

**ATTRIBUTIONAL STYLE AND ACADEMIC
ACHIEVEMENT IN A SAMPLE OF BLACK
PRIMARY SCHOOL CHILDREN**

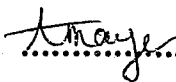
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**A research report submitted to the Faculty of Specialized Education, University of
the Witwatersrand, in partial fulfillment of the requirements for the Degree of
Master of Education (Educational Psychology)**

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DECLARATION

I hereby declare that this thesis is my own, unaided work. It is being submitted for the degree of Master of Education (Educational Psychology) at the University of the Witwatersrand, Johannesburg. It has not been submitted for any degree or examination at any other university.


.....
Aliza Mayer

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ABSTRACT

This study examined the role that attributional style played in the academic achievement and school performance of a sample of 150 black primary school learners in grades 5 and 6 in an inner city school in the Johannesburg area. The Children's Attributional Style Questionnaire (CASQ, 1984) was administered to determine the attributional styles. The questionnaire was comprised of 10 subscales and from this an overall level of optimism or pessimism was obtained. The academic achievement of the learners was measured by obtaining the end of year academic results of 1997 and 1998 from the mark schedules of each teacher. The results did not reveal significant correlations between attributional styles and academic achievement. This was contradictory to the existing literature. It appears that, in this disadvantaged group in South Africa, it is not attributional style that impacts upon academic achievement and school performance. However it appears that learned helplessness in terms of Seligman and Maier's (1967) original formulation, rather than attributional style as in the reformulated theory of Abramson, Seligman & Teasdale (1978) may impact upon academic achievement in this community.

KEY WORDS

Attributional styles, Children's Attributional Style Questionnaire (CASQ), Optimism, Pessimism, Academic Achievement, School Performance

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CHAPTER ONE

1. BACKGROUND TO THE STUDY

1.1. Introduction

Education is an important aspect of any society and is essential for a stable community to develop. School, where formal education occurs, is a critical event in a child's life and development. School failure may seriously affect the child's well being and lead to decreased motivation, with resultant long-term effects on society. Therefore it is important to understand what may contribute to school failure. This study sets out to examine attributional style as a possible factor in academic achievement.

According to Abramson, Seligman and Teasdale (1978) learned helplessness in humans involves the belief that outcomes are not contingent on one's responses as well as a particular attributional style in which bad events are attributed to internal (applied to oneself), global (as applied to more than one area) and stable causes over time. Good events are attributed to external factors outside of the individual: unstable, (transient) and specific causes (occur in a particular area/task). The attributional style theory is derived from the work of Seligman and Maier (1967) on learned helplessness.

This study is an attempt to examine the correlation between attributional styles and academic achievement. The research sample consists of 150 black primary school children from a school within the Johannesburg area. The data gathered will be subjected to a statistical analysis and thereafter the results will be discussed. Limitations and suggestions for future research will also be included in this study.

Not all pupils - although in the same classroom - attain their full potential (Potterbaum, Keith & Ehly, 1986). Over the many years, it has been found that some pupils do not attain academic results equal to their ability. Some pupils attain good results, are popular with their teachers and peers and generally experience the school situation as

pleasant. These pupils are confident and fit better into the general pattern of school life (Findley & Cooper, 1983). Other pupils attain poor results, are withdrawn, do not actively participate in school life and are unhappy, and pupils who have poor perceptions of themselves and their abilities seem to be at a distinct disadvantage. Such pupils do not actively participate in lessons or extra-curricular activities and do not seem to possess leadership qualities (Dweck & Wortman, 1982). Consequently their perception and attribution of themselves as failures seem to lead to one failed test after another, thus leading to poor results (ibid, 1982).

Several decades of research have demonstrated that an important contribution to school performance is an individual's expectation about whether he or she has any control over academic success or failure (Witkowski & Stienmeier - Pelster, 1998).

Evidence has accumulated indicating that children who believe that doing well in school is dependent on their own actions, perform better than those who do not (Seligman, 1975). Similarly, children who believe that good marks are a result of internal and controllable causes (like effort) (Weiner, 1979) can produce the responses that lead to desired outcomes (Bandura, 1977) and perform better academically. These children score higher on tests of intelligence and achievement and earn better marks in school than children who do not hold these beliefs (Findley & Cooper, 1983). When children believe they can exert control over success in school, they perform better on cognitive tasks. Furthermore, when children succeed in school, they are more likely to view school performance as a controllable outcome. Conversely, this reciprocal relationship could suggest that children who are not doing well in school may perceive themselves as having no control over academic successes or failures. These beliefs may subsequently generate performances that serve to confirm their beliefs (Skinner, Wellborn & Connell, 1990).

Marsh (1984) argues that perceived causes (i.e. attributions) of success and failure have important implications, particularly in an educational setting. Individual differences in the way children attribute outcomes to such causes as ability, effort and luck have been

shown to be related to school performance and academic achievement (Dweck & Wortman, 1982). Learned helplessness research has documented that failure can lead to performance deficits on subsequent tasks (Stienmeier-Pelster & Schurman, 1990). In other words, the concept most associated with the learned helplessness theory is the attribution of controllability. This model explains that the individuals who are vulnerable to learned helplessness are those who believe that they are unable to exert any volitional control over the probability of desired outcome (Peterson, Maier & Seligman, 1993). If success is not contingent on effort, then an expectation is set up that future events are uncontrollable, i.e. success and failure are independent of one's actions. This expectation may generalise to subsequent tasks where it undermines the participant's motivation, i.e. his/her willingness to expend effort because it seems futile. The withdrawal of effort subsequently results in poor performance (Witkowski & Stienmeier-Pelster, 1998).

To date, studies on learned helplessness and attributional styles have been confined mostly to the American school-going population. In America, controversy exists as to whether attributional style can be generalised to other cultures such as Black Americans (Peterson, Maier & Seligman, 1993). This study is an attempt to investigate whether learned helplessness and attributional style theory can be generalised to a different cultural group, namely black South African children. Generally depressed levels of scholastic performance and high failure rates are prevalent among black South Africans (Donald, 1989). There is a need to identify the psychological variables that differentiate between those individuals who succeed and those who fail scholastically. Attributional style could be a relevant aspect of their school difficulties.

1.2 Literature review

In this section Seligman's learned helplessness theory (1975) will be reviewed and expounded. Its implication for academic achievement will also be explored.

Learned helplessness originates in the belief that results are not contingent upon effort. Modifying this effect in humans is attributional style. This suggests that if a person explains bad events in terms of internal, stable and global causes, while explaining good events in terms of external, unstable and specific causes, he will be more likely to experience learned helplessness.

1.2.1 Historical background to learned helplessness

Overmier and Seligman (1967) and Seligman and Maier (1967) first used the phrase "learned helplessness" to describe the escape-avoidance response shown by dogs exposed to uncontrollable shocks in the laboratory. In the laboratory, dogs that experienced aversive events that they could not control subsequently showed gross deficits in behaviour, whereas dogs that experienced an equivalent number of controllable aversive events or no aversive events did not show such behavioural deficits (Overmier & Seligman, 1967; Seligman & Maier, 1967). The dogs that had been exposed to shocks from which they could not escape in one situation, did not try to escape shocks in a subsequent situation even although they could easily have done so. The reason for this is that the dogs had learnt that their responses were futile as the shocks were independent of their behaviour. To account for these findings, Seligman, Maier and Solomon (1969) and Seligman, Maier and Solomon (1971) proposed that when animals experience uncontrollable events they form the expectation that future events will be uncontrollable as well. The researchers then hypothesised that such an expectation leads to deficits in motivation, cognition and emotion. The motivational deficit is evidenced in a lowered probability of initiating voluntary responses. The logic is that if an organism believes that its responses do not matter, then it will not respond in the future. The cognitive, or associative deficit is evidenced in a difficulty in perceiving a relationship between responses and outcomes where a relationship does, in fact, exist. According to the theory, interference from the original expectation of no control inhibits the formation of subsequent expectations of control. Thus, according to the learned helplessness theory, the performance of dogs in an escape task following inescapable shock reflects two consequences of an expectation of response-outcome

independence: lowered initiation of responses and difficulty in perceiving response-outcome relationships (ibid, 1969; 1971).

Over the past decade, research in the area of learned helplessness has proliferated. The debilitating consequences of experience with uncontrollable events have been observed in cats (Thomas & Dewald, 1977); in fish (Padilla, 1973); and in rats (Maier & Testa, 1975).

More recently, investigators have documented learned helplessness in humans (Peterson, Maier & Seligman, 1993). Seligman (1975) argues that learned helplessness plays a part in a wide variety of human conditions, including child development and depression. The development of a child may be affected by the lack of motivation, by passivity and negativity - characteristics of the learned helplessness pattern. Depressed individuals not only make fewer responses but also often interpret their responses as failures. Negative cognitions are central in learned helplessness and depression (Seligman, 1973).

The learned helplessness model provides an account of the consequences of experience with uncontrollable events in humans and animals. According to this hypothesis, learning that outcomes are uncontrollable in the sense that outcomes are not contingent on one's behaviour and actions results in four deficits:

- (a) motivational deficits (lowered response and lowered persistence);
- (b) cognitive deficits (inability to perceive existing opportunities to control outcomes since they believe that outcomes are not contingent on their behaviour and actions);
- (c) emotional deficits (sadness and lowered self-esteem) and
- (d) lowered assertiveness and competitiveness.

These deficits are collectively known as "learned helplessness" and refer to deficits in thoughts, feelings and actions (Peterson, Maier & Seligman, 1993).

1.2.2 Inadequacies of the old helplessness theory

The learned helplessness model was originally developed from experimentation with animals. When applied to humans, a number of inadequacies in the model were apparent.

Firstly, the original learned helplessness theory could not account for individual differences in humans' susceptibility to learned helplessness, i.e. it could not explain why some individuals were more able to learn in new situations than others after prior experiences with failure. Secondly, it could not explain when learned helplessness deficits would be stable over time and when they would be unstable. Thirdly, it could not explain when learned helplessness deficits would generalise to multiple domains of outcomes and when they would be specific to one domain. Finally, it could not explain why people should lose self-esteem when they perceived they were helpless (Nolen-Hoeksema, Girgus & Seligman, 1986).

1.2.3 Reformulation of helplessness in terms of attribution

Abramson, Seligman & Teasdale (1978) set out to explain the inadequacies of the old theory and proposed a reformulation of learned helplessness theory. According to this reformulation, the explanations people give, i.e. the attributions they make for good and bad outcomes, influence their expectations about future outcomes and thereby influence their reactions to outcomes. Attributions are inferences that people draw about the causes of events, the behaviour of others, and their own behaviour (Weiten, 1989). Attributions are made because there is a strong need to make sense of one's experiences. The attributions individuals use, guide and help change behaviour and improve outcomes. According to Weiner (1985) individuals are more likely to make attributions when events have personal consequences, such as success or failure. One of the earlier theorists on attributions, Kelley (1967), categorises explanations of behaviour as internal or external to the person. Kelley (1967) identifies important factors in making internal or external attributions. According to Kelley's model, an attempt to infer the causes of behaviour/events includes three types of information:

consistency, distinctiveness and consensus. Consistency refers to the generality of behaviour across time and occasion. Distinctiveness refers to whether a person's behaviour is unique to the specific entity that is the target of the person's action. Consensus refers to the generality of behaviour across situations. According to Kelley (1973), when distinctiveness and consensus are low, internal attributions are made; when they are high, external attributions are more likely to be made. Low consistency leads to external attributions, but high consistency leads to either an internal or external attribution.

Later theorists such as Weiner (1974) sought to discover additional dimensions of attributional thinking besides the internal-external dimension. Weiner (1974), after studying success or failure, concludes that individuals focus on the stability of the causes underlying behaviour. According to him the stable-unstable dimensions in attributions cuts across the internal-external dimension, creating four types of attribution for success or failure: internal-stable, (e.g. excellent ability); internal-unstable, (e.g. hard work); external-stable, (e.g. lack of competition); and external-unstable, (e.g. good luck). Other theorists have built on Weiner's foundation in different ways. Seligman (1975) proposes three dimensions along which explanations can vary in explaining events: stable/unstable; global/specific; internal/external. Stable refers to causes that persist in time and unstable refers to causes that are temporary. If a person explains a bad event by a cause that is stable rather than unstable in time, he or she will expect bad events to recur in the future and feelings of helplessness are likely to be chronic. Global refers to a wide spectrum of situations and specific refers to causes that affect only one area of a person's life. If a person explains a bad event by a cause that has global effects instead of by a cause that influences only that specific event, he or she will expect bad events to occur in multiple domains and helplessness deficits will generalise across domains. Internal/external refers to causes that can either be internal or external to the individual. If a person explains a bad event by a cause internal to himself or herself, he ascribes the causes to personal dispositions, traits and abilities. If he ascribes the cause as external to himself, he attributes the cause to situational or environmental constraints.

Abramson, Seligman & Teasdale (1978) explains individual differences in vulnerability to helplessness by arguing that people who habitually explain bad events by internal, stable, and global causes, e.g. unintelligent, and explain good events by external, unstable, specific causes, will be more likely to experience general and lasting symptoms of helplessness than will people with the opposite style. The reformulated model is thus a diathesis-stress model in which a pessimistic attributional style is viewed as a factor that predisposes the individual to helplessness in the face of bad and difficult events.

The original learned helplessness model was therefore revised to include causal explanations, and what ensued was a more powerful account of how people respond to uncontrollable events i.e. non-contingent events. This forms the foundation of what is now called attribution theory, an approach to understanding people's behaviour by taking into account their causal beliefs. Attribution theory and research usually distinguish between internal and external causes. The revised theory is therefore able to explain individual differences in response to uncontrollability, because people bring habitual explanatory styles to bear on the events they experience (Peterson, Maier & Seligman, 1993).

According to Peterson, Maier and Seligman (1993), when a person is confronted with a situation over which he feels he has no control, then:

- he evaluates it cognitively;
- he ascribes certain attributions to the situation in terms of the three dimensions mentioned above;
- he experiences helplessness which is dependent upon the nature of the attributions made.

Attributions, therefore, are predictive statements about the individual's expectations of his competence to achieve in different areas of his life. Vulnerability to helplessness is increased if the attributional style is internal, stable and global for bad events and external, unstable and specific for good events (also referred to as a pessimistic

attributional style); decreased if the attributional style is external, unstable and specific for bad events and internal, stable and global for good events (also referred to as an optimistic attributional style) (Reynolds & Miller, 1989).

1.3 Implications for academic achievement

It seems this theory has important implications for academic achievement in that learned helplessness affects motivation, cognition and behaviour. As such it has been used to explain deficits in achievement oriented behaviours (Dweck & Wortman, 1982).

According to Dweck & Wortman (1982), learners who tend to explain academic failure in terms of stable and global causes, e.g. stupid, and explain success in terms of unstable and specific causes, e.g. luck, correlate with decreased persistence, decreased initiation of tasks, lowered quality of problem solving strategies and lowered expectations for future success (ibid., 1982).

1.3.1 Mastery-oriented vs. learned helpless children

School failure has dramatic effects on performance. According to Licht and Dweck (1983, p 197), *"For some children, these effects are positive ones: effort is escalated, concentration is intensified, persistence is increased, strategy use becomes more sophisticated and performance is enhanced. For other children, the effects are quite the reverse: efforts are curtailed, strategies deteriorate, and performance is often severely disrupted. Indeed, these children often become incapable of solving the same problems they solved easily only shortly before"*. What distinguishes them are their attributions and cognitions about their success and failure. Those who attribute failure to internal, stable and global causes are characterised by 'learned helplessness'; those that attribute their failure to external, unstable and specific causes are characterised by 'mastery-orientation' (ibid, 1983).

In achievement situations children who attribute their success to their own effort are mastery-oriented and show enhanced problem-solving following failure, whereas those who make fewer attributions to effort are said to be learned helpless and manifest performance deterioration. The tendency to make attributions to effort is routinely used to identify mastery-oriented and learned helpless children (Fincham, Diener & Hokoda, 1987).

Hence, it seems children whose performance deteriorates in the face of failure have a greater tendency to attribute their failures to stable, internal and global factors. Those whose performance is enhanced in the face of failure have a greater tendency to attribute their failures to more variable factors (Simpson, Licht, Wagner & Stader, 1996). Children who attribute their failures to insufficient ability are less likely to persist in the face of failure than children who attribute their failures to factors other than ability, e.g. insufficient effort (ibid, 1996).

The mastery-oriented children do not attribute their failures to stable, internal and global causes. Although they may have acknowledged their "mistakes," there is little to indicate that they consider their present state to constitute "failure" or that they expect to remain in that state much longer (Simpson, Licht, Wagner & Stader, 1996).

Most of their behaviour indicates greater task involvement and increased orientation toward obtaining the solution. Specifically, they engage in a good deal of self-instruction, e.g. reminding themselves to concentrate, as well as self-monitoring, e.g. checking to see that they were engaging in the behaviours that would facilitate performance. Regardless of the factors that they believe lead to their "mistakes" - whether bad luck, insufficient effort, increased task difficulty, or lower ability than previously believed - intensifying efforts or varying problem-solving strategies still appeared to be a good routes to success. Not until all avenues have been exhausted or until he/she has decided that the goal does not warrant a further expenditure of effort, does it make sense for the mastery-oriented child to explain his or her failure - for not until then was there a failure to be explained (ibid, 1996). Therefore, because these

children attribute their failure to external causes, they continue to believe that they could achieve good results by their own efforts, behaviour and actions.

Learned helpless and mastery-oriented children differ markedly in the constellation of achievement cognitions they entertain when they encounter difficulties. When failures occur, the cognitions of the helpless children reflect their tendency to dwell on the present and to dwell on the negative. The cognitions of the mastery-oriented children reflect their tendency to look toward the future, to emphasize the positive, and to invest their energies in actively pursuing solution-relevant strategies (Fincham, Diener & Hokoda, 1987).

In addition, in the same way that mastery-oriented children appear not to define themselves as failing (when failures have been programmed in an experimental situation), learned helpless children do not appear to define themselves as succeeding when successes are programmed. In the same way that the mastery-oriented children look beyond the failed problems to ultimate success, the learned helpless children almost seem to look beyond their current successes to ultimate, if not imminent, failure. Thus, learned helpless children see themselves to be lacking in control – they do not believe they can reliably reproduce successes or overcome failures (ibid, 1987).

Pessimistic explanations of failure undermine trying and produce hopelessness and passivity in the face of failure. Optimistic explanations facilitate seeing failure as a challenge and generate activity and hope (Dweck & Licht, 1980).

According to Erikson (1963), school-going children are attempting developmental tasks in the stage of mastery versus inferiority. Achieving success in educational endeavours facilitates successful resolution of this developmental stage. It appears that attributional style contributes to the child's success or failure in negotiating this stage of development.

1.4 Gender differences in learned helplessness

According to Seligman, Reivich, Jaycox and Gilham (1995), females are more optimistic than males until puberty. However, after puberty, males and females on average do not differ in overall optimism. However, when two realms were looked at separately, discrepancies were noted. Males were more optimistic in achievement situations, attributing failure to temporary, local and external causes. Females appear to be the reverse. They were pessimistic about achievement, but optimistic in other realms such as in social situations.

Dweck and Licht (1980) have shown girls to be more helpless than boys in achievement situations: they are more likely to condemn their abilities, i.e. make internal attributions, when they encounter difficulties and are more likely to show decreased persistence or impaired performance. Moreover, girls show lower expectancies of success than do boys across a wide variety of domains. For example, they often predict lower grades for themselves or poorer performance on novel experimental tasks. They also avoid tasks that pose a challenge or that test their skill. All of these effects have been found to occur, even in tasks at which girls have clearly demonstrated their ability or in areas in which they have clearly out-performed boys (Licht & Dweck, 1983). Boys, in contrast, do not tend to see failure feedback in academic settings as indicative of their incompetence; instead, they tend to view failure as stemming from controllable or variable factors, such as motivation. They respond to such failure in the mastery-oriented manner – with improved performance or increased persistence – and they tend to select tasks that will provide a challenge. Furthermore, when they do succeed, boys are more likely to credit success to their abilities (Seligman, Reivich, Jaycox & Gillham, 1995). When girls fail in achievement situations, they hear pessimistic explanations about their lack of ability and have been socially conditioned to believe them. Boys hear and believe that failure can be overcome if they just try harder. In other words effort and achievement are contingent. (ibid, 1995).

1.4.1 Gender differences in the generalisation of failure effects

Girls seem to be more debilitated by school failure than boys, and they are also more likely to show generalisation of these effects to new situations (Peterson, Maier & Seligman, 1993). Research by Dweck, Goetz and Strauss (1980) indicates that following failure girls' expectancies of success are less resilient: they show less recovery in response to situational changes that should prompt optimism. This also suggests that even when girls do express confidence about their future performance, the confidence is more fragile and may dissipate with situational changes that for boys tend to lead to heightened confidence.

Girls and boys have different ways of dealing with positive and negative outcomes. They interpret their success and failures differently and have different views of the implications for their abilities. They have different criteria for defining success and failure. They differ in the persistence of their attempts to solve a difficult problem, in quality of their performance after failure, and in their task choices after they encounter difficulty (Stienmeier- Pelser & Schurmann, 1990).

Given girls' response to failure, one would expect them to perform most poorly in those subject areas where failures are the most likely to occur. Each failure provides females with another opportunity to conclude that they lack ability. If girls then blame an intellectual ability that goes beyond the particular task at hand, the negative effects of failure may generalise to all tasks perceived to fall into the same ability area. This results in decreased persistence in the face of difficulties; avoidance of the area if that option is available and interference with the acquisition of new material in that area, i.e. they demonstrate the motivational, cognitive and behavioural deficits specified by the learned helplessness model. In contrast, given boys' tendency to view difficult tasks as posing a challenge, a moderate probability of failure in a particular subject area may serve to increase the attractiveness of the area for them (ibid, 1990).

1.5 Summary

From the literature it appears that attributional styles are highly relevant to school achievement (Peterson & Stunkard, 1992). More so than in many domains of life, school represents a situation in which there are right and wrong answers and in which one's effort does, indeed, matter. Therefore, school is a setting which allows for generalisation of attributions. School children can be classified as either "learned helpless" or "mastery-oriented" according to their response to academic success and failure.

"Learned helpless" children are those who attribute failure to their lack of ability. When working at problems, they employ ineffective strategies and expect to do poorly. When these children encounter failure, they fall apart and prior success has little effect on them (Peterson, Maier & Seligman, 1993). It therefore seems that learned helplessness may play a major role in academic achievement. This study will examine the role that attributional style plays in the school performance of black primary school children.

CHAPTER TWO

2. THE STUDY

2.1 Rationale for the study

The literature review in Chapter One indicates the individual differences in the way children attribute outcomes to such causes as ability, effort and luck are related to academic achievement and school performance (Marsh, 1984). Children who possess an attributional style that leads them to view the causes of bad events as stable, global and internal will be especially vulnerable to learned helplessness once they encounter bad events (Nolen-Hoeksema, Girgus & Seligman, 1986).

There is evidence that attributional style is related to academic performance (Fazio & Palm, 1998). Pierce and Henry (1993) find that school learners who explain negative academic events with pessimistic attributions received lower marks in school than learners with more positive attributions did. Similarly, Peterson and Barrett (1987) report that college students who use negative attributions to explain academic events had significantly lower grade averages than those using optimistic attributions.

The studies on attributional styles, although embracing a broad socio-economic and cultural range, have been confined largely to Americans. The present study investigates the relevance of Seligman's attributional theory to a different cultural group, namely black South African children attending school in a historically white area in the post-apartheid schooling system.

High failure rates are reported for black South African primary school children. In addition, these children show a generally depressed level of scholastic performances compared with their white counterparts (NCSNET, 1998). This is probably related to the past – particularly to the policy of apartheid and its consequences which created a deprived population with limited opportunities. Learned helplessness may well have been a result. Other studies have shown that pessimistic attributional style, which is

linked to learned helplessness, has affected academic achievement in children in various cultural groups. This may shed light on the poor scholastic performance of some black South African learners. It is this that the present study sets out to investigate.

According to Erikson (1963), children between the ages of 6 and 12 years (primary school going ages) are in the developmental stage of mastery versus inferiority. Achieving success in educational endeavours facilitates the child's development of feelings of competence as opposed to feelings of inferiority (Meyer, Moore & . . . , 1989). Because this age is so closely linked to the development of feelings of competence/mastery or inferiority, it would seem to be the age most vulnerable to the development of learned helplessness. It is in the light of this that primary school children at the upper end of this age scale of this developmental period were selected for the sample in this study.

Dweck, Goetz and Strauss (1980) note that in school settings, success and failure experiences are not isolated occurrences. Individuals in school often experience success or failure over an extended period of time such that *"attributions for prior outcomes are likely to influence reactions to subsequent situations"* (p. 441).

According to Johnson (1981), a pessimistic attributional style at school evolves from repeated experiences of failure in the classroom. He therefore suggests that attributional styles become more stable over time. This study attempts to determine whether a learner's school performance and academic achievement are influenced over time by his/her attributional style. In this study the results from two successive years were obtained in order to determine the impact of attributional style on results over time.

2.2 Aims of the study

Based on the rationale provided above, the specific aims of the research are therefore as follows:

1. To identify optimistic attributional style and pessimistic attributional style in a sample of black South African learners from a typical Johannesburg school.
2. To ascertain the correlation between attributional styles and academic achievement in a sample of black South African learners..
3. To investigate gender differences in attributional style in a sample of black South African learners.
4. To assess attributional style as a predictor of academic achievement.
5. To ascertain whether learners with negative attributional styles do worse over time.
6. To determine whether learners with positive attributional styles do better over time.

2.3 Method

2.3.1 Sample *

The sample for the research comprised 150 black learners who represented the entire Grade 5 and Grade 6 learners from a randomly chosen government school in the northern suburbs of Johannesburg. The pool of schools from which the school was randomly selected were previously all White Model C schools but the schools are now exclusively black. The initial subjects of the sample were 160 learners. However only 150 subjects were used, as a decision was made at the outset to omit all subjects whose questionnaires were not complete, and those whose academic record and Education Laboratory Card (Ed Lab Card) -the file in which all the learner's academic and background information is stored- could not be obtained.

2.3.1.1 Gender distribution of the sample

The sample was comprised of 66 males and 84 females, i.e. 44% male and 56% female. Table 1. below represents a breakdown of the gender of the sample.

*** Permission to use this sample was obtained from the principal of the school.**

Table 1. Gender distribution

Gender	Frequency	Percent
Female	84	56.0
Male	66	44.0

2.3.2 Age distribution of the sample

The ages of the learners in the sample ranged from 10 to 13 years of age. Out of the sample 2.7% were 10 years old, and 33.3% of the sample were 11 years old. The largest percentage of the sample were 12 years old (48.7%) and 15.3% of the sample were 13 years old. The following table represents the age distribution of the sample.

Table 2. Age distribution of the sample

Age	Frequency	Percent
10 years	4	2.7
11 years	50	33.3
12 years	73	48.7
13 years	23	15.3

2.3.3 Grade distribution of the sample

The children in this sample were drawn from grades 5 and 6. The sample was equally distributed between grades 5 and 6. The following table represents the grade distribution of the sample.

Table 3. Grade distribution of the sample

Grade	Frequency	Percent
5	76	50.7
6	74	49.3

2.3.4 Family background of the sample

In the apartheid era, black children were educated in schools in areas designated for blacks and white children in areas designated for whites. There was also a separate education system for black and white children. Migrant labour broke up black nuclear families. A high proportion of black South African females were employed as domestic workers and lived in a room on the premises. They were employed in the historically white suburban areas while their children were brought up by extended family members in the black townships or rural areas. However, it is now becoming more common to find children living with their mothers in the historically white suburban areas. A detailed description of the family background of the subjects in this sample has been included, (although the data was not used in the statistical analysis of the results) as attributional styles and academic achievement do not occur in a vacuum, but are influenced by the social, family and home situation.

From this sample 40.7% of the children come from single parent (unmarried) households. The largest portion of children had parents who were married (50%). The divorce rate amongst the parents of the sample was relatively low at 4%. A small percentage of the parents were widowed (2.7%). The marital status of 2.7% was unknown. Table 4. demonstrates the subjects' family status.

Table 4. Status of family

Status of Family	Frequency	Percent
Single parent (unmarried)	61	40.7
Married	75	50
Divorced	6	4.0
Widowed	4	2.7%
Unknown	4	2.7%

2.3.5 Occupational status of parents

The occupational status of the parents was derived by examining the International Labour Organisations, Bureau of Statistics International Classification of Status in Employment (ICSE – 1993), together with the International Standard Classification of Occupation (ISCO – 1998). Four categories of employment were derived and a further category was established to account for information that was unavailable.

In this sample, 15.3% of the fathers were involved in skilled work and 19.3% of fathers (in the sample were involved) in semi-skilled work. The majority of fathers (48.0%) in the sample were involved in unskilled work and 16.7% of the fathers were unemployed. No information was available for 0.7% of the fathers. Table 5. below represents the occupational status of the fathers.

Table 5. Occupational status of the fathers

Fathers	Frequency	Percent
Skilled	23	15.3
Semi-skilled	29	19.3
Unskilled	72	48.0
Unemployed	25	16.7
Unknown	1	0.7

The majority of mothers (26.7%) in this sample were involved in skilled work and 22.7% of mothers were involved in semi-skilled work. Out of the sample 12.7% were unskilled and 6.0% were unemployed. There were three deceased mothers (2.0%). No information was available for 30.0% of the mothers. Table 6. below represents the occupational status of the mothers.

Table 6. Occupational status of the mothers

Mothers	Frequency	Percent
Skilled	40	26.7
Semi-skilled	34	22.7
Unskilled	19	12.7
Unemployed	9	6.0
Deceased	3	2.0
Unknown	45	30.0

2.3.6 Geographical distribution of the sample

The learners in the sample all attended the same school. The majority lived in township areas (68.7%) and commuted by bus or taxi daily into the suburbs to attend school and 31.3% of learners lived in the urban areas. (This figure was largely influenced by the high rate of mothers who are domestic workers and who reside in the suburbs and their children who live with them). The table 7. below represents geographical distribution of the learners.

Table 7. Geographical representation of the sample

Residence	Frequency	Percent
Black Township Areas	103	68.7
Historically white suburban areas	47	31.3

2.4 Measures

2.4.1 Children's Attributional Style Questionnaire (CASQ)

This scale was created by Seligman, Peterson, Kaslow, Tanenbaum, Alloy & Abanson (1984) from the existing Adult Attributional Style Questionnaire (ASQ, 1979) when they discovered that children had trouble completing the Adult's ASQ, particularly the rating of globality. A copy of the CASQ (1984) is included in the Appendix 1.

Permission to use the CASQ was obtained from Seligman (see Appendix 2).

The CASQ (1984) has 48 items, each of which consists of a hypothetical good or bad event, and two possible causes of the event. Respondents pick the cause from the pair that better describes why the event occurred. The two causes provided hold constant two of the attributional dimensions, while varying the third. A sample item from the CASQ (1984) that measures internality versus externality (while holding constant stability and globality) is as follows: A good friend tells you that he hates you:

- (a) My friend was in a bad mood that day (external);
- (b) I wasn't nice to my friend that day (internal).

Sixteen questions pertain to each of the three dimensions (internality, stability, and globality). Half of the questions provide good events to be explained, and half of the questions provide bad events (Peterson, Maier & Seligman, 1993).

A composite explanatory style score for positive events is obtained by adding the child's scores on each of the three subscales for positive events. A composite explanatory style score for negative events is obtained by summing the scores for the subscales for negative events. An overall explanatory style score is obtained by subtracting the composite negative score from the composite positive score. The lower the overall style score, the more the child explains bad events in terms of internal, stable, and global causes, while explaining good events in terms of external, unstable, and specific causes (Nolen-Hoeksema, Seligman & Girgus, 1986).

The CASQ (1984) is scored by assigning a 1 to each internal, stable, or global response (when that dimension is varied), and a 0 to each external, unstable, or specific response. Subscales are formed by summing these scores across the appropriate questions for each of the three causal dimensions, separately for good events and for bad events (Reivich, Jaycox, Gillham, 1996).

The 10 subscales are namely:

- (1) Permanent bad events;
- (2) Permanent good events;
- (3) Pervasive bad events;
- (4) Pervasive good events;
- (5) Personal-bad events;
- (6) Personal-good events;
- (7) Hopelessness-bad events;
- (8) Bad events;
- (9) Good events and
- (10) Overall Optimism/Pessimism score.

2.4.2 Definitions of subscales

A **pessimistic permanent-bad event (PMB)** score indicates a child who becomes passive and does not bounce back when defeated. An optimistic permanent-bad event (PMB) score indicates a child who comes back from setbacks, seeing them as challenges.

A **pessimistic pervasive-bad event (PVB)** score indicates a child who catastrophises, generalising from a single bad events. Such a child starts to do badly at school when things go wrong at home or with peers. An optimistic pervasive-bad event (PVB) score indicates a child who can build walls around problems. The child can still get on well with friends, even when grades plummet.

A pessimistic personal-bad event (PSB) score indicates a child who is a self-blamer; who feels guilt, shame and low self-esteem when something goes wrong, even if it is not his fault. After a defeat he feels worthless. An optimistic personal-bad event (PSB) score indicates a child who blames others. His self-esteem does not go down when he fails, and he often gets angry with people he perceives as causing his failures.

An optimistic permanent-good event (PMG) score indicates a child who will roll on with one or two successes. A pessimistic permanent good event (PMG) score indicates a child that does not capitalize on success; one success does not spur more successes.

An optimistic pervasive-good event (PVG) score indicates generalisation across successes. A pessimistic PVG score, in contrast, indicates a child who does not benefit in other realms from success in a single realm.

An optimistic personal-good event (PSG) score indicates a child who readily takes credit for successes and feels high self-esteem. A child with a pessimistic PSG score, often has self-esteem problems, even when he does well, but sees success as coming from luck or circumstances.

Hopelessness-bad events (HOB) score indicates levels of resilience or hopelessness.

Bad Events (Total B) score indicates a child's reaction to a bad event in life.

Good Events (Total G) score indicates a child's reaction to good events in life.

Good Minus Bad (G minus B) score indicates overall level of optimism or pessimism.

2.4.3 Measure of achievement

The academic achievement of the learners was measured by obtaining the end of year results of 1997 and 1998 mark schedules from each teacher. The mark schedule indicated each learner's marks in the form of a percentage in the various subjects taken by the learner. The most important percentage was the total obtained by the learner. This percentage was obtained from the schedule. The percentages of the learners were refined into 4 categories for the statistical analysis based on the school's grading system. They are as follows:

1. Very good: 70% and above
2. Average: 50 – 69%
3. Not coping: 31 – 49%
4. Failure: 30% and below

Background information such as gender, age, parents' occupational status, marital status and place of residence was obtained from the school's records for each child.

2.5 Procedure

The Children's Attribution Style Questionnaire (CASQ, 1984) was administered to the Grade 5 and 6 learners during the school day. Each child was requested to put his/her name and date of birth on the questionnaire. An attributional style score for each child was derived from the Children's Attributional Style Questionnaire. The academic records of the learners from 1997 and 1998 were obtained, i.e. Grade 4 and 5 results for Grade 5, and Grade 5 and 6 results for Grade 6. The data was then subjected to a statistical analysis which will be discussed below.

Biographical information on the gender and age of the learner, as well as their parents' occupational status and place of residence, was obtained from the Education Laboratory Cards (Ed Labs). These cards are completed by the parents on the child's admission to the school and are the school's official record for the learner.

2.6 Statistical analysis

The scores generated by the Children's Attributional Style Questionnaire (CASQ, 1984) and the end of year results (1997 and 1998) were statistically analysed by a variety of methods. The statistical methods derived: Means, Standard Deviations and Frequency Distributions (for descriptive purposes). A two sample t-test was used to compare the differences in means scores (pessimism/optimism) between two independent samples, i.e. grade, age, gender and end of year results. This was then correlated with each individual factor of the attributional style, i.e. PMB, PMG, PVB, PVG, HOB, PSB, and PSG. The analysis of variance (ANOVA) was used to establish comparisons between the groups in terms of the different variables. A multiple-comparison test (Bonferonni) determined the differences in terms of gender, age, and grade with the different subscales of the CASQ (1984). A Chi-squared test of associations was conducted to determine if there were differences between the three categories of attributional styles and gender, grade and the end of year results. Pearson Product Moment correlations were used to examine the linear relations among pairs of continuous variables. This allowed for comparisons between the subscales of the CASQ (1984) and end of year results. Correlation analysis yielding Cronbach coefficient alphas were performed to determine the internal consistency of the CASQ (1984) with regard to the test's reliability and to determine if the test items are homogenous and accurate, i.e. are the responses consistent across questions.

CHAPTER THREE

3. RESULTS

The results of the present study are discussed below. The statistical processes used were t-tests; Anova's; Chi-square test of association, Bonferonni multiple-comparison test and frequency distributions. A Cronbach's alpha coefficient was ascertained in order to determine the reliability of the CASQ (1984). The internal reliability estimate is satisfactory for the Children's Attributional Style Questionnaire (CASQ, 1984). (Cronbach's alpha coefficient = 0.75).

The Children's Attributional Style Questionnaire (CASQ, 1984) calculates ten separate scores for the questionnaire: PMB (permanent-bad events); PVB (pervasive bad events); PSB (personal-bad events); FMG (permanent-good events); PVG (pervasive-good events); PSG (personal good events); HOB (hopelessness-bad events); Total B (bad events) and Total G (good events). An overall attributional style is calculated by subtracting Total B from Total G (G minus B).

For the statistical analysis, the results of the subscales of the CASQ (1984) were refined into three groups, as delineated by Seligman, Reivich, Jaycox & Gillham (1995). Each subscale comprised an optimistic factor, a somewhat pessimistic factor and a very pessimistic factor.

3.1 Frequency distribution of the sample

A frequency distribution was done for descriptive purposes (Aim 1). Overall, 54.7% of the sample were optimistic; 6.0% were somewhat pessimistic and 39.3% were very pessimistic. This will be represented below in Table 8.

Table 8. Distribution of the attributional styles in the sample

G minus B	Frequency	Percent
Optimistic	82	54.7
Somewhat Pessimistic	9	6.0
Very Pessimistic	59	39.3

3.2 Chi-Square test of association

A Chi-square test of association was conducted to determine if there were statistically significant differences between gender, grade, results, and the three categories of attributional style (optimistic, somewhat pessimistic and very pessimistic).

3.2.1 Grade and attributional style in the sample -Aim 1

In Grade 5 51.32% were optimistic, as compared to 58.11% in Grade 6; 5.26% of children in Grade 5 were somewhat pessimistic, as compared to 6.76% in Grade 6. In Grade 5, 43.42% of children were very pessimistic, as compared to 35.14% of children in Grade 6. However, statistically there was no significant difference between the two grades in terms of attributional style ($p=0.539$). In order for there to be a statistically significant difference the p -value must be less than 0.05 ($p < 0.05$).

Table 9. Attributional styles in the Grades 5 and 6 classes

Attributional styles	Grade 5	Grade 6
Optimism	51.32	58.11
Somewhat pessimistic	5.26	6.76
Very pessimistic	43.42	35.14

3.2.2 Gender and attributional style in the sample -Aim 3

From the overall sample, 52.38 % of females were optimistic, compared to 57.58% of males; and 4.76% of the females were somewhat pessimistic, as compared to 7.58% of males. Of the females 42.86% were very pessimistic, as compared to 34.85% of the males.

Table 10. Gender and attributional style

Attributional styles	Female	Male
Optimistic	52.38	57.58
Somewhat pessimistic	4.76	7.58
Very pessimistic	42.86	34.85

3.3 Differences between South African and American percentile ranks

The results obtained on the black South African sample were somewhat different to the results obtained on the American population. Therefore, a comparison with the American norm was included here, but will be discussed in Chapter 4.

The Children's Attributional Style Questionnaire (CASQ, 1984) was formulated and normed on the American population. It has substantial normative data by gender and subscale. This statistical analysis was executed to provide a comparison between the American-based data and the South African sample used in this study.

The distribution of percentile scores has been used to show the difference between the South African scores obtained from this study and the American scores in terms of gender, optimists, average and pessimists. At the 90th percentile, (most optimistic) the female score obtained in the South African study was 10.0 and 9.0 for males, as compared to the USA norms of 11.31 for female and 10.3 for male. At the 50th

percentile (average), the score obtained for females in the South African study was 5.0 and for males 4.0, as compared to the USA norms of 6.50 for girls and 5.05 for males. On the 10th percentile (most pessimistic), the norm obtained for females was -1.0 and -3.0 for males, as compared to the USA norms of 2.27 for females and 0.43 for males. Based on the percentile ranks, it is evident that the South African population is less optimistic and more pessimistic than the American population.

Table 11. Differences between South African and American Percentile Ranks

Percentile	South African		USA	
	Male	Female	Male	Female
90 TH	9.0	10.0	10.30	11.31
50 TH	4.0	5.0	5.05	6.50
10 TH	-3.0	-1.0	0.43	2.27

3.4 T-Test analysis

When comparing the mean score of two independent groups a two-sample t-test is applied.

In the present study no differences at the 5% level of significance were noted between any of the categories with any of the results. However, at the 10% level of significance differences were noted. Although in research these results are generally only presented at the 5% level of significance ($p < 0.05$), the significance at the 10% level ($p < 0.01$) may be suggestive of a trend in this sample.

3.4.1 Comparison of means of males and females on overall optimism - Aim 3

A t-test was conducted to compare means between females and males in the variable of overall optimism score (G minus B) to determine if there were significant differences

between the two groups. The mean of optimism for females was $X = 4.58$ and for males, it was $X = 3.33$. Thus the females' mean of optimism was statistically significantly higher than the males' at the 10% level of significance ($p=0.0874$). This suggests that in this sample females in general are more optimistic than males. The mean scores are represented in table 12.below.

Table 12. Males and females on overall optimism

Subscale	Male X	SD	Female X	SD	p-value
G minus B (Overall optimism)	3.33	4.50	4.58	4.34	0.0874

3.4.2 Comparison of means of males and females for PMB (Permanent-Bad Events) -Aim 3

T-tests were also done to establish mean scores for males and females on the other nine factors, as measured by the CASQ (1984).

For the PMB (permanent-bad events) subscale, the mean PMB for females was $X = 2.79$ and the mean for males was $X = 3.39$. This indicates that the mean PMB for males was statistically significantly higher than the females' at the 10% level of significance ($p= 0.0503$). This suggests that in this sample males may find it harder to bounce back when defeated than females do. The mean scores are represented in table 13 below.

Table 13. Comparison of means of males and females for PMB

Subscale	Male X	SD	Female X	SD	p-value
PMB (Permanent-bad events)	3.39	1.96	2.79	1.73	0.0503

3.4.3 Comparison of means of males and females for PVB (Pervasive-Bad Events) - Aim 3

On the FVB (pervasive-bad events) subscale, the mean PVB for females was $X = 2.64$ and the mean for males was $X = 3.16$. This indicates that the mean PVB for males was statistically significantly higher than for females at the 10% level of significance ($p=0.0530$). This suggests that in this sample males seem to generalise setbacks in social situations more than females do. The mean scores are represented in table 14 below.

Table 14. Comparison of means of males and females for PVB

Subscale	Male X	SD	Female X	SD	p-value
PVB (Pervasive-bad events)	3.16	1.72	2.64	1.55	0.0530

3.4.4 Comparison of means of males and females for HOB (Hopelessness-Bad Events) -Aim 3

On the HOB (hopelessness-bad events) subscale, the mean HOB for females was $X = 5.44$ and the mean for males was $X = 6.56$. This indicates that the mean HOB for

males was statistically significantly higher than for females at the 10% level of significance ($p=0.0164$). This suggests that in this sample males may feel more hopeless than females do. The mean scores are represented in table 15 below.

Table 15. Comparison of means of males and females for HOB

Subscale	Male X	SD	Female X	SD	p-value
HOB (Hopelessness-bad events)	6.56	2.96	5.44	2.67	0.0164

3.4.5 Comparison of means of males and females for Total B (Total Bad Events)

On the Total B (bad event) subscale, the mean for Total B for females was $X = 9.36$ and the mean for males was $X = 10.40$. The mean Total B for males was statistically significantly higher than for females at the 10% level of significance ($p=0.0858$). This suggests that males may react more negatively to bad events than females do. The mean scores are represented in table 16 below.

Table 16. Comparison of means of males and females for Total B

Subscale	Male X	SD	Female X	SD	p-value
Total B (Bad events)	10.40	3.99	9.36	3.36	0.0858

3.4.6 Comparison of means of males and females for remaining subscales – Aim 3

The t-test results for PMG (permanent-good events), PVG (pervasive good-events), PSB (personal-bad events), PSG (personal-good events) and Total G (good events),

showed no statistically significant differences in the means on the 5% or 10% level of significance between males and females.

Table 17. Comparison of means of males and females for remaining subscales

Subscale	Male X	SD	Female X	SD
PMG (Permanent-good events)	4.65	1.77	4.75	1.82
PVG (Pervasive-good events)	4.59	1.74	4.45	1.57
PSB (Personal-bad events)	3.84	1.75	3.92	1.68
PSG (Personal-good events)	4.50	1.69	4.75	1.58
TOTAL G (Good events)	13.74	4.23	13.95	3.55

3.5 Distribution of end of year academic results 1997 and 1998

From the total sample in 1997, 15.75% of the children failed (a mark below 30%), as compared to 3.52% of children in 1998. In 1997, 17.80% of children were not coping (a mark between 31% and 49%), as compared to 31.69% in 1998. In the average category (a mark between 50% and 69%) in 1997 there were 60.28% children, as compared to 57.74% in 1998. In the highest category (a mark above 70% there were 6.16% in 1997, as compared to 7.04 in 1998.

Table 18. Distribution of end of year academic results 1997 and 1998

Year	Very Good	Average	Not Coping	Failing
1997	6.16	60.28	17.80	15.75
1998	7.04	57.74	31.69	3.52

3.5.1 Distribution of end of year academic results (1997) by gender

For the females, 18.07% failed (a mark below 30%), as compared to 12.70% of the males. Of the females, 16.87% were not coping (a mark between 31% - 49%), as compared to 19.05% of males. Of the females, 60.24% fell in the average category (marks between 50% - 69%), as compared to 60.32% of the males. In terms of the highest category (above 70%), 4.82% of females fell into this category, as compared to 7.94% of males.

Table 19. Distribution of end of year academic results (1997) by gender

Gender	Very Good	Average	Not Coping	Failing
Females	4.82	60.24	16.87	18.07
Males	7.94	60.32	19.05	12.70

3.5.2 Distribution of end of year academic results (1998) by gender

For the females, 3.75% failed (a mark below 30%), as compared to 3.23% of the males. Of the females 32.50% were not coping (a mark between 31% - 49%), as compared to 30.65% of males. In the average category (a mark between 50% - 69%) there were 56.25 of females, as compared to 59.68% of males. In the highest category (70% and above) there were 7.50% of females in this category, as compared to 6.45% of males.

Table 20. Distribution of end of year academic results (1998) by gender

Gender	Very Good	Average	Not Coping	Failing
Females	7.50	56.25	32.50	3.75
Males	6.45	59.68	30.65	3.23

3.5.3 Comparison of end-of-year academic results, 1997 and 1998 by gender and attributional style - Aim 3

From the analysis the interactional effect of attributional style (optimistic, somewhat pessimistic and very pessimistic) and gender in terms of the end -of -year academic results was not statistically significant for 1997 ($p= 0.5397$) and for 1998 ($p=0.1386$).

The mean score of the end-of-year academic results for 1997 for females who had an optimistic attributional style was 56.35, and the mean score for males was 56.67. The mean score of the end-of-year academic results for 1998 for females was 55.88, and 53.63 for males. For the end of year academic results of 1997, the mean score of the females who had a somewhat pessimistic attributional style was 60.00, and for males the mean score of the end –of- year academic results in 1997 was 58.00. The mean score for the end- of- year academic results of 1998 for females was 57.00, and for males the mean score was 53.80.

The mean score of the end- of- year academic result for 1997 for females who had a very pessimistic attributional style was 52.33, and for males 54.78. In 1998, the mean score of the end-of-year academic results for females was 48.88 and for males the mean score of the end- of-year academic results was 53.26. In none of these above categories were there any significant differences in the end –of- year academic results for 1997 and 1998 by gender and attributional. From this it is evident that attributional style does not impact on academic achievement in this sample. The means of the end-

of-year academic results 1997/1998 with attributional style and gender is presented below.

Table 21. Comparison of end-of-year academic results, 1997 and 1998 by gender and attributional style

End Of Year Academic Results	Optimistic	
	Female	Male
1997	56.35	56.67
1998	55.88	53.63
End Of Year Academic Results	Somewhat Pessimistic	
	Female	Male
1997	60.00	58.00
1998	57.00	53.80
End Of Year Academic Results	Very Pessimistic	
	Female	Male
1997	52.33	54.78
1998	48.88	53.26

3.5.4 Gender differences and end- of -year academic results 1997/1998 – Aim 3

In 1997, the mean score for females was 54.94, and for males the mean score was 56.17. There was no statistically significant difference between these results ($p = 0.4507$). In 1998, the mean score for females was 52.99, and for males 53.51. There was no statistically significant difference between the mean score of the results for 1998 for males and females ($p = 0.7681$).

Table 22. Gender differences and end- of- year academic results 1997/1998

Results	Females	Males	p-value
1997	54.94	56.17	0.4507
1998	52.99	53.51	0.7681

3.6 ANOVA – Analysis of variance

An ANOVA is used to determine whether significant differences exist between the means of 3 or more groups. If significant differences are observed a multiple comparison test is applied to determine where these differences appeared.

In this study the results of the subscales of the CASQ (1984) were refined into three categories as delineated by Seligman, Reivich, Jaycox & Gillham (1995). Each subscale comprised an optimistic factor (positive outlook), an average factor (in between optimism and pessimism), and a pessimistic factor (negative outlook). These three categories were then used in the analysis of variance to obtain the following results.

3.6.1 End-of-year academic results (1997 and 1998) and the subscales of the CASQ – Aims 2,4,5 and 6

The three groups that describe the attributional styles were analysed against the results of the end- of -year marks of 1997 and 1998.

The ANOVA showed no statistically significant differences between the means of the three groups of the subscales of the CASQ (1984) in terms of the end-of-year results of 1997 between the optimistic, pessimistic and average children.

The statistical analysis of the 1998 results yielded one statistically significant difference at the 5% level. This was on the PMB (permanent-bad events) subscale, where it was evident that the children who were “average”(in between optimism and pessimism) on this subscale, achieved significantly higher results than children who fell into the pessimistic category ($p=0.0296$). On all the other subscales, there were no statistically significant differences between the three groups – optimistic, pessimistic and average – in their end- of -year results for 1998.

Table 23. End-of-year academic results (1997 and 1998) and attributional style

Subscale	Variable	1997 Results	1998 Results
PMB	average optimistic pessimistic	$p=0.3714$	$p=0.0296$
PVB	average optimistic pessimistic	$p=0.1613$	$p=0.6320$
PSB	average optimistic pessimistic	$p=0.9830$	$p=0.6160$
PMG	average optimistic pessimistic	$p=0.2198$	$p=0.041$
PVG	average optimistic pessimistic	$p=0.6380$	$p=0.2075$
PSG	average optimistic pessimistic	$p=0.0741$	$p=0.1014$
HOB	average optimistic pessimistic	$p=0.5644$	$p=0.9161$
Total B	average optimistic pessimistic	$p=0.5922$	$p=0.1046$
Total G	average optimistic pessimistic	$p=0.1065$	$p=0.0627$

3.7 End-of-year academic results (1997 and 1998) and attributional style

-Aims 2,4,5 and 6

There was no statistically significant difference between the three groups (optimists, somewhat pessimistic and very pessimistic) in terms of their end- of -year academic results for 1997 and 1998. It appears therefore that in this sample attributional style does not impact on academic achievement in this sample.

Table 24. End-of-year academic results (1997 and 1998) and attributional style

Attributional style	Result 1997	Result 1998	p-value
Optimistic	56.50	54.84	0.7316
Somewhat Pessimistic	58.75	55.22	0.4873
Very Pessimistic	53.34	50.59	0.2163

3.7.1 Comparison of attributional style and academic results over two years (1997 and 1998) – Aims 4,5and 6

A paired t-test was conducted in order to determine if there was a statistically significant difference between the three attributional styles: optimistic, somewhat pessimistic; very pessimistic, and the results over the two years, 1997 and 1998. However, no statistically significant difference between the two years was found. This suggests that attributional style does not predict academic achievement in this sample.

Table 25. Comparison of attributional style and academic results over two years (1997 and 1998) – Aims 4,5 and 6

Attributional style	Mean	p-value
Optimistic	0.34	0.5850
Somewhat Pessimistic	1.50	0.6161
Very Pessimistic	1.32	0.451

3.7.2 Mean scores of end-of-year academic results 1997/1998 by age and attributional style – Aims 2,5 and 6

A t-test analysis was done in order to determine the mean scores for the results of 1997 and 1998 by age and attributional style. From the analysis of variance the interactional effect of the mean scores of the end- of- year academic results with attributional style (optimistic, somewhat pessimistic, very pessimistic) was not statistically significant for 1997 ($p=0.3245$) and for 1998 ($p=0.1381$). This suggests that in this sample attributional style does not play a role in academic achievement. The end of year academic results by each attributional style will be discussed separately below.

3.7.2.1 End-of-year academic results 1997/1998 by age and optimistic attributional style

In the 10- year- old category, the mean score of the 1997 end –of- year academic results for children who had an optimistic attributional style was 53.00, and the mean score of the end -of -year academic results for 1998 was 46.00.

For the 11-year-old category, the mean score of the 1997 end- of -year academic results for children with an optimistic attributional style was 59.70, and in 1998 the mean score for the end-of-year academic results was 59.24.

For the 12-year-old category, the mean score of the 1997 end-of-year academic results for children who had an optimistic attributional style was 54.48, and in 1998 the mean score was 53.09.

For the 13-year-old category, the mean score of the 1997 end-of-year academic results for children with an optimistic attributional style was 55.30, and in 1998 the mean score was 50.54.

The mean scores for the end-of-year academic results by age and optimistic attributional style is presented below.

Table 26. Mean scores of end-of-year academic results 1997/1998 by age and optimistic attributional style

	10 Years	11 Years	12 Years	13 Years
1997	53.00	59.70	54.48	55.30
1998	46.00	59.24	53.09	50.54

3.7.2.2 End-of-year academic results 1997/1998 by age and somewhat pessimistic attributional style

In the 10-year old- category, the mean score of the end-of-year academic results 1997 for the children who had a somewhat pessimistic attributional style was 68.00, and for the 1998 end-of-year academic results the mean score was 67.00.

In the 11-year-old category, the mean score of the end-of-year academic results 1997 for the children who had a somewhat pessimistic attributional style was 63.00, and for the 1998 end-of-year academic results the mean score was 52.00.

In the 12 -year -old category, the mean score of the end -of- year academic results 1997 for the children who had a somewhat pessimistic attributional style was 55.66, and for the 1998 end -of- year academic results the mean score was 54.33.

In the 13 -year- old category, the mean score of the end -of- year academic results 1997 for the children who had a somewhat pessimistic attributional style was 54.50, and for the 1998 end- of -year academic results the mean score was 55.50.

The mean scores for the end of year academic results by age and the somewhat pessimistic attributional style is presented below.

Table 27. Mean scores of end-of-year academic results 1997/1998 by age and somewhat pessimistic attributional style

	10 Years	11 Years	12 Years	13 Years
1997	68.00	63.00	55.66	54.50
1998	67.00	52.00	54.33	55.50

3.7.2.3 End-of-year academic results 1997/1998 by age and very pessimistic attributional style

In the 10-year-old category, there was no mean score for the 1997 end- of- year results for 10 -year olds as no children fell into this category. The mean score of the end of year 1998 results of the children who had a very pessimistic attributional style was 40.00.

In the 11- year- old category, the mean score of the 1997 end -of- year academic results for children who had a very pessimistic attributional style was 54.61, and for the 1998 end- of- year academic results the mean score was 49.50.

In the 12 –year- old category, the mean score of the 1997 end –of- year academic results for children who had a very pessimistic attributional style was 54.52, and for the 1998 end –of –year academic results the mean score was 53.41.

In the 13 –year- old category, the mean score of the 1997 end of year academic results for children who had a very pessimistic attributional style was 47.62, and for the 1998 end- of- year academic results the mean score was 46.50.

The mean scores for the end-of-year academic results by age and the very pessimistic attributional style is presented below.

Table 28. Mean scores of end-of-year academic results 1997/1998 by age and very pessimistic attributional style

	10 Years	11 Years	12 Years	13 Years
1997	0	54.61	54.52	47.62
1998	40.00	49.50	53.41	46.50

CHAPTER FOUR

4. DISCUSSION

4.1 Introduction

The overall aim of the present study was to examine the role of attributional style in academic achievement in black primary school children. Heyman (1992) finds that children who develop mastery-oriented attributes believe that their environment can be controlled or changed. They attribute their success to ability and effort. Children who are learned-helpless attribute their failure to low ability. When they do succeed, they are likely to conclude that their success was due to external factors such as luck (Berk, 1994). Seligman (1995) finds that the way in which an individual describes success or failure is a result of an attributional style. Seligman (1995) divides people's attributional styles into three categories: internal-external, stable-unstable and specific-global. These three attributional styles make up an optimistic and pessimistic attributional style. According to Gleitman (1995), children who do better than expected in school are the optimists. Children who perform poorly in school are usually the pessimists. Pierce and Henry (1993) find that students who explain negative events with pessimistic attribution receive lower marks than students with more optimistic attributions did. Similarly, Peterson and Barrett (1987) report that college students who use pessimistic attributions to explain negative academic events have significantly lower marks at the end of their first year in college than those using optimistic attributions.

Therefore it appears that attributional style plays a role in academic achievement. The effect that attributional style plays in the academic achievement of black South African children has not yet been established. This research aimed to investigate attributional style in this under-researched area. Based on this it was hypothesised that attributional style plays a role in the academic achievement of learners.

In order to carry out this study, the children's attribution style questionnaire (CASQ, 1984) was administered to all the children in Grades 5 and 6 in a randomly selected primary school in Johannesburg. The academic achievement of pupils was measured by obtaining the end- of- year results from 1997 and 1998, and background information from the learners' Education Laboratory cards (Ed. Lab cards).

4.2 Discussion of results

These results are discussed in this section. Thereafter, the limitations and implications for future research will be discussed.

4.2.1 Gender and the subscales of the CASQ

Although there was no significant difference between gender and any of the subscales at the 5% level, there were a number of differences noted on the 10% level which may be suggestive of trends in this sample.

On the overall optimism score (G minus B), the mean of optimism for females was higher than for males. This is in line with Seligman, Reivich, Jaycox and Gillham's (1995) research which shows girls, until puberty, to be more optimistic than boys. The children in this sample were in this age group.

On the PMB (Personal-bad event) and PVB (Pervasive-bad events) subscales, the mean for males was higher than for females. This suggests that in this sample males find it harder to bounce back when defeated and that they generalise their setbacks. This finding does not contradict the literature as the questions on these subscales predominantly relate to social and interpersonal events. This is consistent with the literature that indicates that males are more pessimistic than females about social and interpersonal difficulties.

On the HOB (hopelessness-bad events) subscale and the Total B (bad event subscale), the mean for the males was higher than for the females. This finding is consistent with what was discussed previously as the HOB and Total B subscales are comprised of the PMB and PVB subscales.

4.2.2 Attributional styles and end-of-year results 1997/1998

From the statistical analysis, no correlation was found between the subscales of the CASQ (1984) and the end-of-year results for 1997 between the optimistic, average and pessimistic children. This finding was not consistent with the literature.

However, there was one significant correlation on the PMB (permanent-bad event) subscale of the CASQ (1984) and the end-of-year results for 1998, where it was evident that the children who were "average" (in between optimism and pessimism) on this subscale achieved significantly higher results than the children who fell into the pessimistic category ($p=0.0296$). This is an isolated result and is not consistent with the other findings of this study and therefore no conclusions can be drawn. However, on the other remaining subscales there were no significant differences on the end-of-year results between the optimistic, pessimistic, and average children. This finding was contrary to the literature. Overall, in terms of total attributional style, there was no statistically significant differences between optimistic, somewhat pessimistic and very pessimistic in terms of their results for 1997 and 1998. This finding was not consistent with the literature which found that pessimistic children do worse academically than optimistic children. This will be discussed further on in section 4.4.

4.2.3 Gender and attributional style

The statistical analysis conducted on this sample revealed that 52.38% of females were optimistic, 4.76% were somewhat pessimistic and that 42.86% of the sample were very pessimistic. For males, 57.58% were optimistic, 3.33% were somewhat pessimistic and 34.85% were very pessimistic. No statistically significant differences were found

between gender and attributional styles. The literature reveals contradictory data as regards gender and attributional styles. According to Seligman, Reivich, Jaycox and Gillham (1995) girls, until puberty, are noticeably more optimistic than boys. According to Barber (1995), a personality researcher, males and females do not differ on average in overall optimism. However, when work/achievement and social situations were researched separately, discrepancies appeared. Males were more optimistic about work and achievement, attributing failure to temporary (unstable), local (specific) and external causes but more pessimistic about social and inter-personal failures and difficulties. Females appeared to be the reverse. They were pessimistic about achievement but more optimistic about social setbacks (Seligman, Reivich, Jaycox & Gillham, 1995). Thus it is clear that males and females are optimistic and pessimistic in different areas. In this sample there was no statistically significant difference between males and females in terms of overall optimism, somewhat pessimistic and very pessimistic individuals. However, the CASQ (1984) is a general questionnaire and was not specifically designed to assess attributional styles used in academic achievement. This questionnaire covered a broad range of questions including social, interpersonal and school related questions. Therefore, it appears that this scale is not sensitive to distinguish attributional style used specifically in academic achievement, which was specifically relevant to this study. It appears that the differences males and females show in social and academic or work related areas have been blurred by the general results obtained on the CASQ (1984).

4.2.4 Percentile rank of South African and American male and females in terms of attributional style

Based on their research, Seligman, Reivich, Jaycox and Gillham (1995) produced norms for the American population. The sample of the current research was compared to the American population. Differences between the South African sample and the American sample were noted.

There were fewer South African females and males in the 90th percentile rank (most optimistic), and 50th percentile rank (average) as compared to the American figure. On the 10th percentile rank (most pessimistic) the score obtained was higher for the South African sample as compared to the American sample. From the data it appears that black South African children are less optimistic than American children are, and more pessimistic than them. However, a comparison like this has no direct validity, as the percentiles were normed on two different cultural groups. Furthermore, the sample of the present study comes from a disadvantaged background which needs to be considered in terms of the history of the apartheid era. It was a period in which Black oppression was rampant. Opportunities for occupational, academic and personal development were curtailed. As a result of these limitations an individual's expectations of success were limited. Their expectations as a group were lowered due to the hardships that they endured. Thus it is likely that they have lowered levels of optimism and higher levels of pessimism. In light of the fact that CASQ (1984) was normed on middle to upper class white American children, it is likely that there are differences in the norms and that the South African results obtained from a disadvantaged group would be lower in comparison to the American norms. The children in the current sample are markedly different from those used in the norming and developing of the CASQ (1984) in America.

The main aim of this research was to ascertain the role that attributional styles play in academic achievement in a disadvantaged sample. The literature indicates that there is a strong relationship between attributional styles and academic achievement, and that optimists generally do better at school than pessimists. However, the findings of this study reveal that there was no significant difference in academic achievement between optimists and pessimists. Although the aims of this study flowed logically from the review of the literature, the statistical analysis of the data did not support previous empirical findings. It is therefore important to evaluate this study and to examine the reasons why the aims were not supported.

4.3 The Children's Attributional Style Questionnaire

The results may have been affected by the measuring instrument used, or an interaction between the experimental population and the measuring instrument. The Cronbach Alpha indicated that the CASQ (1984) used in this study was reliable. Anastasi (1968) points out that the intention of some questionnaires are so visible that they can be subject to deliberate or intentional falsification. In this questionnaire, the intention of some of the items was clear, for example question number 26:

You get a bad mark in school.

A. I am stupid.

B Teachers are unfair graders.

This is an example of a question that is open to deliberate and intentional falsification as these options allow for the child to choose the answer that best suits his needs, rather than the one that is most accurate of himself.

Furthermore, the options to the questions were not mutually exclusive, making it sometimes difficult for the children to decide which option is more pertinent to them, or accurate of them. For example question number 6:

Your pet gets run over by a car.

A. I don't take good care of my pets.

B. Drivers are not cautious enough.

In addition, as discussed before, the items in this questionnaire covered a broad range of items including social, interpersonal and academic realms, and therefore may not have been sensitive enough to pick up attributional style specifically related to academic ability and performance.

From the statistical analysis it became apparent that the subscales of the CASQ (1984) were not able to discriminate effectively between each other. This was seen between the subscales measuring the same dimensions for good and bad events, for example 52.59% of the children received an "average" score on both the PSG and PSB subscale.

These subscales measure personal-good events and personal-bad events, respectively and should therefore be able to discriminate between the optimistic and pessimistic style. However, the majority of children fell in the "average" category of the scale, therefore the scale was not discriminating effectively in this sample between the optimistic and pessimistic attributional styles. This can be seen further with the PVG and PVB subscales. These measure pervasive-good events and pervasive-bad events respectively. Out of the overall sample, 70.94% of the children received an average score on both scales. This further indicates that the subscales were not able to discriminate effectively between differences in the attributional styles in the sample.

The CASQ (1984) was formulated on the American population. Furthermore, this questionnaire was normed on American children from a middle to upper class school. This is in contrast to the population used in this sample where the children came from lower class homes and disadvantaged backgrounds. The CASQ (1984) has been used extensively on the American population. In terms of the literature survey there are no indications that this instrument has been used in South African research. The CASQ (1984) was therefore trialed in this study to determine its usefulness on a different cultural group. However, it appears that the subjects in this sample could not relate some of the items to their own lifestyle. Therefore, it appears that some of the items may have been irrelevant or not valid for the black South African population. For example, Question 37: You go to an amusement park and you have a good time. Amusement parks are mostly an American phenomenon and not a feature of a South African lifestyle. Thus this question was not as appropriate for these children as it would be for American children. A further example of this is Question 40: You take a vacation in the country and you have a wonderful time. The children in this sample came from lower class backgrounds in which the families struggle to "survive" financially. Most of these children have never been on a holiday or seen the country. It appears from this that the CASQ (1984) may not be an appropriate measuring instrument of attributional styles for the black South African population.

4.4 Culture and attributional styles

Seligman (1975) hypothesises that the poverty and discrimination that are the plights of so many Black Americans are devastating, not simply because they are deprived of material goods but also because they are deprived of psychological assets. Poverty and discrimination mean uncontrollability and uncontrollability means passivity, i.e. learned helplessness. In some cases, people do not try because they perceive correctly that their efforts do not win rewards. In other cases, people do not try because they have been punished for active attempts to control outcomes. In these cases learned helplessness is present.

It appears that the sample used in the present study may be learned helpless. The children come from a history of deprivation and discrimination, where the majority of people's effort did not seem to alter the situation. In fact, many of those that tried to "fight the system" (apartheid) were indeed punished for their effort. These people learnt that their efforts did not equal results, change or rewards, and that outcomes were not contingent on their effort. The children in this study come from this environment in which not trying and passivity was accepted, and perhaps reflects a cultural resignation rather than a negative attributional style. Given these circumstances, their passivity and not trying is not inappropriate and learned helplessness would seem a likely outcome.

Today in the post-apartheid era, the plight of many blacks has remained the same. On a macro level, new policies and a new government are in effect. However, for the majority of people tangible changes in their day to day lives have not occurred. Many blacks do not perceive their situation to be any different to the pre-apartheid days and in most ways their thinking, behaviour and life-style remains the same. Within this context opportunity is still viewed as limited. This may reflect the cognitive deficit found in learned helplessness in which there is an inability to perceive existing opportunities. Furthermore, motivational deficits may also be apparent in that there is lowered persistence to overcome the difficult circumstance.

The children in this sample need to be viewed in the light of the fact that they may have grown up in a culture of learned helplessness. There was no perception that any effort expended in the educational and vocational spheres would bring about change.

A child's attitude towards academic achievement and school performance is based upon his cultural experiences which determine and influence his attitude to school performance and academic achievement. Children are products of a home culture that has taught them to act, speak and think in specific ways (Gage & Berliner, 1992).

Thus, these children have grown up in an environment and culture where the system has been blamed for their failures. They saw their failures and difficulties as the result of a system that was external to themselves and could not be altered by their efforts. Hence, success or failure was not perceived to be dependent on their efforts (this is reflective of the motivational deficit in which the individual believes that his responses do not matter and thus he does not respond to future opportunities), and therefore they became passive and saw their effort as worthless. This is also reflective of the cognitive deficit in which there is difficulty in perceiving a relationship between response and outcome (effort and academic success), when a relationship does in fact exist.

Marsh (1984) argues that attributions of success and failure have important implications, particularly in an educational setting. Individual differences in the way children attribute outcomes to such causes as ability, effort and luck have been shown to be related to school performance and academic achievement (Dweck & Wortman, 1982). Children who habitually explain school failure and poor achievement by internal, stable and global causes, will be more likely to have a negative attributional style (pessimistic style) and be more likely to fail. It can be argued that although these children may attribute their poor performance to stable and global causes, they do not explain it as internal to themselves, rather as external to themselves - that the "system" has created unequal rights and opportunities and has deprived them. Therefore, the children who had a pessimistic attributional style did not see their poor performance as

a result of their lack of ability, but rather as a result of coming from a deprived system. From the results of this study it does not appear that in this sample attributional style played a role in school performance and academic achievement, perhaps because the subjects saw the causes of success and failures as external to themselves, i.e. not contingent on their own effort. This could therefore explain why there is no statistically significant difference in the academic achievement of optimists and pessimists. It appears, rather, that their academic performance was affected by a culture of learned helplessness from which they came. It furthermore appears that the reformulated theory of learned helplessness, which includes attributional style (Abramson, Seligman & Teasdale, 1978) may not be applicable to this sample population, but rather Seligman and Maier's (1967) *original* theory of learned helplessness appears to be more applicable to this sample population.

4.5 Other factors involved in academic achievement

It is evident that a number of factors influence school performance and academic achievement. However these factors are beyond the scope of this study and will be mentioned only briefly. Factors such as the curriculum play a role, i.e. does the learner find something of meaning and value in what is being taught. Another factor is the school and classroom climate. This affects the child's attitude towards performance and academic achievement. Furthermore, motivation also plays a role. Learners are more likely to be motivated if they perceive what is being learnt as useful to them. A learner will find schoolwork interesting if he/she sees how the material that he is expected to learn relates to him as an individual. Motivation problems may arise because pupils fail to perceive the relevance of what they are expected to learn (Conger, 1991).

Certain characteristics and behaviours of teachers in the classroom are important to the attitudes and learning of the learners (Hamachek, 1990). Teachers influence the formation of the learner identity, self-concept, goals and aspirations. The kind of teachers encountered by the learner determines to a large extent whether the school experience will foster overall development, or simply increase the learner's problems

and add to his/her frustration (Conger, 1991). Therefore, it seems that there are a number of factors that interact that affect academic performance and schoolwork.

4.6 Limitations of the study and suggestions for future research

Several considerations limit the generalisability of this study, and conclusions drawn from the study should be viewed within these limitations. Future research suggestions, following from the limitations, are also proposed in this section.

Firstly, it would be important to cross-validate the results with large groups of children in other schools. It may also be beneficial to replicate this study within other socio-economic and cultural milieus. The children of the present study are homogenous in this respect, comprising black lower class children only. Further research may attempt to generalise these results by conducting systematic cross-cultural studies.

In the present research, academic performance and attributional styles were looked at in general. Future research needs to examine the influence that learners' interest in particular subjects may have on their attributions, and hence on their performance.

A self-report instrument was used in the present study. Consequently, it is impossible to know with what accuracy the respondents completed the questionnaire. Self-reports can be used effectively to measure attributional styles, but the results need to be tested against other measures, such as structured interviews. In addition, the study would have benefited from a motivational scale to assess the children's level of motivation.

It is also possible that IQ might have been a confounding variable. The study would have been enhanced if it had used groups matched for IQ. However, in the present climate in educational settings in South Africa, educational assessment by using IQ is not the preferred method. For this reason IQ scores were not available, and permission to administer IQ tests on a school group would be very difficult to obtain. Further research should take IQ into account.

There are other factors implicated in a learner's academic performance in the classroom. Learners need to have both the "correct" attributions and the skills to be successful in classrooms. In the present study these other factors were not examined.

This study was a pilot attempt to determine the role of attributional style on academic achievement. The results of this study need to be replicated. Perhaps a more appropriate measuring instrument than the CASQ (1984) could be used for the black South African population. In addition, it might be beneficial for further research to develop a new attributional style measuring instrument that can distinguish more clearly between social and academic dimensions.

In this study no in-classroom observation of the contribution of teacher behaviour to learner's perceived control, and hence attributional style, was examined. Future studies should take this into account.

This sample comprised all the learners in grades 5 and 6, the majority of whom were achieving in the average range. The sample perhaps did not include enough participants from the high and low achievement groups. It would appear that attributional styles would play a more significant role in the academic achievement of the high and low achievers, more so than the average achievers. Further research would need to include children specifically in these extreme categories in order to determine the attributional styles used by children in these two extreme categories.

4.7 Conclusion

This study set out to examine the role that attributional style played in academic achievement and school performance in a sample of 150 black learners in an inner city school in the Johannesburg area. The CASQ (1984) was administered to determine the attributional styles. The academic achievement of the learners was measured by obtaining the end of year results from 1997 and 1998. Statistical analyses were conducted to determine the role that attributional style played in the academic

achievement of the sample. However, the results did not reveal significant correlations between attributional styles and academic achievement. This did not support the existing literature. Perhaps this is because the black school-going children in this sample may come from a culture of learned helplessness where previously outcomes have not been contingent on effort. It appears that, in this disadvantaged group in South Africa, learned helplessness in terms of Seligman and Maier's (1967) *original* formulation impacts upon academic achievement rather than attributional styles (in terms of Abramson, Seligman & Teasdale's (1978) reformulated theory).

APPENDIX 1

NAME:

DATE OF BIRTH:

Imagine that each of these little stories happened to you, even if they never have. And then circle either the A answer or the B answer —the one that best describes the way you would feel. But the great thing about this is that there are no wrong answers!

CHILDREN'S ATTRIBUTIONAL STYLE QUESTIONNAIRE

1. You get an A on a test.
A. I am smart
B. I am good in the subject that the test was in.
2. You play a game with some friends and you win.
A. The people that I played with did not play the game well.
B. I play that game well
3. You spend a night at a friend's house and you have a good time.
A. My friend was in a friendly mood that night.,
B. Everyone in my friend's family was in a friendly mood that night.
4. You go on holiday with a group of people and you have fun.
A. I was in a good mood.
B. The people I was with were in good moods.
5. All of your friends catch a cold except you.
A. I have been healthy lately.
B. I am a healthy person.

6. You pet gets run over by a car.
 - A. I don't take good care of my pets.
 - B. Drivers are not cautious enough.
7. Some kids you know say that they don't like you.
 - A. Once in a while people are mean to me.
 - B. Once in a while I am mean to other people.
8. You get very good marks.
 - A. School work is simple.
 - B. I am a hard worker.
9. You meet a friend and your friend tells you that you look nice.
 - A. My friend felt like praising the way people looked that day.
 - B. Usually my friend praises the way people look.
10. A good friend tells you that he hates you.
 - A. My friend was in a bad mood that day.
 - B. I wasn't nice to my friend that day.
11. You tell a joke and no one laughs.
 - A. I don't tell jokes well.
 - B. The joke is so well known that it is no longer funny.
12. Your teacher gives a lesson and you do not understand it.
 - A. I didn't pay attention to anything that day.
 - B. I didn't pay attention when my teacher was talking.
13. You fail a test.
 - A. My teacher makes hard tests.
 - B. The past few weeks, my teacher has made hard tests.

14. You gain a lot of weight and start to look fat.
A. The food that I have to eat is fattening.
B. I like fattening foods.
15. A person steals money from you.
A. That person is dishonest.
B. People are dishonest.
16. Your parents praise something that you make.
A. I am good at making some things.
B. My parents like some things I make.
17. You play a game and you win money.
A. I am a lucky person.
B. I am lucky when I play games.
18. You almost drown when swimming in a river.
A. I am not a very cautious person.
B. Some days I am not a cautious person.
19. You are invited to a lot of parties.
A. A lot of people have been acting friendly toward me lately.
B. I have been acting friendly toward a lot of people lately.
20. A grown-up stares at you.
A. That person yelled at the first person he saw.
B. That person yelled at a lot of people he saw that day.
21. You do a project with a group of kids and it turns out badly.
A. I don't work well with the people in the group.
B. I never work well with a group.

22. You make a new friend.
A. I am a nice person.
B. The people that I meet are nice.
23. You have been getting along well with your family.
A. I am easy to get along with when I am with my family.
B. Once in a while I am easy to get along with when I am with my family.
24. You try to sell sweets, but no one will buy any.
A. Lately a lot of children are selling things, so people don't want to buy anything else from children.
B. People don't like to buy things from children.
25. You play a game and you win.
A. Sometimes I try as hard as I can at games.
B. Sometimes I try as hard as I can.
26. You get a bad mark in school.
A. I am stupid.
B. Teachers are unfair markers.
27. You walk into a door and you get a bloody nose.
A. I wasn't looking where I was going.
B. I have been careless lately.
28. You miss the ball and your team loses the game.
A. I didn't try hard while playing ball that day.
B. I usually do not try hard when I am playing ball.
29. You twist your ankle in gym class.
A. The past few weeks, the sports we played in gym class have been dangerous.

- B. The past few weeks I have been clumsy in gym class.
30. Your parents take you to the beach and you have a good time.
A. Everything at the beach was nice that day.
B. The weather at the beach was nice that day.
31. You take a train which arrives so late that you miss a movie.
A. The past few days there have been problems with the train being on time.
B. The trains are almost never on time.
32. Your mother makes you your favourite supper.
A. There are a few things that my mother will do to please me.
B. My mother likes to please me.
33. A team that you are on loses a game.
A. The team members don't play well together.
B. That day the team members didn't play well together.
34. You finish your homework quickly.
A. Lately I have been doing everything quickly.
B. Lately I have been doing schoolwork quickly.
35. Your teacher asks you a question and you give the wrong answer.
A. I get nervous when I have to answer questions.
B. That day I got nervous when I had to answer questions.
36. You get on the wrong bus and you get lost.
A. That day I wasn't paying attention to what was going on.
B. I usually don't pay attention to what's going on.
37. You go to an amusement park and you have a good time.

- A. I usually enjoy myself at amusement parks.
B. I usually enjoy myself.
38. An older kid slaps you in the face.
A. I teased his younger brother.
B. His younger brother told him I had teased him.
39. You get all the toys you want on your birthday.
A. People always guess right as to what toys to buy me for my birthday.
B. This birthday, people guessed right as to what toys I wanted.
40. You take a holiday in the country and you have a wonderful time.
A. The country is a beautiful place to be.
B. The time of the year that we went was beautiful.
41. Your neighbours ask you over for supper.
A. Sometimes people are in kind moods.
B. People are kind.
42. You have a substitute teacher and she likes you.
A. I was well behaved during class that day.
B. I am almost always well behaved during class.
43. You make your friends happy.
A. I am a fun person to be with.
B. Sometimes I am a fun person to be with.
44. You get a free ice cream cone.
A. I was friendly to the ice cream man that day.
B. The ice cream man was feeling friendly that day.
45. At your friend's party the magician asks you to help him out.

- A. It was just luck that I got picked.
 - B. I looked really interested in what was going on.
46. You try to convince a kid to go to the movies with you, but he won't go.
- A. That day he did not feel like doing anything.
 - B. That day he did not feel like going to the movies.
47. Your parents get a divorce.
- A. It is hard for people to get along well when they are married.
 - B. It is hard for my parents to get along well when they are married.
48. You have been trying to get into a club and you don't get in.
- A. I don't get along well with other people.
 - B. I can't get along well with the people in the club.

APPENDIX 2

UNIVERSITY of PENNSYLVANIA

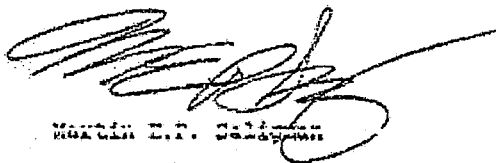
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Sincerely,



MARTIN E.P. SELIGMAN

casq.pdf in office/penn/ps/psq

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Typographical/grammatical errors:

Page 10, fourth line from bottom: a good route to success correct to good routes to success

Page 10, second line from bottom: semi colon should rather be comma or dash.

Page 24, under An optimistic permanent-good event: A child that should be corrected to a child who

Page 45, centre page after Gleitman (19995), : there is no space after the comma

Page 47, centre page line beginning" other findngs..." the word "is" needs to be omitted.

SIGNED:

DATE: 15 September 1999.

Author Mayer A

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