outline the material to help me organize my thoughts.
12. I usually understand fully more than half of the facts I have to learn.
13. I know how to study for different subjects.
14. I can explain most of the work I learn to my fellow students.
15. I can control problems out of school to prevent them from interfering with my homework.
16. I change the material I study into my own words.
17. I usually understand fully most of the facts the teacher explains.

18. I am confident that I can learn the basic concepts taught in class.

19. When I read a chapter in a book I know when I don't understand what I am reading.

20. My study skills are excellent compared with others in my class.

21. I use different study methods for different subjects.

22. If I have problems with my work I ask a friend for help.

23. I am certain I can understand the ideas taught in class.

24. I ask a teacher for further explanation of a task that is not clear to me.

25. When I study for a test I usually know when I am ready for the test.

26. When I study for a test I can make the ideas fit together to make sense.

27. I plan a homework schedule and stick to it.

28. I can discriminate between the more and less important facts for most of the time.

29. Before starting to do homework or studying for a test I make certain that I understand what is wanted before I start working.

30. When studying, I relate the material to what I already know.

31. I isolate myself from anything that distracts me.

32. When studying for a test I divide the work into smaller units and first learn one unit before going on to the next unit.

33. When a task is uninteresting I can force myself to complete it.

34. I can point out the work I don't understand in class.

35. I can make effective notes of important facts the teacher explains for most of the time.

36. I am sure I can do a very good job on the problems and tasks in school.

37. At the beginning of a study period I plan my work so that I will make best use of my time.

38. I have no problem to find the important ideas in the material I prepare for a test.

39. I can get 75% in a test.

40. I can give my undivided attention to what the teacher says for a whole classperiod.

41. I keep my work up to date by doing it regularly from day to day.

42. Even when a task is dull and boring I stick to it until it is completed.

43. I am confident that I can understand the most complex material taught in class.

44. When learning something I ask myself questions to make sure I know the work.

45. When preparing for a test I can memorise more than half of the facts.

46. When I study for a test I usually know when the learning strategy I use is not the correct one.

47. When I make summaries I don't copy the sentences from the book, but rewrite the sentences in my own words.

48. I check over my work to make sure I have it right.

49. When I study for a test I know when I am not making any progress.

50. When writing an exam I can concentrate fully on the answering of the questions for most of the exam session.

51. I can apply most of the facts I learn when I have to solve a problem.

52. When I don't understand what the teacher is saying, I can ask him to explain the work again.

53. I can make summaries of the main ideas of the work I have to prepare for a test.

54. I turn off the radio so I can concentrate on what I am learning.

55. When writing a test or answering a question I can recall most of the facts I have learned.

56. When absent from class I make up for missed lessons without being told to do so.

57. When I have trouble with my school work, I talk it over with my teachers.

58. When learning something I write the work over in my own words in order to remember it better.

59. I can usually discriminate between the more and less important facts I have to learn.

60. Compared to other students in my class, I am a better student.

61. I can make effective/good notes of important facts the teacher explains during the classperiod for more than half the time.

62. I can concentrate for most of a classperiod on what the teacher says.

PART TWO

INSTRUCTIONS

There are 12 passages in this part of which two (2) are example passages. Each passage has multiple choice questions. Read each passage carefully and wait for further instructions. Do not look at the questions. Read the questions with me and indicate how sure you are that you can answer the questions on each passage by circling a confidence rating. You are not required to answer the questions. Only indicate how sure you are that you can answer each question. Do not turn back to the passage when you decide to how sure you are that you can answer each question.

10%	20%	30%	40%	50%	60%	70%	80%	90%	100%

EXAMPLE PASSAGE (E1)

Sangura the Rabbit went one day to call on his friend the Cock and found him asleep with his head under his wing. The Rabbit had never seen the cock in this position before, but the hens informed him (as previously instructed) that their husband was in the habit of taking off his head and giving it to his sons the herd-boys to carry with them to the pasture.

"Never!" said the Rabbit. "But when the herd-boys come back, will he get up again?"

And the hens said, "Just wait and see!"

At last when the herd-boys arrived their mother said, "Just rouse your father there where he is sleeping".

The Cock's head at once reappeared. He welcome his guest, and they sat talking till dinner was ready, and went on conversing during the meal. The Rabbit was anxious to know how it was done, and the Cock told him it was quite easy. "If you think you would like to do it", he said, "why don't you try?".

Do not turn the page. Wait for further instructions.

E1. What is the most important idea in this passage?

The most important idea is:

A. the stupidity of the Rabbit.

B. the danger of having bad friends.

C. the death of the stupid Rabbit.

D. the cleverness of the Cock that killed the Rabbit.

Don't answer the question. Only indicate how sure you are that you can answer the question by circling a confidence rating on the answer sheet.

EXAMPLE PASSAGE (E2)

"Yes, Wise one. My story is short, but painful. It will not take long to tell. It is a story of love."

"Love and pain. Those two are inseparable twins, my son. A story of love is always a story of pain, of tears. But we of our profession make it our business to decrease the pain and tears, and increase the love and happiness. Speak on, Ntabeni Mlilo. I am all ears."

She's eighteen years of age. She accepted me in spite of the difference in our age. Uphoselwe, she is bewitched. That's the trouble.

"My job is to give satisfaction to the people who appeal to me" said the Wise one. "If you are willing to take the risk, I can prepare a strong potion for you, the strongest I have, which I call Velabahleka, Appear-and-they-laugh, stronger than the more popular Vamna, Feel-me.

Do not turn the page. Wait for further instructions.

E2.1 What is the first paragraph about?

A. The passage is about "love and pain".

B. Vamna, Feel-me is all that is in the first passage.

C. Uphoselwe is bewitched.

E2.2 What strong potion would the Wise one like to prepare for Ntabeni Mlilo?

A. Velabahleka, Appear-and-they-laugh.

B. The popular Vamna, Feel-me, the strongest of them all.

C. Both Velabahleka and Vamna.

D. Not one strong-potion.

Don't answer the questions. Only indicate how sure you are that you can answer the questions by circling a confidence rating on the answer sheet.

1.

One afternoon, Lily Rose came home early from School. The front door was shut and locked, so evidently her mother and the two youngest children were out. She found the key in its usual place under a broken brick on the second step, and went in.

It was ironing day, and piles of ironed and unironed garments lay about. The brilliant thought occurred to her that it would be a good idea if she finished off the ironing by the time her mother returned. Without further hesitation she seized one of the irons heating on the stove and put it down on the ironing-table. Immediately a rich smell of burning blanket filled the room. Lily Rose hastily, put the iron on its stand and waited patiently for it to cool, testing the heat at intervals by the professional method of spitting on her finger and dabbing it quickly on the iron.

After some minutes of this she decided the iron was ready, and set to work on a baby's overall.

Do not turn the page. Wait for further instructions.

1.1 Where was Lily Rose coming from in the afternoon?

A. From the river to fetch water.

B. From school that afternoon.

C From the forest to collect wood.

D. No, she was at home the whole day.

1.2 What did she do at home that afternoon?

A. She was busy with her school-work.

B. Lily Rose was finishing off the ironing.

C. She was sleeping from morning to sunset.

D. Lily Rose visited the friends next door.

Don't answer the questions. Only indicate how sure you are that you can answer the questions by circling a confidence rating on the answer sheet.

This was a new terror. The lions became expert at scraping them out like winkles from the shell. Many men returned to the trees and the cages. Some, of whom Natha Singh was the first, took loaded rifles into the tanks.

This was a mistake. One night Singh, alarmed by an unusually persistent lion and the claw which hooked and swung in the blackness of the tank, pushed the rifle through the opening and pulled the trigger. Only those who have fired a rifle inside a metal tank can appreciate the appalling nature of the explosion. The lion fled. Singh was later sent home, and taking his shattered ear-drums to Korachi, spent the remainder of his days in blessed silence.

On that same night, a certain Amam Din lowered himself into his chosen tank and found that he had shut himself up with a spitting-cobra. In the morning no amount of effort could extract the corpse, and Patterson was presented with a difficult burial problem.

Do not turn the page. Wait for further instructions.

2.1 Who was the first to take loaded rifles into the tanks?

A. Korachi.

B. Natha Singh.

C. Amam Din.

D. All of them.

2.2 What happened to Amam Din that same night?

A. Amam Din ran away and was never seen again.

B. He shut himself up with a spitting-cobra.

C. Amam Din spent the remainder of his days in silence.

D. Nothing happened to Amam Din.

Don't answer the questions. Only indicate how sure you are that you can answer the questions by circling a confidence rating on the answer sheet.

White, is regarded as the colour of love, purity, or vision. In the case of red, the exact shade woven into a necklace is all important. Opaque red beads represent blood and tears, but transparent bright-red beads stand for love - "the great love that burns like a fire". Another shade of red signifies anger.

Green, the colour of gall, represents either love-sickness or jealousy. Beads of different blues all have different meanings. One shade means the sky, another the sea; dark blue represents faithfulness, a lighter blue talkativeness - "Do not go around gossiping about me".

Yellow generally means wealth, and sometimes a succession of yellow beads tells the number of cattle necessary for the lobola. Black stands for unhappiness, disappointment or misfortune, but it can also mean reassurance - "Nevermind the dark clouds: I will be on your side, and together we will pull through."

Do not turn the page. Wait for further instructions.

3.1 What is this story mainly about?

This story is about:

A. the meanings of colours.

B. colours for love and unhappiness.

C. all the different meanings.

D. cattle necessary for the lobola.

3.2 What is the best title for this passage?

A. The meanings of colours.

B. Gossiping about someone you love most.

C. Number of cattle for lobola.

D. "The great love that burns like a fire."

Don't answer the questions. Only indicate how sure you are that you can answer the questions by circling a confidence rating on the answer sheet.

A woman was brought into the clerk's office. She had been fined five pounds for fighting with another woman. She had come to court well prepared and as soon as she got into the room, she untied the edges of her cloth and brought out five red pound notes out of many. If only I had her dough!

I watched the clerk through half-closed eyes as he counted the woman's money and pulled out his drawer to give her a receipt. He searched through the drawer several times but without success.

Then remembrance came into his eyes and he hit his palm hard on the table and said: "Oh, yes" and got up and made for the door that led to the courtroom. The effort of remembering where the receipt-book was had been so much for him that he had apparently forgotten all about me.

I seized the chance and within a tenth of a second, I had bounded up from my chair and crossed over to stand behind the door.

Do not turn the page. Wait for further instructions.

4.1 Why had the woman been fined?

A. She untied the edges of her cloth.

B. For fighting with another woman.

C. She brought out five red pounds.

D. She got into the clerk's office, and was fined.

4.2 Did she have money?

A. No, the woman had no money at all.

B. The woman had five red pound notes.

C. She had only her cloth, and nothing else.

D. The woman brought out five red pound notes out of many.

Don't answer the questions. Only indicate how sure you are that you can answer the questions by circling a confidence rating on the answer sheet.

At a glance, Soweto looks dull and lifeless. Almost all the houses are built to the same pattern - thousand upon thousand of small match-box cottages separated from each other by wire fencing. Yet there are few places I know which are as lively as this enormous township.

There are people, no doubt, who grumble that Soweto is too far from town and the factories where everybody works; that many of the houses are still without electricity although Africa's biggest power-station lies next door. Yet, in spite of this, Soweto lives. It lives insecurely, sometimes dangerously, but with a determined will to survive.

Not many people earn much money here. There are people, thousands of them, who don't eat three meals a day. There are homes where husbands give instructions that visitors are not to be served with tea, however long they may stay. That is the more depressing face of this place. But then Soweto has many faces.

Do not turn the page. Wait for further instructions.

5.1 **What does Soweto look like?**

A. Almost all the houses are built to the same pattern.

B. There are no schools, because there is no electricity.

C. Blacks and whites are fighting for electricity.

D. There is only a small power-station that lies next door.

5.2 **What is the writer's problem in this passage?**

A. That Soweto is too far from town.

B. His house is well electrified, but he is not working.

C. He wants to serve his visitors with tea daily.

D. He does not know how long they may stay in the house.

Don't answer the questions. **Only indicate how sure you are that you can answer the questions by circling a confidence rating on the answer sheet.**

At midnight Chaka went alone to the grave of his father Senzangakona, and when he came there Isanusi the Diviner appeared through the darkness with his companions, Ndlebe and Malunga. And there at the grave at midnight Isanusi doctored Chaka with many medicines, smearing most of them on his body, and when he had finished he placed charms on the grave and made a small hole in it over which he sat. And then he spat and began to speak in a tongue not known to Chaka. He seemed to be in pain and very sorrowfull, and the sound of his voice inspired pity. He was not speaking to Chaka, but to the spirits in the grave.

While he spoke thus, the earth on top of the grave moved and was shaken. Ndlebe stood up at once and ran round and round the grave. Malunga struck the ground repeatedly with Chaka's spear, then raised it up, aimed it towards the east, and struck the ground with it again.

Do not turn the page. Wait for further instructions.

6.1 To whom was Isanusi the Diviner Speaking?

Isanusi was speaking to

A. everybody at the grave.

B. his companions, Ndlembe and Malunga.

C. the spirits in the grave.

D. Chaka's father, Senzangakona.

6.2 What was Isanusi doing at the grave?

A. He was doctoring Zenzangakona, the old man.

B. He was smearing Chaka's body with his medicines.

C. Isanusi was having a traditional party with friends.

D. He was moving up and down as if he was mad.

6.3 What happened at the grave when the earth on top of the grave moved?

A. Malunga ran home to seek for help.

B. Ndlebe stood up at once and ran round and round the grave.

C. Chaka was happy and danced around the grave.

Don't answer the questions. Only indicate how sure you are that you can answer the questions by circling a confidence rating on the answer sheet.

The locust swarms hummed closer and closer leaving an area of destruction behind them. They devoured every blade of green grass and every leaf on the tall trees. Millions settled and laid eggs, soon to hatch young to join in the destruction. They dropped in their millions as they came against the unbroken well of smoke. They dropped until the ground was a struggling mass of crawling insects. Men and women - those who were not engaged in tending the fires - waded knee-deep into the vast mass, armed with skin bags, cooking-pots, and all sorts of other vessels, scooping a great bowlfuls of locusts and emptying them into large grain-baskets. Ox-sleds carried these baskets to the kraals, where the old women were busy cooking the vast piles of locusts.

For five days the desperate battle raged. Finally the locusts broke through the wall of smoke. It was impossible to maintain the defence against them any longer. Entire fields, whole mopani forests were set on fire, destroying millions and millions of the invaders. But millions more came, bred, and passed on.

Do not turn the page. Wait for further instructions.

7.1 What happened in this passage?

A. Locusts devoured every blade of green grass.

B. People were becoming mad all over the country.

C. Men and women started dancing when the sun rose.

D. People had no place to cook the locusts.

7.2 What were the people doing about these locusts?

A. People were scooping up a great bowlful of locusts.

B. Women were fighting for the locusts.

C. The locusts were very big to carry home.

D. They cooked the locusts in the forest.

7.3 For how many days were people scooping up the locusts?

A. For only one day.

B. The desperate battle raged for five days.

C. For two days only, and then everything returned to normal.

D. This battle lasted for almost a year.

Don't answer the questions. Only indicate how sure you are that you can answer the questions by circling a confidence rating on the answer sheet.

"I am sure I have not offended him in any way. If I had offended him, I would render an apology easily. I have not even quarrelled with him for not eating my food. For a long time now we have not lived as husband and wife. If he wants to marry a second wife I shall be perfectly happy. In fact, I have been thinking of it for some time for I have not had a second baby, and now I wonder whether a second one will ever come."

"Have patience, my daughter. Don't be in a hurry. Everything will be all right. Don't mind my daughter. It is only youth that is worrying him and nothing else. He will soon realize what a fool he has been, and will come crawling back to you. Look after your daughter and your trade. Your husband will come back to you after all his wanderings. Men are always like that."

When Efuru went away her mother-in-law was very sorrowful. "The son of a gorilla must dance like the father gorilla. Our elders were quite right when they said this. Adizua is every inch like his father. God, please don't let him be like his father."

Do not turn the page. Wait for further instructions.

8.1 Who is speaking in this passage?

A. Efuru's husband.

B. Efuru's grandmother.

C. Efuru's younger sister.

D. Efuru and her mother-in-law

8.2 What is this paragraph about?

A. Efuru wants to divorce her husband.

B. They are not living as husband and wife.

C. The husband is beating her every day.

D. Efuru does not give birth.

8.3 What did Efuru's mother-in-law tell her?

A. To pack all her belongings and go back home.

B. That he will soon realize what a fool he has been and will come back to her.

C. To render apology to her husband.

D. That they must stop quarrelling with the husband.

Don't answer the questions. Only indicate how sure you are that you can answer the questions by circling a confidence rating on the answer sheet.

" I have promised marriage to a sweet young girl of the Bhele clan down at our village, a girl as bright and beautiful as the clear waters of Xesi river, and as warm as sunshine in Spring. She accepted me, and her family gave consent to my family, all according to custom, as you know. Suddenly I learnt that a Thembu boy had corrupted my girl when she visited her malume* at the Thembu village. Then my girl rejected me. Can you believe it, wise one? My sweet Zusiwe rejected me for a wild, uncircumcised boy. The boy used a love-potion, I am sure of that. Please help me, Gabulamehlo! Give me the strongest potion in your stock so that I may win back my girl."

"What makes you certain that the boy has used a love-potion? I must be careful, you see. If I give you a strong potion for a girl who has never taken one before, she will become mad."

"He must have used a love-potion, wise one. What other explanation can there be for her rejection of me?"

* *Uncle on the mother's side.*

Do not turn the page. Wait for further instructions.

9.1 What is the first paragraph mostly about?

The first paragraph is about:

A. the boy who uses a love-potion.
B. Gabulamehlo the wise man in the village.
C. a sweet young girl who rejected the speaker.
D. the custom marriage of the black people.

9.2 What does the speaker want Gabulamehlo to do for him?

A. The speaker wants Gabulamehlo to give him a strong-potion.
B. That Gabulamehlo must kill the Thembu boy.
C. Gabulamehlo must bewitch Zusiwe, the sweet girl.
D. The two families must meet and discuss marriage.

9.3 Why did Zusiwe reject the speaker?

A. The speaker was not fit to marry her.
B. Because Zusiwe was corrupted by a Thembu boy.
C. Zusiwe's family hated the speaker's family.
D. The speaker was very unlucky.

Don't answer the questions. Only indicate how sure you are that you can answer the questions by circling a confidence rating on the answer sheet.

Lusu felt his shaky courage evaporating fast. He had depended on his club because he was quite skilled with it. He wept openly with fear and the villagers howled with laughter. Cries of "shame" and "coward" filled his ears and his nerve collapsed altogether. He turned and tried to run, but one of his own advisers kicked him in the buttocks, slapped him soundly and pushed him back into the clearing. Mutengu tore into him with the violence of a thunderstorm.

Violent clouds of dust were stirred by the feet of the fighting men and for a long time the only sounds were those of blows well and truly landed. Then finally a loud scream was torn from the throat of the coward Lusu and he turned and ran like a madman. He bowled men over in his great hurry to escape the wrath of Mutengu. He leapt a high fence and thudded to the ground beyond like a hippopotamus. He got to his feet again and sped into the forest with Mutengu and all the villagers in hot pursuit. When he noticed his pursuers were gaining on him he urged his short fat legs to increase their effort.

Do not turn the page. Wait for further instructions.

10.1 What made everybody laugh?

Everybody laughed because

A. Lusu wept openly with fear.

B. Lusu turned and tried to run.

C. his adviser kicked him in the buttocks.

D. Mutengu tore into him.

10.2 What did Lusu do to save his life?

A. Lusu screamed aloud to save his life.

B. He ran like a madman to save his life.

C. Lusu stood very quietly behind the hippopotamus.

D. He fell down because he did not know what to do.

10.3 Where was Lusu running to when the villagers were chasing him?

A. He got to his feet again and sped into the forest.

B. Lusu never ran, instead he stood up and fought.

C. He quickly ran into the river where there were crocodiles.

D. He did not know where to run to.

Don't answer the questions. Only indicate how sure you are that you can answer the questions by circling a confidence rating on the answer sheet.

Questionnaire number [ ][ ][ ][ ] (1-4)

Card number [1] (5)

Names & Surname: .....

Date of Birth: [ ][ ][ ][ ][ ][ ] (6-11)

Year Month Day

Age: [ ][ ] (12-13)

Sex: Male [1]

Female [2] (14)

SELF-EFFICACY
PART 1

		NO	YES	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%	
(15)	1	1	2	01	02	03	04	05	06	07	08	09	10	(16-17)
(18)	2	1	2	01	02	03	04	05	06	07	08	09	10	(19-20)
(21)	3	1	2	01	02	03	04	05	06	07	08	09	10	(22-23)
(24)	4	1	2	01	02	03	04	05	06	07	08	09	10	(25-26)
(27)	5	1	2	01	02	03	04	05	06	07	08	09	10	(28-29)
(30)	6	1	2	01	02	03	04	05	06	07	08	09	10	(31-32)
(33)	7	1	2	01	02	03	04	05	06	07	08	09	10	(34-35)
(36)	8	1	2	01	02	03	04	05	06	07	08	09	10	(37-38)
(39)	9	1	2	01	02	03	04	05	06	07	08	09	10	(40-41)
(42)	10	1	2	01	02	03	04	05	06	07	08	09	10	(43-44)
(45)	11	1	2	01	02	03	04	05	06	07	08	09	10	(46-47)
(48)	12	1	2	01	02	03	04	05	06	07	08	09	10	(49-50)
(51)	13	1	2	01	02	03	04	05	06	07	08	09	10	(52-53)
(54)	14	1	2	01	02	03	04	05	06	07	08	09	10	(55-56)
(57)	15	1	2	01	02	03	04	05	06	07	08	09	10	(58-59)
(60)	16	1	2	01	02	03	04	05	06	07	08	09	10	(61-62)

Card number | 2 | (1)

SELF-EFFICACY

		NO	YES	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%	
(2)	17	1	2	01	02	03	04	05	06	07	08	09	10	(3-4)
(5)	18	1	2	01	02	03	04	05	06	07	08	09	10	(6-7)
(8)	19	1	2	01	02	03	04	05	06	07	08	09	10	(9-10)
(11)	20	1	2	01	02	03	04	05	06	07	08	09	10	(12-13)
(14)	21	1	2	01	02	03	04	05	06	07	08	09	10	(15-16)
(17)	22	1	2	01	02	03	04	05	06	07	08	09	10	(18-19)
(20)	23	1	2	01	02	03	04	05	06	07	08	09	10	(21-22)
(23)	24	1	2	01	02	03	04	05	06	07	08	09	10	(24-25)
(26)	25	1	2	01	02	03	04	05	06	07	08	09	10	(27-28)
(29)	26	1	2	01	02	03	04	05	06	07	08	09	10	(30-31)
(32)	27	1	2	01	02	03	04	05	06	07	08	09	10	(33-34)
(35)	28	1	2	01	02	03	04	05	06	07	08	09	10	(36-37)
(38)	29	1	2	01	02	03	04	05	06	07	08	09	10	(39-40)
(41)	30	1	2	01	02	03	04	05	06	07	08	09	10	(42-43)
(44)	31	1	2	01	02	03	04	05	06	07	08	09	10	(45-46)
(47)	32	1	2	01	02	03	04	05	06	07	08	09	10	(48-49)
(50)	33	1	2	01	02	03	04	05	06	07	08	09	10	(51-52)
(53)	34	1	2	01	02	03	04	05	06	07	08	09	10	(54-55)
(56)	35	1	2	01	02	03	04	05	06	07	08	09	10	(57-58)
(59)	36	1	2	01	02	03	04	05	06	07	08	09	10	(60-61)
(62)	37	1	2	01	02	03	04	05	06	07	08	09	10	(63-64)
(65)	38	1	2	01	02	03	04	05	06	07	08	09	10	(66-67)
(68)	39	1	2	01	02	03	04	05	06	07	08	09	10	(69-70)
(71)	40	1	2	01	02	03	04	05	06	07	08	09	10	(72-73)
(74)	41	1	2	01	02	03	04	05	06	07	08	09	10	(75-76)
(77)	42	1	2	01	02	03	04	05	06	07	08	09	10	(78-79)

Card number | 3 | (1)

SELF-EFFICACY

		NO	YES	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%	
2)	43	1	2	01	02	03	04	05	06	07	08	09	10	(3-4)
5)	44	1	2	01	02	03	04	05	06	07	08	09	10	(6-7)
8)	45	1	2	01	02	03	04	05	06	07	08	09	10	(9-10)
11)	46	1	2	01	02	03	04	05	06	07	08	09	10	(12-13)
14)	47	1	2	01	02	03	04	05	06	07	08	09	10	(15-16)
17)	48	1	2	01	02	03	04	05	06	07	08	09	10	(18-19)
20)	49	1	2	01	02	03	04	05	06	07	08	09	10	(21-22)
23)	50	1	2	01	02	03	04	05	06	07	08	09	10	(24-25)
26)	51	1	2	01	02	03	04	05	06	07	08	09	10	(27-28)
29)	52	1	2	01	02	03	04	05	06	07	08	09	10	(30-31)
32)	53	1	2	01	02	03	04	05	06	07	08	09	10	(33-34)
35)	54	1	2	01	02	03	04	05	06	07	08	09	10	(36-37)
38)	55	1	2	01	02	03	04	05	06	07	08	09	10	(39-40)
41)	56	1	2	01	02	03	04	05	06	07	08	09	10	(42-43)
44)	57	1	2	01	02	03	04	05	06	07	08	09	10	(45-46)
47)	58	1	2	01	02	03	04	05	06	07	08	09	10	(48-49)
50)	59	1	2	01	02	03	04	05	06	07	08	09	10	(51-52)
53)	60	1	2	01	02	03	04	05	06	07	08	09	10	(54-55)
56)	61	1	2	01	02	03	04	05	06	07	08	09	10	(57-58)
59)	62	1	2	01	02	03	04	05	06	07	08	09	10	(60-61)
62)	63	1	2	01	02	03	04	05	06	07	08	09	10	(63-64)
65)	64	1	2	01	02	03	04	05	06	07	08	09	10	(66-67)

Card number 4 (1)

SELF-EFFICACY
PART 2

	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%	
Example E1	01	02	03	04	05	06	07	08	09	10	
Example E2.1	01	02	03	04	05	06	07	08	09	10	
Example E2.2	01	02	03	04	05	06	07	08	09	10	
1.1	01	02	03	04	05	06	07	08	09	10	(2-3)
1.2	01	02	03	04	05	06	07	08	09	10	(4-5)
2.1	01	02	03	04	05	06	07	08	09	10	(6-7)
2.2	01	02	03	04	05	06	07	08	09	10	(8-9)
3.1	01	02	03	04	05	06	07	08	09	10	(10-11)
3.2	01	02	03	04	05	06	07	08	09	10	(12-13)
4.1	01	02	03	04	05	06	07	08	09	10	(14-15)
4.2	01	02	03	04	05	06	07	08	09	10	(16-17)
5.1	01	02	03	04	05	06	07	08	09	10	(18-19)
5.2	01	02	03	04	05	06	07	08	09	10	(20-21)
6.1	01	02	03	04	05	06	07	08	09	10	(22-23)
6.2	01	02	03	04	05	06	07	08	09	10	(24-25)
6.3	01	02	03	04	05	06	07	08	09	10	(26-27)
7.1	01	02	03	04	05	06	07	08	09	10	(28-29)
7.2	01	02	03	04	05	06	07	08	09	10	(30-31)
7.3	01	02	03	04	05	06	07	08	09	10	(32-33)
8.1	01	02	03	04	05	06	07	08	09	10	(34-35)
8.2	01	02	03	04	05	06	07	08	09	10	(36-37)
8.3	01	02	03	04	05	06	07	08	09	10	(38-39)
9.1	01	02	03	04	05	06	07	08	09	10	(40-41)
9.2	01	02	03	04	05	06	07	08	09	10	(42-43)
9.3	01	02	03	04	05	06	07	08	09	10	(44-45)
10.1	01	02	03	04	05	06	07	08	09	10	(46-47)
10.2	01	02	03	04	05	06	07	08	09	10	(48-49)
10.3	01	02	03	04	05	06	07	08	09	10	(50-51)

APPENDIX C

MOTIVATED STRATEGIES FOR LEARNING QUESTIONNAIRE (HIGH SCHOOL)

MSLQ-HS

PART A. MOTIVATIONAL BELIEFS

The following questions ask about your motivation for and attitudes about this class. Remember there are no right or wrong answers, just answer as accurately as possible. Use the scale below to answer the questions.

Not at all true of me	1	2	3	4	5	6	7	Very true of me

If you think the statement is very true of you, cross out 7; if a statement is not at all true of you, cross out 1. If the statement is more or less true of you, find the number between 1 and 7 that best describes you. Cross out this number.

1. I prefer class work that is challenging so that I can learn new things.
2. Compared with other students in this class I expect to do well.
3. I am so nervous during a test that I cannot remember facts I have learned.
4. It is important for me to learn what is being taught in this class.
5. I like what I am learning in this class.
6. I'm certain I can understand the ideas taught in this course.
7. I think I will be able to use what I learn in this class in other classes.
8. I expect to do very well in this class.
9. Compared with others in this class, I think I'm a good student.
10. I often choose paper topics I will learn something from even if they require more work.
11. I am sure I can do an excellent job on the problems and tasks assigned for this class.
12. I have an uneasy, upset feeling when I take a test.
13. I think I will receive a good grade in this class.
14. Even when I do poorly on a test I try to learn from my mistakes.
15. I think that what I am learning in this class is useful for me to know.
16. My study skills are excellent compared with others in this class.
17. I think that what we are learning in this class is interesting.
18. Compared with other students in this class I think I know a great deal about the subject.
19. I know that I will be able to learn the material for this class.
20. I worry a great deal about tests.
21. Understanding this subject is important to me.
22. When I take a test I think about how poorly I am doing.

PART B. SELF-REGULATED LEARNING STRATEGIES

The following questions ask about your learning strategies and study skills for this class. Again, there are no right or wrong answers. Answer the questions about how you study in this class as accurately as possible. Use the same scale to answer the remaining questions.

Not at all true of me	1	2	3	4	5	6	7	Very true of me

If you think the statement is very true of you, cross out 7; if a statement is not at all true of you, cross out 1. If the statement is more or less true of you, find the number between 1 and 7 that best describes you. Cross out this number.

23. When I study for a test, I try to put together the information from class and from the book.
24. When I do homework, I try to remember what the teacher said in class so I can answer the questions correctly.
25. I ask myself questions to make sure I know the material I have been studying.
26. It is hard for me to decide what the main ideas are in what I read. (*R)
27. When work is hard I either give up or study only the easy parts. (*R)
28. When I study I put important ideas into my own words.
29. I always try to understand what the teacher is saying even if it doesn't make sense.
30. When I study for a test I try to remember as many facts as I can.
31. When studying, I copy my notes over to help me remember material.
32. I work on practice exercises and answer end of chapter questions even when I don't have to.
33. Even when study materials are dull and uninteresting, I keep working until I finish.
34. When I study for a test I practice saying the important facts over and over to myself.
35. Before I begin studying I think about the things I will need to do to learn.
36. I use what I have learned from old homework assignments and the textbook to do new assignments.
37. I often find that I have been reading for class but don't know what it is all about. (*R)
38. I find that when the teacher is talking I think of other things and don't really listen to what is being said. (*R)
39. When I am studying a topic, I try to make everything fit together.
40. When I'm reading I stop once in a while and go over what I have read.

myself to help me remember.

42. I outline the chapters in my book to help me study.

43. I work hard to get a good grade even when I don't like a class.

44. When reading I try to connect the things I am reading about with what I already know.

MOTIVATED STRATEGIES FOR LEARNING QUESTIONNAIRE

(HIGH SCHOOL)

National Center for Research to Improve Postsecondary Teaching and Learning
(NCRIPTAL)

School of Education, The University of Michigan,
Ann Arbor, Michigan

Adapted by

J.L.de K. Monteith (Potchefstroom University for CHE)

The questionnaire asks you about your study habits, your learning skills, and your motivation for learning or studying.

THERE ARE NO RIGHT OR WRONG ANSWERS TO THE QUESTIONNAIRE. THIS IS NOT A TEST.

We want you to respond to the questionnaire as accurately as possible, reflecting your attitudes and behaviors in this course.

Card number [5] (1)

Part A: MOTIVATION

1	1	2	3	4	5	6	7	(2)
2	1	2	3	4	5	6	7	(3)
3	1	2	3	4	5	6	7	(4)
4	1	2	3	4	5	6	7	(5)
5	1	2	3	4	5	6	7	(6)
6	1	2	3	4	5	6	7	(7)
7	1	2	3	4	5	6	7	(8)
8	1	2	3	4	5	6	7	(9)
9	1	2	3	4	5	6	7	(10)
10	1	2	3	4	5	6	7	(11)
11	1	2	3	4	5	6	7	(12)
12	1	2	3	4	5	6	7	(13)
13	1	2	3	4	5	6	7	(14)
14	1	2	3	4	5	6	7	(15)
15	1	2	3	4	5	6	7	(16)
16	1	2	3	4	5	6	7	(17)
17	1	2	3	4	5	6	7	(18)
18	1	2	3	4	5	6	7	(19)
19	1	2	3	4	5	6	7	(20)
20	1	2	3	4	5	6	7	(21)
21	1	2	3	4	5	6	7	(22)
22	1	2	3	4	5	6	7	(23)

Part B: LEARNING STRATEGIES

23	1	2	3	4	5	6	7	(24)
24	1	2	3	4	5	6	7	(25)
25	1	2	3	4	5	6	7	(26)
26	1	2	3	4	5	6	7	(27)
27	1	2	3	4	5	6	7	(28)
28	1	2	3	4	5	6	7	(29)
29	1	2	3	4	5	6	7	(30)
30	1	2	3	4	5	6	7	(31)
31	1	2	3	4	5	6	7	(32)
32	1	2	3	4	5	6	7	(33)
33	1	2	3	4	5	6	7	(34)
34	1	2	3	4	5	6	7	(35)
35	1	2	3	4	5	6	7	(36)
36	1	2	3	4	5	6	7	(37)
37	1	2	3	4	5	6	7	(38)
38	1	2	3	4	5	6	7	(39)
39	1	2	3	4	5	6	7	(40)
40	1	2	3	4	5	6	7	(41)
41	1	2	3	4	5	6	7	(42)
42	1	2	3	4	5	6	7	(43)
43	1	2	3	4	5	6	7	(44)
44	1	2	3	4	5	6	7	(45)

School [ ][ ] (46)