PREDICTORS AND CONSEQUENCES OF SELF-HANDICAPPING AND DEFENSIVE
PESSIMISM AMONG STUDENTS IN SELECTED HIGH SCHOOLS IN NAIROBI
PROVINCE, KENYA

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DECLARATION
This thesis is my original work, except as acknowledged in the text, and has not been presented, either in whole or in part, for a degree or any other award at this or any other university.

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To my Dad, Paul Koinange Khaumi and my Mum, Valentina Naswa with profound gratitude for their love and encouragement.
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ABSTRACT

The central problem of this study is that despite the critical role evaluation plays in an education system, students' perception of evaluation is, in most cases, negative. This is because they equate their self-worth with academic ability. Hence, evaluation scenarios in most instances is seen as a threat to self-esteem and hence a need to find strategies to cushion one from such threats. To this end, the purpose of this study was to explore predictors and consequences of two strategies that students use to negotiate achievement situations: more specifically, self-handicapping and defensive pessimism from a self-worth motivation perspective of form IV students from Nairobi Province. Consistent with self-worth motivation theory, self-handicapping and defensive pessimism were proposed as two cognitive strategies students use to protect their self-worth in the event of potential failure, and in some cases, to enhance their worth in the event of success. A set of motivational/affective factors; motivation orientation, public self-consciousness, perceived control, level and stability of self esteem/concept, views of intelligence and attributions were proposed to predict self-handicapping and defensive pessimism. These two strategies were in turn proposed to predict a variety of academic outcomes, including self-regulation and grades. The study adopted a correlational design in order to discover predictive relationships and the degree of association among variables and an exploratory design to assess students' personal reports on the nature of defensive manoeuvring. Using stratified random sampling, eight schools in Nairobi were selected. Fifty participants were randomly selected from each school to comprise a total of 400 participants who took part in the quantitative study and out of these only 40 participants, showing extreme shifts in self-handicapping and defensive pessimism, were involved in the qualitative study. Academic process questionnaire was adapted and used to measure the predictors, cognitive strategies and academic outcomes that issue from the strategies. In-depth interviews with the forty students was conducted with the aim of expanding quantitative findings about the self-protective process from students' personal perspectives, illuminating their consequences, and providing rich details about the precise nature of the many factors associated with these strategies. Data collected was analyzed using both descriptive and inferential statistics. The main techniques used to analyze data were Pearson Product Moment Correlation Coefficient (r) and multiple regression. The major findings were that self-handicapping was predicted by ego orientation, stability of self concept, perception of control, entity beliefs and public academic self consciousness. Self-handicapping was, however, not related to external attribution for success. Defensive pessimism, on the other hand, was predicated by ego orientation, task orientation, and ability attribution for success. It was, however, not related to public self-consciousness, views of intelligence and level of self-concept. Cognitive strategies on the other hand were inversely related to academic outcomes. Based on the findings, it was recommended that students should be encouraged to adhere to more personal goals and standards as one way of minimizing the public dimension of self-worth protection. Teachers, through their teaching, should try to instill in students the notion that failure or poor performance is diagnostic and a springboard for later success, rather than evidence of low ability and low self-worth.
ABBREVIATIONS AND ACRONYMS

DP-----------------defensive pessimism
HIDP--------------high defensive pessimism
HISH-------------high self-handicapping
LODP-------------low defensive pessimism
LOSH----------low self-handicapping
SH-------------self-handicapping
REG-------------Regression
CHAPTER ONE: INTRODUCTION

1.1 Background to the study

In our achievement-oriented society, schooling is becoming a race for limited chances at higher levels of learning and status in society. The value of a person is typically measured in terms of ability and performance relative to others. This mentality is dictating to students and teachers alike to focus on memorization and rehearsal strategies for shortcuts and quick payoffs at the expense of problem solving and critical thinking. Teaching, grading, and feedback practices that focus student attention on comparison of their performance with performance of others appear widespread. Such practices subject students to the pain of being judged, graded, failed, punished, and made to feel small. Because performance outcomes can have such potent consequences, individuals often try to buffer themselves from the ‘horrible...suspected truth’ that they are not competent and hence unworthy of love by using self-protective strategies.

It is for this reason that for some students, the motive to protect self-worth is paramount and can sometimes be more important than the need to learn and perform successfully. According to the self-worth theory of motivation (Beery, 1975; Covington, 1984a, 1992, 1997; Covington & Beery, 1976), the need to protect self-worth arises primarily from a fear of failure and the implications this failure may have for an individual’s private and public sense of ability and subsequent self-worth. Individuals who see failure as reflecting poorly on their ability are inclined to protect the self because ability is typically equated with self-worth (Covington, 1984a, 1992, 1997).
Students can use a variety of strategies to deal with threats to their self-worth. This study proposes two such strategies - self-handicapping and defensive pessimism. Self-handicapping involves the choice of an obstacle to successful performance that is typically used as an excuse in the event of poor performance (Berglas & Jones, 1978; Jones & Berglas, 1978). Self-handicappers are able to invoke the obstacle as the reason for the poor performance and are thereby able to deflect the cause of this poor performance away from their ability.

Defensive pessimism involves setting unrealistically low expectations and thinking through a variety of possible outcomes before upcoming performances. Defensive pessimism is a protective strategy in the sense that it steels the individual in the event of failure, thereby cushioning the blow to the self-worth (Norem & Cantor, 1986a, 1986b). Defensive pessimism is also protective in that by setting unrealistic expectations prior to performance; the individual has generated lower and safer standards against which to be judged. To date, little work has systematically studied these strategies together and the present investigation sought to do so with particular reference to self-worth motivation theory as a means of unifying substantive and empirical claims.

It is further proposed that giving rise to these strategies is a variety of motivational and affective constructs that render individuals' self-worth particularly vulnerable in achievement scenarios. These include: (a) motivation orientation: ego and task-orientation are proposed to reflect students' emphasis on ability versus effort as providing feelings of success and their inclination to do one or the other influences their tendency to be motivated to protect the self-worth; (b) public self-consciousness: given that there exists in many students a need to not
only protect their private sense of ability but also their public ability image; public self-consciousness is argued to underlie a motive to protect the self; (c) attributions: students’ tendency to attribute the cause of success and failure to ability, effort, or external factors can also underpin a self-protection motive. For example, seeing failure as due to ability, and success as due to external factors, promotes a perceived lack of control over outcomes and this induces insecurity regarding upcoming performances, a concomitant fear of failure, and a threat to one’s self-worth; (d) level and stability of self-concept: students’ level and stability of self-concept are proposed to be important in underpinning this self-worth motivation framework. For example, the extent to which students are confident in meeting upcoming challenges and the extent to which their self-concept is stable, conceivably hold implications for their tendency to protect the self; (e) uncertain control: related to this shaky self-concept is students’ uncertainty regarding their capacity to avoid failure or maintain success. Under conditions of such uncertainty, students may be particularly concerned with failure and the need to protect the self; and, (f) implicit theories of intelligence: individuals’ beliefs about the nature of intelligence could influence their inclination to self-protect. For example, an entity view in which students see intelligence as due to ability and immutable may render them vulnerable to self-worth protection concerns. For students holding an entity belief, poor performance reflects adversely on their intelligence and ability, with consequent implications for their self-worth. Each of these factors is suggested to be a facet of the motive to protect the self and is argued to render the individual’s self-worth particularly vulnerable in the event of failure.

The study not only assessed the constructs that underpin the tendency to engage in self-handicapping or defensive pessimism but also examined the effects of self handicapping and
defensive pessimism on educational outcomes. Whilst these strategies might be construed as adaptive in the sense that they can protect the individual’s self-worth, it may be that they are not particularly adaptive in terms of important academic outcomes in the longer term. On the other hand, having laid the foundations for self-protection, the student may be in a stronger position to focus on actual performance rather than its self-worth implications. To test these competing contentions, the present investigation examined a variety of outcomes proposed to emanate from self-handicapping and defensive pessimism. These include self-regulation / persistence, and academic grades.

It seems, then, that there exists a process by which students self-protect in the academic domain and the purpose of the study was to explore this process in detail. Essentially, this process is one in which a variety of motivational and affective factors render students vulnerable to the ability-related implications of failure. In response to this, students strategically manoeuvre so as to alter the meaning or implications of this anticipated failure. In turn, these strategies impact on important educational outcomes.

Indeed, this process is very much similar to that outlined in a model proposed by Buss and Cantor (1989). According to them, individuals’ dispositions and characteristic orientations influence the strategies they use to negotiate demands in their environment, and these strategies in turn influence their behaviour within this environment. In the context of the present study, these dispositions and characteristic orientations are juxtaposed by a set of motivational and affective factors proposed to be indicants of a self-worth motivation. The strategies refer to the means of self-worth protection. The behaviours refer to the behavioural
and educational outcomes that follow the implementation of these strategies. Thus, the complete model to be explored is one, which incorporates a variety of motivational and affective predictors that are proposed to influence the tendency to self-handicap or be defensively pessimistic. In turn, these strategies are hypothesized to impact on a variety of educational outcomes.

Whereas the emphasis of this study was on quantitative approach, it was considered that the substantive issues involved lent themselves quite well to a qualitative approach. The qualitative analysis was not intended to test the quantitative data per se: rather, its purpose was to illuminate, from students’ personal perspectives, key findings derived in the quantitative model and shed light on issues, which the quantitative analyses could not assess.

1.2 Statement of the problem

Despite the critical role evaluation plays in secondary school education, form four students’ perception of evaluation is in most cases dreadful. Teaching, grading, and feedback practices in secondary schools are inclined towards norm referencing. These practices, subject many students to the pain of being judged, graded, failed, and sometimes punished. Since performance outcomes have such potent consequences, students expecting an academic evaluation often try to buffer themselves by avoiding failure or altering its meaning. For these students, failure is interpreted as being indicant of low ability and because ability is equated with self-worth, failure holds implications for these students’ self-worth. Therefore, doing well is important to their self-worth and dignity. Thus, many go to great lengths to protect perceptions of competency to convince themselves and others that they can do well. In doing this, they maintain some sense of worth or dignity. Two strategies they can use to do
This are self-handicapping and defensive pessimism. This study, proposes that self-handicapping and defensive pessimism share a common motivational base and, therefore, seeks to explore the extent to which this is empirically manifested both in terms of the factors that underpin them and in terms of their consequences. The central problem of this study, therefore, was to explore predictors and consequences of self-handicapping and defensive pessimism among form four students in Nairobi Province. To do this, the study explored an academic process model in which a variety of affective and motivational constructs were proposed to underpin self-handicapping and defensive pessimism, which, in turn, were proposed to predict various academic outcomes. To date, these strategies have not been systematically studied together and the present investigation sought to do so with particular reference to self-worth motivation as a means of corroborating and unifying substantive and empirical claims.

1.3 Purpose of the study

Based on the problem stated, the purpose of this study was to investigate the predictors and consequences of self-handicapping and defensive pessimism among high school students in selected schools in Nairobi Province, Kenya. The study intended to explore the extent to which motivational/affective factors predict self-handicapping and defensive pessimism and how these cognitive strategies in turn predict academic outcomes. In contrast to previous researches (Covington, 1984a, 1992, 1997), which typically examined either predictors or consequences of defensive manoeuvring separately, the study sought to specify a more encompassing process model in which both predictors and consequences of defensive manoeuvring were explored. To achieve this purpose, the following research objectives, questions and hypotheses were formulated.
1.4 Objectives
a) To explore motivational/affective antecedents among form four students in Nairobi province that predict the use of self-handicapping strategy to negotiate evaluation situations.

b) To explore motivational/affective antecedents among form four students in Nairobi province that predict the use of defensive pessimism strategy to negotiate evaluation situations.

c) To establish the extent to which self-handicapping and defensive pessimism predict academic outcomes of form four students.

1.5 Research questions
a) What motivational/affective factors predict the use of self-handicapping?

b) What motivational/affective factors predict the use of defensive pessimism?

c) To what extent do self-handicapping and defensive pessimism predict academic outcomes?

1.6 Research Hypotheses
a) There is a positive correlation between ego orientation and cognitive strategies

b) Task-orientation does not predict cognitive strategies.

b) Task-orientation does not predict cognitive strategies.

c) Implicit theories of intelligence are positively related to cognitive strategies.

d) There is a positive relationship between perceived control and cognitive strategies.

e) External attributional orientation is positively related to cognitive strategies.

f) There is a significant relationship between level and stability of self-concept and cognitive strategies.

g) Self-handicapping and defensive pessimism predict self-regulation/ persistence, and
1.7 Significance of the study

This study aimed at exploring the self-worth protective strategies and their consequences on academic outcomes of high school students' in Nairobi Province. The negative effects of these strategies are amenable to change that may facilitate effective learning and motivation in the students. This information may be useful to students, teachers, counselors, parents, and policy makers. Students may be encouraged to instill in themselves the notion that failure or poor performance is diagnostic and a springboard for later success rather than evidence of low ability and low self-worth. The results of this study may be a revelation to teachers to favour the cultivation of self-efficacy in students to mitigate strategic manoeuvring. Counselors may be helped to pay more attention to students who are involved in self-protection and try to help them understand that they have an inherent infinite value that cannot be given or measured by performance. Parents, on the other hand, may appreciate the need to love their children unconditionally without pegging it on performance at school to help the child adapt criterion referencing in academic pursuits.

In addition to these, there are other multifold yields. First, the study may extend the self-worth motivation research by explicitly locating both self-handicapping and defensive pessimism within it. Second, in contrast to other researches, which typically examine either predictors or consequences of defensive manoeuvring separately, the study may specify a more encompassing process model in which both predictors and consequences of defensive manoeuvring may be explored. Third, it may provide timely corroborative measurement data on self-handicapping and defensive pessimism, the factors underlying them, and the
academic outcomes that follow from them. Fourth, in examining the relative salience of factors giving rise to self-handicapping and defensive pessimism, the study may contribute to current understanding of the defensive manoeuvring related to achievement and motivation in the educational context and, finally, the qualitative components of the study may contribute to the somewhat limited body of qualitative work that examines defensive manoeuvring in the educational context.

1.8 Delimitations and Limitations of the study

The study was delimited to only Form IV students of selected secondary schools in Nairobi Province. This was necessitated by time and financial constraints. The study was also based on a single wave of data with the Form IV class and no effort was made to find out how cognitive strategies developed over time.

The sampling procedure may decrease the generalizability of findings outside Nairobi Province. Therefore, the results of the study will only be generalized to schools in Nairobi Province. The study was limited to form four students to give information on their cognitive strategies; this may have affected the results through biased self-reports.

1.9 Assumptions of the study

The study assumed that; first, the variables under the study were related and influenced each other in the direction required by the theory. Second, the information that was to be given by the participants would be reliable and, finally, students actively protect their self-worth and are aware of these strategies.
1.10 Theoretical and conceptual framework of the proposed academic process model

Self-worth Motivation Theory

This study was concerned with identifying factors that give rise to the use of self-handicapping and defensive pessimism and the consequences of these strategies. Self-handicapping and defensive pessimism are two strategies that are self-protective and geared towards protecting individuals’ competence in the event of failure. Individuals’ motivation to protect the self is directly addressed by self-worth motivation theory and given this; the present study employed this theory as a means of connecting self-handicapping and defensive pessimism. Moreover, self-worth motivation theory is also a basis from which to select conceptually cohesive constructs to incorporate as predictors in a model of the academic process as it relates to self-handicapping and defensive pessimism.

The educational context

According to Covington (1992),

...to be able is to be worthy, but to do poorly is evidence of inability and is reason for despair. The essence of achievement motivation according to self-worth theory resides in this formula (p.79).

Classrooms promote failure-avoidance and self-protection largely because there are very few rewards available to students. Reward tends to be a zero-sum game in which one-student gains while the others miss out (Covington & Beery, 1976) and so in effect, students succeed at the expense of others. The means by which reward comes to influence failure-avoidance and self-protection is fairly simple. Students quickly come to learn that achievement gains reward and this reward is seen as evidence of approval. This approval is also seen to be representative of the worth of the person. Covington and Beery (1976) invoke the commodity
theory of success (Brock, 1968) to demonstrate how the scarcer the rewards, the more valued they become and that when they become highly valued, competition sets in. The more valued rewards become, the greater is their evidence of high ability and conversely the more a lack of reward indicates evidence of a lack of ability. The implication is that the majority of students will have to deal with perceived failure because rewards are scarce.

Thus, classrooms become largely failure-oriented and because failure implies a lack of ability and a lack of ability reflects poorly on the worth of a person, students in the classroom become failure-avoidant. According to Covington (1984a, 1992), there are only a few ways to deal with the pressure of an environment oriented more towards avoiding failure than striving for success. Two strategies of particular relevance to the present study are (a) setting unrealistically low goals and (b) manipulating the scene a priori such that failure does not reflect poorly on one’s ability (Covington, 1984a; Covington & Beery, 1976).

**Linking ability to self-worth**

According to Covington (1989), the “one main, even preeminent, reason that students achieve in school is to protect a sense of worth, especially in competitive situations” (p 88). Because the value of a person is typically measured in terms of ability and performance relative to others;

…it is not surprising that the student’s sense of esteem often becomes equated with ability - to be able is to be valued as a human being, but to do poorly in school is evidence of inability, and reason to despair of one’s worth (Covington, 1992, p. 16).

The chief means by which an individual comes to equate ability with worth stems from the assumption in society that one’s worth is measured on valued criteria such as academic
success (Beery, 1975). Because of this, people feel the need to excel academically so as to
gain the respect of others. Beery (1975) notes,

...if individuals have come to believe that they must possess an extremely high level
of ability to be okay, to be worthwhile, and that anything less is tantamount to
stupidity and makes them worthless, then any kind of evaluative situation is,
naturally, going to be extremely threatening [and] ... given these internalized
assumptions, their natural response, their most readily available coping response, is to
make sure that they have an excuse ready in advance to make sure that their
limitations in performance do not reflect on their ability (p. 200).

The achievement-related bases of self-worth begin very early in life when young children are
aware of the brightest student in the class, are of the belief that ability is the best predictor of
success, and see that success is the basis upon which people should be rewarded (Covington
& Beery, 1976). Thus, ability becomes the focus of their scholastic experience. From here,

...the individual’s sense of worth is threatened by the belief that his value as a person
depends on his ability to achieve, and that if he is incapable of succeeding, he will not
be worthy of love and approval” (Covington & Beery, 1976, p. 6).

Indeed, this is particularly relevant to young children’s experience, which is very much
grounded in the need for love and approval. It is not surprising that they quickly come to
value success derived from ability and in the threat of its absence, attempt to avoid failure. In
fact, in one of the earliest studies of self-handicapping, Jones and Berglas (1978) cited the
link between competence and both parental love and approval as a primary determinant of
self-handicapping behaviour. In a later review of self-handicapping, Berglas (1990) claimed
that,

...the etiology of self-handicapping behaviors can be traced to parenting styles that
blocked or inhibited the development of a sound, experience-based competence
image (p.154).
Notwithstanding this, it is important to also recognize that ability comes to be valued not only because self-worth is equated with it but also because it is instrumental in bringing about success (see Covington & Beery, 1976; Covington & Omelich 1982a, in Covington & Omelich, 1984b).

By the time students reach high school or college, ability is the most predominant factor in determining how they define themselves academically (Covington & Omelich, 1984b) and value it to a greater extent than they value effort (Harari & Covington, 1981). In fact, there is a developmental trend from primary school to high school where young students equate high effort with positive outcomes while older students see outcomes as due primarily to ability and actually devalue effort (Harari & Covington, 1981). Moreover, the most substantial contributor to their feelings of self-worth is their estimate of their ability (Covington & Omelich, 1984b) and while success following effort yields pride and teacher reward (Covington & Omelich, 1979c), the preferred path to success is through ability (Brown & Weiner, 1984; Covington & Omelich, 1979b; Nicholls, 1976).

In fact, effort comes to be devalued primarily because of the implications it holds for individuals’ ability. Covington and colleagues (Covington & Omelich, 1979b; Covington, Spratt, & Omelich, 1980) have shown that students who fail having tried hard experience the greatest shame whereas failure following little study evokes least shame. It is not surprising, then, that students employ strategies such as self-handicapping which are aimed at reducing effort attributions for failure - indeed, Covington and Omelich (1979b) have shown that
diminished effort coupled with an excuse elicits less shame than diminished effort with no accompanying excuse. Covington (1989) reports,

...the central, activating principle behind such self-defeating tactics is that effort represents a potential threat to the student’s sense of worth and self-esteem, because a combination of intense effort and failure implies lack of ability (p. 89).

Self worth, Self-handicapping and defensive pessimism

Jones and Berglas (1978) report that self-handicapping derives from “an abnormal investment in the question of self-worth” (p.203). They argue, consistent with the self-worth motivation perspective, that during childhood, self-handicappers are not confident of their parent’s unconditional love of and value for them. Consequently, they come to learn that love and value follow from their ability to perform and please others. Under such circumstances, failure threatens the individual’s self-worth and according to Jones and Berglas,

...he who tries and fails loses everything. He who fails without trying maintains a precarious hold on the illusion of love and admiration (p. 204).

Indeed, in a subsequent elaboration of self-handicapping, Snyder and Smith (1982) emphasize the self-worth basis of self-handicapping by arguing that self-protective strategies are important “insofar as they serve to foster an underlying sense of self-esteem and competence” (p. 107). But what happens when there is both a need to succeed and a desire to protect the self? According to Norem and Cantor (1986a), under such circumstances, students use other strategies. One of these is defensive pessimism, which is employed when the individual is “faced with a performance situation in which failure is threatening to self-esteem or self-image and success is highly desirable and important” (Norem & Cantor, 1986a, p. 349). They go on to argue that;
...unlike the self-handicapper, for the individual utilizing this strategy, the attributional implications are important, but they do not override the significance of the performance itself (p. 349-350).

In sum, the dimension underpinning the constructs in the present study is the motive to protect the self because as argued, it is the primary factor giving rise to self-handicapping and defensive pessimism. Whilst this constitutes the very broad conceptual basis of self-handicapping and defensive pessimism, there is a need to identify the specific constructs, which directly predict self-handicapping and defensive pessimism. Self-worth motivation theory provides a useful framework with which to guide the selection of a set of constructs used to predict these strategies.

**Conceptual framework**

Figure 1.1 is a summary of predictive variables (affective/motivational), cognitive strategies and academic outcomes in a way they were proposed to influence each other. From the figure, motivational and affective factors predict defensive strategies. Defensive strategies on the other hand predict academic outcomes.
The process in the above figure is very much similar to that outlined in a model proposed by Buss and Cantor (1989). According to them, individuals' dispositions and characteristic orientations influence the strategies they use to negotiate demands in their environment, and these strategies in turn influence their behaviour within this environment. In the context of this diagram, these dispositions and characteristic orientations can be compared to a set of...
motivational and affective factors proposed to be indicants of a self-worth motivation. Cognitive strategies refer to the means of self-worth protection and these are represented by self-handicapping and defensive pessimism. The behaviours refer to academic outcomes that result from putting into practice these strategies which are represented by self-regulation/persistence and grades. In essence, ones academic behaviour is a function of cognitive strategies, which are in turn a function of motivational/affective strategies.

1.11 Operational definition of terms

**Behaviour**

It refers to the educational outcomes that result from the implementation of cognitive strategies.

**Cognitive strategies**

These refer to the means of self-worth protection through which students use to avoid failure by changing its meaning or redirecting it away from self-esteem. In this study they include self-handicapping and defensive pessimism.

**Defensive pessimism**

It is a cognitive strategy that involves setting unrealistically low achievement expectations and thinking through worst-case outcomes of an upcoming achievement situation even though success has been experienced in the past.

**Ego-orientation**

It refers to the tendency of individuals to be concerned about their ability or competence in academic situations and the tendency to feel successful when they have demonstrated superior ability relative to others.
Self-concept
It is an individual’s own assessment of all of his or her self-knowledge in academic field.

Self esteem
It is feeling of pride and self worth as a student in achievement ability.

Self-handicapping
It is a cognitive strategy that involves constructing of obstacles to success so that if failure occurs, it is attributed to the impediment rather than important personal characteristics such as ability or intelligence.

Task-orientation
It refers to the tendency of individuals to feel successful and gain satisfaction in mastering what they have set out to do as opposed to norm referencing.
CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

The purpose of this study was to investigate the predictors and consequences of self-handicapping and defensive pessimism among high school. The study intended to explore the extent to which affective and motivational factors predicted self-handicapping and defensive pessimism and how these cognitive strategies in turn predicted academic outcomes. This chapter examines literature on cognitive strategies exploring their consequences on academic outcomes. Studies on motivational and affective factors as they are related to cognitive strategies are presented next.

2.2 Cognitive strategies

2.2.1 Self-handicapping

Self-handicapping involves the choice of an impediment or obstacle to successful performance that enables individuals to deflect the cause of failure away from their competence and on to the acquired impediment. Through such strategic manoeuvring, individuals are able to avoid disconfirmation of a desired self-conception (Rhodewalt & Davison, 1986). Examples of self-handicapping include among others the strategic reduction of effort, procrastination, and the choice of performance-debilitating circumstances, shyness, bad mood, and setting unreachable goals. In the event of failure, the individual has a ready excuse for it: For example, the lack of effort is seen as the cause rather than the individual’s lack of ability. Self-handicapping, then, is a strategy that is directly relevant to the area of education and can be used to protect the student in the face of potential academic failure.
A small body of research has examined the self-presented dimensions of self-handicapping (Arkin & Baumgardner, 1985; Leary & Shepperd, 1986). Self-presented self-handicapping is distinct from the above, more active form of self-handicapping in that individuals exaggerate the obstacles in their path to success or report that these obstacles are present when in fact they are not. Thus, self-presented self-handicapping typically takes the form of self-reports of performance-related hindrances such as the exaggeration of obstacles to success, excuses of ill health, or test anxiety. Exaggerated test anxiety, for example, provides a ready excuse for potential failure (Greenberg, Pyszczynski, & Paisley, 1985). Hence, active self-handicappers actually set a handicap in place that can inhibit performance, whereas self-presented self-handicapping is a claim that a handicap is present when it may not be or when it is claimed to be present to a greater degree than is actually the case.

Self-handicappers primarily rely on two attributional principles: Discounting (or protection) and augmentation (Kelley, 1972). The protection principle holds that failure under particular circumstances, such as the presence of an obstacle or impediment, is not proof of incompetence. In essence;

...by creating an impediment to performance, the self-handicapper minimizes the implications of failure, because failure is discounted - that is, it is attributed to the obstacle rather than to low ability (Baumeister & Scher, 1988, p.8).

Indeed, Covington and Omelich (1979b) found that following failure, students were judged as less incompetent when they invested little effort but had an excuse available. The augmentation principle holds that success, in spite of the presence of performance-related hindrances, is proof of competence. Essentially, then, in addition to protecting themselves from the implications of failure, self-handicappers are able to capitalize on the favourable
implications of successful performance (Baumeister & Scher, 1988). The self-handicapper, according to Berglas (1987:310), "...is wise to these attributional principles and exploits them in order to preserve a competence image".

In many instances, self-handicapping is a conscious strategy engaged in by the individual for protective or augmenting purposes. It must be noted, that whilst this conscious self-handicapping represents the primary phenomenon studied in the research to date, it can also be a more unconscious reaction to impending failure. The position adopted in the present study, however, is one, which emphasizes the strategic nature of defensive manoeuvring and thus is understood to be a more conscious, rather than unconscious, process. Moreover, as is discussed below, the weight of evidence suggests that self-handicapping primarily serves a protective function, and it is therefore, conceptualized and operationalised in the present study as a defensive strategy. Whilst in some cases self-handicapping may have augmenting consequences, this is not the focus of the study. According to the most recent review of self-handicapping, "by acquiring or claiming a handicap, and blocking the expression of ability, an individual can diminish lack of ability as the most plausible attribution for flawed performance or failure" (Arkin & Oleson, 1998:314).

To date, self-handicapping has been assessed in a variety of ways. The majority of research has examined active self-handicapping in an experimental setting. In such studies, participants are presented with situations in which they anticipate failure and are typically given an opportunity to withdraw effort, ingest a performance-debilitating drug, or select performance-inhibiting conditions under which to be evaluated. These impediments to
success are then able to be used as alibis for anticipated poor performance. A smaller body of research examines self-presented self-handicapping. In these studies, participants who are led to anticipate poor performance are given the opportunity to exaggerate performance-related hindrances that may be used as excuses for poor performance. A third body of research has assessed trait self-handicapping in which self-handicapping scales are administered to respondents. Data derived from the scales are typically studied using correlational techniques, which assess the relationship between self-handicapping scores and other trait-like measures. Whilst the empirical focus of the present study is on the latter, trait-like self-handicapping, the review of literature encompasses the variety of ways in which self-handicapping occurs and is assessed. The following represents a summary of studies that illustrate the diversity of research in the area.

Individuals can actively self-handicap in a variety of ways. Studies assessing such self-handicapping usually lead participants to anticipate failure or induce some form of insecurity regarding their self-worth and then provide them with opportunities to choose an impediment to successful performance. Active self-handicapping has been found under a variety of conditions ranging from drug ingestion (Berglas & Jones, 1978; Gibbons & Gaeddert, 1984; Higgins & Harris, 1988; Kolditz & Arkin, 1982; Tucker, Vuchinich, & Sobell, 1981) to the selection of performance-hindering circumstances (Frankel & Snyder, 1978; Greenberg, 1985; Rhodewalt & Davison, 1986; Shepperd & Arkin, 1989a; Snyder, Smoller, Strenta, & Frankel, 1981).
Withdrawal of effort as a means of active self-handicapping is perhaps more relevant to the educational context. Research investigating the strategic withdrawal of effort has focused on conditions in which participants’ self-esteem is under threat or in which they are unsure about their ability to successfully meet upcoming challenges. For example, self-handicappers have been found to withhold effort before important competitions posing a threat to self-esteem but do not do so before unimportant competitions (Rhodewalt, Saltzman, & Wittmer, 1984). Similar to the above studies of performance-inhibiting conditions, participants who anticipate failure invest less effort than those who anticipate success (Pyszczynski & Greenberg, 1983; see also Baumeister, Hamilton, & Tice, 1985).

In addressing the issue of self-presented self-handicapping, DeGree and Snyder (1985) posit that trauma does not cause success or failure. Rather, individuals make out of trauma what suits their purpose. Specifically, individuals can use past experiences in order to avoid present responsibility and to maintain their competence-image. Consistent with this, DeGree and Snyder hypothesized that (a) individuals would accentuate the adversity of events in their lives when this was seen as a viable excuse and (b) this claimed self-handicapping should arise in situations of evaluative threat. Consistent with hypotheses, they found that study participants emphasized traumatic life events that had occurred in the past when an uncertain evaluation was expected and when they believed, their traumatic past might represent a viable excuse for possible failure. Similarly, Smith, Snyder, and Perkins (1983) argue that:

...symptomatic complaints and behaviors may serve as strategies for reducing the negative implications of poor performance, thereby theoretically maintaining the individual’s sense of self-esteem (p. 787).
They found that hypochondriacal individuals reported more physical ill-health and current physical symptoms to explain poor performance in an evaluative setting than individuals who believed poor health was not a viable excuse and those in a non-evaluative setting.

In a study, designed specifically, to determine the preferred form (active or claimed/ self-presented) of self-handicapping, Hirt, Deppe, and Gordon (1991; and Smith, Snyder, & Handelsman, 1982; Snyder, Smith, Augelli, & Ingram, 1985) provided subjects with the opportunity to actively self-handicap (withdraw practice/ effort) or claim/self-present a self-handicap (report high stress) before a test, they found that when participants believed that one particular handicap was viable then that handicap was the one adopted. They found that when both stress and withdrawal of practice were seen as viable handicaps, participants preferred the claimed/self-presented stress self-handicap. They hypothesized that participants preferred to choose a claimed/self-presented self-handicap because while this provided them with a ready excuse for poor performance, it did not compromise their chances of success. It seems, then, that psychological symptoms:

...can serve to control the causal attribution of potentially negative performance feedback about self-relevant dimensions and thereby prevent loss of self-esteem (Smith et al., 1982, p. 315).

Not many studies have examined the consequences of self-handicapping behaviour. Of those conducted, the findings have been mixed. While some have demonstrated positive consequences, others show that self-handicapping can be quite counterproductive. In fact the outcome constructs under focus in the relevant studies are not entirely comparable: Some have examined performance, some have focused on anxiety and perceptions of efficacy, and others have assessed intrinsic motivation.
In relation to anxiety and perceptions of efficacy, Leary (1986) found that study participants were less aroused (less anxious) in a social interaction when they were told that a noise would interfere with their ability to interact than when they were told that it would not (see also Harris & Snyder, 1986). Leary also found that socially anxious people in the loud-noise condition described themselves positively (this was also reported in a study by Arkin & Baumgardner, 1985, in Snyder, 1990). Rhodewalt and Hill (1995) too, found that participants were higher in self-esteem following self-handicapping (see also Isleib, Vuchinich, & Tucker, 1988; Rhodewalt, Morf, Hazlett, & Fairfield, 1991), while Mayerson and Rhodewalt (1988) found that self-handicappers’ felt that their ability image was intact following failure. Similarly, Drexler, Ahrens, and Haaga (1995) found that participants who chose to self-handicap on a spatial task were less likely to experience a decrease in positive affect than those who chose not to self-handicap. In these studies, then, self-handicapping served an adaptive purpose to reduce anxiety and evoke more positive self-appraisals.

It has also been shown that performance improves for those in a condition in which they believe music will inhibit their performance (Snyder et al., 1981). According to Snyder et al. (1981),

...the distraction condition improves performance because low effort is no longer needed as an excuse. The subject is free to act on achievement motivation uninhibited by fear of failure clearly attributable to low ability (p. 29)

In terms of self-reports of handicaps, Smith et al. (1982) found that test-anxious study participants who reported elevated anxiety as a handicap did not evince performance decrements relative to other participants (This was also observed by Greenberg et al., 1985).
In a similar vein, Thompson (1993) found that when given a face saving opportunity, self-worth protective individuals actually improved performance (Sanna & Mark, 1995).

Self-handicapping can also enhance the engagement and enjoyment of a task. In a study by Deppe and Harackiewicz (1996) which explored this issue, participants high or low in self-handicapping engaged in a task in which they were given the opportunity to practice or not practice (self-handicap). High self-handicappers who did not practise became more involved in the task and consequently enjoyed the task more than high self-handicappers who did practise. They found in a second experiment that self-handicapping enabled individuals to become more involved in the activity such that they tended not to focus on performance concerns. They concluded that “self-handicaps may provide the ‘breathing room’ that some individuals need to become involved in a task and to experience that task as pleasant” (p. 874). Others, however, have proposed that self-handicapping is not so adaptive. Covington (1984a, 1992) argues that in the long run, self-defeating tactics such as self-handicapping are not successful:

...despite the fact that these tactics may temporarily reduce the immediate anxiety and distress of failure, in the long run they are self-defeating” because they “tend to set up the failures that students are trying to avoid (1984a: 91).

For example, high self-handicappers have been found to withdraw effort, perform more poorly, and report more distracting cognitions than low self-handicappers in high difficulty tasks (Rhodewalt & Fairfield, 1991; Poehlmann & Oleson, 1995, in Arkin & Oleson, 1998). Rhodewalt and Davison (1986) found that study participants who received non-contingent success feedback and chose to self-handicap performed more poorly on an ability test than those who decided not to self-handicap (but participants receiving non-contingent failure
feedback who self-handicapped performed better), while Rhodewalt et al. (1984; see also Rhodewalt, 1984, in Rhodewalt, 1990) found self-handicapping to be associated with underachievement. Midgley et al. (1996) found that self-handicapping mediated the relationship between negative attitudes and grade point average (GPA) such that negative attitudes about education positively predicted self-handicapping which negatively predicted GPA (Midgley & Urdan, 1995). Similarly, Garcia et al. (1995) found that relative to students low in self-handicapping, high self-handicappers were significantly lower in intrinsic goal orientation, self-regulation, and grades.

The findings, then, are mixed. Whilst self-handicapping may be detrimental to academic outcomes, other researches have demonstrated that there are benefits that can be derived from using the strategy. As outlined earlier, studies of the consequences of self-handicapping have employed outcome variables that are not parallel and so it is difficult to make generalized predictions. In this study, self-handicapping was predicted to be negatively associated with academic outcomes. Because of the diversity of outcome constructs employed in studies to date and because the present study was aimed at clarifying the consequences of self-handicapping, a variety of outcome constructs are incorporated which reflect their diversity. Accordingly, persistence, self-regulation and academic grades are incorporated in the present study as outcome constructs. Shepperd and Arkin (1989a) hypothesized that self-handicapping is probably motivated more by a need to protect the self because its correlate, public self-consciousness has typically been found to be aimed at avoiding disapproval rather than garnering approval (Carver & Humphries, 1981; Fenigstein, 1979). Findings by Mayerson and Rhodewalt (1988) also support the protection hypothesis (Rhodewalt, 1990).
They found that after failure feedback, self-handicappers reported that the handicap not only inhibited their performance but their low performance did not reflect poorly on their ability. Low self-handicappers, on the other hand, reported that low performance was due to low ability. In contrast, they also found that after participants received success feedback there were no differences in attributions between self-handicappers and non self-handicappers, representing evidence contrary to the augmentation hypothesis. Also consistent with the protection hypothesis, Isleib et al. (1988) found that subjects who drank alcohol before a test and received failure feedback reported that the alcohol interfered with their performance and that failure was not related to their ability. In another study, Rhodewalt et al. (1991) found that individuals high in self-handicapping discounted ability after failure. In a second study, they showed that after success, the presence of a self-handicap led to no more positive self-esteem than success without a self-handicap. Thus, self-handicapping served no enhancing or augmenting purpose but it did protect self-esteem in the event of failure. They concluded that there existed “a greater readiness among subjects to adopt a self-protective rather than self-enhancing posture” (p. 130).

Other commentators argue that the extent to which self-handicapping serves a protective or enhancing purpose depends on individuals’ level of self-esteem. For example, Baumeister, Tice, and Hutton (1989) found that individuals high in self-esteem were motivated to enhance their public and self-image whilst those low in self-esteem individuals were more concerned with protecting their image. Similarly, Roth, Snyder, and Pace (1986) found that high self-esteem individuals were more likely to use self-enhancing strategies and more
likely to present themselves in a more positive manner that actually bordered on the unrealistic. In another study assessing self-esteem and self-handicapping, Tice (1991) found that when a high score on an important task was characterized as meaningful, high self-esteem participants self-handicapped (presumably for self-enhancement purposes), whereas when failure on a task was considered meaningful, low self-esteem participants self-handicapped (for self-protective purposes). In this case, then, the joint effects of self-esteem, task importance, and the implications of the outcome influenced the tendency to handicap in an enhancing or protective way. These findings were replicated in a second study. Tice concluded that;

...low self-esteem people self-handicap primarily to protect their image, whereas high self-esteem people self-handicap primarily to augment their image (p. 724).

Other research has examined dispositional correlates of self-handicapping that can be related to protective and acquisitive tendencies. One such dispositional measure, the Modified Self-Monitoring Scale (Lennox, 1988), assesses acquisitive self-presentation and protective self-presentation. Ferrari (1992) examined the correlation between the short form of the SHS (Strube, 1986) and these two dimensions of self-monitoring. He found that the SHS was correlated .29 with acquisitive self-presentation and .30 with protective self-presentation, indicating that self-handicapping can present both protective and enhancing opportunities.

The focus of the present study was upon the protective dimension of self-handicapping. In fact, this is consistent with the Adlerian perspective on strategic manoeuvring which holds that individuals are primarily motivated to manoeuvre so as to protect their feelings of inferiority. Indeed, Jones and Berglas’s (1978), as well as Snyder, 1990, for a review original contentions were that self-handicappers sought to protect themselves from the “horrible . . .
suspected truth" (p. 203) that they are not competent and hence unworthy of love. This protection perspective of self-handicapping is also consistent with more recent research findings. Midgley et al., (1996) and Midgley & Urdan, (1995), for example, have explicitly invoked in their self-handicapping items the need for self-handicapping as an excuse in the event of poor performance.

In summary self-handicapping can take active, self-presented and self presented affective forms. The present study unifies these three dimensions. In terms of the consequences of self-handicapping, the evidence is mixed, and it was another purpose of the present investigation to clarify this issue. In general, the weight of evidence suggests that self-handicapping is more of protective strategy than an augmenting one - and this was the stance adopted in the present study. As yet, the factors that give rise to self-handicapping have not been discussed directly and this is the focus of the discussion below. Before addressing these factors, however, the literature in relation to the second strategy in the proposed model - defensive pessimism - is reviewed.

2.2.2 Defensive Pessimism

Defensive pessimists set unrealistically low expectations prior to an event in which some form of evaluation, takes place and think through a variety of possible outcomes before performance (Norem & Cantor, 1986a, 1986b; Norem & Illingworth, 1993). In adopting a defensively pessimistic approach, individuals are able to cognitively work through potential failure and thereby steel themselves for this outcome (Norem & Cantor, 1986a, 1986b; Norem & Illingworth, 1993). It is this thinking-through process that enables defensive pessimists to feel less anxious, more in control, and better equipped to invest effort into the
task before them. With the increase in effort that accompanies the strategy, performance is often subsequently unimpaired (Garcia et al., 1995; Norem & Cantor, 1986b). Thus, defensively pessimistic students perform in ways that run counter to expectancy-based research:

...low expectations do not become self-fulfilling prophecies, nor does the anxiety, although real, lead directly to performance deficits. In fact this strategy may be thought of as a method by which individuals are able to cope with their anxiety, in effect, change it from a debilitating to a motivating force (Norem & Cantor, 1986b, p. 1209).

A defensively pessimistic strategy can also “cushion” the individual “against debilitating anxiety prior to stress-provoking tasks and motivate continued persistence in the face of that stress” (Cantor & Norem, 1989, p. 93). In fact, setting lower expectations can also serve to establish performance standards that are less difficult to achieve (Showers & Ruben, 1990; see also Atkinson, 1957; Birney, Burdick, & Teevan, 1969), and may even lower the threshold for satisfactory performance (Baumgardner & Brownlee, 1987). As Covington notes, “by dropping the lower bounds of what one will accept - students can continue to evade feelings of failure” (1992: 90). Covington also implies that there is a self-presented and public dimension to strategic reductions in expectations:

The student who publicly announces before each examination that he or she will be satisfied with just a passing grade is taking crafty advantage of this strategy (1992, p. 90).

This self-presented dimension of defensive expectations was explored in the present study. Norem and Cantor (1990b) differentiate defensive pessimism from general pessimism and depression because defensive pessimists set low expectations whilst acknowledging past successes. This contrasts with realistic pessimists who have not done well in the past and
depressive pessimists who tend to discount past successes. Showers and Ruben (1990) argue that:

...while defensive pessimists may demonstrate a pattern of low expectations, moderate levels of anxiety, and extensive effort and preparation before a stressful event, maladaptive pessimistic strategies may be characterized by low expectations, uncontrolled anxiety, and a tendency to withdraw effort and disengage from the situation at hand (p. 387).

According to Norem and Cantor (1990b), individuals' use of cognitive strategies influence the way they appraise, plan, retrospect, and invest effort:

Strategies such as self-handicapping, defensive pessimism, and depressive self-focus, constitute characteristic ways that individuals try to reach desired end states and avoid undesirable outcomes in particular task settings (p. 192).

Specifically, defensive pessimists seem to use expectations to gain a sense of control in ways that influence motivation and performance and “the conjunction of expectations and efficacy/control as cognitive bridges between motivation and action is particularly helpful in illuminating the conditions under which negative expectations do not lead to negative outcomes” (Norem & Cantor, 1990b, p. 192).

Cantor and Norem (1989) and Cantor, Norem, Niedenthal, Langston, & Brower, (1987) argue that defensive pessimism and optimism are strategic in that pessimists and optimists display distinct patterns in appraising and reacting to achievement scenarios. Typically, defensive pessimists are more anxious, work through worst-case scenarios, do not deny control over failure and success after the task, and increase effort. The strategic nature of defensive pessimism is emphasized in the fact that defensive pessimists manoeuvre protectively before a performance situation and as a result do not feel the need to engage in
post hoc defensive posturing such as denying control after the fact, as is the tendency of optimists. According to Norem & Cantor (1990a),

...there is no need to resort to self-protecting attributions because the initial strategic construction of the situation has prepared them for the possibility of failure (p. 49).

A crucial component of defensive pessimism is the part played by expectations for upcoming performance situations. Expectations are a means by which individuals are able to negotiate evaluative scenarios and also regulate the impression that they make on others. In fact, it has been found that individuals actually try to change expectations of them held by others so as to protect themselves in evaluative situations (Baumgardner & Brownlee, 1987). Two ways to do this are to (a) communicate one’s low expectations for an upcoming performance or (b) disconfirm others’ expectations by deliberately failing in the face of high expectations. Baumgardner and Brownlee found that socially anxious people deliberately fail when there are high expectations of them. They also found that individuals high in anxiety, when led to believe that initial performance would influence others’ high expectations of them, performed significantly poorer than other groups. These individuals, then, regulated others’ expectations of them by failing strategically and thereby created lower and safer standards against which to be judged. According to Baumgardner and Brownlee (1987),

...success may carry certain costs for the future self-presentational goals of the individual . . . the individual who lacks confidence in his or her abilities may be particularly threatened by the high standards his or her successes might impose (p. 525).

For example, socially anxious people who are concerned about meeting external standards may be more comfortable with low standards (Schlenker & Leary, 1982) and so by disconfirming the high expectations of them, the socially anxious person may think
subsequent success more likely since it is now determined by performance against a lower standard.

Thus, it is not uncommon for individuals to use expectations strategically to negotiate events that are affectively risky (Norem & Cantor, 1986b). Expectations can serve to protect the individual from evaluative threat and the implications of failure both privately and publicly. Accordingly, it is argued here that the defensive expectations component of defensive pessimism is a means by which individuals deal with performance that is threatening to their self-esteem. Through these defensive expectations, failure against a lower standard is less likely, or, if failure does occur, individuals have steeled themselves for it, particularly in relation to the implications it has for their self-worth.

In assessing the effects of defensive pessimism, a good deal of the research has contrasted defensively pessimistic students with optimists. For example, Norem and Cantor (1986a) found that defensive pessimists set significantly lower expectations than optimists but there were no significant differences between the two groups in performance on tasks. In a second study, Norem and Cantor (1986b) found that defensive pessimists performed successfully despite their lower expectations, and results also suggested that when the defensive pessimistic strategy was interfered with in the form of encouragement, there was a significant decline in performance.

Other research has contrasted three groups: defensive pessimists, optimists, and aschematics (those neither defensively pessimistic nor optimistic) who do not differ substantially in
previous performance. Norem and Cantor (1990b) found that while defensive pessimists felt more anxious, were more negative about their performance, were more absorbed in the task, and reported feeling less in control than optimists, they performed just as well as optimists. Importantly, then, the anxiety and the lack of control did not impair the defensive pessimists’ performance. They further found that the more reflective the defensive pessimists were, the better their performance (see also Norem & Illingworth, 1993), while the more reflective the optimists, the worse their performance. These results were confined to the academic domain and did not generalize to the social domain.

Cantor and Norem (1989) reported that compared to optimists, defensive pessimists felt less in control, were more stressed, experienced less enjoyment, and perceived less progress when they were studying. They also examined social interactions of defensive pessimists and found that whilst they were as socially effective as the optimists, they reported feeling more fatigued after social engagement. Moreover, the defensive pessimists were found to be more variable in emotional reactions across situations than optimists, who appeared more emotionally well balanced. Additionally, Cantor et al. (1987) found that relative to optimists, defensive pessimists perceived good grades as more difficult to achieve, and while they were higher in anxiety, this anxiety was positively associated with performance.

The weight of evidence suggests that the negative expectations held by defensive pessimists do not impair performance. Rather, defensive pessimists’ performance in some cases is actually enhanced. Notwithstanding the generally positive (or unimpaired) influence of defensive pessimism on performance there seem to be other costs involved in using the
strategy. Importantly, the longer term effects of defensive pessimism also attest to these costs.

Whereas most research in the area of defensive pessimism has assessed the short-term impact of this strategy, a smaller body of research has investigated its longer-term effects. Norem and Cantor (1990b) report findings of a three-year-follow-up of defensive pessimists and found that while the grades achieved by defensive pessimists were in the short-term comparable to those of optimists, three years later, defensive pessimists’ GPAs were lower than the other two groups (optimists and aschematics). In the third year, defensive pessimists also experienced more global life stress, more psychological symptoms, and less satisfaction with their lives.

According to Norem and Cantor (1990b), it is difficult to know precisely what led to these longer-term effects. Notably, whilst the defensive pessimists in the first year held unrealistically low expectations, after three years they actually held higher expectations. In relation to this, it will be recalled that interference with the defensive pessimistic strategy in the form of encouragement/optimism has been found to adversely affect defensive pessimists’ performance (Norem & Cantor, 1986b) and thus it may have been the change in expectation (disruption of the strategy) that led to the decline in performance three years later.

Another reason Norem and Cantor (1990b) provide to explain the change in academic fortunes of the defensive pessimists is that the;
...emotional ups and downs of academic pessimism may take a heavy toll on well-being over time. The continual struggle to gain control and manage anxiety may begin to water down the rewards of success and the intrinsic pleasure of the activities themselves (p. 202).

According to Cantor and Norem (1989), defensive pessimism may be a liability over time and the "rocky emotional terrain" (p. 105) associated with it leads to a variety of academic and personal costs over time. The negative effects of defensive pessimism may also be partly a consequence of students' inclination to self-verify. According to Swann (1987; see also Swann & Read, 1981), individuals prefer self-confirmatory feedback and "think and behave in ways that promote the survival of their self-conception" (p. 1039). For the most part this is because (a) they see such information as diagnostic (Snyder & Swann, 1978), (b) a stable self-conception helps them organize experience, and (c) they resist changes in their conception of self that would have them venture into new territory or engage in tasks that threaten failure. Individuals can self-verify by behaving in ways consistent with their self-view or behaving in ways that control how others see them (Swann, 1987). Importantly, individuals with negative self-views are also inclined to prefer and seek out negative feedback so as to confirm their negative self-view (Swann, Pellham, & Krull, 1989). In terms of defensive pessimism, it may be that in the longer term, defensive pessimists behave in ways that verify their pessimistic self-view. According to Swann (1987),

...although there are surely painful consequences associated with verifying negative self-conceptions... failing to verify them may have even more painful consequences (p. 1039).

As Covington (1992) notes, "students do only as much as they expect of themselves" (p. 90) and so their negative expectations in time become inimical to adaptive functioning.
The present study, then, sought to explore further the association between defensive pessimism and academic behaviours. Thus to parallel the relationships proposed in relation to self-handicapping and academic outcomes, the link between defensive pessimism and academic outcomes such as persistence, self-regulation and academic grades are incorporated into the second component of the proposed model.

In summary defensive pessimism is comprised of active and self presented forms. The findings in relation to the consequences of defensive pessimism are mixed: In the short term, defensive pessimism seems to be associated with high achievement, however, in the longer term, defensive pessimism seems less adaptive.

2.2.3 Drawing together self-handicapping and defensive pessimism

For the most part, the literature has not explicitly drawn comparisons between self-handicapping and defensive pessimism and so the contentions to follow are in parts speculative and in a number of cases not supported directly by empirical evidence. Indeed, assessing their empirical links was a central purpose of the present study. Arising from the preceding review of self-handicapping and defensive pessimism, the following features common to each of the two strategies were proposed:

Both defensive pessimism and self-handicapping are used strategically to enable individuals to protect (or in some cases enhance) their self-worth. Importantly, however, it is predicted that of the two self-protective strategies, self-handicapping is more deleterious to key academic outcomes. As Norem and Cantor (1990a) note,
...defensive pessimism (and optimism), as strategies, are thus less likely to interfere with good performance than is self-handicapping, yet they provide similar cushioning or protection for self-esteem (p.50).

The phases involved in the process of self-handicapping and defensive pessimism are somewhat similar. According to Berglas (1987), self-handicappers first experience anxiety, they employ a self-handicapping strategy, their anxiety is alleviated, and they are able to perform successfully or in the case of failure are protected by the availability of an excuse. According to Norem and Cantor (1986b), the defensive pessimist also experiences anxiety, strategically utilizes expectations, achieves a sense of control, is better placed to succeed as a consequence, or has cushioned the blow of potential failure.

Both strategies can be seen as something of a mixed blessing. Defensive pessimism seems to lead to success in the shorter term, yet is associated with diminished performance in the longer term. Self-handicapping too may lead to some success in the shorter term, yet according to Covington (1984a) in the longer term, is less adaptive.

Self-handicapping can take self-presented or active forms. In the case of the former, the individual exaggerates circumstances or personal dispositions that might interfere with success in an upcoming task. In the latter, the individual chooses performance-inhibiting conditions under which to be evaluated or withdraws effort. Whilst not previously identified, it is quite conceivable that defensive expectations can also be self-presented or active. In the case of self-presented defensive expectations, individuals may communicate to others that they are more pessimistic than they actually are. In the case of active defensive expectations, the individual actually holds unrealistically low expectations. The present study seeks to
clarify the active and self-presented dimensions of self-handicapping and defensive expectations.

There has been some suggestion that defensive pessimism is a form of impression management. Defensive pessimism is positively correlated with protective self-monitoring, a dispositional motivation to avoid the disapproval of others and has been proposed to be a means by which individuals can protect their public image (Showers & Ruben, 1990). Self-handicappers are also concerned with impression management in that they are concerned with avoiding disapproval or negative evaluation by others (Shepperd & Arkin, 1989a; Strube, 1986).

Both self-handicapping and defensive pessimism seem to activate negative self-schemas. On self-handicapping, Garcia and Pintrich (1994) report that “self-handicapping may be a strategy in which one engages when negative self-schemas are activated in the working self-concept” (p. 136). Similarly, defensive pessimists “can be thought of as being driven by negative ‘failure’ self-schemas, perhaps arising from being in highly competitive environments that make salient differences in ability” (Garcia & Pintrich, 1994, p.137).

On these bases, self-handicapping and defensive pessimism are proposed to have a good deal in common. It is argued that the most fundamental way in which the two strategies are similar is in their objective to protect the self. A conceptual basis that underpins this need to protect the self is self-worth motivation theory and this is the broad perspective that the present study adopts in proposing an academic process model in which a set of affective and
motivational factors give rise to self-handicapping and defensive pessimism which in turn predict academic outcomes.

2.3 Factors predicting self-handicapping and defensive pessimism

Adopting self-worth motivation theory as a basis for exploring the processes involved in self-handicapping and defensive pessimism brings into consideration a range of constructs pertinent to that theoretical position and which has relevance to a set of constructs predicting the two strategies central to it. As outlined earlier, the present study examines a model in which a variety of motivational/affective factors (underpinning a self-worth motivation) predict self-handicapping and defensive pessimism which in turn are proposed to predict academic outcomes such as self-regulation/persistence, and academic grades. Below is a consideration of each of the motivational/affective predictors with particular focus on their relationship to self-worth motivation and their relevance to self-handicapping and defensive pessimism. Importantly, in a number of respects, self-worth motivation theory does not make direct predictions about the relevance of these predictor constructs. Rather, the rationale for selecting these predictors for inclusion in the model is often inferred from - and not a direct consequence of - self-worth motivation theory.

2.3.1 Motivation orientation

Motivation orientation in the present study is concerned with ego-orientation and task-orientation. Ego-orientation refers to the tendency of individuals to be concerned about their ability or competence and the tendency to feel successful when they have demonstrated superior ability relative to others. Task-orientation refers to the tendency of individuals to feel successful and gain satisfaction in mastering what they have set out to do (Duda & Nicholls, 1992; Nicholls, 1989). The review to follow deals with ego-orientation and task-
orientation, their emphasis on ability and effort respectively, and their relationship to self-handicapping and defensive pessimism.

The self-worth theory of motivation is primarily focused on individuals who behave in ways that protect their sense of ability and competence. Individuals operate in this way because they are inclined to equate self-worth with ability and so threats to their ability represent threats to their self-worth. One could predict, therefore, that individuals who are concerned about their ability relative to others or are concerned about demonstrating competence (ego-oriented individuals) would be more inclined to engage in strategies to protect their self-worth. As Midgley et al. (1996) propose, individuals;

...who are concerned about proving that they are competent may choose to use these [self-handicapping] strategies to promote their image as able to others, especially if they perceive that they may perform poorly (p. 425).

In contrast, individuals who are task focused are more concerned about mastery than demonstrating competence and so are not expected to engage in strategies designed to protect their self-worth.

According to Jagacinski and Nicholls (1984, 1987), competence perceptions for task-involved individuals are based on mastery, learning, and the application of high effort. On the other hand, competence perceptions for ego-involved individuals are based on externally-referenced cues such as outperforming others or doing as well as others but with less effort. Jagacinski and Nicholls found that when ego-involved individuals used high effort and discovered that others did as well with less effort, they experienced greater embarrassment and guilt. Also, when they invested less effort than others and succeeded ego-involved
individuals reported a greater sense of accomplishment. Ego-involvement, then, is associated with (a) the perception that an investment of effort may reflect a lack of ability, (b) the view that competence is primarily composed of ability rather than effort, and (c) the perception that ability (rather than effort) is the main determinant of successful performance. These beliefs render ego-involved individuals' self-worth particularly vulnerable in situations which might be challenging and/or threaten failure. Task-involved individuals, on the other hand, tend not to consider that investment of effort implies a lack of ability and are, therefore, more inclined to invest, rather than withdraw, effort if they feel that failure threatens.

In a study reflecting these perceptions, Duda, Fox, Biddle, and Armstrong (1992) found that task-oriented subjects saw success as being due to effort whereas ego-oriented subjects saw success as being due to deceptive tactics and/or ability. Duda and Nicholls (1992; see also Duda, 1993) also found that in a factor analysis of motivation orientation and beliefs about success in the classroom, task-orientation loaded on one factor along with effort-related beliefs about success. On the other hand, ego-orientation loaded on one factor along with ability-related beliefs about success in the classroom.

Given, then, that ego-oriented individuals see the causes of success in various domains as being due to ability and given that ability is generally perceived as being relatively fixed and uncontrollable (see review of implicit theories of intelligence in Section ...), these students may be particularly vulnerable in achievement scenarios in which there is the possibility of failure. Moreover, on the basis of ego-oriented individuals' belief that ability is the cause of
success, they may be particularly vulnerable to the possibility that failure reflects low ability (Harackiewicz, Barron, & Elliot, 1998). Low ability, according to self-worth motivation theory, implies low self-worth. Thus, ego-oriented individuals would be inclined to engage in strategies aimed at protecting self-worth.

Ego-orientation, task-orientation, and self-handicapping

Similar to the present study, Midgley and Urdan (1995) sought to examine predictors of academic self-handicapping but focused on the middle school years. Amongst a number of hypothesized predictors were school task and school performance foci, individuals’ task and relative ability goals, and extrinsic goals. Correlations between these variables revealed significant positive associations between both school performance focus and extrinsic goals and self-handicapping. Negative correlations were obtained between both school task focus and individuals’ task goals and self-handicapping. In separate regression analyses, amongst the significant predictors of self-handicapping were extrinsic goal orientation and school performance focus. In a final regression analysis that included the significant predictors from previous analyses, the remaining significant predictors of self-handicapping included extrinsic goal motivation. More directly relevant to ego-orientation, Midgley et al. (1996) found self-handicapping to be positively correlated with ego-orientation. Similarly, another study in the educational context found that ego-oriented high school students tended to engage in avoidance strategies while task-orientation was positively associated with the practice of mastery strategies and negatively correlated with avoidance strategies (Lochbaum & Roberts, 1993).
Rhodewalt et al. (1984) investigated the withdrawal of effort and the report of physical problems and outside commitments as means of self-handicapping for competitive athletes. They found that before an important competition (a high ego-involving condition) that posed a threat to self-esteem, high self-handicappers withheld effort (see also Smith et al., 1983; Snyder et al., 1985, in relation to self-handicapping in response to evaluative settings and personally important tasks which pose a threat to the ego) whereas they did not do so in unimportant meets (low ego-involving condition). In a second study, similar results were obtained for professional golfers.

In a correlational study of individuals’ self-handicapping and achievement goals, Rhodewalt (1994) found that high self-handicappers were more likely to endorse performance goals. In respect to task-related dimensions, Rhodewalt found that low self-handicappers were more inclined to pursue learning, rather than performance goals. In another study, Pyszczynski and Greenberg (1983) found that participants reported investing less effort (i.e., self-handicapped) on a high ego-task than participants on a low ego-task (see also Greenberg, 1985).

It is important to note, however, that whilst the evidence pertaining to ego-orientation presented here suggests that it is a somewhat maladaptive orientation, there is evidence, which shows that ego-related dimensions are not necessarily inimical to successful functioning in the educational environment. In a review of motivation orientation research, Harackiewicz et al. (1998) report that in terms of cognitive engagement, learning strategies, self-regulation, and performance, ego-related dimensions can be adaptive (see also Elliot &
Church, 1997; Harackiewicz, Barron, Carter, Lehto, & Elliot, 1997; Meece, Blumenfeld, & Hoyle, 1988; Midgley & Urdan, 1995; Roeser, Midgley, & Urdan, 1996; Skaalvik, 1997a, 1997b). Middleton and Midgley (1997) suggest that the divergent findings pertaining to ego-related dimensions may be due to empirical confusion in past research between performance-approach goals and performance-avoidance goals. Harackiewicz et al. (1998) also make the point that the extent to which ego-related dimensions are adaptive or not so adaptive may depend on the context. For example, Harackiewicz and colleagues have shown that in a competitive setting and for those high in achievement orientation, performance goals may be beneficial to motivation and performance (Elliot & Harackiewicz, 1994; Epstein & Harackiewicz, 1992; Harackiewicz & Elliot, 1993). The present position is one which recognizes that ego-orientation can be adaptive but is essentially an orientation which grounds success and failure in terms of ability (see Harackiewicz et al., 1998; Middleton & Midgley, 1997). From a self-worth motivation perspective this motivates the student to manoeuvre defensively (e.g., self-handicap), particularly in contexts (such as university) in which relative ability is salient.

In summary, then, the ego-relevance or ego-involving characteristics of a task are predicted to influence the tendency to self-handicap. Whilst there is not as much evidence to make firm hypotheses about the role of task-orientation, it was tentatively proposed that because task-orientation is generally associated with effort and adaptive learning strategies (Ames & Archer, 1988), the degree to which individuals are task-oriented is predicted to be negatively associated with self-handicapping.
Ego-orientation, task-orientation, and defensive pessimism

Individuals who are ego-oriented are concerned with demonstrating their ability and outperforming others. It is quite a blow to their self-worth when they fail because ability is seen to be the cause of failure and low ability implies low self-worth. Another strategy that is argued to be aimed at protecting one’s sense of ability is defensive pessimism, and more specifically, defensive expectations. It is contended that by creating lower and safer standards, individuals maximize their chances of relative success (relative, that is, to the lower standard) thereby avoiding judgments that they lack ability. Thus, ego-oriented individuals who are concerned with attaining success and protecting their ability image could be predicted to set unrealistically low expectations before an upcoming performance. These expectations are easier to attain and thus individuals avoid that which most threatens their ability perceptions - failure.

The empirical basis of the proposed link between motivation orientation and defensive expectations is more tentative and rests on a somewhat indirect body of research. It has been found that task-oriented individuals choose challenging, interesting tasks and persist with them whereas ego-oriented individuals low in perceived ability tend to choose very easy or very difficult tasks (Duda, 1992). Similarly, Koestner, Zuckerman, and Koestner (1987) found that ego-involved individuals choose significantly less challenging activity levels than task-involved individuals. Less challenging task choice could reflect defensive expectations. Ego-orientation has also been found to be positively correlated with negative thoughts about sporting activities, whereas task-orientation is negatively correlated with performance worry.
(Newton & Duda, 1993). Likewise, Diener and Dweck (1978) found that children who reflected a performance goal approach in the face of difficult tasks tended to focus on failure, while quite the opposite profile was found for children with a learning goal profile. It is inferred from this relatively indirect evidence that ego-oriented individuals are more likely to be defensively expectant, whereas task-oriented individuals are predicted to be less pessimistic regarding upcoming performance.

In summary, in the context of the present study, motivation orientation comprises ego-orientation and task-orientation. Owing to their tendency to see success and failure as due to their ability, ego-oriented students are particularly vulnerable in the event of failure and to threats to their ability and subsequent self-worth. Consequently, ego-orientation is proposed to be positively associated with a tendency to engage in self-worth protection strategies such as self-handicapping and defensive pessimism. Task-oriented students, on the other hand, see effort as the primary basis of academic outcomes, and as a consequence, their ability is not under threat to the extent that it is for ego-oriented students. Therefore, task-orientation is proposed to be negatively associated with self-handicapping and defensive.

2.3.2 Public self-consciousness and self-handicapping

It has been argued that self-handicapping is not only a strategy aimed at protecting the private self-esteem but also an impression management strategy designed to protect or enhance the self in a public's eye. Kolditz and Arkin (1982) were the first to specifically examine this issue. They proposed that self-handicapping is primarily an impression management strategy and that it should be more likely to occur when in the presence of an audience. Kolditz and Arkin found that in an insoluble test condition, participants tended to
choose a performance-debilitating drug but only when the experimenter (an audience) was present and when they believed the experimenter would have access to their score on the second test. Similarly, Mello-Goldner and Wurf (1997) found that in public conditions in which participants were cognitively focused on an audience, the likelihood of self-handicapping increased (see also Montgomery, Haemmerlie, & Zoellner, 1996).

Strube (1986) found that the shortened SHS correlated moderately with public self-consciousness, social anxiety, and other-directedness. In other work, Ferrari (1992) found that the shortened SHS correlated moderately with public self-consciousness and social anxiety. Midgley and Urdan (1995) examined dispositional correlates of academic self-handicapping and found that public self-consciousness was significantly associated with academic self-handicapping - although the relationship was weak. In another study, Schill, Morales, Beyler, Tatter, and Swigert (1991) correlated the shortened SHS with Schill’s (1990) measure of self-defeating personality. They found that three of the four significant correlations were concerned with the ‘others’ dimension of the self-defeating scale and implied an other-directedness or public orientation associated with self-handicapping.

These findings raise the question as to whether self-handicapping is more a public or a private strategy. Baumeister and Scher (1988) make the point that self-defeating behaviour can often have impression management advantages. In their review of self-defeating behaviour, they concluded that “focus on oneself, especially public attention to oneself, was repeatedly associated with self-destructive choices” (p.12). Indeed, Tice and Baumeister (1990) found that individuals high in self-esteem practised less than those low in self-esteem
in a public condition and seemed to be engaging in an impression management strategy aimed at protecting the public rather than the private self.

Indeed, it could be predicted that when people fail only in private and have not yet spoiled their public image, they will self-handicap for an upcoming performance in order to maintain and protect that public image (Baumgardner, Lake, & Arkin, 1985). If this is the case, then self-handicapping can be seen as a public protective strategy occurring when a positive public image or an unknown public image may be spoiled. In a study by Baumgardner et al., participants were given failure feedback. When they believed the experimenter was unaware of the failure, they claimed a mood that was a self-handicap for an upcoming test. When the experimenter knew of the previous failure, they did not self-handicap. These results confirm the protective impression-management view of self-handicapping.

In a study of the effects of public self-consciousness, ego-involvement, and their interaction on the tendency to self-handicap, Shepperd and Arkin (1989a) argued that self-handicapping is designed to protect individuals’ public image rather than their private image. Consistent with hypotheses, they found that individuals high in public self-consciousness listened to music they believed to be performance debilitating, but only when the task was characterised as being a valid indicator of academic success. Similarly, Ferrari (1991) found that procrastination was positively associated with public self-consciousness. Ferrari concluded;

...procrastinators are anxious individuals who actively avoid evaluative information, particularly if there is an audience . . . view their self-worth as based solely on ability at a task . . . [and] prevent judgements of performance and, hence, judgements of ability (p.456-457).
In another investigation of the public dimension of self-handicapping, Hobden and Pliner (1995) recruited a group of perfectionist students who they claimed were highly likely to self-handicap due to their excessive fear of failure. According to Hewitt, Flett, Turnbull-Donovan, & Mikail (1991), perfectionism can be operationalised into private and public dimensions. Private perfectionists are those who have an intrinsic need for perfection, whereas public perfectionists are socially prescribed perfectionists who are motivated to appear perfect to others. They predicted that socially (publicly) prescribed perfectionists would self-handicap only in a public condition. Findings supported this prediction and confirmed the publicly-oriented dimension of self-handicapping.

There is a reasonable body of evidence, then, to support the view that public self-consciousness and self-handicapping are related. The balance of evidence suggests that self-handicappers, whilst being to some degree concerned with protection of a private self-esteem (see Berglas & Jones, 1978), are also very much concerned with protection of the public image. Public self-consciousness is therefore predicted to be positively associated with self-handicapping. As Self (1990) notes,

...when there is an audience that requires convincing, it may appear safer to actively impede one’s performance in order to insure that the audience will be convinced that one could not have done better (p.52).

2.3.2 Public self-consciousness and defensive pessimism

If it is to be assumed that there is a self-worth protection basis to defensive pessimism, it is not unreasonable to propose that consistent with other self-protection strategies, a concern with the public image may also underlie it. One factor that has been associated with the tendency to manage impressions or self-present is Snyder’s self-monitoring construct. It has
been posited that self-monitoring is comprised of two dimensions: acquisitive and protective (Lennox, 1988). Acquisitive self-monitoring; “…involves an active self-presentation style geared toward accommodating oneself to the situation in order to accumulate status and social approval” (p. 286).

These people tend to be optimistic, want to get ahead rather than get along, and are high in self-esteem. On the other hand, protective self-monitoring”…involves an anxious, passive attempt to avoid social disapproval and gain acceptance by conforming to external expectations” (p.286). According to Polak and Prokop (1989), there is a “striking resemblance” between defensive pessimism and protective self-monitoring where “both behavior styles are associated with lower self-esteem and are oriented toward the avoidance of disapproval and disappointment” (p. 286). Importantly, they found that protective self-monitoring was correlated with defensive pessimism (r=.70) to a far greater extent than acquisitive self-monitoring was correlated with defensive pessimism (r=.12). They concluded that;

...persons who are concerned with avoiding disapproval and rejection and who view academic achievement as important to social approval may be motivated to harness their anxiety by means of defensive pessimism (p. 288).

Whilst technically not the same as defensive pessimism, worrying is along similar affective lines in that it evokes a negative self-schema tied to one’s expectations. Pruzinsky and Borkovec (1990) have argued that “because social-evaluative fears are predominant among worriers, we expected worriers to be high on public self-consciousness” (p. 508). Consistent with this reasoning, they found that worriers were higher in public self-consciousness. Whilst this does not directly enable predictions regarding defensive pessimism, it does suggest that
publicly self-conscious individuals would be more inclined to entertain negative thoughts about upcoming performances.

In summary, it is clear that individuals who are publicly self-conscious are concerned with the impression they are conveying and seek to avoid negative evaluation. It is on this basis, and previous empirical findings, that public orientation is predicted to be associated with self-handicapping and defensive pessimism.

2.3.3 Stability of self-concept/esteem

Research into self-concept and self-esteem has typically explored both their level and their stability. Without doubt, however, the bulk of work has examined the level of the self-concept and esteem, whilst only a smaller body has explored their stability. Self-concept/esteem stability refers to the “magnitude of short-term fluctuations” in appraisals of the self (Kernis, Grannemann, & Barclay, 1992, p.622; see also Rosenberg, 1986). A conceptually similar construct, self-concept clarity or certainty, refers to “the extent to which the contents of an individual’s self-concept …are clearly and confidently defined, internally consistent, and temporally stable” (Campbell, Trapnell, Heine, Katz, Lavallee, & Lehman, 1996, p. 141). Certainty, then, comprises of stability to some degree. In fact, the measure of trait certainty that Campbell and colleagues (1996) have devised incorporates items that explicitly reflect stability much along the lines of Rosenberg’s (1965) measure of self-esteem stability.

Individuals with an unstable self-concept/esteem tend to over-rely on others’ evaluations of them (Rosenberg, 1986). These individuals tend to place greater emphasis on how they are
perceived by others and this can create instability in a number of ways. First, the impression others have of us is often shrouded in ambiguity and because others are also inclined to engage in impression management, we can never truly ascertain how we are viewed by them. Arising from this is some instability regarding the self-concept. Second, the variety of people in individuals’ lives all have differing views (to varying degrees) of them. Because individuals depend on these appraisals in helping to shape self-perceptions (Kinch, 1963), it follows that they may develop a self-concept that is not particularly stable. Third, because individuals are concerned with the impression they are making, they may present varied images depending on the audience (Juvonen & Murdock, 1993) and these variations may contribute to some diffuseness or instability of self-concept. Finally, Kernis and Waschull (1995) found that the more individuals base their self-worth on competence, the more unstable is their self-esteem.

It has been suggested that not only is the level of self-esteem important in influencing the tendency to self-handicap, so too is the certainty and stability of that self-esteem. For example, Berglas and Jones (1978; see also Jones & Berglas, 1978) argue that it may not be chronically low or high self-concept individuals who are likely to self-handicap but those whose self-concept is uncertain. As Harris and Snyder (1986) note,

...the person who is most likely to self-handicap is one who experiences at least some level of self-esteem, but perhaps an uncertain self-evaluation plagued by doubts of performing successfully in an esteem-threatening, evaluative situation. (p: 451).

Consistent with this, Arkin and Oleson (1998) report that doubt contributes to individuals’ tendency to self-handicap and that this arises from a lack of belief in a “core, stable self” (p. 318). In the classroom, Riggs (1992) noted that students’ preoccupation with their
competence image and the extent to which their self-appraisals are unstable are “crucial to the development of a disposition toward self-handicapping” (p. 252). According to Riggs, if students’ belief in their competence is “precarious”, the fear of exposing a lack of competence may lead them to adopt protective strategies. Indeed, Harris and Snyder (1986) found that study participants uncertain in their self-esteem tended to withdraw effort as a self-handicapping strategy. Similarly, Newman and Wadas (1997) found that individuals who were unstable in self-esteem were more inclined to self-handicap.

Self-concept stability and defensive pessimism

Attempts to link self-concept stability with defensive pessimism are restricted by the paucity of relevant evidence and so the predictions made are advanced tentatively. It is contended that individuals whose self-concept is unstable are less certain of their ability to meet challenges successfully. Thus, they are unsure about whether they can avoid failure and in response to this may set lower and safer standards. As has been argued, defensive pessimists create lower and safer standards against which to be evaluated and this may be a means of meeting the challenge. They will, therefore, be seen (and see themselves) in some way as less of a failure against the safer standard. Also, in the face of uncertainty, defensive pessimists may act as a cushion (Norem & Cantor, 1986b). Moreover, given the link between self-concept instability and self-worth protection (Kernis & Waschull, 1995), a proposed link with defensive pessimism is feasible.

In summary, the weight of evidence suggests that individuals with ‘shaky’ self-appraisals may be more inclined to engage in self-protective strategies such as self-handicapping and defensive pessimism.
2.3.4 Level of self-concept and self-handicapping

Other research has examined self-handicapping as it relates to the level (rather than the stability) of self-esteem. Given that self-handicapping occurs when one’s competence image is threatened,

...it is plausible ... that individual differences in trait self-esteem may be associated with differential tendencies to engage in self- handicapping” (Tice & Baumeister, 1990, p. 444).

Self-handicapping findings in relation to level of self-esteem, however, have been mixed. Whilst some research has found individuals high in self-esteem to be more likely to self-handicap, other work suggests that individuals low in self-esteem are more likely to do so. Yet another body of work has suggested no systematic relationship between the two. In evidence attesting to the positive association between self-concept and self-handicapping, Harris, Snyder, Higgins, and Schrag (1986) found that study participants high in self-concept were more likely than participants low in self-concept to nominate protective excuses for failure. Alloy (1982) examined self-handicapping tendencies amongst depressed (lower self-esteem) and non-depressed (higher self-esteem) participants and found that the non-depressed subjects were more likely to engage in self-enhancing or defensive strategies so as to present themselves more favourably or protect themselves from the implications of failure.

Tice and Baumeister (1990) found that when given no feedback, high self-esteem participants practiced less than low self-esteem participants whereas when given success feedback these differences were eliminated. On the other hand, Ferrari (1991) found that study participants who chose to self-handicap were lower in self-esteem. In addition,
Midgley and Urdan (1995) found low self-worth significantly correlated with and predicted self-handicapping. Similarly, Weary and Williams (1990) found that depressed study participants were more likely to self-handicap than non-depressed participants and that this was motivated to avoid further losses in self-esteem. This evidence is supported by findings of Midgley et al. (1996) who found that negative self-esteem was significantly associated with protective self-handicapping whereas positive self-esteem was not. Other work, however, has found self-esteem to be relatively independent of self-handicapping.

In a recent study, Rhodewalt and Hill (1995; see also Rhodewalt et al., 1991) found that after being informed of failure, participants were more likely to nominate a self-handicapping excuse irrespective of the level of their self-esteem. Similarly, Rhodewalt and Fairfield (1991) found that irrespective of level of self-esteem, high self-handicappers withdrew effort in a task in which they anticipated failure. In fact, Jones and Rhodewalt (1982, in Rhodewalt, 1990) have suggested that when associations between self-handicapping and level of self-esteem have been found, it is due to shared method variance in which respondents are asked in both scales to concede to something unflattering about themselves.

Berglas (1987) argues that it is not so much level of self-esteem that influences the tendency to self-handicap, but its certainty and stability. Indeed, these findings may be consistent with those of Tice (1991) who found that individuals high in self-esteem would self-handicap as much as those low in self-esteem, but for different reasons: Individuals high in self-esteem would self-handicap to enhance success, whereas individuals low in self-esteem would self-handicap to protect themselves in the event of failure. At any rate, in a discussion of future
directions in self-concept research, Hattie and Marsh (1996) suggest that further work be conducted into strategies designed to protect, enhance, and/or maintain the self-concept. Amongst the variety of strategies they addressed was self-handicapping.

Perhaps it is not surprising that self-esteem is negatively associated with defensive pessimism. Norem and Cantor (1986b), for example, found that defensive pessimists were significantly lower in self-esteem than optimists were. A wide variety of work on general pessimism and optimism has also acknowledged the role of self-esteem. Amongst school-aged children, self-esteem and pessimism are negatively associated (Fischer & Leitenberg, 1986). Amongst college students, pessimism is negatively associated with self-esteem while optimism is positively associated with it (Davis, Hanson, Edson, & Ziegler, 1992; see also Weinglert & Rosen, 1995). In work on expectations, self-esteem also plays a part. Abel (1996) found that self-esteem is positively associated with expectancies of success, while Drwal and Wiechnik (1984) found that compared to those low in self-esteem, individuals high in self-esteem held higher expectancies for success. They also found that expectancies of individuals high in self-esteem were more resistant to failure that those of individuals low in self-esteem.

The indirect evidence regarding self-concept and achievement behaviour suggests that students high in self-concept are not likely to engage in self-protective behaviour. In summarizing his findings of the previous decade, Marsh (1990) reported that of the studies examining the relationship between self-concept and achievement, all correlations between verbal self-concept and verbal achievement indicators were positive and significant as were correlations between math self-concept and math achievement. Moreover, in terms of the
causal ordering of self-concept and achievement, Marsh (1990) concluded that the effects of academic self-concept are “causally predominant” (p. 122) over school grades.

It has been proposed that constructs such as self-efficacy are similar to multidimensional domain-specific measures of self-concept (Norwich, 1987) and are distinct from global self-esteem. The theory and evidence in relation to self-efficacy (Bandura, 1982, 1986) also suggest that individuals high in self-efficacy are not inclined to engage in maladaptive self-protective behaviour. First, self-efficacious individuals tend to choose challenging activities that ultimately enhance development in a given area and optimize the likelihood of success on future tasks. Second, whereas highly self-efficacious individuals are more likely to expend effort and more likely to persist in the face of failure, individuals low in self-efficacy tend to readily abandon challenging tasks. Third, individuals low in self-efficacy display a tendency to dwell on deficiencies and view tasks as more difficult than they actually are. Finally, individuals low in self-efficacy tend to react to negative outcomes with resignation or apathy, whereas individuals high in self-efficacy react with activism.

In sum, then, the evidence suggests that individuals high in self-concept or self-efficacy behave in ways in which expectations are high and challenge is embraced. Moreover, the application of effort and the readiness to persist in the face of challenge suggests that individuals high in self-concept or self-efficacy are unlikely to behave in a defensive fashion in the form of defensive pessimism and self-handicapping. As Bandura (1986) reports,

...people who see themselves as efficacious set themselves challenges that enlist their interest and involvement in activities; they intensify their efforts when their performances fall short of their goals, make causal ascriptions for failures that support
a success orientation, approach potentially threatening tasks non-anxiously, and experience little in the way of stress reactions in taxing situations (p. 395).

Taken together, the weight of the direct evidence in relation to self-concept and defensive manoeuvring is mixed, while the indirect evidence in relation to self-concept/efficacy and achievement behaviour suggests that individuals higher on these dimensions are unlikely to behave in self-defeating ways.

2.3.5 Perceived control

Perceived control refers to the extent to which individuals feel they are able to avoid failure and achieve success. Perceived control is relevant to self-worth motivation in that individuals who feel they have little or no control over outcomes are increasingly uncertain as to whether they can avoid failure or bring about success. Given that, it is failure, which is most threatening to individuals’ competence image, and self-worth, those who perceive little control over outcomes may be more likely than individuals who perceive control to engage in strategies that can protect them in the event of failure. Two dimensions of control are examined in the review of literature. The first relates to feedback contingencies, an operationalisation of control examined in much of the self-handicapping literature. The second examines control in terms of self-reports of control.

Contingency of feedback and self-handicapping

Non-contingent feedback refers to the administration of reward or punishment to individuals independent of their behaviours or responses. Individuals who come to see no relationship between their responses and feedback develop a perception of uncertain control over future outcomes (Perry & Dickens, 1984; Self, 1990; see also Skinner, Wellborn, & Connell, 1990
in relation to the classroom). In the educational context, simply rewarding children for various behaviours without regard for the effects of reinforcement schedules and without corrective feedback may have the paradoxical effect of decreasing the probability of desired behaviours, or at least, of creating a context in which the student becomes unclear as to what behaviours are desirable (Kleinhammer-Tramill, Tramill, Schrepel, & Davis, 1983, p. 62).

Similarly, it has been proposed that;

...cognitive, motivational, and emotional deficits produced from either positive or negative non-contingent outcomes create expectations that interfere with subsequent learning, reduce motivation, and lower self-esteem” (Perry, Magnusson, Parsonson, & Dickens, 1986, p. 97).

Consistent with this, Perry et al. (1986) found that individuals in a high non-contingent feedback group reported less control than a low non-contingent group (see also Skinner et al., 1990). By the time students reach high school, they have experienced a great deal of non-contingent feedback. For example, Brophy (1981) found that teachers can be quite inaccurate in administering praise. Brophy found that only eleven percent of students’ correct responses are praised properly. As one component of a qualitative observational analysis of school climate and achievement, Brookover, Schweitzer, Schneider, Beady, Flood, and Wisenbaker (1978) found that in low achieving schools, students were not often reinforced for their performance. At other times, slower students were positively reinforced for incorrect answers and there was also some confusion in that the same reinforcement could often be administered for both incorrect and correct answers. Indeed, in a review of classroom conditions, which give rise to self-worth protection, Thompson (1994) identified non-contingent feedback to students as a prime contributor.
In a study exploring individuals' choice of a performance-inhibiting drug when trying to protect a tenuous but positive competence image, Berglas and Jones (1978) found that sixty percent of participants who received non-contingent success feedback selected a performance-inhibiting drug, whilst only twenty percent of participants who received contingent success feedback did so. Moreover, Berglas and Jones contended that non-contingent success decreases confidence in one's ability whilst contingent success has the opposite effect. When confidence in one's ability is low, one is more likely to take steps to protect the uncertain self-esteem in the face of an upcoming performance. As has been discussed, one way to do this is to engage in self-handicapping. As Baumeister and Scher (1988) argue:

...the central cause of self-handicapping appears to be some form of induced insecurity about future performances, especially when coupled with high external expectations for success (p. 8).

According to them, insecurity arises from non-contingent feedback. Thus students receiving non-contingent success feedback are uncertain how they attained success and are therefore uncertain as to how to maintain it. In the classroom, because the worth of students is dependent on the demonstration of competence, they do not want to jeopardize this worth by displaying low competence. Consequently, those uncertain about their capacity to repeat their demonstration of competence will take steps to protect what competence gains they have made. According to Riggs (1992),

...wanting to protect the private image won from their previous success, and afraid that they will not be able to repeat that success, these individuals may self-handicap so that a future failure can be attributed to the handicap rather than to the lack of competence (p. 251).
In a study by Rhodewalt and Davison (1986; see also Hobden & Pliner, 1995), participants who had previously received contingent or non-contingent failure or success feedback were given a choice to perform a test in the presence of performance-debilitating music, performance-facilitating music, or neutral music. Participants in the non-contingent success group tended to choose the debilitating music option. Similarly, Higgins and Harris (1988) found that heavy social drinkers who received non-contingent success feedback drank more than contingent success and contingent failure participants. Also, non-contingent failure participants drank more than those in the contingent success group. In a study of self-handicapping through self-reported pain, Mayerson and Rhodewalt (1988) found that study participants receiving non-contingent success feedback reported greater pain prior to a second test than participants receiving contingent feedback. Similarly, it has been found that when individuals receive success feedback that is not contingent on their effort, they are more likely to choose extremely difficult performance goals (Greenberg, 1985). In sum, then, non-contingent success feedback has been found to increase the likelihood of self-handicapping behaviour (see also Kolditz & Arkin, 1982; Tucker et al., 1981). Importantly, whilst non-contingent success feedback is most likely to lead to self-handicapping, the evidence in relation to non-contingent failure feedback is more equivocal. For example, whilst Rhodewalt and Davison (1986) found that non-contingent failure does not evoke self-handicapping behaviour, evidence in a study by Weidner (1980) suggested otherwise.

Taken together, these findings demonstrate that non-contingent feedback (primarily that which involves success) can influence the tendency to self-handicap. Non-contingent success feedback elicits an uncertainty regarding one’s ability to repeat previous success and non-
contingent failure feedback elicits uncertainty regarding one's ability to avoid further failure. Essentially, then, the issue of non-contingent feedback is about the control individuals perceive they have over future success and failure and when perceived control is low, individuals see it as more expedient to risk failure with a handicap as an alibi, than to strive for success with no chance of attribution deflection.

**Self-reported control and self-handicapping**

There is little research to date, if any, that has examined the issue of self-reported control and self-handicapping. Accordingly, much along the lines of other constructs in the present study, the predicted association between self-reported control and self-handicapping is inferred from related research. Schmitz and Skinner (1993) found that control correlated with effort and that the more effort exerted, the better the performance. Patrick, Skinner, and Connell (1993) reported that perceived control strongly predicted persistence, attention, effort, and participation in a sample of 8-10 year old students. Moreover, unknown control negatively predicted behaviour and emotion. Skinner et al. (1990) showed that the more contingent a teacher's reinforcement, the more control over future outcomes the students reported. In addition to this, they demonstrated that engagement (persistence and effort) and achievement were associated with higher perceived control. Harter and Connell (1984) also found that uncertain control was negatively correlated with achievement; mastery motivation, competence evaluation, and competence affect (feeling good about one's work). Similarly, Connell (1985) reported that students high on an uncertain control dimension were likely to score significantly lower on IQ tests and teachers' ratings of their competence. These students were also low in mastery orientation, perceived competence, and autonomous judgement. This set of indirect evidence suggests that students low in perceived control are
not inclined to engage in behaviour consistent with an adaptive achievement orientation. On this basis, it can be inferred that such students are more likely than students high in perceived control to engage in counterproductive achievement behaviour such as self-handicapping.

**Perceived control and pessimism**

It has been proposed that “in situations in which people are uncertain about obtaining important outcomes, they strategically manage their cognitions in an attempt to influence their future affective responses to the outcomes in question” (Pyszczynski, 1982, p. 387) so as to maximize positive affect and minimize negative affect. One manifestation of such strategic manoeuvring can be related to expectations in which unexpected positive outcomes are more satisfying than expected positive outcomes and expected negative outcomes are not as hard-hitting as unexpected negative outcomes (Feather, 1969). Indeed, this tendency is analogous to defensive expectations wherein individuals set unrealistically low expectations before an upcoming performance and in this way establish safer standards against which to be judged whilst also cushioning the self from the disappointment that failure engenders.

When presented with each of four outcomes (controllable positive outcomes, controllable negative outcomes, uncontrollable positive outcomes, and uncontrollable negative outcomes), participants in a study by Zackay (1984) were required to estimate the probability of it happening to them and the probability of it happening to someone else. Zackay found participants judged controllable negative events as less likely to happen to them than to another person and controllable positive events as more likely to happen to them than to another person. Participants, then, were more optimistic in relation to controllable events. Consistent with this, Forsyth and McMillan (1981) found that people hold more positive
expectancies when they attribute outcomes to controllable causes. In another study, Weinstein (1980) found a strong negative correlation between the controllability of a negative event and the extent to which undergraduate subjects saw it as happening to them. Weinstein (1980) concluded that:

...if an event was one they perceived to be controllable and if they were committed to a particular outcome, the majority of factors they brought to mind were ones that increased the likelihood that it would turn out the way they would like (p. 819).

In terms of control as a function of feedback contingencies, Albersnagel, Arntz, and Gerlsma (1986) found that non-contingent feedback was associated with lowered expectancies for future success. Similarly, Schunk (1983) found that following non-contingent reward, students set unrealistically low expectations to ensure success and “such self-serving tendencies were probably less pronounced among performance-contingent children who developed greater skill and likely were certain of their capabilities” (p. 517).

In conclusion, while the connection between self-reported control and self-handicapping has not been made in the literature to date, it is one which may not be unreasonable (particularly given the strong association between non-contingent feedback and self-handicapping) and which was explored further in the present study. In terms of the indirect evidence, low control is also associated with low effort, less participation, and diminished engagement, three features characteristic of self-handicapping. According to Rhodewalt (1990), the self-handicapper who is caught in a hopeless situation may entertain the belief that he or she could be effective if it were not for the handicap. This line of speculation leads to the nomination of control-related individual differences as candidates for the prediction of self-handicapping (p. 95; see also Arkin & Baumgardner, 1985).
The evidence also suggests that perceived control can influence the extent to which an individual is pessimistic or holds negative expectations regarding future events. There are some data, which also suggest that perceptions of low control may be specifically related to defensive expectations (see Schunk, 1983).

2.3.6 Implicit theories of intelligence

The implicit theories about intelligence to which individuals adhere can render their self-worth vulnerable, particularly under conditions of evaluation in which there is the possibility of negative judgments about one’s performance. According to Dweck and Leggett (1988), within an entity theory individuals are not simply judging a momentary level of ability. Rather, they may be judging what they perceive to be an important and personal attribute. The entity theory may place one’s intelligence on the line in evaluative situations, magnifying the meaning and impact of negative judgments (p. 263).

Individuals’ self-worth stems in part from the goals that they adopt in response to their theories of intelligence. According to Dweck (1991),

...it is interesting to think of the different theories as different ‘self-concepts’ and of their allied goals as ways of building and maintaining self-esteem within those self-conceptions (p. 208).

Thus, entity theorists feel good about themselves when they demonstrate relative ability whereas incremental theorists feel good about themselves when they develop mastery (Dweck & Leggett, 1988). The problem with the entity view, then, is that it “puts self-esteem and self-development in conflict with each other” (Dweck, 1991, p. 209). Thus entity theorists’ self-esteem needs counter their learning needs, whereas for the incremental
Theorist, self-esteem needs are consistent with their learning needs because self-esteem increases when learning and mastery increase (Dweck, 1991).

The implicit theory one adopts also has implications for the tendency to engage in protective behaviour. Importantly,

...individuals who believe intelligence is increasable, pursue the learning goal of increasing their competence, whereas those who believe intelligence is a fixed entity are more likely to pursue the performance goal of securing positive judgements of that entity or preventing negative judgements of it" (Dweck & Leggett, 1988, p. 262-263).

Incremental theorists tend to adopt learning goals and embrace tasks that involve the possibility of making errors, are difficult, and which, therefore, involve some possibility of 'failure'. Entity theorists, on the other hand, tend to choose tasks, in which success is assured, do not provide challenges, minimize the risk of failure, and protect them from threats to their competence image. In short, “entity theorists should adopt goals that tend to involve positive judgments of their intelligence or avoid negative judgments of their intelligence ... low confidence should make them ... attempt to conceal their perceived lack of ability from an evaluator” (Dweck & Bempechat, 1983, p. 245; see also Clark & Tollefson, 1991). Indeed, it is entity theorists’ emphasis on ability that renders them vulnerable to self-worth protection. Because they are dominated by the “conviction that ability alone is a necessary condition for success and that lack of ability is a sufficient explanation for failure” (Covington, 1992, p. 82), any performance demands are directly relevant to their ability image and consequent self-worth. In the face of this, it is proposed that entity theorists are most inclined to engage in self-protection (see also Covington, 1984a).
Consistent with this, Zhao and Dweck (1992, in Dweck, Hong, & Chiu, 1993) found that following failure in hypothetical situations, entity theorists were more likely to engage in ability-related derogation ('I would think that I was dumb') and self-derogation ('I would feel I was worthless') than incremental-view theorists. Hong and Dweck (1993, in Dweck et al., 1993) found that following failure, entity theorists took longer to react to ability-related words due, they claimed, to a heightened emotional reaction that ability posed for them following failure. Indeed, Bempechat, London, and Dweck (1991) found that amongst older primary school children, following failure, those with an entity view took longer to recover and complete subsequent problems. In the social domain, entity theorists are more impaired by failure in social encounters (Lepore, Kiely, Bempechat, & London, 1989) and also seem to be more sensitive to rejection and concerned with popularity (Benenson & Dweck, 1986).

**Implicit theories of intelligence and self-handicapping**

In a study of self-handicapping and implicit theories of intelligence, Rhodewalt (1994) examined the views of ability held by high and low self-handicappers. He found that self-handicapping was negatively correlated with a learning/task approach to study and positively correlated with a performance/ego approach. When interpreting these findings, Rhodewalt contended that high self-handicappers tend to have a fixed-entity view of ability and low self-handicappers have an incremental view of ability. According to Rhodewalt,

> ...the implications of failure are so damaging [to the fixed-entity theorist] that it is to be avoided at all costs. Those with an incremental orientation, on the other hand, have much less to lose when they encounter negative feedback. In fact, such information is useful because it suggests that self-corrective action is needed” (p. 82).

Some indirect evidence also suggests that an entity view of intelligence should be associated with self-handicapping while an incremental view should be negatively associated with it. In
an investigation of study skills in high school students, Jones, Slate, Blake, and Sloas (1995) found that students with an incremental view had more adaptive study skills in terms of help seeking, organization of work, and punctuality of assignments. Similarly, Stipek and Gralinski (1996) found that entity views correlated with superficial engagement while incremental or effort-related beliefs correlated with active engagement. Jones, Slate, Marini, and DeWater (1993) obtained a significant negative correlation between an entity view of intelligence and academic study skills, particularly as they related to an investment of effort, information processing, and note-taking. Inferring from these results and also from the direct evidence in the Rhodewalt (1994) study, it is predicted that an entity view of intelligence is positively associated with self-handicapping, whilst an incremental view of intelligence is negatively associated with it.

Implicit theories of intelligence and defensive pessimism

In a review of self-worth motivation amongst college students, Covington (1997) highlighted the link between ability attributions and lowered expectancies for success. When dealing with the issue of negative expectations, Covington reported that;

...lowered expectations occur because among adults, at least, ability is typically perceived to be a fixed, immutable factor and because ability is also believed to be the preemptive cause of academic success (p. 66; see also Harari & Covington, 1981).

Indeed, Covington (1989) recommended that amongst the variety of steps educational institutions can take to minimize the self-worth implications of students' academic experience is the promotion of an incremental view of intelligence. More indirectly, Koestner, Aube, Ruttner, and Breed (1995) examined the issue of implicit theories and expectations in a sample of children with some mental retardation. These children typically
have low confidence in their abilities and this tends to lead to maladaptive motivational patterns. They argued, however, that “low confidence in one’s abilities will not lead to helpless behaviours if children possess an incremental theory of their capacities” (p. 58).

Children in their study were encouraged to think about ability in incremental terms and to avoid normative comparisons with other classmates. Koestner et al. found that when this incremental approach was emphasized, these children exhibited the same motivational pattern as a matched sample of children without mental retardation in the sense that they embraced high challenge, implying some level of optimism.

Whilst these results do not constitute direct evidence in establishing a link between intelligence beliefs and defensive pessimism, they do suggest that incremental theorists may be more optimistic and aspire to more positive outcomes. Additionally, given that entity theorists perceive ability and intelligence to be fixed, they are less likely to see potential failure as surmountable. When this is the case, individuals may be more inclined to ‘play it safe’ and engage in protective strategies to mitigate the implications of potential failure.

Furthermore, given that entity theorists see outcomes as reflecting ability more than effort, failure in this context is more threatening and so self-protection concerns may be salient. Consistent with this rationale, then, it is tentatively predicted that an entity view is associated with self-protection generally and with defensive pessimism more specifically.

In conclusion, direct evidence linking implicit theories of intelligence to self-handicapping and defensive pessimism is limited in the case of the former and apparently non-existent in the case of the latter. Thus, predictions regarding the role of implicit theorizing about
intelligence in the proposed process model are advanced tentatively. Because entity theorists focus on their ability they are more inclined to see success and failure in these terms rather than in terms of effort. Consistent with a self-worth motivation perspective, because threats to individuals' ability constitute threats to their self-worth, entity theorists may be more inclined to alter the meaning and implications of failure and engage in self-worth protection strategies such as self-handicapping and defensive pessimism.

2.37 Attributions for success and failure

The final component of the proposed process model involves attributions for success and failure. The causes individuals attribute to events can determine how they behave on future occasions. According to Weiner, "once a cause, or causes, are assigned, effective management may be possible and a prescription or guide for future action can be suggested" (1985, p. 548). In the context of the present study, future actions are viewed in terms of self-protection strategies in the forms of self-handicapping and defensive pessimism.

According to Weiner (1985), attributions influence performance by way of expectancies and affect. Expectancies refer to the beliefs one holds about causing success or avoiding failure in the future. The causes to which one attributes past success or failure can determine what these expectancies will be. Importantly, it is the stability and controllability dimensions of causality which most contribute to expectancies. Attributing failure to stable and uncontrollable factors such as ability leads to a decrease in expectancy of success (see also Covington, 1989). On the other hand, failure attributed to unstable and controllable factors such as effort leads to an increase in expectancy of success (see Covington, 1989). It is these
expectations, which contribute to better performance and motivation in the future and help bring about success or enhance persistence in the face of failure.

The second way in which attributions influence academic outcomes is through individuals’ affective reactions to these attributions. The individual, it is claimed, makes an attribution regarding the cause of an event and following this is an emotional reaction to the perceived cause (Weiner, 1985). In fact, Weiner (1985) outlines affective reactions distinct to each attribution. For example, internal success brings about pride and enhances self-esteem; internal failure brings about a decrease in self-esteem; internal controllable failure (e.g., lack of effort) brings about guilt; and internal uncontrollable failure (e.g., lack of ability) evokes shame (see also Covington, 1989; Covington & Omelich, 1984b). Amongst these attributions, however, ability seems to be pivotal because failure due to it evokes both shame and humiliation whereas failure due to effort evokes guilt and primarily impacts on humiliation via ability attributions (Covington & Omelich, 1984b).

Importantly, these affective reactions in conjunction with expectations influence future behaviour. Weiner (1994) later presented a model of achievement striving which accounted for findings using the affective component of the model: Individuals who attribute failure to a lack of ability (uncontrollable and internal) experience shame and embarrassment and this leads to a performance decrement. On the other hand, individuals who attribute failure to a lack of effort (controllable and internal) react with guilt and this prompts greater effort in the future and enhanced subsequent performance. Covington and Omelich (1990, in Covington, 1997) further proposed that shame impacts negatively on achievement through the
individual's expectancies because shame triggers doubts about one's abilities whenever academic tasks are encountered.

Covington and Omelich (1984b) proposed that the importance of effort in failure is relevant to affective responses primarily to the extent that effort has implications for ability and that it is ability, which triggers the affective responses of shame and humiliation. Indeed, in response to Brown and Weiner's (1984) query as to why shame and pride are more closely linked to ability rather than effort, Covington and Omelich (1984b) argue, consistent with a self-worth motivation perspective, that in competitive situations such as school, ability is the "dominant cognition" (p. 167).

Covington and Omelich (1984a) explored the full attributional model proposed by Weiner and found that shame following failure was mainly due to low ability attributions. Humiliation was also more strongly predicted by ability than effort while guilt was predicted more strongly by effort than ability. Most importantly, the impact on performance and persistence from failure attributions largely derived from ability attributions via humiliation. Indeed this was earlier supported by Covington and Omelich (1979a) who examined the causal impact of attributions and found that, whilst the causal role of failure attributions was not strong, the attribution having the major impact on performance via affect was ability. Similarly, in a later study, Covington and Omelich (1985) found that failure due to low ability evoked most humiliation and most shame whereas failure due to effort evoked most guilt. Moreover, the effect of effort on humiliation and shame via ability was stronger than the direct effect of effort on humiliation and shame. Ames (1984) also found a strong
relationship between ability attributions and affect and not much support for a relationship between effort attributions and affect. It may be, then, that because failure due to low ability evokes such negative affective reactions, individuals attributing in this way are more inclined to manoeuvre such that the implications of failure are not so threatening to ability. Thus, individuals who see past failure as due to ability may be more inclined to self-handicap.

In terms of pessimism, the findings are consistent with contentions by Covington (1989). Diener and Dweck (1980) found that helpless school students who attributed failure to ability tended to underestimate the number of problems successfully solved. These students also tended to see themselves as performing more poorly than mastery students perform. Moreover, they did not view success as predictive of future success and this was the case even after being successful on one set of problems. According to Diener and Dweck (1980), "overall, the results show that if there is a way to devalue one's present performance, the helpless children are likely to make use of it" (p. 950). They go on to argue that perhaps the anticipation of failure prevents the helpless children from being even more adversely affected by failure when it does occur. That is, if, following successes, they allowed themselves to believe that they had high ability but were still prone to see failure as indicating a lack of ability, then, the occurrence of failure might have even greater negative impact (p.951).

In sum, it seems that ability attributions following failure are most predictive of ways individuals respond to academic scenarios and as such are proposed to be central to the present study's model of academic engagement and motivation. Because ability is stable and relatively uncontrollable, individuals who attribute in this way are in a number of respects
rendered failure-prone and so may be more inclined to play it safe and self-protect. Moreover, individuals who see ability as the cause of failure are inclined to be most threatened in the event of failure because of the implications low ability has for self-worth. Accordingly, those who see outcomes as due to ability may be particularly vulnerable to threats to self-worth and thus more inclined to engage in self-protective strategies such as self-handicapping and defensive pessimism.

The relationship of external attributions and cognitive strategies
Students who attribute success to external factors such as luck, good teaching, or easy marking are also inclined to behave in ways that are consistent with the helpless profile (Abramson, Seligman, & Teasdale, 1978). These individuals perceive little control over their ability to maintain success primarily because outcomes seen as due to external factors are largely seen as uncontrollable. Helpless learning profiles have been associated with maladaptive academic behaviours such as low effort, low persistence, poor self-efficacy, and low expectations (Diener & Dweck, 1980; Schunk, 1981). Moreover, in a review of self-worth protection in the classroom, Thompson (1994) argued that an important means of mitigating strategies such as self-handicapping is to encourage students to make internal attributions for success.

External attributions for failure are also proposed to influence the extent to which individuals self-protect. In terms of self-handicapping, for example, Rhodewalt (1990) reports that “a person who characteristically construes negative self-relevant outcomes as externally caused ... might be the person most drawn to self-handicapping” (p. 103). Indeed, Rhodewalt and Hill (1995; see also Murray & Warden, 1992) found that self-handicappers were particularly
inclined to make external attributions for poor performance. Taken together, the evidence suggests that attributions associated with the tendency to self-protect include ability attributions for failure and external attributions for success and failure. Consistent with this evidence, these attributions are predicted to be associated with self-handicapping and defensive pessimism.

Whilst the present study explores a variety of attributional dimensions, it is proposed that three in particular - ability attributions for failure, external attributions for success, and external attributions for failure - are relevant to self-protection. Ability attributions for failure and external attributions for success and failure lead individuals to believe there is little they can do to avoid failure or maintain success and so these individuals, fearing failure, behave in ways to mitigate its implications. Covington and Omelich (1979a) have shown that ability attributions are predominant amongst failure-prone students and as such are proposed to give rise to strategies which enable the student to alter the meaning of that failure (see also Weiner & Kukla, 1970). External attributions for success and failure are also proposed to be predominant amongst failure-prone students because such attributions instill in students uncertainty as to their ability to repeat success and avoid failure (Weiner & Kukla, 1970). This uncertainty is proposed to give rise to strategies designed to self-protect. According to Covington (1984a), it is difficult to imagine a more devastating pattern of attributions: blaming oneself for failure, yet taking little credit for success. Feeling that one is at the mercy of capricious forces beyond one’s control is demoralizing.
2.2.8 Summary

In this section, cognitive strategies were explored, not only as they relate to self-protection but also in terms of how they influence academic outcomes. The comparison of how these strategies relate was also done. Factors that predict cognitive strategies were presented. These factors were examined not only in terms of how they directly or indirectly relate to a self-worth motivation but also in terms of how they are proposed to predict self-handicapping and defensive pessimism. Studies point to the fact that students who are obsessed by how they are viewed academically by the public fear failure and therefore find ways to change the meaning of failure by use of cognitive strategies. The relationship between predictors and cognitive strategies is not conclusive and for this reason this study attempted to explore this relationship to corroborate earlier findings. There were also divergence views on researches examining the influence of cognitive strategies on academic outcomes. While some researchers see these strategies as impediments to success, others see them as self-protection mechanisms that prepare students to avoid failure and work for success. This study sought to unravel the extent to which cognitive strategies influence academic outcomes with the aim of confirming earlier findings. No study reviewed has systematically examined both self-handicapping and defensive pessimism together in an academic domain, an issue that this study attempted to unravel. Most of the studies cited were done in the western countries; it would be interesting to see how a study in a Kenyan context may or may not corroborate the established findings.
CHAPTER THREE: METHODOLOGY

3.1 Introduction

Described in this chapter are the research design, sample and sampling methods, instruments for data collection and procedures that were followed in the study as well as techniques used for data analysis.

3.2 Research design

The study adopted both exploratory and a correlational design to investigate predictors and consequences of self-handicapping and defensive pessimism on academic outcomes. Exploratory design was appropriate in gathering qualitative data to assess students' personal reports on the nature of defensive mechanisms that they use to negotiate evaluation situations. Correlation design was appropriate because it is used to discover predictive relationships and the degree of association among variables (Orodho 2005:128). In this case, it was appropriate, to establish the predictive relationship between motivational/affective factors and cognitive strategies on one hand and cognitive strategies and academic outcomes on the other.

3.3 Variables

A variety of motivational and affective antecedent constructs (independent variables) were proposed to predict self-protection strategies (dependent variables) in the forms of self-handicapping and defensive pessimism. In turn, self-handicapping and defensive pessimism (independent variables) were proposed to predict academic outcomes (dependent variables) in the forms of self-regulation/ persistence and mock mean score grade.
Figure 3.1 Basic structure of the proposed academic model.

3.4 Location of the study

The study was carried out in selected secondary schools in Nairobi Province, Kenya. Secondary schools selected for this study follow the same curriculum (8-4-4) and they are located in the urban setting of Nairobi city. Nairobi city of Kenya, being a cosmopolitan area, comprises students from diverse ethnic backgrounds who study together unlike in the rural Kenya where students in a school may belong to one clan or ethnic community. Nairobi has both private owned schools and public schools sponsored by the government. Nairobi being a cosmopolitan area has a populace that value education very much for its utilitarian value and therefore good performance is an issue that is invaluable for one’s self worth. This area, also, due to a high population has registered unprecedented numbers in enrolment that is now being attributed to low performance in the recent past.

3.5 Target Population

The study targeted secondary schools in Nairobi Province. These schools are either boarding or day and may be classified as mixed schools or single sex schools. Eight selected schools
took part in the study. These comprised three private schools and five public schools. Of these, four were boarding and the rest were day schools. Two schools were mixed day schools, two single sex day schools, two boys’ boarding schools and two girls’ boarding schools.

The population comprised Form IV students in Nairobi Province, Kenya. Form IV class is an examination class and all students sit for Kenya Certificate of Secondary Education (KCSE) at the end of the fourth year of high school. The average age of students was 17 years. The Form IV class was appropriate because it was an examination class and it was assumed that students were aware of their strengths and weakness in various school subjects by then. Form IVs, compared to the lower classes, have a long history of taking exams and therefore suitable for this study because of their long history of negotiating evaluation situations. Form IV being an examination class, it was expected that students were steeling themselves in order to maintain their worth in the face of perceived failure during mock exams and the final exam at the end of the year.

3.6 Sampling techniques and sample size

Stratified random sampling technique was applied to identify eight schools based on the criteria of boarding and day status and whether the schools are mixed or single. From the different strata purposive sampling was used to select the schools. This was necessitated by the fact that there is a dearth of information in Nairobi education offices concerning enrolment and some schools had few form fours useful for this research. Schools were selected on the basis of boarding or day, single sex or mixed school. Eight schools were
selected with a population of 897 students from which a sample was drawn. See table 3.1 below.

Table 3.1 Sampling of schools: the table shows type of school and total number of students

<table>
<thead>
<tr>
<th>School</th>
<th>Total no. of schools</th>
<th>Total students</th>
</tr>
</thead>
<tbody>
<tr>
<td>Day mixed</td>
<td>2</td>
<td>176</td>
</tr>
<tr>
<td>Day single sex</td>
<td>2</td>
<td>167</td>
</tr>
<tr>
<td>Boarding boys</td>
<td>2</td>
<td>278</td>
</tr>
<tr>
<td>Boarding girls</td>
<td>2</td>
<td>276</td>
</tr>
<tr>
<td>Grand Total</td>
<td>8</td>
<td>897</td>
</tr>
</tbody>
</table>

From each of the selected schools, fifty participants were randomly selected. Using systematic random sampling, a nominal roll for the form IV students was used. The sampling constant for each school was determined by the number of students enrolled in form four. This was calculated by dividing the total number of enrolled students by the expected sample of 50 participants. Using the sampling constant, the sampling interval was established and the desired number (50) of participants was established. The entire sample totaled 400 participants this represented 44.5% of the total target population of 897. Table 3.2 shows sampling constant for each school, sample for each school (50) and total sample chosen for the study (400) and finally the percentage represented by the sample chosen for each school and population (44.5%)
Table 3.2 Sampling of students: Table showing how students were sampled

<table>
<thead>
<tr>
<th>Sample</th>
<th>Category</th>
<th>Sampling constant</th>
<th>Sample Number</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Day mixed</td>
<td>Rk 107</td>
<td>2</td>
<td>50</td>
<td>47</td>
</tr>
<tr>
<td></td>
<td>Oa 67</td>
<td>2</td>
<td>50</td>
<td>75</td>
</tr>
<tr>
<td>Day single sex</td>
<td>Tg 87</td>
<td>2</td>
<td>50</td>
<td>57</td>
</tr>
<tr>
<td></td>
<td>Tb 80</td>
<td>2</td>
<td>50</td>
<td>62</td>
</tr>
<tr>
<td>Boarding boys</td>
<td>Ab 205</td>
<td>4</td>
<td>50</td>
<td>24</td>
</tr>
<tr>
<td></td>
<td>Qb 73</td>
<td>2</td>
<td>50</td>
<td>68</td>
</tr>
<tr>
<td>Boarding Girls</td>
<td>Ng 197</td>
<td>4</td>
<td>50</td>
<td>25</td>
</tr>
<tr>
<td></td>
<td>Cg 79</td>
<td>2</td>
<td>50</td>
<td>63</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td>897</td>
<td>400</td>
</tr>
</tbody>
</table>

Key: Abbreviations in the second column represent pseudo-acronyms of selected schools.

3.7 Instrumentation

This section introduces a brief description of research instruments that were used to collect data on motivational and affective factors, cognitive strategies and academic outcomes. Instruments used to elicit quantitative data are presented first then interview information sheet is presented next. The instruments used to elicit quantitative information are, self-handicapping subscales, defensive pessimism subscales, and motivational/affective factors subscales. Self-regulation scale was used to collect information on academic outcomes. Grades were obtained from mock exams of 2007. However, it should be mentioned here that these scales were not presented as they appear in Appendix 1 but were interspersed to avoid response bias. For a detailed view of instruments, see appendix 1.

3.7.1 Self-handicapping subscales

The active self-handicapping subscale items (e.g., “I often fool around the night before a test or exam so I have an excuse if I don’t do as well as I hoped”) were adapted primarily from
the Academic Self-Handicapping Scale (Midgley et al., 1996) and, to a lesser extent, the Shortened Self-handicapping Scale (Strube, 1986). The complete adapted subscale is presented in Appendix 1, A1. For inclusion in the active self-handicapping subscale, items needed to reflect self-handicapping as an active strategy aimed at establishing an obstacle before a performance scenario. The majority of items were drawn from the Midgley et al. (1996) scale which has been refined over the past few years to more explicitly address the active self-handicapping issue. One feature of the Midgley et al. scale is the trailer “... so that if I don’t do as well as I had hoped, I can say that is the reason” which asks respondents about the intentions underlying the actual behaviour. This trailer was included so that the motivation for the self-handicapping behaviour was clear and broadly consistent with the most recent academic self-handicapping scale. It explicitly assesses the protective self-handicapping dimension. Only two items were drawn and adapted from Strube’s (1986) scale, because, upon closer scrutiny, it seemed as though many items in this scale did not reflect active self-handicapping. For example, an item in Strube’s scale addresses the use of excuses after failure. Such an item does not reflect active self-handicapping which is an a priori strategy and not one which occurs after the event.

Self-presented self-handicapping refers to reports of self-handicapping behaviours which either do not occur or are exaggerated. Thus, the individual does not actively impede the chances of success but manages to negotiate the situation before the fact such that there appears to be an obstacle in place obviating success. The self-presented self-handicapping scale is parallel to the active self-handicapping scale presented above but emphasizes the self-presented and/or public nature of the strategy. The items (e.g., “I tell others that I fool
around the night before an exam more than I really do, so if I don’t do as well as I had hoped, I can say that is the reason”) appear in Appendix 1, A2.

The third dimension of self-handicapping assessed relates to self-presented affective self-handicapping. There has been some discussion in the literature about the exaggeration of affective states that might serve as an excuse for upcoming failure (see Covington, 1984a, 1992; Snyder & Smith, 1982). Affective states such as anxiety, depression, or bad moods, can be strategically reported so as to alter the implications of failure. The items (e.g., “When an exam or assignment is coming up, I am inclined to tell others that I’m more anxious than I really am, so if I don’t do as well as I had hoped, they will think that is the reason”) are presented in Appendix 1, A3.

3.7.2 Defensive pessimism

The items for this variable were been drawn from two versions of the Defensive Pessimism Questionnaire devised by Norem and Cantor as well as the Life Orientation Test devised by Scheier, Carver, and Bridges (1994) which specifically addresses pessimism and negative expectations. Some rewording of the items was carried out that assisted readability and consistency. The adapted items (e.g., “No matter how well I have done in the past, I go into academic situations expecting to do worse”) appear in Appendix 1, B1.

The self-presented defensive expectations items are parallel to the active defensive expectations items but adapted to reflect individuals’ tendencies to report that they are feeling more negative about upcoming performances than they actually are. These items (e.g., “No matter how well I have done in the past, when going into academic situations, I let
others think that I expect to do worse than I really think I’ll do”) are presented in Appendix 1, B2.

3.7.3 Motivational/ Affective predictors

a) Motivation orientation

Respondents’ motivation orientation was assessed using a shortened form of the Motivation Orientation Scale (Nicholls, 1989) together with another subscale referred to as avoidance-oriented performance. The Motivation Orientation Scale comprises ego-orientation and task-orientation. The avoidance-oriented performance subscale is adapted from an orientation outlined by Harter, Whitesell, and Kowalski (1992). The ego-orientation subscale contains items that reflect the extent to which students are motivated to outperform others in academic contexts (e.g., “I feel really successful when I know more than other people”). Task-orientation items assess the extent to which a student is motivated by mastery rather than competitive concerns (e.g., “I feel really successful when what I learn really makes sense”). All the two subscales are presented in Appendix 1, C1 & C2 respectively.

b) Academic public self-consciousness

Public self-consciousness has typically been assessed using two instruments (Fenigstein Scheier, & Buss, 1979; Scheier & Carver, 1985). It is the Scheier and Carver (1985) instrument (a revision of the Fenigstein et al. scale) which forms the basis of the academic public self-consciousness scale used in the present study. Public self-consciousness refers to the extent to which individuals are concerned about how they are evaluated and viewed by others. The public self-consciousness dimension of the Scheier and Carver instrument was adapted such that it reflected a concern on the part of students about how their academic performance is viewed by others. This adaptation involved modifying the original items to
reflect concern with the academic image one projects to others and concern with how one is being viewed academically (e.g., “I care a lot about how I present myself academically”). The adapted items are presented in Appendix 1, D.

c) Level of self-concept

Level of self-concept was assessed using the Academic Self Description Questionnaire II (ASDQ; Marsh, 1988a). This instrument is designed to measure the (multidimensional) self-concept of students. Importantly, the items (e.g., “I learn quickly in all subjects”) verbal self-concepts have the same stems and so these items were easily adapted from the original items for inclusion in the present questionnaire. The six self-concept items are presented in Appendix 1, E1.

d) Self-concept stability

Stability of self-concept was primarily assessed using the Rosenberg (1965) Stability of Self Scale. This scale addresses the extent to which an individual’s self-concept changes over time (e.g., “My opinion of myself tends to change a good deal instead of always remaining the same”). The present study also incorporated two items from the Self-concept Certainty Scale (Campbell et al., 1996). Thus, seven items comprised this scale (five of which represented the entire Rosenberg Scale and two derived from Campbell et al.) and these appear in Appendix 1, E2.

e) Implicit theories of intelligence

Views of intelligence can take two broad forms: entity and incremental. An entity view of intelligence refers to that which holds intelligence as something fixed and unchangeable (e.g., “There isn’t much some students can do to make themselves smarter”). Six items in the
entity subscale were adapted from Stipek and Gralinski (1996). Importantly, however, whereas the Stipek and Gralinski subscale reflected more of an attributional profile, the items included in the present questionnaire were adapted somewhat to more closely reflect the immutability of intelligence. Individuals with an incremental view of intelligence hold the belief that one’s intelligence can change, particularly through the application or withdrawal of effort (e.g., “A student who works really hard could be one of the smartest in the class”). Stipek and Gralinski originally proposed three items to assess the incremental scale and these were supplemented with a further three items. The entire set of items appears in Appendix 1, F1 & F2 respectively.

**f) Perceptions of future control**

Items to assess respondents’ perceptions of control over future success and failure were adapted from Connell’s (1985) Multidimensional Measure of Children’s Perceptions of Control. Connell’s scale includes Unknown control, Powerful others control, and Internal control within both cognitive and social domains. It is the Unknown control scale in the cognitive dimension which was adapted for use in the present study and which was reworked to reflect perceptions of future control rather than the causal ascriptions for past outcomes. Also, success and failure items were separated to form two subscales and a further four items were added to each dimension. Thus, six items reflected low perceived control over future success (e.g., “When I do well I’m unsure as to how to repeat that success”) and six items reflected perceptions of low control over future failure (e.g., “When I don’t do well I’m unsure about what to do to avoid that happening again”). All items are presented in Appendix 1, G1 &G2 respectively.
g) Attributions for success and failure

Attributions refer to the perceived factors that have contributed to or caused previous outcomes. The attribution scale used in the present study is based on the Lefcourt, Von Baeyer, Ware, and Cox (1979) Multidimensional Multi-attributional Causality Scale (MMCS). The MMCS can be broadly divided into internal and external dimensions that contribute to success or failure and within each of these two dimensions are a further two components. Within the internal dimension are ability and effort attributions. Within the external dimension are luck and context dimensions. Ability attributions refer to the extent to which individuals see their ability or competence as the cause of success (e.g., “The most important ingredient in getting good grades is my academic ability”) and failure (e.g., “Not doing so well in a course is because I lacked skill in that area”). Effort attributions refer to the extent to which individuals see their effort and persistence as the cause of success (e.g., “Whenever I receive good grades, it is because I have studied hard”) and failure (e.g., “When I receive a poor grade, I usually feel that the main reason is that I haven’t studied enough”). Luck attributions refer to the extent to which luck or chance factors are perceived to be the cause of success (e.g., “Sometimes my success on exams depends on luck”) and failure (e.g., “Some of my lower grades have seemed to be due to bad luck”). Context attributions are those for which factors such as teachers, marking standards, or content difficulty are seen to cause success (e.g., “I get good grades mostly because the course material was easy to learn”) or failure (e.g., “Often I get poorer grades in courses because the teacher has failed to make them interesting”). The Lefcourt et al. scale contains three items per subscale. It was considered that item pools for each subscale in the present study be comprised of a minimum of six items. Accordingly, a further three items were developed for each of the ability and

3.7.4 Academic outcomes

a) Self-regulation

Self-regulation items were drawn from the Cognitive Engagement Scale (Miller, Greene, Montalvo, Ravindran, & Nichols, 1996). These items address the extent to which students are involved in organizing and planning their study, setting goals, and monitoring their progress (e.g., “Before taking an exam or quiz, I plan out how I will study the material”). The original scale comprised nine items and an item pertaining to planning for assignments was also added. Minor adaptation of the nine items was undertaken with a view to tightening the self-regulatory focus. The final ten items are included in Appendix 1.

b) Academic grades

Marks obtained in the Mock exam set and marked by the teachers were used. Data were based on mock exams of 2007 obtained from school records. Based on marks given to each student by their teacher, an average mark was calculated to be used as a mean score. Scores were adapted to a scale from 1 to 5 where 1=fail, 2=pass, 3=good, 4=very good & 5=outstanding. The researcher preferred to define academic performance as done in other studies (Gonzalez-Pienda, Nunez & Valle 1992) using the teacher’s evaluations or average mark given rather than turn to other performances. There is empirical evidence to support that teacher evaluation are a sufficiently valid and reliable criterion of student performance. Marsh, Parker, Barres (1985), Marsh, Smith & Barres (1985) have used teacher evaluations as a criterion of school performance obtaining high coefficients of evaluations at different points in time.
3.7.5 Interview form

Students with high scores of 100 and above) or 20 and below in self-handicapping or high scores of 60 and above or 20 and below on defensive pessimism were interviewed to shed further light on the key findings derived in the quantitative model. The qualitative study was not intended to test the quantitative data and no hypotheses were made in relation to them. See Appendix III.

3.8 Pilot study

A pilot study was carried out prior to the actual study. The tests were administered to a selected sample, which was similar to the actual sample that was used in the study. The procedures similar to that for the main study were used. The participants in pilot study were forty eight (that is 12% of the entire sample size). The pilot study helped in identifying ambiguous and vague items and hence ascertained reliability and validity of the instruments. This exercise was useful in revealing if the anticipated analytical techniques were appropriate.

3.8.1 Reliability

The internal consistency technique was used to assess reliability. This was done by a single administering of the rating scale to a group of 48 students. Cronbach’s coefficient alpha was employed in assessing how items correlated among themselves in the rating scale. Bryman (2004:7) posits that the Cronbach alpha measures internal consistency of questions with a wide range of answers. The following formula was used:

$$KR_{21} = (K) \left( \frac{S^2 - \sum S^2}{S^2} \right) (K - 1)$$

Where $KR_{20} =$ Reliability coefficient of internal consistency  
$K =$ number of items used to measure the concept
\[ S^2 = \text{variance of all the scores} \]
\[ S_2 = \text{variance of individual items} \]

For reliability Statistics see appendix IV

3.8.2 Validity

To establish content validity, the two supervisors reviewed the items of the instruments to establish their accuracy in capturing the concepts under study. Their recommendations were incorporated in the final scale.

3.9 Data Collection Techniques

With permission from school heads, the test was administered to students during the usual lesson time. Students were briefly oriented to the broad aims of the study, but were not informed about the specific issues of interest to the researcher. Students were informed that the researcher was interested in how they go about their studies with a view to assisting educators in promoting student learning and motivation. Items were interspersed throughout the questionnaire (See appendix II) rather than present subscale-by-subscale. The background questions on the instrument were worked through by the researcher with the participants. Following this, the rating scales were explained to students and a few related sample items were also illustrated. Participants were then asked to complete the questionnaire in the presence of the researcher. The students were given one hour in which to complete the questionnaire. However, time for completion was flexible as individual clarifications were done. The completed questionnaire was personally handed to the researcher for purposes of confidentiality.

The Interview was conducted after the quantitative data analysis. Forty students showing
extreme shifts in self-handicapping and defensive expectation were involved. Included in the questionnaire was an invitation for students to record their pseudonyms. In total, 276 students volunteered this information. A list of these students was generated on which students were sorted in ascending order based on their responses to the self-handicapping subscale and defensive pessimism subscale. Further sorting was done by sex and institution. In this case, only two schools were selected (boys and girls school). Respondents were selected using purposive sampling such that the sample was intended to match approximately sex and the four target academic profiles (low and high self-handicapping and low and high defensive pessimism). Forty students were selected in total and agreed to a follow-up interview. Twenty respondents were boys while twenty were girls. See table 3.4

Table 3.4 Interview participants (pseudonyms)

<table>
<thead>
<tr>
<th>Protective strategies</th>
<th>Names (pseudonyms)</th>
</tr>
</thead>
<tbody>
<tr>
<td>High self-handicapping (HUSH)</td>
<td>Onyango, Mark, Sophia, Tom, Jane, Caroline, Joseph, Lydia, Kibe, Bomet</td>
</tr>
<tr>
<td>Low self-handicapping (LOSH)</td>
<td>Mutua, Rose, Raymond, Wanjiku, Jacinta, Ngina, vien Franco</td>
</tr>
<tr>
<td>High defensive pessimism (HIDP)</td>
<td>Rhoda, Gerald, Marion, Poly, Teresia, James, Celina, Kennedy, Openda, lea, Martin</td>
</tr>
<tr>
<td>Low defensive pessimism (LODP)</td>
<td>King’ori, Nekesa, Thomas, Ngina, Aquinox, Nawire, Lynch, Susan, Ann, Agnes, Mango</td>
</tr>
</tbody>
</table>

Quiet rooms on each of the two schools were used as the settings in which to conduct the interviews. Respondents were welcomed and informed that the researcher was interested in complementing the quantitative data with in-depth interviews that would provide some insights into the personal perspectives of students. Respondents were not informed about the basis upon which they were selected. Rather, they were told that the researcher wanted to talk
to a broad range of students and that they comprised one component in that range. Respondents were informed that the interview data were confidential and that pseudonyms would be used when reporting extracts from the interviews. The interview was based on a semi-structured interview schedule (see Appendix iii). The interview began with some questions about what subjects respondents were studying, their thoughts about the course and school life in general. When some rapport had been established through the introductory questions, the issues centrally relevant to the study were explored. The average duration of each interview was approximately 40 minutes. The interview was transcribed verbatim and the transcripts were used for the data analysis.

3.10 Logistical and ethical considerations

Participation in the study was given as a free proposal. Each participant was given a consent form to read and make an informed decision to participate in the survey. The consent form stated the purpose of the research and why the participants were being requested to take part. All the school Heads were contacted in advance and the purpose of the research was explained. A copy of the questionnaire was given to both the school head and a teacher chosen to assist the researcher.

Data were collected one month before 2007 KCSE exams. This timing was strategic in the sense that examination anxiety was beginning to grip among students who viewed exams as a measure of self worth. The researcher met the participants before data collection to plan together on a suitable day on which to carry out the interview.
CHAPTER FOUR: DATA ANALYSIS, RESULTS AND DISCUSSIONS

4.1 Introduction

This chapter presents methods of data analysis that were used in the study, a systematic presentation of both the quantitative and qualitative findings and a discussion of the findings in relationship to the theory and previous research.

4.2 Methods of data analysis

Quantitative and qualitative data were collected from 400 form IV students from eight secondary schools in Nairobi Province. A rating scale was used to collect quantitative data while an interview form was used to guide the qualitative data collection. Data were coded and analyzed using Statistical Package for Social Science software (SPSS) for quantitative data. Eighty-one questionnaires were not included in the analysis because of various reasons; some were incomplete while others had more than one response on an item. Therefore, only 319 questionnaires duly filled were considered in analysis. A high score indicated a strong agreement with the items while a low score represented disagreement with the item in question. Descriptive statistics were computed to describe data obtained for the predictors as well as the cognitive strategies and academic outcomes in the proposed academic process model. Pearson product moment correlation was used to establish the relationship between the predictors and the cognitive strategies as well as the academic outcomes. Regression analysis using the enter method was computed to determine the best model/s of prediction for cognitive strategies. Testing for significance of the hypotheses was done at 0.05 alpha level. Hypotheses were established in accordance with the research questions that were formulated to guide the study as follows.
a) What motivational/affective factors predict the use of self-handicapping?

**Hypotheses**

H₀₁ There is no significant relationship between motivation orientation and self-handicapping.
H₀₂ There is no significant relationship between public self-consciousness and self-handicapping.
H₀₃ There is no relationship between view of intelligence and self-handicapping.
H₀₄ There is no significant relationship between perceived control and self-handicapping.
H₀₅ There is no significant relationship between attributional orientations and self-handicapping.
H₀₆ There is no significant relationship between level of self-concept and self-handicapping.
H₀₇ There is no significant relationship between self-concept stability and self-handicapping.

b) What motivational/affective factors predict the use of defensive pessimism?

**Hypotheses**

H₀₁ There is no significant relationship between motivation orientation and defensive pessimism.
H₀₂ There is no significant relationship between public self-consciousness and defensive pessimism.
H₀₃ There is no relationship between view of intelligence and defensive pessimism.
H₀₄ There is no significant relationship between perceived control and defensive pessimism.
H₀₅ There is no significant relationship between attributional orientations and defensive pessimism.
H₀₆ There is no significant relationship between level of self-concept and defensive pessimism.
H₀₇ There is no significant relationship between self-concept stability and defensive pessimism.
c) To what extent do self-handicapping and defensive pessimism predict academic outcomes?

Hypotheses

$H_{01}$ There is no significant relationship between defensive pessimism and academic outcomes.

$H_{02}$ There is no significant relationship between self-handicapping and academic outcomes.

4.3 Results

This section presents first descriptive results and second, hypotheses testing guided by research questions and corresponding hypotheses. Results from qualitative analyses are presented next.

4.3.1 Descriptive results

a) Mean, Standard deviation, skewness and kurtosis

In this section, a summary of the results is presented. These include the range, mean, standard deviation, skewness and kurtosis. As outlined earlier, the present study examined a model in which a variety of motivational and affective factors (underpinning a self-worth motivation) predict self-handicapping and defensive pessimism which in turn are proposed to predict academic outcomes such as self-regulation/persistence, and academic grades.

The descriptive statistics for motivational and affective factors are displayed in table 4.1 of the output. The mean for ego (26.7), public academic self-consciousness (32.2), stability of self-concept (23.3), entity beliefs (21.3), control over future failure (20.9) and success (21.8), ability attribution for success (23.0), effort attribution for failure (16.8), external attribution for success (20.5) and failure (21.4) indicate that a typical student was average on these measures. However, this was not the case for task (16.9), level of self-concept (10.8), incremental beliefs (11.8), ability attribution for failure (10.6) and effort attribution for
success (10.3) since the mean indicate that a typical student measured less on average on this attributes. The standard deviation indicates that there is variability in the scores on all the attributes with the highest variability on public academic self-consciousness (12.0) (low homogeneity) and lowest variability on ability attribution for failure (4.5) (high homogeneity).

Table 4.1 Summary of motivation and affective factors

| Descriptive Statistics |
|------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
|                        | N               | Range           | Minimum         | Maximum         | Mean            | Std. Variance   | Skewness        | Kurtosis        |
|                        | Statistic       | Statistic       | Statistic       | Statistic       | Statistic       | Statistic       | Statistic       | Statistic       |
| C1-ego orientation    | 319             | 32.00           | 7.00            | 39.00           | 26.7147         | 9.89458         | 97.903          | -0.845          |
| C2-task orientation   | 319             | 32.00           | 8.00            | 40.00           | 16.9279         | 10.53854        | 111.061         | 1.100           |
| D-public academic self consc | 319 | 40.00           | 10.00           | 50.00           | 32.2665         | 12.09376        | 146.259         | -0.870          |
| E1-level of self concept | 319 | 21.00           | 5.00            | 26.00           | 10.8621         | 6.84830         | 46.899          | 1.286           |
| E2-stability of self concept | 319 | 24.00           | 6.00            | 30.00           | 23.3166         | 6.73791         | 45.399          | -1.503          |
| F1-entity beliefs     | 319             | 29.00           | 1.00            | 30.00           | 21.3103         | 8.40004         | 70.561          | -0.966          |
| F2-incremental beliefs | 319             | 28.00           | 6.00            | 34.00           | 11.8433         | 7.51522         | 56.479          | -0.165          |
| G1-low control over future success | 319 | 24.00           | 6.00            | 30.00           | 21.8025         | 8.64109         | 74.668          | -1.005          |
| G2-low control over failure | 319 | 24.00           | 6.00            | 30.00           | 20.9843         | 8.10833         | 65.745          | -0.961          |
| H1-ability attr for success | 319 | 24.00           | 6.00            | 30.00           | 23.0063         | 6.26812         | 39.289          | -1.011          |
| H2-ability attr for failure | 319 | 23.00           | 6.00            | 29.00           | 10.6082         | 4.58052         | 20.981          | 1.973           |
| H3-effort attr for success | 319 | 22.00           | 6.00            | 28.00           | 10.3511         | 6.14312         | 37.738          | 1.520           |
| H4-effort attr for failure | 319 | 24.00           | 6.00            | 30.00           | 16.8903         | 7.01372         | 49.192          | -0.028          |
| H5-external attr for success | 319 | 28.00           | 6.00            | 34.00           | 20.5549         | 6.25928         | 39.179          | -0.421          |
| H6-external attr for failure | 319 | 29.00           | 1.00            | 30.00           | 21.4702         | 7.44486         | 55.426          | -0.994          |

ii) Cognitive strategies summaries

Cognitive strategies comprise of self-handicapping and defensive pessimism.

Table 4.2 Summary of cognitive strategies

| Descriptive Statistics |
|------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
|                        | N               | Range           | Minimum         | Maximum         | Mean            | Std. Variance   | Skewness        | Kurtosis        |
|                        | Statistic       | Statistic       | Statistic       | Statistic       | Statistic       | Statistic       | Statistic       | Statistic       |
| Self handicapping      | 319             | 39.00           | 11.00           | 50.00           | 29.4828         | 8.87503         | 78.766          | -0.079          |
| Defensive Pessimism    | 319             | 31.00           | 9.00            | 40.00           | 27.9154         | 7.69234         | 59.172          | -0.626          |
The mean for self-handicapping and defensive pessimism indicate that a typical student was average on these strategies. The standard deviation for self-handicappers (8.9) was larger than the standard deviation for defensive pessimists (7.7). This in effect indicates a high homogeneity with those who reported self-handicapping as opposed to defensive pessimism who seemed to vary more on average. Looking in the column of skewness and kurtosis, it is clear this was not a normal distribution of scores.

iii) Academic outcomes summaries

Table 4.3 Summary of academic outcomes

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Range</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. Variance</th>
<th>Skewnes</th>
<th>Kurtosis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self regulation</td>
<td>319</td>
<td>40.00</td>
<td>10.00</td>
<td>50.00</td>
<td>28.720</td>
<td>10.3100</td>
<td>-.006</td>
<td>-.988</td>
</tr>
<tr>
<td>Mean grade</td>
<td>319</td>
<td>4.00</td>
<td>1.00</td>
<td>5.00</td>
<td>2.990</td>
<td>1.1200</td>
<td>.045</td>
<td>-.691</td>
</tr>
</tbody>
</table>

Academic outcome was represented by self-regulation and grades with a mean of 28.7 and 3 respectively. The standard deviations for grades (1.13) and self-regulation (10.31) indicate that there was variability on the measures. The skewness and kurtosis indicate that this is not a normal distribution

B) Correlation analysis summaries

a) Motivational / affective factors relationship with cognitive strategies

Motivation orientation was represented by ego orientation and task orientation. Table 4.4 that follows shows the correlation between motivational/affective factors and cognitive strategies.
Table 4.4 Relationship between Motivational/affective factors and cognitive strategies

<table>
<thead>
<tr>
<th>Motivational/affective factors</th>
<th>Cognitive strategies</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Self Handicapping</td>
<td>Defensive</td>
<td>Pessimism</td>
</tr>
<tr>
<td>Ego</td>
<td>.473**</td>
<td>-.217**</td>
<td></td>
</tr>
<tr>
<td>Task</td>
<td>-.433**</td>
<td>.209**</td>
<td></td>
</tr>
<tr>
<td>Public academic self consciousness</td>
<td>.485**</td>
<td>-.190**</td>
<td></td>
</tr>
<tr>
<td>Level of self concept</td>
<td>-.474**</td>
<td>.200</td>
<td></td>
</tr>
<tr>
<td>Stability of self concept</td>
<td>.480**</td>
<td>-.124*</td>
<td></td>
</tr>
<tr>
<td>Entity beliefs</td>
<td>.467**</td>
<td>-.188**</td>
<td></td>
</tr>
<tr>
<td>Incremental beliefs</td>
<td>-.481**</td>
<td>.201**</td>
<td></td>
</tr>
<tr>
<td>Low control over future success</td>
<td>.470**</td>
<td>-.200**</td>
<td></td>
</tr>
<tr>
<td>Low control over future failure</td>
<td>.439 **</td>
<td>-.209**</td>
<td></td>
</tr>
<tr>
<td>Ability attribution for success</td>
<td>.363**</td>
<td>-.077</td>
<td></td>
</tr>
<tr>
<td>Ability attribution for failure</td>
<td>-.207**</td>
<td>.139*</td>
<td></td>
</tr>
<tr>
<td>Effort attribution for success</td>
<td>-511**</td>
<td>.184**</td>
<td></td>
</tr>
<tr>
<td>Effort attribution for failure</td>
<td>.117*</td>
<td>-.048</td>
<td></td>
</tr>
<tr>
<td>External attribution for success</td>
<td>.219**</td>
<td>-.028</td>
<td></td>
</tr>
<tr>
<td>External attribution for failure</td>
<td>.376**</td>
<td>-.162**</td>
<td></td>
</tr>
</tbody>
</table>

N= 319

Key: (*) significant is at 0.05
(**) significant level is at 0.01
Results presented in table 4.4 show that there is a positive relationship between ego orientation and self-handicapping ($r = .473$, $p = .000$), and a negative relationship with defensive pessimism. Task orientation is negatively related with self-handicapping ($r = -.433$, $p = .000$) and has a positive relationship with defensive pessimism ($r = .209$, $p = .000$). These results indicate that the correlations are significant at 0.01 alpha. Thus, it can be concluded that the students’ ego orientation is positively related to cognitive strategies whereas task orientation is negatively related to cognitive strategies.

Table 4.4 also shows correlations between public academic self-consciousness, level and stability of self-concept. The results indicate that public academic self-consciousness is positively related to self-handicapping ($r = .485$, $p = .000$) but negatively related with defensive pessimism ($-.190$, $p = .001$). There is a negative relationship between level of self-concept and self-handicapping ($r = .474$, $p = .000$) and a positive relationship with defensive pessimism ($r = .200$, $p = .000$). Finally, there is a moderate positive relationship between stability of self-concept and self-handicapping ($r = .480$, $p = .000$) and a negative relationship with defensive pessimism ($r = -.124$, $p = .027$). The correlations between the variables are significant. Thus, we can conclude that public self-consciousness, level and stability of self-concept are significantly related to cognitive strategies.

Table 4.4 shows correlation matrices between views of intelligence/implicit theories and cognitive strategies. The results show a positive relationship between entity beliefs and self-handicapping ($r = .467$, $p = .000$) and a negative relationship with defensive pessimism ($-.188$, $p = .001$). Incremental belief is negatively related to self-handicapping ($r -.481$, $p = .000$)
but positively related to defensive pessimism ($r = .201, p = 000$). All the correlations in the table are significant. Therefore, we can conclude that views of intelligence are related to cognitive strategies.

Perceived control comprises low control over future success and failure. The results in table 4.4 show that there is a positive relationship between low control over future success and self-handicapping ($r = .474, p = 000$) and a negative relationship to defensive pessimism ($r = -.200, p = 000$). Low control over future failure is positively related to self-handicapping ($r = .439, p = 000$) and negatively related with defensive pessimism ($r = -.209, p = 000$). The correlations are all significant and therefore we can conclude that perceived control is related to cognitive strategies.

Attributional orientation comprised ability attribution for success and failure, effort attribution for success and failure and external attribution for success and failure.

From table 4.4, ability attribution for success is positively correlated with self-handicapping ($r = .363, p = 000$) but not correlated to defensive pessimism ($r = -.077, p = 169$). Ability attribution for failure is inversely related to self-handicapping ($r = -.207, p = 000$) and not related to defensive pessimism ($r = .139, p = 0.13$). Effort attribution for success is inversely related to self-handicapping ($r = -.511, p = 000$) but positively related to defensive pessimism ($r = .184, p = 001$). Effort attribution for failure is neither related to self-handicapping ($r = .117, p = .169$) nor defensive pessimism ($r = -.048, p = .394$). External attribution for success is positively related to self-handicapping ($r = .219, p = 000$) but it is not related with defensive pessimism ($r = -.028, p = .617$) and finally external attribution for failure is positively related to self-
handicapping (r=.376, p=.000) and inversely related to defensive pessimism (r=.162, p=.004). From these results, non-significant relationship exists between; ability attribution for success and defensive pessimism, effort attribution for failure and self-handicapping and with defensive pessimism and between external attribution for success and self-handicapping. The lack of relationship means that these factors are not predictors of cognitive strategies and they are totally unrelated.

Academic outcomes comprise of self-regulation/persistence and academic mean grades.

Table 4.5 Relationship between cognitive strategies and academic outcomes

<table>
<thead>
<tr>
<th></th>
<th>Self Handicapping</th>
<th>Defensive Pessimism</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self regulation</td>
<td>-.193**</td>
<td>.220**</td>
</tr>
<tr>
<td></td>
<td>.001</td>
<td>.000</td>
</tr>
<tr>
<td>Academic mean grade</td>
<td>-.171**</td>
<td>-.112*</td>
</tr>
<tr>
<td></td>
<td>.002</td>
<td>.046</td>
</tr>
</tbody>
</table>

** significant at 0.01 alpha level
* significant at 0.05 alpha level

N=319

From the table above, academic outcomes; self-regulation (r = -.193, p=001) and academic mean grade (r=-.171, p=002) are all negatively related to self-handicapping. However, self-regulation is positively related to defensive pessimism(r=220, p=000) while academic mean grade is inversely related with defensive pessimism (r =.171, p=.002). Thus, we can conclude that self-handicapping is not an adaptive strategy because it facilitates failure that one is trying to avoid.
4.3.2 Hypotheses testing

a) What motivational/affective factors predict the use of self-Handicapping?

This section is guided by the hypotheses in analyzing the results. The data were analyzed using multiple regression, using motivation and affective antecedents as regressors. Using enter method, a significant model emerged ($F_{15,303} = 10.725, p< 0.0005$) with an $R^2_{adj} = .843$, which means that approximately 84% of the variability of self-handicapping is accounted for by the variables in the model. See table 4.6.

Table 4.6 Model Summary of motivation/affective factors regression analysis

<table>
<thead>
<tr>
<th>Model</th>
<th>R Square</th>
<th>Adjusted R Square</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>.846</td>
<td>.843</td>
</tr>
<tr>
<td>Model</td>
<td></td>
<td>df</td>
</tr>
<tr>
<td>Regression</td>
<td>15</td>
<td>10.725</td>
</tr>
<tr>
<td>Residual</td>
<td>303</td>
<td></td>
</tr>
</tbody>
</table>

P= 0.05
N= 319
Table 4.7 Significant and non-significant motivational/affective variable

<table>
<thead>
<tr>
<th>Predictor variable</th>
<th>Beta</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>93.339</td>
<td></td>
</tr>
<tr>
<td>C1-ego orientation</td>
<td>.058</td>
<td>.011</td>
</tr>
<tr>
<td>C2-task orientation</td>
<td>-.216</td>
<td>.007</td>
</tr>
<tr>
<td>D-public academic self consciousness</td>
<td>.052</td>
<td>.006</td>
</tr>
<tr>
<td>E1-level of self concept</td>
<td>.307</td>
<td>.020</td>
</tr>
<tr>
<td>E2-stability of self concept</td>
<td>.297</td>
<td>.026</td>
</tr>
<tr>
<td>F1-entity beliefs</td>
<td>.084</td>
<td>.023</td>
</tr>
<tr>
<td>F2-incremental beliefs</td>
<td>-.296</td>
<td>.035</td>
</tr>
<tr>
<td>G1-low control over future success</td>
<td>.075</td>
<td>.039</td>
</tr>
<tr>
<td>G2-low control over failure</td>
<td>.340</td>
<td>.034</td>
</tr>
<tr>
<td>H1-ability attribution for success</td>
<td>.023</td>
<td>.027</td>
</tr>
<tr>
<td>H2-ability attribution for failure</td>
<td>.007</td>
<td>.027</td>
</tr>
<tr>
<td>H3-effort attribution for success</td>
<td>.371</td>
<td>.031</td>
</tr>
<tr>
<td>H4-effort attribution for failure</td>
<td>.010</td>
<td>.023</td>
</tr>
<tr>
<td>H6-external attribution for failure</td>
<td>.055</td>
<td>.002</td>
</tr>
<tr>
<td>H5-external attribution for success</td>
<td>.047</td>
<td>.448</td>
</tr>
</tbody>
</table>

P- significant at 0.05 alpha level

N=319

It was hypothesized that, there is no significant relationship between ego orientation and self-handicapping. The results in table 4.7 show that ego orientation (Beta -0.058) is a significant predictor (p=.011) of self-handicapping. Therefore, the null hypothesis is rejected and it is concluded that ego orientation is a significant predictor of self-handicapping.

Hypothesis two stated that, there is no significant relationship between task orientation and self-handicapping. The results in table 4.7 show that task orientation (Beta -.216) is a significant predictor (p=.007) of self-handicapping. This result is negative meaning that the more one is task-oriented the less one will self-handicap. Therefore, the null hypothesis is
rejected and it is concluded that task orientation is a significant predictor of self-handicapping.

Hypothesis three stated that, there is no significant relationship between public self-consciousness and self-handicapping. The results in table 4.7 show that public self-consciousness (Beta.052) is a significant predictor (p=.006) of self-handicapping. Therefore, the null hypothesis is rejected and it is concluded that public self-consciousness is a significant predictor of self-handicapping.

Hypothesis four stated that, there is no significant relationship between self-concept and self-handicapping. Self-concept was assessed using two components; stability and level. The results in table 4.6b show that both level of self-concept (Beta .307, p=.020) and stability of self-concept (Beta.297, p=.026) are significant predictors of self-handicapping. The null hypothesis is rejected and it is, therefore, concluded that self-concept is a significant predictor of self-handicapping.

Hypothesis five stated that, there is no significant relationship between view of intelligence and self-handicapping. View of intelligence was assessed at two levels; entity beliefs and incremental beliefs. The results in table 4.7 show that both entity beliefs (Beta .084, p=.023) and incremental beliefs (Beta-.296, p=.036) are significant predictors of self-handicapping. Incremental beliefs beta is negative but significant indicating that this attribute is inversely related to self-handicapping. The null hypothesis is rejected and it is, therefore, concluded that view of intelligence is a significant predictor of self-handicapping.
Hypothesis six stated that, there is no significant relationship between perceived control and self-handicapping, perceived control was assessed using low control over future success and failure. The results in table 4.7 show that both low control over future success (Beta .075, p=0.39) and low control over future failure (Beta .34, p=.034) are a significant predictors of self-handicapping. Therefore, the null hypothesis is rejected and it is concluded that perceived control is a significant predictor of self-handicapping.

Hypothesis seven stated that, there is no significant relationship between attributional orientation and self-handicapping. Attributional orientation was assessed at three levels; ability attribution for success and failure, effort attribution for success and failure and external attribution for success and failure. The results in table 4.7 show that ability attribution for success (Beta .023, p.027), ability attribution for failure (Beta .007, p.027), effort attribution for success (Beta .371, p.031), effort attribution for failure (Beta .010, p.023) and external attribution for failure (Beta 0.055, p=.002) are significant predictors of self-handicapping. However, external attribution for success (Beta.047, p= 0.448) is not a significant predictor Therefore, the null hypothesis is rejected and it is concluded that attributional orientation is a significant predictor of self-handicapping.

4.3.3 What motivational/affective factors predict the use of defensive pessimism?

The data were analyzed by multiple regression, using motivation and affective factors as regressors. Using enter method, a significant model emerged ($F_{1, 398} =44.82, p= 0.003$) with
an $R^2_{adj} = .099$, which means that approximately 10% of the variability of defensive pessimism is accounted for by the variables in the model. Results are shown in table 4.8

Table 4.8 Model summary of motivational orientation and defensive pessimism regression analysis

<table>
<thead>
<tr>
<th>model</th>
<th>R square</th>
<th>$R^2_{adj}$</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.103</td>
<td>.099</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Model</th>
<th>df</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Residual</td>
<td>398</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Regression</td>
<td>1</td>
<td>44.82</td>
</tr>
</tbody>
</table>

p- significant at 0.05 alpha level

N= 319

Significant variables are shown below:

Tables 4.9 shows significant motivational/affective variables

<table>
<thead>
<tr>
<th>Predictor variable</th>
<th>Beta</th>
<th>$p$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>65.626</td>
<td></td>
</tr>
<tr>
<td>C1- Ego orientation</td>
<td>.220</td>
<td>.005</td>
</tr>
<tr>
<td>C2- Task orientation</td>
<td>-.015</td>
<td>.011</td>
</tr>
<tr>
<td>E2- Stability of self concept</td>
<td>.055</td>
<td>.010</td>
</tr>
<tr>
<td>G1- Low control over future success</td>
<td>.018</td>
<td>.001</td>
</tr>
<tr>
<td>G2- Low control over failure</td>
<td>.173</td>
<td>.001</td>
</tr>
<tr>
<td>H1- Ability attribution for success</td>
<td>.093</td>
<td>.003</td>
</tr>
<tr>
<td>H2- Ability attribution for failure</td>
<td>.024</td>
<td>.003</td>
</tr>
<tr>
<td>H3- Effort attribution for success</td>
<td>.125</td>
<td>.041</td>
</tr>
<tr>
<td>H4- Effort attribution for failure</td>
<td>.031</td>
<td>.008</td>
</tr>
<tr>
<td>H5- External attribution for success</td>
<td>.024</td>
<td>.009</td>
</tr>
<tr>
<td>H6- External attribution for failure</td>
<td>.022</td>
<td>.001</td>
</tr>
<tr>
<td>D- Public academic self consciousness</td>
<td>.030</td>
<td>.086</td>
</tr>
<tr>
<td>E1-Level of self concept</td>
<td>.006</td>
<td>.978</td>
</tr>
<tr>
<td>F1- Entity beliefs</td>
<td>.117</td>
<td>.195</td>
</tr>
<tr>
<td>F2- Incremental beliefs</td>
<td>-.200</td>
<td>.279</td>
</tr>
</tbody>
</table>
Hypothesis one stated that, there is no significant relationship between ego orientation and defensive pessimism. The results in table 4.9 show that ego orientation (Beta-.220) is a significant predictor (p=.005) of defensive pessimism. Therefore, the null hypothesis is rejected and it is concluded that ego orientation is a significant predictor of defensive pessimism.

Hypothesis two stated that, there is no significant relationship between task orientation and defensive pessimism. The results in table 4.9 show that task orientation (Beta-.015) is a significant predictor (p=.011) of defensive pessimism. Therefore, the null hypothesis is rejected and it is, therefore, concluded that task orientation is a significant predictor of defensive pessimism.

Hypothesis three stated that, there is no significant relationship between public self-consciousness and defensive pessimism. The results in table 4.9 show that public self-consciousness (Beta.030) is not a significant predictor (p=.086) of defensive pessimism. Therefore, the alternative hypothesis is rejected and it is concluded that public self-consciousness is not a significant predictor of defensive pessimism.

Hypothesis four stated that there is no significant relationship between level/stability self-concept and defensive pessimism. Self-concept was assessed using two components: stability and level. The results in table 4.9 show that stability of self concept (Beta .055, p=.010) is a significant predictor of defensive pessimism whereas level of self concept (Beta.006, p=.938
is not a significant predictor of defensive pessimism. Therefore, it concluded that stability
of self-concept is a significant predictor of defensive pessimism whereas level of self-concept
is not a predictor.

Hypothesis five stated that there is no significant relationship between view of intelligence
and defensive pessimism. View of intelligence was assessed at two levels; entity beliefs and
incremental beliefs. The results in table 4.9 show that both entity beliefs (Beta .117, p=.195)
and incremental beliefs (Beta-.200, p=.279) are not significant predictors of defensive
pessimism. Therefore, the alternative hypothesis is rejected and it is, therefore, concluded
that view of intelligence is not a significant predictor of defensive pessimism.

Hypothesis six stated that there is no significant relationship between perceived control and
defensive pessimism. Perceived control was assessed using low control over future success
and failure. The results in table 4.9 show that both low control over future success (Beta .018,
p=.001) and low control over future failure (Beta .173, p=.001) are significant predictors of
defensive pessimism. Therefore, the null hypothesis is rejected and it is, therefore, concluded
that perceived control is a significant predictor of defensive pessimism.

Hypothesis seven stated that there is no significant relationship between attributional
orientation and defensive pessimism. Attributional orientation was assessed at three levels;
ability attribution for success and failure, effort attribution for success and failure and
external attribution for success and failure. The results in table 4.9 show that ability
attribution for success (Beta .073, p=.003), ability attribution for failure (Beta .024, p=.003),
effort attribution for success (Beta .125, p=.041) effort attribution for failure (Beta .031, p=.008), external attribution for success (Beta .024, p=.009) and external attribution failure (Beta .022, p=.001) are significant predictors of defensive pessimism. Therefore, the null hypothesis is rejected and it is, therefore, concluded that attributional orientation is a significant predictor of defensive pessimism.

4.3.4 To what extent do cognitive strategies predict academic outcomes?

a) Self-regulation

The data were analyzed using multiple regression, using cognitive strategies as regressors. Using enter method, a significant model emerged \((F_{2, 316} =24.87, p=0.00)\) with an \(R^2_{\text{adj.}} = .131\), which means that approximately 13% of the variability of self-regulation is accounted for by the variables in the model. See table 4.10

Table 4.10 Model Summary of cognitive strategies regression analysis

<table>
<thead>
<tr>
<th>Model</th>
<th>R Square</th>
<th>Adjusted R Square</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.136</td>
<td>.131</td>
</tr>
<tr>
<td>Model</td>
<td></td>
<td>df</td>
</tr>
<tr>
<td>1</td>
<td>Reg.</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Residual</td>
<td>316</td>
</tr>
</tbody>
</table>

P-significant at 0.05 alpha level

N= 319

a Predictors: (Constant), Self Handicapping , Defensive Pessimism
b Dependent Variable: A11-self regulation

Table 4.11 Significant cognitive variables
It was hypothesized that there is no significant relationship between cognitive strategies and self-regulation. The results in table 4.11 show that defensive pessimism (Beta=.244, p=.00) and self-handicapping (B=-.243, p=.00) are significant predictors of self-regulation. Therefore, the null hypothesis is rejected and it is, therefore, concluded that cognitive strategies are significant predictors of self-regulation.

b) Grades

The data were analyzed using multiple regression, using cognitive strategies as regressors. Using enter method, a significant model emerged ($F_{2,316}=4.87, p=0.010$) with an $R^2_{adj.}=0.023$, which means that approximately $2.3\%$ of the variability of grades is accounted for by the variables in the model. See table 4.12.

Table 4.12 Model Summary of cognitive strategies regression analysis

<table>
<thead>
<tr>
<th>Model</th>
<th>R Square</th>
<th>Adjusted R Square</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.029</td>
<td>.023</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Model</th>
<th>df</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>4.71</td>
<td>.010(a)</td>
</tr>
<tr>
<td>Residual</td>
<td>316</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a Predictors: (Constant), Self Handicapping total, Defensive Pessimism
b Dependent Variable: Mean grade
Table 4.12 Significant cognitive strategies regression analysis

<table>
<thead>
<tr>
<th>Predictor variable</th>
<th>Beta</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Defensive Pessimism</td>
<td>-.123</td>
<td>.029</td>
</tr>
<tr>
<td>Self Handicapping</td>
<td>-.137</td>
<td>.015</td>
</tr>
</tbody>
</table>

P-significant at 0.05 alpha level

N=319
Dependent Variable: Mean grade

It was hypothesized that there is no significant relationship between cognitive strategies and mean grade. The results in table 4.12 show that defensive pessimism (Beta=-.123, p=.029) and self-handicapping (B=-.137, p=.015) are significant predictors of grades. Therefore, the null hypothesis is rejected and it is therefore concluded that cognitive strategies are significant predictors of grades.

Qualitative analyses

The role of qualitative research in the context of the current report had the following aims. First, it sheds light on the quantitative findings, giving voice and life to the results, and provides an insight into the personal perspectives of respondents, particularly as they relate to the key quantitative findings. Second, qualitative component introduced and provided insight into issues that had not been identified by the quantitative methods thus moving the research in potentially fruitful new directions.

Qualitative research permits the study of people, their interpretations of reality, and the contexts in which these interpretations are made. Essentially, it enables the researcher to explore respondents’ views of the world. It is this human experience, which the present study
responding to a former and so directing the latter question to them again to obtain a direct
response was considered inappropriate; respondents were unsure as to what was being asked
of them and clarification was unsuccessful. For these reasons, when presenting findings, it is
often the case that the entire group's responses are not provided. Instead, the focus was
usually upon data derived from respondents who interpreted the questions as they were
intended or provided responses, which provided rich, illustrative qualitative information,
represented challenging insights, pointed the field in new directions, or presented ideas for
further consideration.

It is emphasized that the qualitative data are not designed to test the quantitative findings.
The position held here is that selecting a small proportion of students from a large sample
cannot be expected to yield qualitative data directly parallel to quantitative findings. Indeed,
the weaker the quantitative finding, the lower the chances are that responses from students
selected for a follow-up qualitative study will reflect that finding. The qualitative data
presented here, then, are used in a way that sheds light onto a given quantitative finding to
illustrate how such a quantitative relationship manifests itself in students' lives.
Nevertheless, where systematic inconsistencies occur, these are reported, as are findings
which run contrary to the quantitative findings but which may point the field in new
directions.

Another point to consider is that the data to follow, particularly those pertaining to the
salience of the affective and motivational constructs incorporated in the process model are
not intended to reflect cause and effect relationships. Rather, the purpose of the interview
attempts to uncover from the perspectives of the participants (Filstead, 1970; Guba & Lincoln, 1981; Stake, 1975). Specifically, the aim of this component of the research was to go beyond the quantitative data and capture the personal perspectives of self-handicappers and defensive pessimists. Self-handicapping and defensive pessimism, it is argued, are ideal constructs to study in a qualitative fashion primarily because the extent of their deployment is largely mediated by the way individuals view the world and their part in it and so personal perspectives about these phenomena can be particularly valuable in understanding them.

The issues that were addressed in this component of the study revolved around self-handicapping and defensive pessimism. This first involved exploring the nature of self-handicapping and defensive pessimism. Secondly, the affective and motivational constructs that predict self-handicapping and defensive pessimism were each examined. Lastly, the academic outcomes that follow from self-handicapping and defensive pessimism were explored. These research issues are fully outlined below.

**Qualitative data analysis**

One difficulty encountered during the interviews which does have an important bearing on the presentation of findings concerns the amount and nature of the information provided by respondents. A few examples illustrate some of the difficulties encountered along these lines: Respondents provided one word answers to questions and did not comment further when invited to do so; respondents did not relate to the question and pursuing the issue seemed to confuse them; respondents seemed not to understand the issue under focus and attempts at clarification were unsuccessful; respondents had partly answered the latter question while
data is to clarify exactly how these constructs accompany the identified self-handicapping and defensive pessimism. In a sense, then, the interview data are more intended to 'map the terrain' of factors associated with self-handicapping and defensive pessimism than to 'explain' these strategies. 'Explaining' these strategies was more the purpose of the quantitative model in which a set of factors were explicitly modeled to predict self-handicapping and defensive pessimism. Notwithstanding this, it is clear that some affective and motivational constructs or key events in students' lives do antecede self-handicapping and defensive pessimism and can be contended to give rise to these strategies in the process of students' defensive manoeuvring.

Finally, as the interview data to follow show, the profiles of self-handicappers and defensively pessimistic students are remarkably similar in terms of the underlying affective and motivational constructs. Perhaps this is not surprising given that they are both proposed to be strategies subsumed under a shared conceptual framework in the form of self-worth motivation theory. Thus, in many parts of this section, students high in self-handicapping or defensive pessimism are considered together because there is often a parallel salience of affective and motivational constructs operating in their academic lives. Whilst this is convenient from a presentational perspective, it is primarily a consequence of the parallel nature of the data. This is not to suggest that the strategies themselves are the same. The interview data presented below show how students can be clearly differentiated in terms of their strategic use of self-handicapping and defensive pessimism.
The results revolve around the research issues identified. As discussed, the strategies, self-handicapping and defensive pessimism, are presented first because these are the central constructs in the study. It is also considered that presentation of these data first provides a backdrop against which to explore the affective and motivational predictors and academic outcomes.

**Self-handicapping and defensive pessimism**

The self-handicapping behaviour reported by respondents selected as high in self-handicapping ranged in extremity and illustrated the diverse ways in which it occurs in students’ day-to-day lives. When asked how he went about assignments and study for exams, Onyango (HISH), who is barely doing well, indicated that his self-handicapping behaviour seemed to be beyond his control: “It’s just like when a test is announced, I seem to just want to relax. Listen to music and chat with friends. It’s just something that happens. When I sit down to read and most of the things seem difficult I see no reason to tire myself because I will fail anyway…”

When asked what he would do during exam week, Onyango (HISH) replied that exam week was “free time.” In fact, at the end of the interview, when Onyango (HISH) was asked if he would like to add anything about the way he went about his studies, he returned to the issue of self-handicapping. What his comments underscored was the way in which he seemed to use his tiredness as an excuse for why he does not do so well. His comments also illustrated the extent to which he feels little or no control over the state of his study area.
Sophia (HISH) when asked whether she engaged in self-handicapping, she replied: “yes, when studies are not interesting I do something else”. Yeah. I’ll say, “I’ve material to study, well I also need to clean, make my hair...”

Sophia (HISH) reported that when exams or assignments were approaching she would engage in activities as diverse as making her hair, tidying under her bed, and decorating her room. Sophia (HISH) would even visit her out-of-town cousins or volunteer to go for family shopping in town.

Jane (HISH) would be inclined to watch television program and postpone her study until very late in the night. Caroline (HISH) was much the same. She reported that she had been having difficulty adjusting to academic demands and finds herself becoming occupied on other things, leaving study to the very last minute. Moreover, despite the fact that she would promise herself not to do this in the future, each time an exam or assignment approached, she seemed to do the same, “no matter how hard I try.” Joseph (HISH) said that when an exam approached, he would engage in activities like playing cards and going to premier league on DSTV because this “... helps to relax to face the exam”

When put that some students seem to place obstacles in the way of success, the students who were selected as scoring low on the self-handicapping scale generally reported that they did not identify with such behaviour. Mutua (LOSH) was well aware of the potential distractions surrounding him while studying at home and so that these would not interfere with his studies, he went to a friends place to study. Raymond (LOSH) said that he could not go out to
watch movies or play football and expect to stay focused on his studies and so he stayed at home. Jacinta (LOSH) reported that she had no peace of mind if she was having pending assignments and study that she had no free time to socialize. She said that she declined invitations to go out with friends for fear that it would interfere with her study.

A range of reasons were given by the high self-handicappers as to why they engaged in such behaviour. Mark (HISH) reported that if he failed he could usually identify something that interfered with his success such as “arriving at school late because of traffic jam.” Jane (HISH) suggested that her behaviour could be used as “a reason” for poor performance. Similarly, Sophia (HISH) was in little doubt that her behaviour could be used as an excuse if she did not do so well. She said that it was always important to have a “scapegoat” in the form of an excuse. When Tom (HISH) was asked why he self-handicapped, he also identified the importance of an excuse: If I leave it [study] to the last minute, then I’ve got an excuse if didn’t do well. Then I can say to myself, “…were it not for last minute reading a could have done well”. Anything is better than saying that you did not do well because you did not have the innate capability to do well. Any excuse is better than, “You are just not clever enough to do it”. I know that I should be putting effort in all the time, but then I’ve got the excuse if I do not do well”.

Sophia (HISH) said that she engaged in self-handicapping behaviour because it is a shame to be failing without a good reason. Joseph (HISH) reported that there were no advantages to self-handicapping, but then he went on to identify the fact that it was a consolation to him when he did not do so well knowing that he had an excuse available. On the other hand, Jane
(HISH) said that she worked better when she left things to the last minute. She went further by suggesting that if she did do well under these circumstances, she would feel more successful and that this was some evidence that “I am not that stupid at it.” Jane (HISH) also returned to her self-handicapping behaviour when asked at the end of the interview if she had anything to add: Jane (HISH). Yeah, especially about leaving things to the last minute . . . ‘cause if you do well when you haven’t put much time into it, you think, “Oh yeah!”

R. And if you don’t do so well?

Caroline (HISH). Then you’ve got an excuse . . . It’s just easier to cope with if you think you have not worked hard.

R. What’s easier to cope with?

Caroline (HISH). From feeling like a failure because you’re not good at it. It’s easier to say, “I failed ‘cause I didn’t read hard” than, “I failed because I’m not clever”.

When the low self-handicappers were asked why some students might self-handicap, they, for the most part, did not seem aware of the protective or enhancing possibilities that self-handicapping presented. For example, Jacinta (LOSH) reported that since some students do not like persisting with studies that were difficult, that is why they self-handicapped. Raymond (LOSH) reported that he did not really know why students would self-handicap and speculated that those students wanted to have a break from study and then tackle the exam when fresh.

When asked about the extent to which others would be made aware of the handicaps set in place before exams or assignments, the self-handicappers indicated that their strategy was publicly-oriented. This, however, was the case to varying degrees. Caroline (HISH) reported
that she would only tell people if she were asked about it while Sophia (HISH) reported that her family would know about it. Jane (HISH) said that she let people know about her self-imposed handicaps and that everyone else in her peer group did much the same thing. Onyango (HISH) also let people know about his behaviour for apparently both protective and enhancing reasons: When he does not do so well, people tend to attribute it to the communicated obstacles, but when he does well, they are appropriately impressed: “If I fail they will be sympathetic and say, ‘You could have done better if you could not have been wasting time watching football’. Or they’ll say, ‘How did you pass!’ if you got a good mark.” Tom (HISH) actually exaggerated his self-handicapping to others: “Now I lie about it. I lied the other day about it. When I was asked why I crammed, I said that I had to work the last three days and I didn’t.”

The qualitative data in relation to high self-handicappers illustrated the diversity of ways in which students can strategically manoeuvre to protect themselves in performance scenarios. A number of students self-handicapped because it provided them with an excuse in the event of academic failure. On the other hand, students selected as being low in self-handicapping negotiated their studies such that the chances of success were maximized rather than compromised. These students were also somewhat oblivious to the reasons why students would choose to self-handicap. The data also indicated the ways in which public and self-presented motivations underpinned high self-handicappers’ tendency to self-handicap.

Students selected as being high in defensive pessimism reported that no matter how well they had performed in previous exams and assignments, they expected to perform more poorly in
the future. For example, despite the fact that she had never failed before, Rhoda (HIDP) reported that she always had the feeling she was going to fail. Poly (HIDP) cited an instance when a teacher announced that a few students had not performed well in an assignment, and despite having passed everything to date, for two days he worried that he was one of them (it turned out that he was not). He said thinking like this was like "protecting yourself just in case" between knowing that he has passed everything before but expecting that he will do more poorly in the future.

Celina (HIDP) also reported that despite having performed well in the past she thought she would do worse in the next assignment or exam. She reported that each time she begins an assignment or studies for an exam, she "starts from scratch" in her expectations and feelings about how she will perform. She said that she would slowly build her confidence as she felt she was mastering the subject matter, but that no matter how confident she eventually feels about it, the next assessment task is met with the same pessimism.

Students selected as being low in defensive pessimism reported that they were generally optimistic about future performance in assignments and exams. In contrast to the students high in defensive pessimism, when asked, how they would perform in the future given previous successful performance, these students replied that they would be optimistic. As King’ori (LODP) reported, "basically when I score a B plus and above, I feel good. I think, 'Well I got this score and I can do it again or even better'.”
Gerald (HIDP) cited cultural reasons for why he was defensively pessimistic. According to him, there was much pressure on him to perform well and that having lower expectations was a way of dealing with the fear of not meeting these expectations: “Coming from a family where parents are teachers, if you get a good mark, they’ll expect you to do the same thing again.” Also, he has found in the past that when he is optimistic, these positive expectations are never fulfilled: “In the past when I’ve looked at things optimistically, then something bad happens and now I question myself all the time.”

Teresa (HIDP) reported that by holding unrealistically negative expectations and entertaining the possibility of not doing so well, she does not feel let down if those expectations are confirmed. Indeed, this disappointment seemed to be what most defensively expectant students were particularly concerned to protect themselves from. As Kennedy (HIDP) reported: “I try to be pessimistic ‘cause that way I think the surprise of failure is less when you do actually ‘fail’. . . I think if I am slightly pessimistic, then when I do better than I expected, then it’s a pleasant surprise, and if I do worse than expected, then the pain is less. You just try to minimize the feelings for undesired bad result.”

Marion (HIDP) saw mixed blessings in her defensive pessimism. While she recognized that it probably was not so good for her self-esteem, in other respects it reduced the potential blow to the self-esteem by not “thinking that you’re going to reach the sky when you can only get as far as the clouds.” Rhoda (HIDP) added that if it turns out that she does perform well, then the advantage of having thought negatively is that she is pleasantly surprised. When Marion (HIDP) was asked at the end of the interview whether she had anything to add, she reported
that her negativity was learnt at home: “My mother has always said, ‘Do not set your expectations too high because you’ll only get disappointed’... She is always careful not to raise my hopes so I don’t get disappointed.”

According to Celina (HIDP), Poly (HIDP), and James (HIDP), thinking more negatively is also a good way of motivating them into action. James (HIDP), negative expectations motivated him into action by making him feel work more to prevent failure: “If you’re doubtful, you get the energy to remove the doubt.”

Celina (HIDP) reported that she lets her friends know her negative thoughts about upcoming performances because they tend to disagree with her, leaving her feeling more positive about herself. Gerald (HIDP) indicated much the same. When he tells his friends that he is feeling less optimistic about an upcoming performance, his friends tend to offer him encouragement. Marion (HIDP) said that she also communicated her negative expectations to her parents and did so to avoid disappointing them. According to her, by communicating low expectations to her parents she hopes that they in turn have lower expectations of her. Marion (HIDP) also reported that if others hold negative expectations about her performance, they are less likely to be disappointed in her if she does not do well. Gerald (HIDP) too, held this belief. He seemed to regulate his family’s expectations of her by communicating to them her own negative expectations. A public and self-presentational motivation also underlay Kennedy’s (HIDP) motivation to tell others about his negative expectations. In fact, Kenndy (HIDP) said that he would exaggerate to others the extent to which he felt negative about his performance. After an exam, he would tell his friends that he was going to fail even if he privately felt
otherwise. According to him, he did this for socially-prescribed reasons of modesty, so that his friends did not say, “Oh you are full of yourself.”

There was a clear differentiation between expectations held by students high in defensive pessimism and those low in defensive pessimism. No matter how well, students high in defensive pessimism had performed previously, they tended to be pessimistic about upcoming performances. For a number of students, this was protective in the sense that in the event of failure, they would not be disappointed. Some students also indicated that their defensive expectations tended to motivate them. There also seemed to be some public element underpinning defensive pessimism in that students high in defensive pessimism communicated their expectations to others to either seek reassurance or to regulate others’ expectations of them. Additionally, a self-presentational dimension underpinned some accounts in the sense that students would exaggerate their negative expectations to others for both protective and enhancing purposes.

**Motivation/affective factors**

The qualitative study was concerned with exploring self-handicapping and defensive pessimism from students’ perspectives; it was also aimed at illuminating key quantitative findings derived from quantitative process model. Essentially, this involved exploring students’ perceptions about the salience of factors underpinning performance orientation, external attributional orientation, uncertain personal control, and task-orientation in their academic lives and the idiosyncratic ways in which these factors are played out as these students go about their studies.
Ego-orientation refers to the extent to which individuals gain satisfaction and feel successful in outperforming others. High self-handicappers generally reported feeling successful outperforming others. Caroline (HISH) and Jane (HISH) indicated that outperforming others would make them feel more successful than mastery of the material and that this was primarily because out performance was something visible to other people whereas mastery was not. Joseph (HISH) reported that outperforming others makes him feel as though, “I’m not at the end there as I thought - at least for a little while.” He said that he always likes to know how close to the top of the class he is and when asked whether mastery or out performance would make him feel most successful, he replied, “Oh, the top of the class. Because that’s what the school and the family values most.”

Some low self-handicappers also reported feeling successful when they outperformed others, but in a slightly different sense from the high self-handicappers. Ngina (LOSH) was illustrative of this. While she was more interested in outperforming others, she did not conform to the stereotypical ego-oriented student in that she held some regard for those she outperformed: When asked how she felt when she outperformed others she replied, “I feel proud, but I also feel sorry for whoever fails.” Also, outperforming others was not enjoyed for the sake of beating others, but in confirming her positive self-concept: “It’s sort of the reward of my hard work . . . That I’m right in being confident in my abilities.” King’ori (LOSH) also reported that outperforming others gave him satisfaction but considered that this was “a serious success.”
Two students were illustrative of how students high in defensive pessimism come to place value on outperforming others. While Gerald (HIDP) reported that out performance would make him feel most successful, he made the point that out performance would mean more to him not because he beat others per se, but because, in true defensively pessimistic fashion, the relief of performing well would be great. And while Teresa (HIDP) recognized that mastery was a more laudable goal, out performance would make him feel more successful primarily because the school is a competitive environment and that beating others is consistent with this climate. He also reported that beating others is the best way to measure how he is doing at school: “If you’re doing better than others then you know you’re doing well and that’s how you measure yourself.”

While reports by students low in defensive pessimism also implied an ego-orientation, this was qualified. For example, King’ori (LODP) reported that he did enjoy outperforming others, but it was not so much to beat others, as to satisfy personal goals: “It’s more a about doing better for myself.” Interestingly for King’ori (LODP), an ego-orientation also held implications for mastery. He reported that he preferred to outperform others “because that’s a sign of being able to understand.” While it was important to Lynch (LODP) to outperform others, this was because it makes him feel good about himself and not because others have not performed as well as him. Nekesa (LODP) made the point that outperforming others is not a reason for her to feel successful and reported that she saw competition as competition with herself and not with others: “If I can understand something by critical thinking or worked really hard on something then I’ve made progress in myself and I’m proud of myself more so than being able to do something better than someone else.”
Academic public self-consciousness refers to the extent to which students are concerned with how their academic performance is viewed by others. Tom (HISH) was illustrative of self-handicappers high in public self-consciousness. He was rewinding a class and was in great fear of failing again because of what people would think of him if he did. His family, in particular, was concerned with how he was performing and this, he says, contributed to his concern about how his performance is viewed. The extent of his public self-consciousness is reflected in the fact that when he receives results back in class, he is so concerned with how others will see him react, he has actually asked to be excused from class so he can look at his result.

Low self-handicappers were less concerned with how they were viewed by others. For example, Rose (LOSH), who enjoys her studies and is performing well, reported that she was not so much concerned with how she was viewed by others, but with her own personal standards and goals. According to her, “I know what I’m aiming for and other people might not be aiming for that same thing. If I get what I’m aiming for then that’s what matters.” Similarly, Wanjiku (LOSH) reported that “I do it for myself.” The extent to which Ngina (LOSH) felt others’ views were important to her was dependent on how they confirmed her positive view of herself: “It’s good to know that they agree with my view.”

Defensively pessimistic students reported some concern with how they were viewed by others. For example, Gerald (HIDP) reported that how he was seen by others was important to him. His responses also underscored a cultural influence: Respect from others, according
to him, is important in his Luhya culture and it is this need for respect that underlies the concern with how he is viewed by others. Other defensively pessimistic students, whilst not dominated by a concern about how they were viewed by others, did recognize that this concern was present in their lives. For example, Teresa (HIDP) said that she would not want people to know if she failed high school, “because I’d feel like a reject.” Marion (HIDP) said she was concerned about how her classmates and siblings would see her performance in her studies. Her classmates had selected more science courses and she feared that they saw her choice of few science courses as an “academic weakness” and that she may have joined the school with little marks. Whereas some students low in defensive pessimism were concerned with how they were seen by others, this concern was qualified. Aquinox (LODP) and Susan (LODP), while recognizing that it would be nice that others saw them as performing well, reported that this did not dominate their thinking. Lynch (LODP) reported that other people could think what they liked about him (but did note that he would prefer that they did not think he was less than what he was). King’ori (LODP) was more concerned about how his teachers saw his academic performance because they would be more inclined to help if they saw him as being prepared to work hard.

The findings for students high in self-handicapping and defensive pessimism were broadly similar, as were the findings for students low in self-handicapping and defensive pessimism. Students high in self-handicapping and defensive pessimism were concerned with how others viewed their academic performance; however, it seemed that students high in defensive pessimism were not so dominated by these concerns. Students high in self-handicapping and defensive pessimism were more failure-oriented while students low in self-handicapping and
defensive pessimism were more success-oriented. For the most part, students high in self-handicapping and defensive pessimism reported that their feelings about themselves were dependent on feeling and demonstrating competence. Generally, these students' feelings of success also depended on outperforming others. On the other hand, for students low in defensive pessimism and self-handicapping, their self-esteem was not so dependent on feeling or demonstrating competence. Moreover, whilst they acknowledged that outperforming others satisfied them, the extent to which this was the case was qualified.

In the quantitative study, an external attributional orientation was positively associated with both self-handicapping and defensive pessimism. The external attributional orientation construct comprises of attributions for success and failure to external factors. In the case of success, cause is typically attributed to good luck, good teaching, or easy grading. In the case of failure, cause is typically attributed to bad luck, poor teaching, or difficult grading.

Interestingly, no self-handicappers attributed their previous success to external factors. Instead, most of the high self-handicappers tended to attribute their success to their ability. For example, Sophia’s (HISH) success was a combination of her ability and her cunning: "Natural knowledge of the subject and I was basically able to miraculously pass it." Caroline (HISH) and Jane (HISH) believed success was due to a combination of hard work and ability, while Tom (HISH) saw his success as coming through hard work. In terms of external attributions for failure, Caroline (HISH) was the only self-handicapper who attributed failure to external reasons, citing bad luck as the reason. The others mainly attributed their failure to insufficient effort and in some cases, low ability. For example, Tom (HISH) saw failure as
due to a combination of low effort and low ability in the sense that he had neither been insightful enough nor taken the time to ascertain what the examiner expected of him. The majority of students high in defensive pessimism attributed their past success to internal factors. Celina (HIDP) for example, reported that she did well when she thought highly of herself. According to her, “…if I’m confident in myself, I can put things down on paper or talk.” Openda (HIDP) attributed his success to his ability. In respect to failure, he cited instances where he has invested the effort, has not performed well. Other students high in defensive pessimism saw success and failure as due to a mix of internal and external factors. For example, Rhoda (HIDP) reported that “…it would come down to the fact that the teaching in that subject would be clear and interesting and probably I put a bit more effort into it.” In terms of attributions for previous poor performance, no students high in defensive pessimism attributed poor performance to external factors. The majority (Rhoda, Celina, Kenedy, Marion) of students high in defensive pessimism attributed their past poor performances to insufficient effort. Interview data relating to attributions for success and failure reflect patterns parallel to those that emerged in the quantitative data. Rather than attributing failure to external factors, self-handicappers unlike students high in defensive pessimism tended to attribute failure mainly to effort and partly to ability.

Uncertain personal control is comprised of attributions for failure to ability (addressed above), perceived control over one’s ability to avoid doing poorly in the future, and instability of self-concept. Uncertain personal control was found in the quantitative analyses to be positively associated with self-handicapping and defensive pessimism. Generally, high self-handicappers reported that they felt little control over their ability to avoid poor
performance in the future. For example, Jane (HISH) experience is that hard work does not necessarily produce a good result and so when thinking about upcoming exams or assignments, she says: "You never know what's going to happen . . . you can work a lot harder, but still I find it so hard to judge how they're going mark and what they expect."

Onyango (HISH) also felt little control over his ability to avoid future poor performance: "I don't know what's going to happen." Tom (HISH) reported experience with inconsistent marking on assignments that he feels were equal in quality and so feels he has little control over his ability to avoid poor performance in the future.

No students low in self-handicapping reported diminished control over their ability to avoid doing poorly in the future. Jacinta (LOSH) reported that through effort she enhances her control: "I know personally, to avoid doing poorly most of the time - 85 percent of the time - I will work hard and then I can control it." Ngina (LOSH) reported that she knew exactly what she needed to do in order to avoid doing poorly in the future and her comments also implied effort. When asked how much control she felt, she replied: "I think a lot as long as I go back to my subject teacher and ask what I should have done and revise the notes I used and find out what I left out."

While HIDPs generally did not outrightly report low control, they did imply that the extent to which they could avoid doing poorly in the future was dependent on factors beyond their control. For example, Rhoda (HIDP) and Marion (HIDP) reported that their control was dependent on the extent to which the teachers were able to point out clearly where they had gone wrong. Kenedy (HIDP) acknowledged that success and failure were ultimately up to
him; however, he still doubted his ability to perform in the future. Moreover, while Teresa (HIDP) reported that she felt she did have control over her ability to avoid doing poorly in the future, “whether or not I use that control is another matter.”

In contrast to the students high in defensive pessimism, students low in defensive pessimism reported relatively high control over their capacity to avoid future failure. King’ori (LODP) reported that he was confident in his ability to avoid future failure and knew what steps to take to enhance his control. Lynch (LODP) reported that because he was “dedicated” and worked hard, he had control over avoiding poor performance in the future. Tomas (LODP) indicated that by applying himself before an assignment is due he enhances his control over future outcomes.

No students low in self-handicapping reported an unstable self-concept. They tended to be more consistent in their self-concept. For example, according to Ngina, “…if I get results back and they’re not good, I’m not divested. I just think I haven’t worked hard; I’ve got to do more. I’m still confident.” As with the high self-handicappers, no students high in defensive pessimism reported that their view of themselves was particularly consistent. Celina’s (HIDP) opinion of herself as a student ranged from “really good” to “really stupid.” The extent to which Gerald (HIDP) opinion of himself fluctuated would depend on the subject and how much he enjoyed that subject. In subjects he enjoyed he was inclined to think highly of himself, whereas he thought less of himself in subjects he disliked.

Students low in defensive pessimism communicated a more “consistent” and “stable” self-concept. In parts, however, this stability was dependent on a variety of factors. For example,
Lynch (LODP) reported that his self-concept varied from subject to subject and also in response to the grades he received: “I guess when you get results back, they change your opinion. You might do an exam and not think you have done good, but you might get a good mark and I think, ‘Oh, am not that stupid’.”

These data indicate that most high self-handicappers felt little control over their ability to avoid future failure and illustrated the diverse ways in which this lack of control played out in their academic lives. While students high in defensive pessimism also perceived low control, it was not as marked as that of HISHs and the evidence was not without some qualifications. Students high in self-handicapping and defensive pessimism also reported that their view of themselves was not particularly consistent and that it was likely to fluctuate in response to a variety of events in their academic lives.

Task-orientation refers to the extent to which students feel successful and gain satisfaction through mastery, learning, and solving problems. In the quantitative study, mastery orientation was found to negatively predict both self-handicapping and defensive pessimism. Self-handicappers were asked which of mastery or out performance would make them feel more successful. Tom (HISH) was actually dismissive of a task-orientation: According to him, “no-one’s going to care if you learn something new. It doesn’t matter that you learnt great things getting those points - that’s not what school is about.” While Sophia (HISH) indicated that solving a challenging problem was rewarding, she was mindful of how successful performance follows mastery. Onyango and Jane (HISHs), on the other hand, were more clearly task-oriented. Onyango (HISH) reported that gaining new skills was
important to him because “when you get a new skill, it stays with you”, while Jane (HISH) reported that “I like to know why everything works the way it does.”

By contrast, all low self-handicappers endorsed mastery and recognized the contribution of mastery to their academic lives. According to Susan (LOSH), mastery is “something in yourself that you can feel good about rather than outperforming others and underrating them.” Raymond (LOSH) reported gaining great satisfaction in “just doing or knowing something that you’ve never done before and getting the mastery of it and being able to do something well.” Jacinta (LOSH) saw the long-term benefits of mastery: “It doesn’t matter that you went prepared than everyone else in a test. It’s best if you can learn something that you use in the future even after school.”

While students high in defensive pessimism endorsed mastery, in many parts, this endorsement was qualified. For example, Marion (HIDP) reported that mastery was more important to her because one needed mastery in order to beat others. Celina (HIDP) and Rhoda (HIDP) reported that mastery was important to them but more because it was difficult to compare their performance with that of others doing different subjects. Similarly, Celina (HIDP) reported that because everyone chose different subjects at school, true competition with them was difficult. She therefore tended to focus on mastery.

Students low in defensive pessimism were more unambiguously concerned with mastery. Three students were illustrative. Nawire (LODP) reported that she loved challenge and the feeling that she has learnt something new. According to Nawire (LODP), although school is a
place of competition just competing with fellow classmates may not help on the national level, “...it’s more about the national performance.” Ann (LODP) agreed: “If I can grasp something by reading hard, then I’ve made progress in myself and I’m proud of myself, more so than being able to do something better than someone else in the class.”

The findings relating to task-orientation are broadly similar for students high in self-handicapping and defensive pessimism: Both groups tended not to value mastery as much as outperforming others. Notwithstanding this, students high in defensive pessimism were a little more likely to value mastery than self-handicappers were. Students low in self-handicapping and defensive pessimism were a good deal more likely to value mastery, some citing the longer-term importance of mastery and the fact that school is about learning rather than competition.

**Academic outcomes**

The final component of the model involves the academic outcomes that follow from the strategies, self-handicapping and defensive pessimism. Two academic outcomes that were found in quantitative analysis to be predicted by these strategies are self-regulation/persistence and grades.

The qualitative data indicated that self-handicappers were not inclined to be self-regulators. Three students were illustrative. Jane (HISH) found that while she might set goals, she would never stick to them and she reported that she now never plans her approach, does not set goals, nor monitors her progress: “If I set goals, I never reach them. I get distracted. If I set a specific goal, I know the way I work; I’ll end up looking at something completely different.”
Onyango (HISH) started revision only a few days before an assessment was due and he did not make any plans about how to go about the assignment. Nor would he set any short-term goals. Rather, the goal was just to finish the assignment. When asked if he had any study plans for the week before exams, he said that he did not because it never works.” Sophia (HISH) found that the timetables she organizes for study week are just another example of how she goes about wasting time before exams. According to her, planning a timetable is “a time-wasting.”

By contrast, all the students low in self-handicapping reported self-regulatory behaviour. Ngina (LOSH) constantly revised for her assignments, making short notes, and checking that she has addressed all the relevant issues. Susan (LODP) breaks the questions into smaller components, carefully addresses each point, and monitors how she is addressing each point. Sherry (LOSH) also develops a plan about how she is going to go about her assignment and keeps track of where she is up to and whether she is working within the time limits she has set. Raymond (LOSH) was also organized about how he went about his exams and assignments, setting time limits, monitoring his progress, and setting goals. Jacinta (LOSH) was much the same in that she carefully plans her approach to her composition writing, sets goals she wants to work towards, and constantly revisits the question to ensure she is on track.

Students high in defensive pessimism tended not to self-regulate or were self-regulators to only a minimal extent. Rhoda (HIDP) had given up on attempts to plan or organize her study: “I’ve tried to set goals and say, ‘I’ll have so much done by this time’, but it never happens so
I don’t do it anymore - there’s just no point.” Because Kennedy (HIDP) has found that he never sticks to his plans, he would set plans that were so loose that there was little risk of not adhering to them. He also found that this approach was usually of no practical use and that the few days before the exams were due was when he attended to them. Other students high in defensive pessimism were not self-regulators, but indicated that were it not for other commitments they would be. Gerald (HIDP), for example, found that because work at home (helps in family chores-milking and selling milk) he could not really set goals or plan his study. Andrew (HIDP), who was doubling up as a footballer and student, reported that he would like to plan and organize his study, but in practice, he was only able to do his study and assignments as they were due without much forethought, planning, or goal-setting.

Respondents low in defensive pessimism tended to be self-regulators. King’ori (LODP) and Agnes (LODP) keep notes and plan how to go about their exams. Agnes (LODP) reported that she always checks how she is addressing an exam question. Similarly, King’ori (LODP) reported that he was very systematic about his study and assignments, dividing the question or task into a set of minor tasks or issues, and carefully addressing each. Lynch (LODP) indicated that he was very organized about his approach to his study: “I write a timetable for myself. I have every half hour accounted for and I’d set my alarm so I wouldn’t go over time.”

The interview data showed that students high in self-handicapping and defensive pessimism were not inclined to be self-regulators nor would they persist in the face of challenge. The data also extended current understanding of the consequences of self-handicapping and
defensive pessimism by showing how self-handicappers and students high in defensive pessimism come to abandon self-regulatory/persistence behaviour and opt for more superficial, short term, and limited engagement at academic tasks. Important to note, however, is that while self-handicappers and defensively pessimistic students share much in terms of lower self-regulation or persistence, these shared characteristics are qualified in the sense that the negative consequences of defensive manoeuvring did not appear to be so marked for the defensively pessimistic students as they were for the self-handicappers. For example, whilst self-handicappers were clearly not inclined to persist or self-regulate, some students high in defensive pessimism would persist to the extent that the task interested them or would self-regulate if their other activities were not so pressing.

It was considered that the phenomena under study lent themselves quite well to qualitative analysis. The qualitative study explored students’ personal insights into self-handicapping and defensive pessimism, extending current understanding of defensive manoeuvring in general and also the nature of self-handicapping and defensive pessimism more specifically. The qualitative data also indicated the characteristic ways in which students engage these strategies, the salience of these strategies in students’ lives, the strategic nature of self-handicapping and defensive pessimism in the context of self-worth protection, the various factors that accompany students’ defensive posturing, and the academic outcomes that are associated with the strategies. Notwithstanding the variety of ways in which self-handicapping and defensive pessimism are similar (the most notable similarity being their function in protecting self-worth), the data illuminated key ways in which the two strategies are distinct. In sum, then, the qualitative data have been important in (a) illuminating the
quantitative findings, (b) underscoring the marked similarities between self-handicapping and defensively pessimistic students, but (c) also profiling the ways in which students high in self-handicapping and defensive pessimism do diverge, and (d) superimposing on the central quantitative process model the very human face that constitutes the fabric of the present study.

4.5 Discussion of Results

4.5.1 Introduction

The central issues explored concern the affective and motivational factors that predict the use of self-handicapping and defensive pessimism, on one hand, and the impact of these strategies on academic outcomes such as self-regulation and grades. In the review of literature, it was proposed that self-handicapping and defensive pessimism strategies primarily protect individuals' self-worth in anticipation of poor performance and thus the broad conceptual orientation adopted was one drawing on self-worth motivation theory. Indeed, the affective and motivational factors proposed to underlie the two strategies are argued to be factors that, to varying degrees, underpin the motive to protect the self in academic scenario. The data clarified the relative salience of affective and motivational factors in predicting self-handicapping and defensive pessimism.

4.5.2 What factors predict the use of the cognitive strategies?

a) Motivation orientation

It was predicted that ego-orientation would underlie self-handicapping for two reasons. First, because ego-oriented individuals see success as ability-based rather than effort-based (Boyd & Callaghan, 1994; Skaalvik, 1997b), failure is particularly threatening to their self-worth because it implies a lack of ability rather than a lack of effort. Second, because ego-oriented
students are concerned with outperforming others, failure in this context is particularly ignominious and damaging to their competence image and consequent self-worth.

The data in relation to self-handicapping support not only these two contentions but also previous empirical work. In the educational domain, Midgley and Urdan (1995) found that a school performance focus and extrinsic goals (hypothesized here as ego orientation) were associated with self-handicapping and that in a final regression of significant first order predictors, extrinsic goal motivation remained a significant contributor to self-handicapping (see also Midgley et al., 1996). In more sophisticated analyses using multilevel modeling, Urdan et al. (1998) showed class-level ability goals were significantly associated with self-handicapping. There are also indirect data to support the present findings. Pyszczynski and Greenberg (1983) found that when performing tasks characterized as being high in ego-relevance and low in success probability, participants were less inclined to invest effort. In the sporting domain, Rhodewalt and colleagues (1994) found that self-handicappers were more inclined to practice less (self-handicap) before important (ego-relevant) sporting meets. The present data, then, add to these studies and confirm the hypothesized link between ego-orientation and self-handicapping.

The quantitative and qualitative data also showed that ego-orientation underlay a tendency to engage in defensive pessimism. This too, supports previous researches, which, whilst not centrally related to defensive pessimism, do deal with the issue of negative expectations. For example, Koestner et al. (1987) and Duda (1992) found that ego-involved individuals tend to choose less difficult tasks than task-involved individuals. Newton and Duda (1993) reported
that ego-oriented participants entertain more negative expectations about performance in upcoming sporting activities. Similarly, Diener and Dweck (1978) found that children adopting a performance orientation were more likely to focus on failure and made causal attributions for this failure in much the same way as defensive pessimists by attributing it to low ability. Again, whilst the evidence in these studies is indirect, they do support the present data in demonstrating a relationship between ego-related dimensions and negative orientations.

The role of ego-orientation may also clarify recent conceptualizing regarding approach and avoidance goals. Elliot and Church (1997; Elliot & Harackiewicz, 1996; Skaalvik et al., 1994) proposed that relative to task-orientation, ego-orientation is a complex construct. Indeed, this is evident in the way it has been found to be associated with adaptive (see Elliot & Church, 1997; Harackiewicz et al., 1997; Midgley & Urdan, 1995; Roeser et al., 1996; Skaalvik, 1997b) and not so adaptive (Ames & Archer, 1988; Duda & Nicholls, 1992) educational outcomes. Elliot and Church suggest that the nature of the educational challenge determines whether ego-orientation yields adaptive or not so adaptive outcomes. In achievement situations in which there is the threat of failure, it may be that an ego-orientation is more akin to avoidance-oriented performance leading to negative outcomes such as self-handicapping. In achievement situations that are more a challenge than a threat, ego-orientation may be more arousing and adaptive. According to Elliot and Church,

...performance approach goals [e.g., ego-orientation] can be quite deceptive in that the same phenotypic regulatory form can represent diverse genotypic motivational tendencies (p. 228).
In the context of the present study, given that secondary school is a competitive climate (Harackiewicz et al., 1998) and that mock KCSE arouses anxiety, it is obvious that such a climate is somewhat threatening to the student and so ego-orientation will tempt one to protect self-worth.

The quantitative data showed that task-orientation is inversely associated with self-handicapping and defensive pessimism. Task-orientation is an important construct in the model primarily because it reflects an adaptive orientation and thus provides an important contrast to the other somewhat less adaptive affective and motivational predictors. In the review of literature, it was revealed that task-oriented individuals have a mastery focus and tend to see success as deriving from effort rather than from ability (Duda et al., 1992; Middleton & Midgley, 1997; Skaalvik, 1997b; Treasure & Roberts, 1994; Walling & Duda, 1995). Consequently, failure tends not to be attributed to low ability and so from a self-worth motivation perspective, task-oriented individuals are not particularly vulnerable to threats to their self-worth. It can be further argued, then, that because of this, task-oriented students are not particularly inclined to engage in self-protective strategies in anticipation of poor performance. According to Plant and Ryan (1985), task-orientation does not carry the self-worth implications that ego-orientation does. Task-orientation, according to them, is different from ego-orientation because the task-oriented individual’s “motivation to perform an activity is derived from its intrinsic properties rather than an investment of self-esteem” (p. 440).
Researchers to date, however, have provided a rather mixed set of findings pertaining to task-related factors. While Midgley and Urdan (1995) showed that school task focus and task goals were negatively correlated with self-handicapping scores, in more recent research Urdan et al. (1998) found no significant relationship between class task goals and self-handicapping. The present findings, then, may lend clarity to the area in supporting the findings of Midgley and Urdan (1995). Notwithstanding this, it is recognized that climate goals (e.g., class-level or school-level task goals) are different from individual motivation orientations such as that assessed in this study.

The quantitative and qualitative task-related data also make a unique direct contribution to the area of defensive pessimism. Both sets of results showed that task-oriented students are less inclined to hold defensive expectations. Again, it is contended that because task-oriented students see academic outcomes more in terms of effort than ability, they are rendered less vulnerable in upcoming performance situations from a self-worth motivation perspective. In addition, they do not feel compelled to cushion the blow of failure through defensive pessimism because they see failure more as diagnostic feedback than reflecting poorly on their self-worth. That mastery does not underpin defensive pessimism is congruent with the fact that defensively expectant students are focused on performance outcomes and how they expect to fare in upcoming achievement tasks. Moreover, whilst previous research has shown that defensively pessimistic students expend effort which leads to successful performance in the short-term, the present data show that this effort expenditure does not arise from an underlying task-orientation. Rather, the effort expenditure is proposed to arise from an underlying anxiety in a bid to enhance control (Norem & Cantor, 1986a, 1986b). Thus the
effort expenditure of defensively pessimistic students is not grounded in an adaptive task-orientation, but rather, is grounded in a more failure-avoidant orientation. This may be successful in the short term, but in the longer term is argued to be detrimental to performance.

The findings in relation to task-orientation represent an important positive focus in the model. Pivotal to an understanding of the relationship between task-orientation and the two strategies are the facts that task-orientation is an effort-oriented construct and that academic outcomes are seen to be very much effort-related. Poor performance for task-oriented students is, therefore, less threatening because it tends not to hold ability-related implications for self-worth (see also Covington & Omelich, 1979b). Consequently, task-oriented students are less likely to engage in defensive manoeuvring in the forms of self-handicapping and defensive pessimism, which, in the present study were found to be inimical to effort-related constructs such as self-regulation and persistence.

The association between public self-consciousness and self-handicapping supports present contentions that self-handicapping arises partly from a motivation to protect the public competence image. The qualitative data also reflected high self-handicappers' concern with how they were viewed by others. Low self-handicappers, on the other hand, were more interested in adhering to and attaining personal standards. There has been some debate as to whether self-handicapping is primarily a private or a public strategy. For example, Kolditz and Arkin (1982) found that study participants presented with an insoluble problem tended to self-handicap when the experimenter was present and when they believed the experimenter
would have access to their score. Strube (1986; see also Ferrari, 1992; Schill et al., 1991) found that self-handicapping correlated with public self-consciousness, social anxiety, and other-directedness. Midgley and Urdan (1995) also found public self-consciousness to be associated with self-handicapping, but that the effect was not particularly strong, as was also the case in the present study. Shepperd and Arkin (1989a) found that subjects high in public self-consciousness were more inclined to choose a self-handicap when performing a task which, was characterized as a valid indicant of academic success. These findings, then, and those of the present study, are consistent with Baumeister and Scher’s (1988) conclusion that public attention to the self is associated with “self-destructive” behaviours.

Whilst it was hypothesized that academic public self-consciousness would be positively associated with defensive pessimism, there was no significant relationship between the two in the process model. Indeed, given that (a) the correlation between public self-consciousness and defensive pessimism was negative, (b) previous research has found that defensive pessimists are lower in self-esteem (Eronen et al., 1998; Norem & Cantor, 1986b), and (c) no interviewees high in defensive pessimism in the qualitative study reported a high self-concept, the non-significant effect is somewhat surprising. Further research in the field can

The public and self-presented dimension of self-handicapping is supported by a rather abundant research literature. Kolditz and Arkin (1982) were amongst the first to propose that self-handicapping is very much an impression management strategy (see also Tice & Baumeister, 1990). Later, Strube (1986; see also Ferrari, 1992; Schill et al., 1991) found that public self-consciousness was correlated with self-handicapping. Baumgardner et al. (1985; see also Shepperd & Arkin, 1989a) also suggested that self-handicapping is very much a
strategy designed to protect one's public image. In addition to this, the interview data showed that self-handicappers were inclined to communicate the handicaps to others, particularly those close to them such as their family. This is consistent with Arkin and Oleson (1998) who proposed that the primary audience of self-handicappers is comprised of the significant others in their lives.

Illingworth and Norem (1991) found that defensive pessimism significantly correlated with fear of negative evaluation and this implies another-directedness on the part of the defensive pessimist. Polak and Prokop (1989) found that self-monitoring (particularly protective self-monitoring) was associated with defensive pessimism. Individuals, who self-monitor, they contended, are “concerned with the regulation and control of their public selves in the service of creating the desired social impression” (p. 285). Indeed, the qualitative data indicated that students high in defensive pessimism were concerned about (downwardly) regulating others’ expectations of them so that the chances of disappointing them were minimized. Moreover, in his discussion of self-verification theory, Swann (1987) outlined how individuals are inclined to behave in ways that not only verify their own self-view but also control how others see them.

On a more general level, it has been argued that a major underpinning of a fear of failure and its negative consequences is a concern with how one is viewed by others. In early work on fear of failure, Birney et al. (1969) identified three forms of fear of failure, one of which was fear of social devaluation (or fear of a threat to one’s public image). Indeed, in the qualitative
study, respondents high in self-handicapping and defensive pessimism communicated a need to protect themselves from others' disapproval and disappointment.

The congruence between self-handicapping and defensive pessimism highlights the fact that when self-handicapping and defensively pessimistic students go about their studies they must negotiate not only the private terrain that represents their personal standards but also the public terrain in a bid to alter the meaning of potential failure in the eyes of a perceived audience.

It has been shown that individuals higher in self-concept are more inclined to manoeuvre in ways that maximize their control and enhance mastery of their environment (Bandura, 1997). It has also been found that when confronted with obstacles, individuals low in self-concept prematurely relinquish efforts to manage the problem whereas individuals high in perceived competence are more likely to master such obstacles (e.g., Bandura & Cervone, 1983; Cervone & Peake, 1986; Peake & Cervone, 1989).

To date, the evidence regarding the relationship between self-appraisals and self-handicapping has been mixed. Three competing predictions have been advanced. First, individuals low in self-concept are more likely to entertain the possibility of failure and, therefore, engage in self-protective strategies. Indeed, it has been found that self-protection is a central concern of individuals low in self-concept (Baumeister et al., 1989) and recent work has shown that perceived competence is negatively associated with self-handicapping (Urdan et al., 1998). Indeed, extrapolation from evidence relating to self-efficacy (Bandura, 1982, 1986) would suggest that individuals low in self-efficacy are more inclined to self-handicap.
The second hypothesis is that failure for individuals high in self-concept would be a greater blow to their self-concept than failure for individuals low in self-concept and so it could be predicted that the former group would self-handicap to protect themselves in such a situation. The present data support the second possibility which holds that self-handicapping is relatively dependent on the individual’s self-concept. This result contradicts with Rhodewalt et al. (1991) who found that discounting attributions (protective self-handicapping) were made independent of individuals’ self-esteem (see also Midgley et al., 1996, in relation to positive self-esteem; Rhodewalt & Fairfield, 1991; Rhodewalt & Hill, 1995). Moreover, Berglas and Jones (1978) argued, contrary to the present findings, that it is not so much level of self-concept that influences the tendency to self-handicap, as the stability of that self-concept.

Beliefs about the nature of intelligence significantly predicted self-handicapping but not defensive pessimism. Indeed, Rhodewalt (1994) found that self-handicapping was positively associated with a performance orientation and contended that this was the case because of performance-oriented participants’ view that intelligence is a fixed and immutable entity. On the other hand, a learning orientation was negatively associated with self-handicapping and Rhodewalt suggested this was because learning-oriented participants saw intelligence as incremental and that an investment of effort led to enhanced performance.

The possible reason for the non-significant role of intelligence beliefs to defensive pessimism may relate to the nature of the item wording. The intelligence-beliefs items were worded such that they reflected beliefs about other students e.g., “Some students won’t be smart no
matter what" rather than about the respondent himself or herself. It may be that in the context of a model centrally self-related, beliefs about other students are neither salient nor relevant. It is recommended that further research be conducted that examines the influence of students’ beliefs about their own intelligence and the role of these beliefs in a model along the lines of that explored in the present study. At any rate, students’ beliefs about the nature of intelligence was not a significant factor in predicting defensive pessimism.

The quantitative data support the hypothesized association between an unstable self-concept and both defensive pessimism and self-handicapping. The qualitative findings were parallel in that respondents high in self-handicapping and defensive pessimism reported that their self-concept was not particularly consistent from one time to another. Individuals, whose self-concept is not stable, it is contended, hold a shaky belief in their competence, confidence, and skill, and consequently their perceived capacity to meet upcoming tasks is shaky (Arkin & Oleson, 1998). On such occasions, the perceived likelihood of failure is increased and in response to this, it is argued, students are inclined to take preemptive protective action to mitigate the implications of this failure.

Consistent with this rationale, Harris and Snyder (1986; see also Riggs, 1992) report that individuals unstable in self-esteem are "plagued by doubts of performing successfully in an esteem-threatening, evaluative situation" (p. 451). In response to these doubts, individuals are inclined to self-handicap prior to a given task such that if the failure they suspect is impending does in fact occur, they have an alibi (Kimble, Funk, & DaPolito, 1990; McFarlin & Blascovich, 1981; Schneider & Turkat, 1975). The present data support this proposition.
In terms of self-concept stability and defensive pessimism, the research literature is slim. In view of this, interpreting the present findings rests on the more general relationship between self-concept instability and self-protective behaviour. Kernis and Waschull (1995) have reported that self-worth is always on the line for individuals unstable in self-concept. According to them,

...self-esteem instability is accompanied by a heightened concern about feelings of self-worth, which permeates individuals’ involvement in everyday experiences (p.103).

In terms of the present study, a disproportionate concern with the self-worth seems to underpin unrealistic negativity. Indeed, Kernis et al. (1993, in Kernis & Waschull, 1995) found that individuals unstable in self-esteem, relative to individuals with a more stable self-esteem, perceived negative events to last longer and viewed these events more unfavourably. It seems then, that it may not only be one’s level of self-esteem that is critical in determining the extent to which one self-protects, but also the stability of these self-appraisals. This is consistent with Berglas’s (1987) contentions in relation to self-handicapping and with speculation by Norem (personal communication, October 30, 1996) in relation to defensive pessimism. Moreover, some have suggested that this instability may interact with the level of self-concept to influence self-protection (Kernis et al., 1989; Kernis et al., 1992).

Uncertain personal control (comprising low control over future failure and success) was hypothesized to predict defensive pessimism and self-handicapping. The data in relation to low control over future failure and success and defensive pessimism are important because to date their association in academic field, has not been empirically examined directly. Central to the theory of defensive pessimism is that defensive pessimists feel out of control and their
Defensive pessimism are a means of playing through a variety of outcomes which enhances their cognitive and affective control over such outcomes. The data are also consistent with less centrally related findings involving control and pessimism. For example, Pyszczynski (1982) reported that uncertainty about an outcome elicits a motivation to protect the self, which can be achieved by underestimating one’s chances of obtaining the outcome. Also, Schunk (1983) reported that to avoid the implications of failure, students low in perceived control set unrealistically low expectancies for upcoming performances (see also Albersnagel et al., 1986). Similarly, Diener and Dweck (1980) demonstrated that helpless children (who perceive uncertain control over avoiding future failure) were more likely to underestimate their performance in upcoming tasks. These studies corroborate the present finding that low control over avoiding future failure and success are important contributors to self-protection generally and defensive pessimism more specifically.

The interview data showed that low control over avoiding future failure was often due to self-handicappers’ perceptions that examiners were inconsistent in assessment of their work. As a consequence, these students saw little relationship between their effort and subsequent academic outcomes. This is consistent with previous research demonstrating that individuals who receive reinforcement they perceive to be independent of their effort perceive low control over their ability to achieve desired outcomes and avoid undesired ones (Perry & Dickens, 1984; Skinner et al., 1985). This type of feedback has been referred to as non-contingent feedback. Non-contingent feedback communicates to students that success and failure are not due to their personal control and leads to a belief that control over their ability to avoid failure and maintain success in the future is uncertain. The present findings,
particularly the interview data, add to the body of research which shows that low perceived control over future outcomes - often evoked through non-contingent feedback - gives rise to self-handicapping (Berglas, 1987; Berglas & Jones, 1978; Higgins & Harris, 1988; Perry et al., 1986; Perry & Dickens, 1984; Rhodewalt & Davison, 1986; Riggs, 1992).

The quantitative findings in relation to ability attributions for failure are consistent with various studies, which show that individuals who attribute failure to ability are more inclined to engage in defensive manoeuvring designed to protect the self-worth (Covington & Omelich, 1979a; Weiner, 1985). Covington and Omelich (1984a, 1984b, and 1985) suggested that ability attributions for failure are what render individuals particularly vulnerable to self-worth devaluation. They suggest that of all the attributions, attribution of negative outcomes to ability is the "dominant cognition" in the sense that shame and humiliation are more closely associated with it than failure attributed to anything else (Ames, 1984) and also because ability is directly instrumental in bringing about success (see Covington & Beery, 1976; Covington & Omelich, 1984b). Moreover, Weiner (1994) predicted that individuals attributing failure to ability are more likely to experience shame, embarrassment, and the fact that self-handicapping and defensive pessimism were underpinned by ability attributions for failure may suggest a link between them and these affective reactions.

The quantitative study's ability attribution findings are also consistent with work by Cantor and Norem (1989) and Showers (1988) who have found that defensive pessimists are prepared to accept responsibility for outcomes. Similarly, Diener and Dweck (1980) found
that helpless children (high in ability attributions for failure) tended to underestimate the
number of problems successfully solved. As Weiner (1985), observes,

...If conditions (the presence or absence of causes) are expected to remain the same,
then the outcome(s) experienced in the past will be expected to recur (p. 556).

Given that ability is seen to be relatively stable, the individual attributing failure to this cause
can be predicted to hold negative expectations for future performance and the present data
reflect this in relation to defensive pessimism.

An external attributional orientation was a key factor underpinning the need to protect the
self in the form of defensive pessimism, and was not significant predictor of self-
handicapping. These findings as pertains defensive pessimism runs counter to Weiner’s
(1985) claim that “external attributions for positive or negative outcomes do not influence
feelings about the self” (p. 560) - it is recognized, however, that the present
operationalisation is different from Weiner’s operationalisation of attributions). The
quantitative data suggest that attributions to external causes do evoke implications for the
self-worth to the extent that individuals who perceive that external factors strongly contribute
to their failure or success are also inclined to self-handicap.

Indeed, it can be said, then, that external attributions influence feelings about the self to such
a degree that the individual engages in strategies found in the present study to be quite
counterproductive in an educative process. This is also inconsistent with contentions by
Covington (1984a) that an external attributional orientation is “demoralizing” and is likely to
impact on individuals’ inclination to protect the self-worth.
Not so expected was the fact that an external attributional orientation did not significantly predict self-handicapping when previous work has shown that self-handicappers are not inclined to accept responsibility for outcomes (Cantor & Norem, 1989; Showers, 1988). Given that defensive pessimism is about gaining control (Norem & Cantor, 1986a, 1986b), the present findings reflect defensively pessimistic students’ response to perceptions of low control that are grounded in the belief that academic outcomes are due to external causes. Alternatively, it may be that perceiving success and failure to be beyond one’s control raises the prospect of academic failure and setting defensive pessimism is a cushioning strategy in anticipation of such failure. This latter proposition is more consistent with the self-worth motivation perspective adopted in this study.

The qualitative findings were also somewhat consistent with research demonstrating (a) self-serving bias in attributions in which students attribute success more to ability rather than to other factors and (b) self-protection in which students attribute failure to insufficient effort (e.g., see Skaalvik, 1990). These self-serving and self-protective tendencies are proposed to be particularly salient for individuals in an interview situation in which it is not uncommon for respondents to manage the impression they convey to an interviewer (Juvonen & Murdock, 1993). In the context of the present study, students (particularly those high in self-handicapping and defensive pessimism) tended to attribute failure to causes that minimized the implications such failure held for their ability and attributed success to factors that maximized the favourable ability-related implications of performance. On the other hand, when responding to a questionnaire administered on anonymous and group bases, students
were not so concerned with attributing in self-serving and self-protective ways and were clearly prepared to concede that past failure, for example, was at least partly due to ability.

4.3.2 To what extent do self-handicapping and defensive pessimism predict academic outcomes?

The data have highlighted the negative consequences that follow from self-handicapping and defensive pessimism. Moreover, the finding that self-handicapping was more strongly negatively associated with academic behaviours than defensive pessimism indicates; consistent with previous contentions, that self-handicapping is the least adaptive of the self-protection strategies. Thus, the findings identify the diverse ways in which self-protection can affect academic behaviours and also provide insights into the important distinctions between defensive pessimism and self-handicapping.

As hypothesized, the quantitative data indicated that self-handicapping negatively predicts self-regulation. In terms of self-regulation, the qualitative findings showed that high self-handicappers tended not to set goals, did not plan their approach to study, nor monitored their progress. Low self-handicappers, on the other hand, reported that when given an assignment or exam question, they divided the question into manageable units, constantly revised what they had written to ensure its relevance, and monitored their progress as they went about their study.

These findings are consistent with Covington (1984a) who argues that ultimately self-handicapping tactics are not successful in terms of academic outcomes. It seems that students
who tend to place obstacles in the path to success are also inclined to follow this through with low persistence and low self-regulation. If one is looking for an alibi and excuse for failure, a lack of persistence (effort) is a classic candidate. Individuals who are inclined to self-handicap do so to deflect responsibility away from their ability and onto less threatening factors such as effort. If individuals engage in self-regulation it follows that they are expending effort. If failure occurs in this context, individuals cannot attribute it to low effort and so there is the risk that failure will be attributed to low ability. It, therefore, follows that individuals who are inclined to self-handicap are unlikely to be self-regulators.

These findings, however, are contrary to some previous research. A number of investigators have found that self-handicapping can have adaptive consequences in the sense that it minimizes anxiety (Leary, 1986), enhances self-esteem (Leary, 1986) and performance (Snyder et al., 1981), and increases task involvement and consequent task enjoyment (Deppe & Harackiewicz, 1996). Similarly, Thompson (1993) found that when given a face-saving opportunity, the performance of self-worth protective study participants improved.

Quantitative and qualitative data confirmed a significant positive association between defensive pessimism and self-regulation. Similarly, interview findings indicated that students high in defensive pessimism were inclined to self-regulate with tasks in the face of challenge. These findings are consistent with research on defensive pessimism. For example, Garcia et al. (1995) found that defensive pessimists tend to increase effort and because of this their performance is subsequently unimpaired. Norem and Cantor (1986b) argue that defensive pessimism is a “motivating force” (p. 1209), while Cantor and Norem (1989) argue that
defensive pessimism motivates “continued persistence” (p. 93). Showers and Ruben (1990) argue that in contrast to real pessimists’ withdrawal of effort, defensive pessimists show “extensive effort” (p. 387). Showers (1992; see also Cantor & Norem, 1989) also noted the strategic increase in effort that accompanies defensive pessimism.

Furthermore, in the longer term, it has been found that defensive pessimists’ performance tends to decline. Norem and Cantor (1990b) found that in a three-year follow-up study, defensive pessimists performed more poorly than optimists and aschematics, and also experienced more global life stress, more psychological symptoms, and less life satisfaction. Also, Eronen et al. (1998) found that in the long term there was no significant association between defensive pessimism and achievement. Possible reasons for the negative longer-term effects have been proposed (Norem & Cantor, 1990b); however, one explanation which has not been invoked is the fact that over time, the expectations component of defensive pessimism may come to be more salient.

4.3.3 Qualitative analyses
Qualitative data were collected that illuminated the ways in which quantitative findings were manifested in students’ academic lives from students’ personal perspectives. While a good deal of these findings have been addressed in the discussion thus far, it is considered important to focus more closely on self-handicapping and defensive pessimism because a number of new and interesting insights emerged from the interviews about these strategies.
The qualitative data add to existing knowledge of the idiosyncratic ways in which students self-handicap as well as the various lengths to which students will go to protect their self-worth. What these data also underscore is that there is no shortage of potential handicaps at these students’ disposal. Moreover, it is clear that whilst self-handicapping can constitute quite obvious forms of avoidance behaviour wherein students overtly establish an alibi before the fact, it is reflected also in circumstances over which the student appears to have little control. The data in relation to low self-handicappers were also particularly illuminating in that these students seemed to be well aware of the distractions that posed a threat to their study. Importantly, however, whilst the low self-handicappers were well aware of the potential distractions surrounding them, they were quite unaware of the strategic ways in which these distractions could be used for self-protection purposes. In this sense, the qualitative data lend support to quantitative research findings which show that individuals who are not inclined to self-handicap are unaware of its strategic value and as a consequence are more likely to accept at face value the self-handicapping strategies of others (Smith & Strube, 1991).

In addition to addressing the central research questions, other issues relevant to self-handicapping emerged from the interviews that add to the key findings. First, it was interesting to note that when invited at the end of the interview to add or emphasize anything about the way they went about their studies, a number of high self-handicappers voluntarily returned to their self-handicapping behaviour. This seemed to imply that the strategy was salient in their academic lives. Second, some noted the costs of their self-handicapping, beyond simply not performing well. For example, one student commented on the panic and
stress she experiences when she wastes time before exams and assignments. Thirdly, others seemed to feel little or no control over their ability to desist from self-handicapping. For example, the most striking aspect of one interviewee’s self-handicapping was that he felt so powerless in the face of it. According to him, it was “deep rooted” and something which he might change for a week or two but which returns: “It just happens.” Consistent with this, Covington (1985) notes that,

…the temporary suspension of stressful emotions (e.g., humiliation) resulting from the use of these failure-avoiding tactics sets up an almost irresistible, self-reinforcing incentive for their repetition whenever the threat of failure arises (p. 371).

Fourth, another interviewee indicated that behaviour that might appear to be studious can also be self-handicapping. For example, she identified the lengths to which she goes in planning for upcoming exams: “I’d sit there and draw a timetable of a study plan that I find myself changing and planning afresh during study time hence wasting time.” Finally, some students would be quite calculating in their use of self-handicapping. For example, one student’s choice of an obstacle would be based on its social acceptability. She would choose activities that were socially laudable. As she put it, “saintly” activities such as going for fellowship (prayer group) would be the strategy of choice.

Not only do the data contribute to current understanding about the strategic nature of self-handicapping, they also underscore and confirm quantitative data concerning the strategic nature of defensive pessimism (Cantor & Norem, 1989; Norem & Cantor, 1990b). For example, consistent with previous research indicating that defensive pessimism can motivate students (Garcia & Pintrich, 1994; Norem & Cantor, 1986b), some students high in defensive pessimism used their expectations partly to motivate them into action. Defensive pessimists
were also strategic for others in that they obviated disappointment in the event of poor performance - confirming quantitative data that it may cushion the individual in the event of failure (see Norem & Cantor, 1986b) - and also established lower and safer standards against which to be judged (see Baumgardner & Brownlee, 1987). Indeed, the fact that some students high in defensive pessimism reported that they “knew” they were not going to fail and yet “felt” shows a cognitive posturing in support of the strategic nature of defensive pessimism.

The results also indicated that the role of significant others can contribute to students’ defensive pessimism. Not only did family members inadvertently influence the tendency to engage in defensive pessimism, they quite directly contributed to these expectations. For example, one student’s parents explicitly taught her that by holding lower expectations for upcoming events she could minimize her disappointment if she fails. Indeed, early quantitative data demonstrated that expected negative outcomes are not as hard-hitting as unexpected ones (Feather, 1969). In fact, not only do results illuminate the family factors that can underpin defensive pessimism, they also demonstrate how individuals react to others’ high expectations in a defensive way, confirming previous quantitative findings (Baumgardner & Brownlee, 1987).

In addition to data derived directly from the central research questions, two other interesting issues emerged in relation to defensive pessimism. First, the communicated negative expectations seemed to be partly aimed at receiving positive feedback from others and that this was more to disconfirm a poor self-concept than to enhance or confirm a positive one.
Second, one student noted that there were social costs of communicating negative expectations to others. According to her, “everyone knows you’re not going to do badly and they tend to get annoyed with you if you say you are”. Similarly, another student reported that her friends were beginning to discover her ‘lies’ to the technique and that when she tells them she is not going to perform well they dismiss the claim saying that she is merely trying to attract attention to herself. There are, then, social costs associated with the communication of unrealistically negative expectations. Indeed, Covington (1985) reported that:

...the willingness of some students to endure such social stigma, especially in light of the countervailing need to present a positive social image, indicates something of the extent to which individuals can be driven to avoid the implications of failure (p. 371). From the foregoing discussion, it is clear that cognitive strategies are an impediment to the desire of success that students desire.
CHAPTER FIVE: SUMMARY, CONCLUSION AND RECOMMENDATION

5.1 Introduction

This section presents a summary of the study, implications of the findings and a conclusion deduced from the implications. In addition, recommendations based on the study as they relate to education stakeholders and further research are presented next.

5.2 Summary

The present study has been centrally concerned with the variety of factors predicting self-handicapping and defensive pessimism of high school students in Nairobi province, Kenya and the effect of these strategies upon academic outcomes such as self-regulation, and grades. These issues were examined from an academic process model focusing on self-worth motivation theory and research pertaining to the factors giving rise to self-worth protection. This model provided an encompassing perspective on the processes related to defensive manoeuvring and the specific means by which students self-protect. Addressing these issues in such a manner extended previous work that has typically examined the predictors and consequences separately.

The finding showed a positive relationship between the predictors and cognitive strategies. Overall, self-handicapping and defensive pessimism were positively predicted by ego orientation, stability of self-concept, perceived control and attributional orientation. However, self-handicapping and defensive pessimism were negatively related with external attributional orientation, task-orientation and entity beliefs. This result was expected since people in this category are mastery-oriented. The strength of the (negative) associations between self-handicapping and self-regulation supported self-handicappers’ status as
possibly more failure accepting than failure avoiding. This study in essence may have contributed to current understanding of factors comprising self-worth motivation by systematically unifying them and linking them to self-handicapping and defensive pessimism.

While the emphasis of the present investigation was on the quantitative components, a qualitative study provided a number of important perspectives on the nature of self-handicapping and defensive pessimism and the factors related to them. The qualitative study illuminated many of the key relationships by providing insight into the specific ways in which such relationships were manifested in students' academic lives from their own perspectives. The qualitative data were valuable not only in grounding the quantitative findings in personal accounts of the variety of challenges form IV students face in their academic lives, but also in providing a very real sense of the rich detail in which these challenges are met by students.

In summary, the contributions of this study are multifold:

- The study assessed an academic process model that captured both predictors and consequences of self-handicapping and defensive pessimism, thus extending previous research which typically examined predictors and consequences separately;
- In clarifying the constructs underlying self-handicapping and defensive pessimism, a more comprehensive understanding of the process of defensive manoeuvring as it relates to academic achievement has been advanced;
- The quantitative findings were enriched through qualitative analyses by illuminating the relationships derived in the quantitative method and,
• In addition to these central issues, the qualitative analysis addressed a variety of supplementary issues which have not been given direct empirical attention in previous research and which further clarified the ways in which self-handicapping, defensive pessimism operate in students’ academic lives.

• The quantitative and qualitative studies have provided a great deal of data on the lengths to which students go to protect their self-worth, the factors giving rise to this defensive manoeuvring, and the diversity and complexity of consequences that follow from such behaviour. In addition to these processes, the study has yielded important data relevant to assessments of defensive manoeuvring, attempts to study it, and interventions designed to address it. The findings of the present investigation hold not only substantive and methodological implications for researchers studying the causes, means, and consequences of self-worth protection, but are also relevant to educators working in contexts in which students are motivated to manoeuvre defensively.

5.3 Implication of the findings
The present findings hold a number of implications for educational researchers and practitioners. The predictors of self-handicapping and defensive pessimism point to areas that can be the focus of educational interventions designed to target defensive manoeuvring.

It is important, then, for educators to encourage students to develop more of an internal attributional profile and thereby enhance their perceptions of control. Consistent with the counseling tradition, Higgins and Berglas (1990) suggest that self-handicappers need to develop a new attributional logic by learning techniques such as cognitive restructuring (Meichenbaum, 1977). For example, the present findings indicate that ability attributions for
failure (relatively uncontrollable) contributed to defensive pessimism and self-handicapping whereas it has been shown that encouraging students to attribute outcomes to effort and strategy (controllable) promotes perceived competence and adaptive approaches to learning (Andrews & Debus, 1978; Craven, Marsh, & Debus, 1991; Dweck, 1975; Schunk, 1981). Thus, when encouraging students to attribute outcomes to internal factors, it is important that educators are cognizant of the key differences between effort- and ability-related causal ascriptions.

The quantitative and qualitative findings also underscored the centrality of uncertain personal control in predicting defensive pessimism and self-handicapping. Moreover, the qualitative data indicated that inconsistent assessment in the educational context contributes to students' perception of uncertain control over their ability to avoid future failure. Indeed, this supports research demonstrating the link between non-contingent feedbacks and self-handicapping (Rhodewalt & Davison, 1986; Riggs, 1992). The principal outcome arising from non-contingent feedback is low perceived control, which has also been associated with pessimism and inversely associated with optimism (Zackay, 1984). It is, therefore, posited that promoting individuals' perceived control over given outcomes is an important step in addressing self-defeating behaviour. One way of promoting perceived control is to administer reinforcement and feedback that is directly contingent on students' performance (Craven et al., 1991; Hattie, 1992; Thompson, 1994). Additionally, as outlined above, addressing individuals' causal ascriptions for outcomes is another way of enhancing their perceived control over future outcomes.
Also underpinning this issue of control is the stability of individuals’ self-concept. It is proposed that individuals whose self-concept is unstable are in doubt as to their ability to meet upcoming challenge. In the face of such uncertainty, students may choose to play it safe and engage in strategies that offer self-protection. The present data do not enable concrete recommendations about promoting a stable self-concept. It is therefore important to determine the factors that give rise to an unstable self-concept. In the educational context, these may include inconsistent assessment (Kernis & Waschull, 1995) and differential attention and reinforcement to students on the part of the teacher (Beckman, 1970; Felsenthal, 1970). It may also be that a fluctuating self-concept results from a view of self that is partly based on how others respond to us. For example, the symbolic interactionist position holds that our self-concept develops as a consequence of how others respond to us and what we perceive others think of us (Kinch, 1963). When self-concept is based on this and because others’ opinions are unlikely to be entirely consistent, we are particularly vulnerable to fluctuations in self-concept. Thus, an over-reliance on others’ evaluations of them may render some students vulnerable to an unstable self-esteem (see Rosenberg, 1986). Moreover, Kernis et al. (1993) have found that individuals whose self-worth is based primarily on competence are most susceptible to fluctuations in self-concept. Thus, it might be important to address students’ concerns regarding others’ evaluations of them and to de-emphasize the role of competence in students’ private assessments of their self-worth.

Each of these is discussed with particular focus on how they manifest themselves in the educational context from a self-worth protection perspective in addition to the means by which educators are able to address these factors in altering the self-worth implications of
their current educational practice. Ego-orientation, as one pivotal component underpinning a performance orientation, contributed to the tendency to self-handicap and engage in defensive pessimism. Ego-oriented individuals feel most successful when they outperform others and tend to be obsessed by competitive concerns. Competition perpetuates the notion that success is derived from ability rather than from effort (Covington & Omelich, 1984b) and so failure in this context reflects directly on ability and hence one’s self-worth. Thus, competition for those not guaranteed success can represent a climate in which self-protection is a primary objective. Indeed, in the interview, students high in self-handicapping and defensive pessimism reported that they saw school as a competitive environment and that they felt particularly successful when outperforming others in this climate. Mastery, on the other hand, has as its focus success by way of effort and thus failure in this context is not seen as a threat to one’s ability. Rather, it is seen as diagnostic effort-related feedback that one can use to enhance performance in the future (Covington, 1997).

Indeed, Covington (1989, 1997) suggests that classroom rewards be based on the extent to which students become competent rather than distributed on the basis of students’ ability to be competitive. According to Covington (1992), the classroom reward system should be focused on incentives that draw rather than those that drive. Along these lines, goals that minimize the competitive climate include self-mastery, helping others, expressing creativity, and satisfying curiosity (Covington, 1989, 1997). Other practical strategies include reworking the nature of assessment itself. Covington (1989) has proposed alternative grading systems in which students work at assigned tasks until they have reached a predetermined grade of choice. Covington and Omelich (1984c) also found that mastery-based learning structures such as re-testing were associated with higher performance and motivation.
Notwithstanding this, it must be recognized that with re-testing comes the possibility of repeated failure which has been shown to be detrimental to feelings of self-worth (Covington & Omelich, 1981). Another complicating issue is the role of effort in students’ lives and in the context of what teachers reward. Covington and Omelich (1979b) found that while low effort in the context of failure elicited lower judgments of incompetence and shame from the perspective of students, from teachers’ perspectives this combination of failure and low effort elicited most punishment. Thus, the meaning of effort must be redefined to students such that it does not so directly reflect on one’s ability and is seen as a positive value in its own right.

Further to this issue of competitive versus cooperative learning environments, Johnson and Johnson (1989) have proposed that competitive environments promote comparisons of one’s ability with that of others whilst cooperative environments are very task-oriented and focused on mastery through collaboration with one’s peers. On the strength of their meta-analyses, they concluded that cooperative learning tended to be more adaptive in terms of performance and productivity (Moriarty, Douglas, Punch, & Hattie, 1995). It seems then, that it may be more desirable to gear the learning environment towards mastery and cooperation rather than competition (Garcia et al., 1995; Thompson, 1994). Indeed, competitive and ego-oriented environments have been found to be maladaptive in a number of other educational respects (see, for example, Elliot & Dweck, 1988; Graham & Golan, 1991; Meece & Holt, 1993). In terms of self-handicapping these contentions are very much supported in recent work by Urdan et al. (1998) who found that an emphasis on relative ability goals (very much akin to a competitive climate) in the classroom as well as teachers’ use of instructional practices emphasizing relative ability were positively associated with self-handicapping by students (}
Garcia *et al.*, 1995, in relation to competitive high school classrooms and both defensive pessimism and self-handicapping). Midgley and Urdan (1995) found much the same: Self-handicapping was positively correlated with school performance goals and negatively correlated with school task goals.

Notwithstanding these negative associations between performance-related goals and educational outcomes, it must be noted that some level of competition is preferred by students with more adaptive (deep) approaches to learning (Hattie & Watkins, 1988) and performance-related goals can be related to more adaptive educational outcomes under particular circumstances (Elliot & Church, 1997). Indeed, Harackiewicz et al. (1998) argue that there is a variety of conditions under which performance goals can be adaptive. For example, Elliot and Church (1997) suggest that the effects of performance-related goals can depend on the nature of the educational challenge before students. In situations in which the threat of failure is salient, performance-related goals may take on a more avoidance profile and be negatively associated with desirable educational outcomes. On the other hand, in achievement situations that present more a challenge than a threat, performance-related goals may be more adaptive. What is required then is to recognize the complexity of performance-related goals and the conditions under which these goals are not deleterious to important educational constructs.

Public self-consciousness also contributed to students’ tendency to self-handicap although not in defensive pessimism behaviour. Consistent with previous contentions (Federoff & Harvey, 1976), it is proposed that individuals who are concerned with how they are viewed
and evaluated by others are particularly motivated by the need to self-protect. Publicly self-conscious individuals are very much concerned with their image (Cheek & Briggs, 1982) and it is this which renders them vulnerable to self-worth threats. In the context of self-worth vulnerability, it may be preferable that self-handicappers are encouraged to be less concerned with how they are viewed and evaluated by others and adhere to more private and personal standards that do not render self-worth vulnerable. Higgins and Berglas (1990) imply as much in their discussion of the clinical implications of self-handicapping. According to them, "one of the fundamental goals of therapy with self-handicappers is to enable them to achieve a sense of self that is independent of social influence and capable of determining acceptable levels of performance on the basis of internally held standards" (p.227). Indeed, the qualitative data indicated that students low in self-handicapping were more concerned with aspiring to personal goals and standards than with adhering to publicly prescribed standards. Moreover, given that competition is prevalent in high school (Harackiewicz et al., 1998), and that competition promotes a concern with how one fares in relation to others, it is speculated that these factors also give rise to a concern with how one is evaluated by others because it is the demonstration of ability and competence which is paramount. A more cooperative, rather than competitive focus, may diminish the extent to which students are publicly self-conscious. Also contributing to the tendency to engage in self-handicapping is an avoidance-oriented performance based on a motivation to work and perform to avoid failure and its negative consequences. Fear of failure along these lines has been the topic of study for many years. A motivation to perform based on a fear of failure and its negative consequences is pivotal to a self-worth motivation perspective because it is primarily poor performance that places students' ability image in question and which has subsequent implications for self-
worth. (Covington, 1992, 1997). One important means by which this process can be short-circuited is to encourage students to see failure more as diagnostic effort-related feedback than performance feedback. In this way, the threat to the self-worth that failure poses is managed.

5.4 Conclusion

In conclusion, then, the present findings offer a number of directions for educators and other stakeholders in education. It is proposed that students be encouraged to attribute outcomes to internal factors but that this be primarily effort- rather than ability-based. It is suggested that feedback, reinforcement, and assessment be as directly contingent on performance as possible thereby enhancing students’ perceptions of control. In terms of an unstable self-concept, it is proposed that students be discouraged from basing their self-worth on the demonstration of competence and others’ evaluations of them. Educators should also minimize the competitive focus of the learning environment (or at least recognize the conditions under which it is unfavourable to academic outcomes and self-worth) and promote task and mastery goals. In this way, effort, rather than ability, becomes the basis of success, and threat of failure to one’s ability image is dealt with.

5.5 Recommendations

a) Teachers

It is recommended that teachers should favour a more a cooperative, rather than competitive (or relative-ability-based), learning environment to minimize self-protective concerns in the classroom. Students should be encouraged by teachers’, to adhere to more personal goals and standards as one way to minimize the public dimension of self-worth protection. Teachers should try to instill in students the notion that failure or poor performance is diagnostic and a
springboard for later success rather than evidence of low ability and low self-worth. Nevertheless, such an approach is probably only workable when students believe that they can surmount such failures and attain success, in which case, some self-efficacy cultivation in students by educators can be helpful. Last but not least, teachers should pay more attention to students who are involved in self protection and try to help them understand that they have an infinite value and this can only be done through a loving relationship.

b) Parents

It is recommended that parents should work hand in hand with teachers’ in order to develop a positive approach to learners who are vulnerable to engage in protective strategies. Parents should not base love for their children on performance at school for they come to associate love with ability and therefore self-worth. Parents should also encourage cooperative behaviour among their children as this can be useful in school learning.

c) Policy makers

It is recommended that competition among schools in the form of ranking be discouraged by educational policy makers as this is translated to competition in class which spoils the joy of learning.

d) Further research

The present data not only provided a number of new perspectives on the many constructs involved in the investigation but also extended current understanding of these constructs. There were, however, limitations, which have direct bearing on future research that deserve a mention.
The first issue to consider is that the data used in the study were derived from self-reports. The present study validated the self-handicapping and defensive pessimism constructs through triangulation of data collected using qualitative and quantitative methods. Whilst many of the constructs involved can only be assessed through self-report, it is important for future researches to examine the present process models using data derived from additional sources. Such data might incorporate ratings about students by others close to them such as teachers, parents or peers.

The other dimension, which is also of relevance to self-handicapping in an attributional sense, is that of self-enhancement (Kelley, 1972). The self-enhancement perspective of self-handicapping holds that individuals select or construct impediments to success so that in the event of successful performance they are seen to be more competent than if they succeeded in the absence of such impediments. It would be interesting to re-assess the present model by juxtaposing protective self-handicapping with enhancing self-handicapping (e.g., “I often fool around the night before an exam, so if I do well, I feel/look more successful than if I’d studied”).

The present study adapted measurements forms of defensive pessimism and self-handicapping Questionnaires and operationalised them in a way that differed from previous work. Accordingly, while conclusions have been drawn and recommendations made for future research, these must be placed in the context of the adapted measurement and operationalisation of these forms. Further research is required in other provinces to validate these forms.
A variety of affective and motivational predictors were proposed as indicants of self-worth motivation in this study. The contention that self-worth motivation underpins these constructs could not be established empirically as it appears that, there exists no direct measure of self-worth motivation. Rather, self-worth motivation in the present study is proposed to be more a joint operation of constructs than a single one-dimensional measure. Nonetheless, the present study is limited in that no single measure of self-worth motivation was incorporated and so the self-worth motivation bases of the predictors were established more through conceptual rationale rather than direct empirical operationalisation. It will be interesting for future research to have self-worth motivation as a single operationalisation rather than a bundle of constructs.

When interpreting present findings, it is important to recognize that they relate to general performance. It will be interesting for future research to test these constructs in the context of academic domains (e.g. Languages, humanities or sciences separately). It may be that defensive manoeuvring in academic domains that are intrinsically interesting yields positive effects (Deppe & Harackiewicz, 1996, in relation to self-handicapping) whereas in areas which evoke anxiety and are perhaps not so interesting defensive manoeuvring may not be so adaptive.

This study only focused on form IV students. Presumably, they were facing a national exam and were motivated academically to graduate from high school to university. It would be
interesting to explore the proposed process model using students at various levels of high school.

The self-protection process is not confined to the educational domain and it is quite conceivable that the present process model could be quite applicable to extra curriculum activities in school such as music, drama and sporting activities. Future research into defensive pessimism and self-handicapping should follow students in and out of qualitatively different life experiences. It would be interesting to assess such experiences using a process-oriented approach along the lines of that presented in this investigation.

The focus of the present study was on educational processes related to self-handicapping and defensive pessimism. Accordingly, the outcome component of the models comprised only academic constructs. However, there may be other costs involved in self-handicapping and defensive pessimism. For example, Smith and Strube (1991) have shown that others tend to have negative impressions of self-handicappers, whilst Cantor and Norem (1989) have found that defensive pessimists feel more fatigued after social engagement. Moreover, defensive pessimists have been found to be more variable in emotional reactions across situations than optimists. It appears, then, that there are social and emotional costs involved with each strategy and future research might explore the present process models with a view to clarifying the precise role of these social and emotional issues.

Related to this issue of the consequences of self-handicapping and defensive pessimism is how others perceive these strategies and the extent to which they serve the desired purpose of
protection or enhancement of one’s competence image. This was not addressed in the present study and has not received much attention in the academic domain. There is a small body of research that has shown self-handicapping to serve its protective purposes from the perspective of an audience (Luginbuhl & Palmer, 1991 - but its success in this respect has not been assessed over time).

Importantly, the benefits accrued from such strategic manoeuvring are not without their costs. For example, whilst Luginbuhl and Palmer (1991) found that self-handicapping reduced others’ negative attributions to the subject’s ability, they were more inclined to think more negatively about other characteristics of the subject. In terms of students high in defensive pessimism, the qualitative data showed that whilst others reassured them and affirmed to them that they were competent, one respondent described how her friends discovering her ‘lies’ to her strategy and did not indulge her unrealistically low expectations. Research has shown that the extent to which individuals engage in impression management depends on how credible their presentation is in the eyes of others and how much the audience knows about the individual (Frey, 1978; Schlenker, 1975). Clearly, the public dimensions of self-handicapping and defensive pessimism only go so far and reach a point where they are no longer acceptable to an audience. It would be interesting for future research to explore the defensive process beyond this point to see how individuals behave once their alibi or cushioning strategy no longer suffice.

The qualitative data indicated that some self-handicappers felt little control over their ability to desist from self-handicapping. For example, the most striking aspect of one interview with
a self-handicapper was that he felt powerless in the face of his self-handicapping. According to him, it was "deep rooted" and "just happens." The data also indicated that some interviewees would quite consciously manoeuvre in a defensive fashion whereas others were less aware of their strategic attempts to protect the self. Perceived control over one’s actions and behaviours is pivotal to effective functioning (Conway & Terry, 1992; Gamble, 1994). Greater understanding of students’ perceptions of control over their defensive manoeuvring through future research is required to better inform educational interventions designed to promote more adaptive functioning.

The role of the family in influencing students’ tendency to engage in self-protective strategies need clarification through future research. Qualitative findings were suggestive of some family influence in this respect, but further work is required to determine the precise nature and extent of this influence. Midgley and Urdan (1995) make the point that because self-handicapping arises from a history of non-contingent feedback (Berglas & Jones, 1978; Jones & Berglas, 1978), it would be interesting to survey parents about the type of feedback they give to their children and the relationship between these reports and children’s self-handicapping. Importantly, the present data indicated that family-related factors are quite relevant to students in high school.

An extension of interviewees’ motivation orientation was their perception of the learning climate. Qualitative data indicated that self-handicappers and defensive pessimists tended to see the learning climate as competitive and this evoked a need to outperform others. This supports previous quantitative findings (Midgley & Urdan, 1995; Urdan et al., 1998), but
some issues remain unclear. For example, the learning climate and its impact on defensive pessimism has apparently not been addressed to date. Also, the impact of altering the learning climate e.g., from competitive to cooperative on students’ academic strategies has not been studied and future research might focus on this with a view to identifying interventions that can take place at class and institutional levels.

Finally, on a methodological note, the contribution of the qualitative data to quantitative findings underscores the importance of the interface and integration of quantitative and qualitative perspectives. It is proposed that more work along these lines can enhance current educational practice and research, particularly in those areas that to date have been dominated by quantitative perspectives.
References


Nicholls, J.G. (1976). Effort is virtuous, but it’s better to have ability: Evaluative response to perceptions of effort and ability. *Journal of Research in Personality, 10*, 306-315.


APPENDICES

Appendix I: Academic process questionnaire

Scale: 1 mostly agree 2 agree 3 undecided 4 disagree 5 mostly disagree

(A) SELF-HANDICAPPING

A1 Active self-handicapping
   a) I let myself get run-down (don’t look after myself) when assignments or exams are due so I have an excuse if I don’t do as well as I hoped
   b) I tend to not try hard at assignments so I have an excuse if I don’t do as well as I hoped.
   c) I often fool around the night before a test or exam so I have an excuse if I don’t do as well as I hoped.
   d) I let my friends keep me from paying attention in class or from doing my study or assignments so I have an excuse if I don’t do as well as I hoped.
   e) I tend to not study very hard before exams so I have an excuse if I don’t do as well as I hoped.
   f) I often become occupied on things other than study the night before an exam, so I have an excuse if I don’t do as well as I hoped.
   g) I purposely don’t get enough sleep or rest before upcoming exams and assignments, so I have an excuse if I don’t do as well as I hoped.
   h) I don’t attend all the classes so I have an excuse if I don’t do as well as I hoped.
   i) I tend to put assignments and study off until the last moment so I have an excuse if I don’t do as well as I hoped.
   j) I often think about other things, allow myself to be distracted, or daydream when I try to study so I have an excuse if I don’t do as well as I hoped.
   k) I often get involved in a lot of activities when exams or assignments are coming up so I have an excuse if I don’t do as well as I hoped.

A2 Self-presented self-handicapping
   a) I tell others that I’m more run-down (haven’t been looking after myself) than I actually am when assignments or exams are due, so if I don’t do as well as I had hoped, I can say that is the reason.
   b) I let people think that I don’t try as hard at assignments as I actually do, so if I don’t do as well as I had hoped, I can say that is the reason.
   c) I tell others that I fool around the night before an exam more than I really do, so if I don’t do as well as I had hoped, I can say that is the reason.
   d) I let others think that my friends are keeping me from paying attention in class or during study time more than they actually are, so if I don’t do as well as I had hoped, I can say that is the reason.
   e) I let people think that I sometimes don’t study as hard for exams as I actually do, so if I don’t do as well as I had hoped, I can say that is the reason.
   f) I let people think that I become more occupied on things other than study the night
before an exam more than I actually do, so I can say that is the reason if

g) I don’t do as well as I hoped.
h) I let people think that I attend less classes in this area than I really do so I have an excuse if I don’t do as well as I hoped.
i) I let people think that I don’t get as much sleep or rest before upcoming exams and assignments than I actually do, so I can say that is the reason if I don’t do as well as I hoped.
j) When I try to study, I let others think that I am distracted by things more than I really am, so if I don’t do as well as I had hoped, I can say that is the reason.
k) I let people think that I am involved in a lot more activities than I really am when exams or assignments are due, so if I don’t do as well as I had hoped, I can say that is the reason.
l) I tell people that I put assignments and study off until the last moment more than I actually do, so if I don’t do as well as I had hoped, I can say that is the reason

A3 Self-presented affective self-handicapping

a) When an exam or assignment is coming up, I am inclined to tell others that I’m more anxious than I really am, so if I don’t do as well as I had hoped, they will think that is the reason.
b) When an exam or assignment is coming up, I am likely to tell others that I’m feeling more hassled than I really am, so if I don’t do as well as I had hoped, they will think that is the reason.
c) If some assessment is coming up in school, I am inclined to tell people that I am more depressed or down than I really am, so if I don’t do as well as I had hoped, they will think that is the reason.
d) When assignments or exams are due, I am likely to let people think that I’m in a worse mood than I really am, so if I don’t do as well as I had hoped, they will think that is the reason.
e) When some assessment or exam is coming up, I am inclined to tell people that things aren’t going as well at home as they really are, so if I don’t do as well as I had hoped, they will think that is the reason.

(B) DEFENSIVE PESSIMISM

B1 Active defensive pessimism

a) No matter how well I have done in the past, I go into academic situations expecting to do worse.
b) No matter how well I have done in the past, I often expect I will do more poorly in the future.
c) No matter how well I have done in the past, I generally have negative expectations about how I will do in the future.
d) No matter how well I have done in the past, I often expect that in upcoming tests or assignments I won’t be able to do what is required of me.
e) No matter how well I have done in the past, in upcoming tests or assignments, I think if something can go wrong for me, it will.
f) No matter how well I have done in the past, I’m pessimistic about my future
g) No matter how well I have done in the past, I hardly ever expect things to go my way in the future.

h) No matter how well I have done in the past, in future performances, I rarely expect good things to go my way.

i) No matter how well I have done in the past, in upcoming performances, I expect more bad things to happen to me than good.

B2 Self-presented defensive pessimism

a) No matter how well I have done in the past, when going into academic situations, I let others think that I expect to do worse than I really think I’ll do.

b) No matter how well I have done in the past, I tell others that I expect I’ll do more poorly in the future than I actually think I’ll do.

c) No matter how well I have done in the past, I tell others that my expectations for future performances are more negative than they actually are.

d) No matter how well I have done in the past, in academic situations I let others think that I’m more negative about being able to do what is required than I really am.

e) No matter how well I have done in the past, I tell people that if something can go wrong for me it will, more than I think it actually will.

f) No matter how well I have done in the past, I tell people that I’m more pessimistic about future tests and assignments than I really am.

g) No matter how well I have done in the past, I let others think that I expect less things to go my way than I think will.

h) No matter how well I have done in the past, I tell others that I expect less good things to go my way than I really think will.

(C) MOTIVATION ORIENTATION

C1 Ego-orientation

a) I feel successful when I know more than other people.

b) I feel successful when others get things wrong and I don’t.

c) I feel successful when I’m the smartest.

d) I feel successful when I beat others.

e) I feel successful when I do better than my friends.

f) I feel successful when others can’t do as well as me.

g) I feel successful when I have the highest test scores.

h) I feel successful when I’m the only one who can answer questions.

C2 Task-orientation

a) I feel successful when what I learn really makes sense.

b) I feel successful when I solve a problem by working hard.

c) I feel successful when something I learn makes me want to find out more.

d) I feel successful when something I learn makes me think about things.

e) I feel successful when I get a new idea about how things work.

f) I feel successful when I do my very best.
g) I feel really successful when I learn something interesting.
h) I feel really successful when I work really hard.

(D) PUBLIC SELF-CONSCIOUSNESS

a) I'm self-conscious about how I appear academically.
b) I'm concerned about what other people think of my academic capabilities.
c) I'm concerned about how I'm seen to be performing academically.
d) I care about how others view me academically.
e) I'm concerned about the way others see my academic abilities.
f) I think about the academic image I project to others.
g) I'm concerned how others view the way I go about my studies.
h) I'm usually aware of how other people view me academically.
i) I care a lot about how I present myself academically.
j) I often worry about making a good impression academically.

(E1) LEVEL OF SELF-CONCEPT

a) I learn quickly in all subjects.
b) I have always done well in all subjects.
c) Compared to other students I am good in these subjects.
d) Work in all subjects is easy for me.
e) I get good marks in all subjects.
f) I'm hopeless when it comes to these subjects.

(E2) STABILITY OF SELF-CONCEPT

a) My opinion of myself tends to change a good deal instead of always remaining the same - I find that on one day I have one opinion of myself in schoolwork and on another day I have a different opinion.
b) I change from a very good opinion of myself in schoolwork to a very poor opinion.
c) I have noticed that my ideas about myself in schoolwork seem to change very quickly.
d) My beliefs about how capable I am in schoolwork seem to change very frequently.
e) I feel that nothing can change the opinion I currently hold about myself in schoolwork.
f) If I were asked to describe my capabilities, my description might end up being different from one day to another day.

(F) VIEWS OF INTELLIGENCE

F1 Entity beliefs

a) Some students will never be smart, no matter how hard they try.
b) There isn’t much some students can do to make themselves smarter.
c) Some students won’t be smart no matter what.
d) Students can learn new things but how smart they are doesn’t change.
e) A smart student will always be smart.
f) Students who are not smart can’t do anything to change that.
g) How smart a student is doesn’t change.
F2 Incremental beliefs
   a) A student who works really hard could be one of the smartest in the class.
   b) Any student could get smarter if they worked hard.
   c) Any student can get smarter by learning more.
   d) As a student learns new things he or she gets smarter.
   e) Any student could improve their ability if he or she worked really hard.
   f) As a student’s knowledge increases, he or she becomes smarter.

(G) PERCEPTIONS OF FUTURE CONTROL

G1 Low control over future success
   a) When I do well I’m unsure as to how to repeat that success.
   b) When I get a good grade I’m not sure how I’m going to get that grade again.
   c) When I do well I’m not sure what I can do to do well again.
   d) When I do better than I expect I’m usually unclear about what to do to increase my chances of doing as well again.
   e) When my performance is good I’m not sure what I can do to maintain it.
   f) I’m often unsure how I can follow up on one success with another success.

G2 Low control over future failure
   a) When I don’t do well I’m unsure about what to do to avoid that happening again.
   b) When I get a bad grade I’m not sure how I’m going to avoid getting that grade again.
   c) When I do poorly I’m not sure what to do to minimize the chances of it happening again.
   d) I’m often unsure how I can avoid future failure.
   e) When I do worse than I expect I’m usually unsure about what to do to minimize the chances of it happening again.
   f) When my performance is not so good, I’m often unsure about what I can do to improve it.

(H) ATTRIBUTIONS

H1 Ability attributions for success
   a) The most important ingredient in getting good grades is my academic ability.
   b) I feel that my good grades reflect directly on my academic ability.
   c) When I get good grades it is because of my academic competence.
   d) When I do well it is because I have high ability.
   e) My successes are due to my ability.
   f) My ability is the reason I do well.

H2 Ability attributions for failure
   a) Low marks cause me to question my academic ability.
   b) Not doing so well in a course is because I lacked skill in that area.
   c) When I get poor grades it leads me to assume that I lacked ability to succeed in those courses.
   d) When I do poorly it is because of my low ability.
e) My poorer results are because of my low ability.
f) My low ability is the reason I have not done well at times in the past.

H3 Effort attributions for success

a) The good grades I receive are always the direct result of my efforts.
b) Whenever I receive good grades, it is because I have studied hard.
c) I can overcome all obstacles in the path of academic success if I work hard enough.
d) When I do well it is because I have worked hard.
e) My successes are due to my hard work.
f) My hard work is the reason I do well.

H4 Effort attributions for failure

a) When I receive a poor grade, I usually feel that the main reason is that I haven’t studied enough.
b) When I don’t do as well as expected, it is often due to a lack of effort on my part.
c) Poor grades tell me that I haven’t worked hard enough.
d) When I do poorly it is because I haven’t worked hard.
e) When I receive poor results it is because I haven’t studied enough.
f) Lack of effort is the reason I have not done well at times in the past.

H5 External attribution for success

a) Sometimes my success on exams depends on luck.
b) I feel that some of my good grades depend to a considerable extent on luck, such as having the right questions show up on an exam.
c) Sometimes I feel that I should count myself lucky for the good grades I get.
d) Some of the times that I have gotten a good grade was because of the teacher’s easy grading scheme.
e) Some of my good grades in courses may simply reflect that they were easier courses than most.
f) I get good grades mostly because the course material was easy to learn.

H6 External attributions for failure

a) Some of my lower grades have seemed to be due to bad luck.
b) My academic low points sometimes make me think I was just unlucky.
c) Some of my bad grades have been a result of bad luck.
d) In my experience once a teacher gets the idea you’re a poor student, your work is much more likely to receive poor grades than if someone else handed it in.
e) Often I get poorer grades in courses because the teacher has failed to make them interesting.
f) Some low grades I’ve received seem to be because some teachers are just stingy with marks.
J) SELF-REGULATION

a) Before taking an exam or quiz, I plan out how I will study the material.
b) I organize my study time.
c) When I do an assignment, I first get it clear in my head what I am trying to accomplish.
d) When I work on a task, I make sure I know what I am asked to do before I begin.
e) When I finish working on a task I check my work to see if it is reasonable.
f) I try to organize an approach in my mind before I actually start working on tasks.
g) When I finish working on tasks I check my work for errors.
h) Before doing an assignment, I clearly plan out how I am going to do it.
i) I establish goals for learning.
j) When I study I take note of the material I have or have not mastered.
APPENDIX II: Questionnaire As Administered To Participants

This research project has been approved by KENYATTA UNIVERSITY.

ACADEMIC PROCESS QUESTIONNAIRE

INFORMATION SHEET

Dear Student

THIS IS NOT A TEST. There is no right or wrong answers and everyone will often have different answers from each other. Just make sure that your answers show how you really feel about yourself. When you have finished the questionnaire, just hand it in to me. Your answers will be confidential and under no circumstances will the answers that you give to the questionnaire be known to anyone other than the researcher. When answering the questionnaire, if you want to change an answer just cross it out and circle the answer that you prefer. You should have ONLY ONE answer for each question. Do not leave out any questions. If you are not sure which answer to circle, just circle the one that you think is the closest to what you think.

QUESTIONS ARE ON BOTH SIDES OF THE PAGES.

Thank you for consenting to participate

ACADEMIC PROCESS QUESTIONNAIRE (Rating Scale)

1. School........................................... SEX (Please circle one) 1 FEMALE 2 MALE

2. SURNAME.............................. FIRST NAME............................. AGE...........

Choose only one answer for each question by ticking/circling on the correct response that reflects how you really feel about yourself

<table>
<thead>
<tr>
<th>1- Strongly Disagree</th>
<th>2- Disagree</th>
<th>3- undecided</th>
<th>4- Agree</th>
<th>5- Agree Strongly</th>
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<tbody>
<tr>
<td>1</td>
<td>Some of my bad grades have been a result of bad luck</td>
<td>1 2 3 4 5</td>
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<td>2</td>
<td>When I do an assignment, I first get it clear in my head what I am trying to accomplish</td>
<td>1 2 3 4 5</td>
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Choose only one answer for each question by ticking/circling on the correct response that reflects how you really feel about yourself.

1- Strongly Disagree  2- Disagree  3- undecided  4 Agree  5- Agree Strongly

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<tr>
<td>1</td>
<td>I feel really successful when I work really hard</td>
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<td>2</td>
<td>I often worry about making a good impression academically</td>
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<td>3</td>
<td>I feel really successful when I can do better than my friends</td>
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<td>4</td>
<td>Others thinking that I am clever is very important to how I feel about myself</td>
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<td>5</td>
<td>I avoid thinking about possible bad outcomes before tests and assignments</td>
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<td>6</td>
<td>I care about how others view me academically</td>
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<td>7</td>
<td>I feel really successful when others get things wrong and I don't</td>
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<td>8</td>
<td>I feel really successful when I know more than other people</td>
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<td>9</td>
<td>I tell others that I’m more run-down (haven’t been looking after myself) than I actually am when assignments or exams are due so if I don’t do as well as I had hoped, I can say that is the reason</td>
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<td>10</td>
<td>When I get a bad grade I’m not sure how I’m going to avoid getting that grade again</td>
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<td>11</td>
<td>Low marks cause me to question my academic ability</td>
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<td>12</td>
<td>When I do well I’m not sure what I can do to do well again</td>
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<td>13</td>
<td>It is very important to how I feel about myself that I don’t feel stupid</td>
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<td>14</td>
<td>No matter how well I have done in the past, I tell others that I expect less good things to go my way than I really think will</td>
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<td>15</td>
<td>Any student could get smarter if they worked hard</td>
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<td>16</td>
<td>When I don’t do as well as expected, it is often due to a lack of effort on my part</td>
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<td>17</td>
<td>My successes are due to my ability</td>
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<td>18</td>
<td>When I do poorly it is because of my low ability</td>
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<td>19</td>
<td>When I get a good grade I’m not sure how I’m going to get that grade again</td>
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<td>20</td>
<td>Others thinking that I am proficient is very important to how I feel about myself</td>
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<td>21</td>
<td>If I were asked to describe my capabilities in class, my description might end up being different from one day to another day</td>
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<td>22</td>
<td>It is very important to how I feel about myself that others do not think that I’m incompetent</td>
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<td>23</td>
<td>I feel really successful when I’m the smartest</td>
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</table>
Choose only one answer for each question by ticking/circling on the correct response that reflects how you really feel about yourself


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<tbody>
<tr>
<td>1</td>
<td>A student who works really hard could be one of the smartest in the class</td>
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<td>2</td>
<td>I get good grades mostly because the course material was easy to learn</td>
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<td>3</td>
<td>I can overcome all obstacles in the path of academic success</td>
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<td>4</td>
<td>As a student’s knowledge increases, he or she becomes smarter</td>
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<td>5</td>
<td>Further education with a lot of subjects in sciences/humanities does not appeal to me</td>
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<td>6</td>
<td>I’m concerned how others view the way I go about my studies</td>
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<tr>
<td>7</td>
<td>I’m often unsure how I can avoid future failure</td>
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<tr>
<td>8</td>
<td>Often I get poorer grades in courses because the teacher has failed to make them interesting</td>
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<tr>
<td>9</td>
<td>No matter how well I have done in the past, I let others think I expect less things to go my way than I think will</td>
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<tr>
<td>10</td>
<td>When I finish working on assignments I always check my work for errors</td>
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<tr>
<td>11</td>
<td>When my performance is not so good, I’m often unsure about what I can do to improve it</td>
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<tr>
<td>12</td>
<td>Others thinking that I am skilful is very important to how I feel about myself</td>
<td></td>
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<tr>
<td>13</td>
<td>It is very important to how I feel about myself that others do not think I’m stupid</td>
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<tr>
<td>14</td>
<td>I’m usually aware of how other people view me academically</td>
<td></td>
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<tr>
<td>15</td>
<td>When I do poorly I’m not sure what to do to minimize the chances of it happening again</td>
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<tr>
<td>16</td>
<td>Some low grades I’ve received seem to be because some teachers are just mean with marks</td>
<td></td>
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<tr>
<td>17</td>
<td>If I have trouble solving a homework problem, I’m more likely to just copy the answer from the book than to keep working at it trying to figure it out</td>
<td></td>
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<tr>
<td>18</td>
<td>I feel that some of my good grades depend to a considerable extent on luck, such as having the right questions show up on an exam</td>
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<tr>
<td>19</td>
<td>If I have trouble understanding a problem or question, I keep going over it until I understand it</td>
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</tr>
</tbody>
</table>
Choose only one answer for each question by ticking/circling on the correct response that reflects how you really feel about yourself

1- Strongly Disagree  2- Disagree  3- undecided  4 Agree  5- Agree Strongly

<p>| | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>I feel really successful when I solve a problem by working hard</td>
<td>1 2 3 4 5</td>
<td></td>
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</tr>
<tr>
<td>2</td>
<td>Some of my lower grades have seemed to be due to bad luck</td>
<td>1 2 3 4 5</td>
<td></td>
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<tr>
<td>3</td>
<td>I feel really successful when I do my very best</td>
<td>1 2 3 4 5</td>
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<tr>
<td>4</td>
<td>I care a lot about how I present myself academically</td>
<td>1 2 3 4 5</td>
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<tr>
<td>5</td>
<td>Feeling I am skilful is very important to how I feel about myself</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>My beliefs about how capable I am in this area seem to change very frequently</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Often the main reason I do my homework is because I do not want people to say bad things about me</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Whenever I receive good grades, it is because I have studied hard</td>
<td>1 2 3 4 5</td>
<td></td>
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</tr>
<tr>
<td>9</td>
<td>No matter how well I have done in the past, I generally have negative expectations about how I will do in the future</td>
<td>1 2 3 4 5</td>
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<tr>
<td>10</td>
<td>Considering what can go wrong in tests and assignments helps me to prepare</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>No matter how well I have done in the past, I tell people that I’m more pessimistic about future tests and assignments than I really am</td>
<td>1 2 3 4 5</td>
<td></td>
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</tr>
<tr>
<td>12</td>
<td>When I do well I’m unsure as to how to repeat that success</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>In the future I would like to take on more of these subjects</td>
<td>1 2 3 4 5</td>
<td></td>
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<tr>
<td>14</td>
<td>It is very important to how I feel about myself that others do not think that I’m incapable</td>
<td>1 2 3 4 5</td>
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<tr>
<td>15</td>
<td>When I do poorly it is because I haven’t worked hard</td>
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<td></td>
</tr>
<tr>
<td>16</td>
<td>It is very important to how I feel about myself that I don’t feel incapable</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>17</td>
<td>Some students will never be smart, no matter how hard they try</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>18</td>
<td>Others thinking that I am capable is very important to how I feel about myself</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>19</td>
<td>It is very important to how I feel about myself that I don’t feel below average student</td>
<td>1 2 3 4 5</td>
<td></td>
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</tr>
<tr>
<td>20</td>
<td>Before doing an assignment, I clearly plan out how I am going to do it</td>
<td>1 2 3 4 5</td>
<td></td>
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</tr>
<tr>
<td>21</td>
<td>Often the main reason I do my homework is because I do not want my teacher to think less of me</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>22</td>
<td>When I do better than I expect I’m usually unclear about what to do to increase my chances of doing as well again</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Choose only one answer for each question by ticking/circling on the correct response that reflects how you really feel about yourself

1- Strongly Disagree  2- Disagree  3- undecided  4 Agree  5- Agree Strongly

<table>
<thead>
<tr>
<th></th>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>My opinion of myself tends to change a good deal instead of always remaining the same</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
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<tr>
<td>2</td>
<td>When I do worse than I expect I’m usually unsure about what to do to minimize the chances of it happening again</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>3</td>
<td>I spend a lot of time thinking through possible outcomes when a test or assignment is coming up</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>4</td>
<td>I have noticed that my ideas about my self in class work seem to change very quickly</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>5</td>
<td>I don’t look forward to taking a course in future that involves these subjects again.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>6</td>
<td>There isn’t much some students can do to make themselves smarter</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>7</td>
<td>I feel really successful when others can’t do as well as me</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>8</td>
<td>How smart a student is doesn’t change</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>9</td>
<td>No matter how well I have done in the past, in upcoming tests or assignments, I think if something can go wrong for me, it will</td>
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<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>10</td>
<td>I often think about how I will feel if I do very poorly in tests and assignments</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>11</td>
<td>I’m concerned about how I’m seen to be performing academically</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>12</td>
<td>When I read something in the book that doesn’t make sense, skip it without spending time to try to understand it</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
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<tr>
<td>13</td>
<td>I’m concerned about the way others see my academic abilities</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>14</td>
<td>No matter how well I have done in the past, I tell others that expect I’ll do more poorly in the future than I actually think I’ll do</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>15</td>
<td>No matter how well I have done in the past, in academic situations I let others think that I’m more negative about being able to do what is required than I really am</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>16</td>
<td>A smart student will always be smart</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>17</td>
<td>If I have trouble working at a problem or task, I’m more likely to write the first thing that comes to mind than to keep working at it and try to figure it out</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>18</td>
<td>Not doing so well in a course is because I lacked skill in that area</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>19</td>
<td>Others thinking that I am competent is very important to how I feel about myself</td>
<td>1</td>
<td>2</td>
<td>3</td>
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<td>5</td>
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Choose only one answer for each question by ticking/circling on the correct response that reflects how you really feel about yourself.

1- Strongly Disagree  2- Disagree  3- undecided  4 Agree  5- Agree Strongly

<table>
<thead>
<tr>
<th></th>
<th>Feeling I am capable is very important to how I feel about myself</th>
<th>1 2 3 4 5</th>
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</thead>
<tbody>
<tr>
<td>2</td>
<td>As a student learns new things, he or she gets smarter</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>3</td>
<td>When I get good grades it is because of my academic competence</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>4</td>
<td>I let my friends keep me from paying attention in tutorials or from doing my study or assignments so I have an excuse if I don’t do as well as I hoped</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>5</td>
<td>The good grades I receive are always the direct result of my efforts</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>6</td>
<td>I often fool around the night before a test or exam so I have an excuse if I don’t do as well as I hoped</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>7</td>
<td>No matter how well I have done in the past, I hardly ever expect things to go my way in the future</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>8</td>
<td>I think about the academic image I project to other</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>9</td>
<td>When I work on an assignment, I make sure I know what I am asked to do before I begin</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>10</td>
<td>My poorer results are because of my low ability</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>11</td>
<td>If I have trouble working at a problem, I’ll stick at it and try to work it out rather than get someone else to tell me how to do it</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>12</td>
<td>Compared to other students I am good in these subjects</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>13</td>
<td>I tell people that I put assignments and study off until the last moment more than I actually do, so if I don’t do as well as I had hoped, I can say that is the reason</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>14</td>
<td>Some students won’t be smart no matter what</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>15</td>
<td>Poor grades tell me that I haven’t worked hard enough</td>
<td>1 2 3 4 5</td>
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<td>16</td>
<td>It is very important to how I feel about myself that others don’t think that I’m below average.</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>17</td>
<td>In my further education, I don’t want to do any more subjects in sciences/humanities</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>18</td>
<td>I don’t mind doing any subject in all areas at university</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>19</td>
<td>Some of the times that I have gotten a good grade was because of the teacher’s easy grading scheme</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>20</td>
<td>When I get poor grades it leads me to assume that I lacked ability to succeed in those courses</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>21</td>
<td>I’m more interested in completing homework and assignments as fast as possible than watching TV</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>22</td>
<td>Often the main reason I do my homework is because I do not want to</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>1</td>
<td>I don’t look after myself when assignments or exams are due so I have an excuse if I don’t do as well as I hoped</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>2</td>
<td>I tend to not try hard at assignments so I have an excuse if I don’t do as well as I hoped</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>3</td>
<td>No matter how well I have done in the past, in future performances, I rarely expect good things to go my way</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>4</td>
<td>I feel really successful when what I learn really makes sense</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>5</td>
<td>I look forward to teaching any subject that I learn in high school</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>6</td>
<td>If some assessment is coming up at school, I am inclined to tell people that I am more depressed or down than I really am, so I don’t do as well as I had hoped, they will think that is the reason</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>7</td>
<td>When I receive poor results it is because I haven’t studied enough</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>8</td>
<td>I want to avoid subjects in this area in further education</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>9</td>
<td>When I don’t do well I’m unsure about what to do to avoid that happening again</td>
<td>1 2 3 4 5</td>
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<tr>
<td>10</td>
<td>Often the main reason I do my school work is because I don’t want to let my parents or friends down</td>
<td>1 2 3 4 5</td>
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<tr>
<td>11</td>
<td>No matter how well I have done in the past, when going into academic situations, I expect the worst</td>
<td>1 2 3 4 5</td>
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<tr>
<td>12</td>
<td>I let others think that I expect to do worse than I really think I’ll do</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>13</td>
<td>Any student can get smarter by learning/reading more</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>14</td>
<td>No matter how well I have done in the past, in upcoming performances, I expect more bad things to happen to me than good</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>15</td>
<td>When I do well it is because I have high ability/intelligence</td>
<td>1 2 3 4 5</td>
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<tr>
<td>16</td>
<td>I feel really successful when I beat others in class</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>17</td>
<td>I let people think that I sometimes don’t study as hard for exams as I actually do, so if I don’t do as well as I had hoped I can say that is the reason</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>18</td>
<td>I establish goals for learning</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>19</td>
<td>Work in all subjects is easy for me</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>20</td>
<td>I always organize my study time by following a timetable</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>21</td>
<td>I feel really successful when something I learn makes me want to find out more</td>
<td>1 2 3 4 5</td>
</tr>
</tbody>
</table>
Choose only one answer for each question by ticking/circling on the correct response that reflects how you really feel about yourself.

<table>
<thead>
<tr>
<th>Question</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Undecided</th>
<th>Agree</th>
<th>Agree Strongly</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I often get involved in a lot of activities when exams or assignments are coming up so I have an excuse if I don’t do as well as I hoped</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>2. I’m often unsure how I can follow up on one success with another success</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>3. Feeling I am competent is very important to how I feel about myself</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>4. I feel really successful when I’m the only one who can answer a question correctly</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
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<td>5. I feel really successful when I get a new idea about how things work</td>
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<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
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<tr>
<td>6. It is very important to how I feel about myself that I don’t feel incompetent</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
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<td>7. I’m hopeless when it comes to class work</td>
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<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
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<td>8. Lack of effort is the reason I have not done well at times in the past</td>
<td>5</td>
<td>4</td>
<td>3</td>
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<td>1</td>
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<tr>
<td>9. I let people think that I don’t try as hard at assignments as I actually do, so if I don’t do as well as I had hoped, I can say that is the reason</td>
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<td>10. No matter how well I have done in the past, I’m pessimistic about my future performances</td>
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<td>11. I let people think that I am involved in extracurricular work than I really am when exams or assignments are due, so if I don’t do as well as I had hoped, I can say that is the reason</td>
<td>5</td>
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<td>3</td>
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<td>12. Feeling I am proficient is very important to how I feel about myself</td>
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<td>13. When I run into a difficult homework or assignment task, I keep working at it until I think I’ve solved it</td>
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<td>14. No matter how well I have done in the past, I often expect I will do more poorly in the future</td>
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<td>15. When I receive a poor grade, I usually feel that the main reason is that I haven’t studied enough</td>
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<td>16. I often think about other things, allow myself to be distracted or daydream when I try to study so I have an excuse if I don’t do as well as I hoped</td>
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<td>17. When I do well it is because I have worked hard.</td>
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<td>18. When my performance is good I’m not sure what I can do to maintain it</td>
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<td>19. No matter how well I have done in the past, I often expect that</td>
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<td>in upcoming tests or I won’t be able to do what is required of me</td>
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Choose only one answer for each question by ticking/circling on the correct response that reflects how you really feel about yourself.

1- Strongly Disagree 2- Disagree 3- undecided 4 Agree 5- Agree Strongly

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<tr>
<th>Question</th>
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<th>2</th>
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<tr>
<td>1. When an exam or assignment is coming up, I am likely to tell others</td>
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<td>that I’m feeling more disturbed than I really am, so if I don’t do</td>
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<td>2. Some of my good grades in courses may simply reflect that they</td>
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<td>were easier courses than most</td>
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<td>3. Often the main reason I do my homework is because I do not want</td>
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<td>people to think that I am not intelligent enough</td>
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<td>4. I tend to not study very hard before exams so I have an excuse</td>
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<td>if I don’t do as well as I hoped</td>
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<td>5. No matter how well I have done in the past, I go into academic</td>
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<td>situations expecting to do poorly</td>
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<td>6. I tend to put assignments and study off until the last moment so</td>
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<td>I have an excuse if I don’t do as well as I hoped</td>
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<td>7. When I run into a difficult homework or assignment task, I usually</td>
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<td>give up quickly and go on to the next problem or task</td>
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<td>others that I’m more anxious than I really am, so if I don’t do as</td>
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<td>well as I had hoped, they will think that is the reason</td>
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<td>9. Others thinking that I am smart is very important to how I feel</td>
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<td>about myself</td>
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<td>and assignments</td>
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<td>11. Any student could improve their ability if he or she worked really</td>
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<td>hard</td>
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<td>13. I feel that nothing can change the opinion I currently hold</td>
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<td>about myself in this area</td>
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<td>14. The most important ingredient in getting good grades is my</td>
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<td>15. I often try to figure out how likely it is that I will do very</td>
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<td>poor in tests and assignments</td>
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<td>16. My academic low points sometimes make me think I was just</td>
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<td>unlucky</td>
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<td>17. When some assessment or exam is coming up, I am inclined to tell</td>
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<td>people that things aren’t going as well at home as they</td>
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</table>
really are, so if I don’t do as well as I had hoped, they will think that is the reason

Choose only one answer for each question by ticking/circling on the correct response that reflects how you really feel about yourself

1- Strongly Disagree  2- Disagree  3- undecided  4 Agree  5- Agree Strongly

<p>| | | | | | |</p>
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<td><strong>1</strong></td>
<td>I have always done well in all subjects in exams</td>
<td>1 2 3 4 5</td>
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<tr>
<td><strong>2</strong></td>
<td>I change from a very good opinion of myself in class work to a very poor opinion</td>
<td>1 2 3 4 5</td>
<td></td>
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<tr>
<td><strong>3</strong></td>
<td>I get good marks all subjects</td>
<td>1 2 3 4 5</td>
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<tr>
<td><strong>4</strong></td>
<td>In my experience once a teacher gets the idea you’re a poor student, your work is much more likely to get a poor grade than if someone else handed it in</td>
<td>1 2 3 4 5</td>
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<tr>
<td><strong>5</strong></td>
<td>Students who are not smart can’t do anything to change that</td>
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<tr>
<td><strong>6</strong></td>
<td>My low ability is the reason I have not done well at times in the past</td>
<td>1 2 3 4 5</td>
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<tr>
<td><strong>7</strong></td>
<td>I feel really successful when I have the highest test scores</td>
<td>1 2 3 4 5</td>
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<td><strong>8</strong></td>
<td>I often become occupied on things other than study the week before an exam, so I have an excuse if I don’t do as well as I hoped</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
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<tr>
<td><strong>9</strong></td>
<td>I purposely don’t get enough sleep or rest before upcoming exams and assignments, so I have an excuse if I don’t do as well as I hoped</td>
<td>1 2 3 4 5</td>
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<tr>
<td><strong>10</strong></td>
<td>I don’t attend all the classes so I have an excuse if I don’t do as well as I hoped</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>11</strong></td>
<td>I let people think that I become more occupied on things other than study the night before an exam more than I actually do, I can say that is the reason if I don’t do as well as I hoped</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>12</strong></td>
<td>I let people think that I don’t get as much sleep or rest before upcoming exams or assignments than I actually do, so I can say that is the reason if I don’t do as well as I hoped</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td><strong>13</strong></td>
<td>I let people think that I attended less lessons than I really do so I have an excuse if I don’t do as well as I hoped</td>
<td>1 2 3 4 5</td>
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</tbody>
</table>

To get a clearer picture of students’ motivation and learning strategies, I am hoping to talk to a few students about the way they go about their studies. If you would not mind talking to me about these things (at school and at a time of your convenience), I would really appreciate it if you indicate your name and index number. **NOTE: THIS IS COMPLETELY OPTIONAL.** If I do contact you, and then you would like to change your mind, that is no problem.

**First Name:** - --------------------------**Index number:**: (.................................)

**THANK YOU FOR YOUR PARTICIPATION**
INTERVIEW CONSENT FORM

I understand that the interview with Mr. Koinange is for research purposes contributing to his Ph.D in education. I understand and consent to him audio taping the interview and that when reporting extracts from the interview, a pseudonym will be used and not my real name. I have been informed of the purposes of the research. I agree that participation is voluntary and that I can withdraw from the interview at any stage with no penalties to me whatsoever. I understand that the audio tape will be stored in a secure location accessible only to Mr. Koinange.

Name..................................Signature.........................................Date.........../....../2007

Semi-structured interview schedule

a) What subjects are you taking?  
b) Are you enjoying schooling?  
c) What made you decide on the subjects you are studying?  
d) What do you think of these subjects?  
e) Have you found it demanding? Many assignments/exams?  
f) Are you performing to your satisfaction in your assignments and exams up to now?  
g) What do you think of yourself as a student?  
h) Would you say that your view of yourself as a student is fairly consistent or would you say it can fluctuate from day to day?  
i) When you do well in your studies, what is usually the main reason?  
j) (If focus needed give choice of ability, effort, or external factors and ask which the main cause is)  
k) Do you ever do more poorly than you thought you’d do?  
l) When this happens what is generally the main reason?  
m) (If focus needed give choice of ability, effort, or external factors and ask which the main cause is)  
n) How confident are you in your ability to avoid doing poorly in the future?  
o) What steps can you take to avoid doing poorly in the future?  
p) Some students are motivated because they want to strive for success while others are motivated because they want to avoid the negative consequence of not doing well. Would you relate to either of those two students? How?  
q) Would you say you feel more successful when you outperform others or when you learn/master something new? Why do you say that?  
r) To what extent are you concerned about how others view your academic performance? Why?  
s) How important is it to you that you’re seen by others to be academically competent? Why?  
t) How important is it that you see yourself as competent? Why?  
u) How would you go about preparing for an exam or assignment? To what extent
would you be organized, plan, or monitor your progress?
v) When you’re presented with a challenging academic task or problem, would you be more inclined to stick at it until you solved it or would you be more inclined to move on to something else?

For Low defensive pessimism and High defensive pessimism students

a) If I ask you to imagine of your next assignment or exam, do you think you’ll do the same, better, or worse than you’ve done before?
b) Why do you say that?
c) How does it make you feel when you go into an exam thinking more negatively/positively than previous experience would predict?
d) Does thinking this way have any advantages/disadvantages?
e) (If respondent reports defensive pessimism) would you tell people that you’re feeling negative?

For Low Self handicapper and High Self handicapper students

a) Some students do things that seem to get in the way of their success. For example, they might procrastinate before an upcoming assignment, become occupied on other things before the exams, or fool around the night before an exam. Other students get onto the job of doing their assignments and studying for the exam and maximize their chances of success. Would you relate to either of these two students? If so, in what ways do you do some of these things?
b) Why do you think you do these things?
c) What advantages might there be in doing these things?
d) (If respondent reports self-handicapping) Would you tell other people that you do these things?
e) (If respondent reports self-handicapping) would you tell others that you do these things more than is actually the case?
f) That’s all the questions I have to ask you. Is there anything you would like to add?
g) Is there anything you feel I haven’t touched or focused on? Is there anything you would like to emphasize? Is there a particular way you go about your studies that I haven’t addressed?
## Appendix IV: Scales and statistics

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<tr>
<th>SCALES AND THEIR STATISTIC</th>
<th>Coefficient of determination</th>
<th>Cronbachs alpha</th>
<th>NO OF ITEMS</th>
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### Appendix IV: Data analysis output

**Correlations**

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### Extra analysis - Factor Analysis

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| Percentage total variance        | 51.69   | 9.91  | 7.29  | 7.20  | 76.12 |
| Percentage common variance       | 56.04   | 8.10  | 6.38  | 5.65  |
| Eigenvalues                      | 10.08   | 1.45  | 1.14  | 1.02  |