

UNIVERSITY OF ZULULAND



FACULTY OF ARTS

Department of Sociology

**Self-Regulated Learning and Academic Performance among Pupils at Qhakaza High
School in Kwa-Zulu Natal Province, South Africa.**

BY

Sinethemba Ngcobo

201158438

Supervisor

Dr. K. D Ige

Co-Supervisor

Prof M.M. Hlongwane

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Abstract

In spite of numerous initiatives, resources and infrastructural provision, the continuous decline in Learners' academic performance remains a global phenomenon that threatens economic development. Scholars have therefore been interested in unravelling factors that enhance or impede academic performance. Self-regulated learning (SRL) refers to a self-initiated and directed learning process; this *agentic* angle of the social cognitive theory introduces human agency as a solution to students declining academic performance. Self-regulated learning encompasses motivation, self-judgement, self-efficacy, cognition and assessment feedback. Current literature on self-regulated learning and academic performance is limited to subject specific investigations, which seek to determine suitable learning strategies for specific learning areas.

The present study investigated the relationship between components of self-regulated learning and academic performance. The purpose of the study was to determine whether self-regulated learning could improve, the academic performance of high school students. Learners' perceived levels of motivation, self-judgement, self-efficacy, cognition, assessment feedback and their self-reported academic performance were collated using a self-report questionnaire. Motivation, self-judgement, self-efficacy, cognition and assessment feedback are components of SRL. Each variable provides a skill or strategy that is linked to academic success. In a survey, (n=101), data was collected using the Likert scale type self-report questionnaires from grade 10 learners at Qhakaza High School, KwaDlangezwa, in the Kwa-Zulu Natal Province of South Africa. In the first order of analysis, responses were reduced using Principal Components Analysis (PCA), to determine how questionnaire items contributed to the variables of interest. Furthermore, bivariate correlations and hierarchical

stepwise linear regressions were carried out to establish simple relationships between the dependent and independent variables. The results showed that cognition and assessment feedback were the only two variables of self-regulated learning which were positively related to Learners' academic performance. The result thus indicated, contrary to many past, studies that the perceived level of motivation, perceived level of self-judgement and perceived level of self-efficacy were statistically insignificant as predictors of Learners' academic performance. The results of this study thus showed that cognition and assessment feedback are learning strategies that should be fostered towards improving Learners' academic performance in high schools. Cognition and assessment feedback are two variables, which are mostly facilitated or provided by teachers. This implies that contrary to the propositions of the SRL's *agentic* component, Learners' responsibilities for their own learning outcomes may not be relevant in the sample of this study as none of the self-directed variables of perceived level of motivation, perceived level of self-judgement and perceived level of self-efficacy were correlated to academic performance. The main conclusion of the study was that not all components of self-regulated learning influence academic performance. It was therefore recommended that the teacher-learner approach should be revised to suit the contemporary classroom environments, since students still struggle with self-directed learning.

Declaration

I, Sinethemba Ngcobo (201158438), the undersigned, do hereby declare that the content of this dissertation is my original work and has not been previously submitted or attempted to be submitted to any other University for an award of a degree, either in part or in its entirety.

Signature.....

Date.....

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I thank God for his grace and guidance, since the beginning of my life's journey. Had it not been for Him none of this would have been possible. This opportunity would not have been possible without the financial support I received from the Prestige Bursary and the University's Research Office throughout all my postgraduate studies. Words cannot explain my gratitude. I hope more students will be afforded such opportunities.

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Dedication

I dedicate my work to my late parents, my grandparents and my entire family. I hope this inspires them to dream even bigger.

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Glossary of Terms Abbreviations

AM: Autonomous Motivation.

BTS: Bartlett's Test of Sphericity.

CM: Controlled Motivation.

DF: Degree of freedom.

IMI: Intrinsic Motivation Inventory.

KMO: Kaiser-Meyer-Olkin test of sample size adequacy.

$I_{k j}$

MSLQ: Motivated Strategies for Learning Questionnaire.

PALS: Patterns of Adaptive Learning Scale.

PASSI: Perception of Ability Scale for Students.

PCA: Principal Components Analysis.

PELCO: Perceived Level of Cognition.

PELOM: Perceived Level of Motivation.

PELSE: Perceived Level of Self-Efficacy.

PHSCS: Piers-Harris Children's Self-Concept Scale.

PLAFE: Perceived Level of Assessment Feedback.

PLAP: Perceived Level of Academic Performance.

PLOS: Perceived Level of Self-Judgement.

SD: Standard Deviation.

SMQ: School Motivation Questionnaire.

SPSS: Statistical Package for the Social Sciences.

SRL: Self-Regulated Learning.

UN: United Nations.

Chapter Outline

Chapter 1 is an introductory chapter. It provides a general orientation to the study, entailing the background of the study, the problem and the objectives of the study. The delimitation and limitations of the study are also discussed in this chapter.

Chapter 2 provides a review of literature. The concept of self-regulated learning and academic performance are discussed. Furthermore, a discussion on the various concepts and empirical reviews on self-regulated learning, and academic performance is provided.

Chapter 3 covers the theoretical framework. The social cognitive theory is provided as the guiding theory of self-regulated learning and academic performance. The background of the theory is provided. The rationale for the theory is further provided in the chapter.

Chapter 4 is the methodology section; it discusses the characteristics of the quantitative research design adopted for the study. Furthermore, the chapter provides the rationale for using this methodology. The reliability and validity of the data produced from the methodology is established. Finally, ethical issues are considered.

Chapter 5 presents an analysis of data produced from the social demographics and Principal Components Analysis. This chapter explicitly provides the dimension reduction for all the variables of interest to the study. The exploration of the characteristics of population of the study is further extracted from the social demographics.

Chapter 6 presents data of results from the correlations and regressions. The correlations were between each independent variable and the dependent variable. Furthermore, the results of three regression models with mediating variable between the dependent and independent variable were presented. The chapter further provides a discussion of findings and conclusion on the results.

Chapter 7 is the conclusion chapter, A summary of all preceding chapters is provided in this chapter. A conclusion on each research objective is provided. Furthermore, the chapter introduces the core argument of the study and outlines the contribution of the study to theory and practise. Finally, the chapter provides recommendations for future research.

Chapter 1: General Introduction

“Academic performance of students is phenomenon that has educational, psychological and sociological connotation” (Kpolovie et.al; 2014: 74)

1.1 Introduction and Background of the study

The idea of education as an agent of enlightenment was introduced by sociologists during the 1960s (Patil, 2012; Turkkahraman, 2012). Despite their diverging beliefs on education, they concur with educationalists, policy developers and researchers on the role education plays in improving the society's development capabilities (Patil, 201; Rafiq et. al 2013). There are four major philosophies of education, i.e. Perennialism, Progressivism, Essentialism and Reconstructivism/Critical Theory. Perennialists' objective is for students to grasp the evolution of the western society as it deemed to be the standard model of development. John Dewey established the Progressive education philosophy of America in the 1920s. Freedom and democracy in schools were perceived as the ways of improving the lives of citizens. Learners' creativity and objective view of life are stressed and encouraged through experimentation. Similar to the Progressivists, the essentialists' philosophy is fixed towards instilling moral and intellectual standards in students, so that they become valuable members of the society. Both Reconstructionists and critical theorists view education as a medium of social reform, which should be emphasised in order to deter any form of oppression and provide a new social order (Diehl, 2006).

The essence of a sociological exploration of education stemmed beyond the prominent functional perspective. It is a prospective view triggered by the deficiencies of the contemporary education systems. Learners currently in the education systems all over the world are successors of the next generation; failure to equip them with necessary learning skills will lead to a future society filled with mental impairments and social degeneration (Singh, 1991).

Producing excellent students all over the world is of great importance. This is evident in the number of international and national initiatives towards combating the escalated drops in Learners' academic performance. This issue of students performance declining is a global issue (Arpi, 2010; Wijsman et. al., 2016; Mthiyane et.al, 2014). Previously much of the deficiencies within the South African education system has been attributed to the historical background of inequality (Rammala, 2009; Chisholm, 2011; Spaul, 2013). Curriculum and policy reforms, affirmative action programmes, infrastructure development and resources invested in the South African education system avert such scrutiny. Within the nine provincial districts of education, KwaZulu-Natal (KZN) is labelled as a district with high number of poor performing schools. This is evident in the 9% of schools achieving less than 40% pass rate in matriculation examinations in 2012. For the period of 2014 and 2015, the KZN Department of Education has been attributing such failures to inadequate curriculum management and development, teacher supply and capacity building, inadequate infrastructure, inadequate classroom equipment, inadequate Management practices and finance.

After the allocated budget of R42.142 billion in 2015/16 to redress these challenges, KwaZulu-Natal achieved with a 60.7% pass rate and was ranked among three other rural provinces, which were said to contribute to the drop of 9%. Various learning theories such as

the behaviourist, constructivism and cognitivism have been established in order to provide models for optimal academic performance. These learning theories were not successful due to their unidirectional focus in education. Buell (2005) says behaviourism is an approach to learning which focuses only on objectively observable behaviours and discounts mental activities. The cognitive approach and theory, on the contrary, focuses on mental processes as the primary object of study (Wilhelmsen et al., 1998). According to Epstein (2002), Constructivism is a learning theory, which posits that knowledge depends on individual experiences and is embraced towards preparing the learners to problem solve in ambiguous situations.

As time changes, so does the need to adapt. The 1980s saw a rise in interest of self-regulation, researchers in education and psychology anticipated the possibility of being able to direct one's actions and thinking as a breakthrough of an effortless acquisition of knowledge (Young & Fry, 2008). Self-Regulated Learning is a solution to learning introduced by the agentic perspective of social cognitive theorists. Much praise attributed to the human agency learning approach necessitates an in-depth study, assessing the ability of pupils to self-influence their thinking, environment and behaviour in improving their academic performance. From such an exploration, the impact of self-regulated learning on academic performance is examined.

Below figure, 1.1 is the theoretical model of the study. Furthermore, figure 1.2 below represents the hypothetical relationship of common factors of SRL and academic performance. This model hypothesises that self-regulated learning has an influence on academic performance. The study aimed to determine if Self-regulated learning could influence academic performance amongst students of Qhakaza High School.

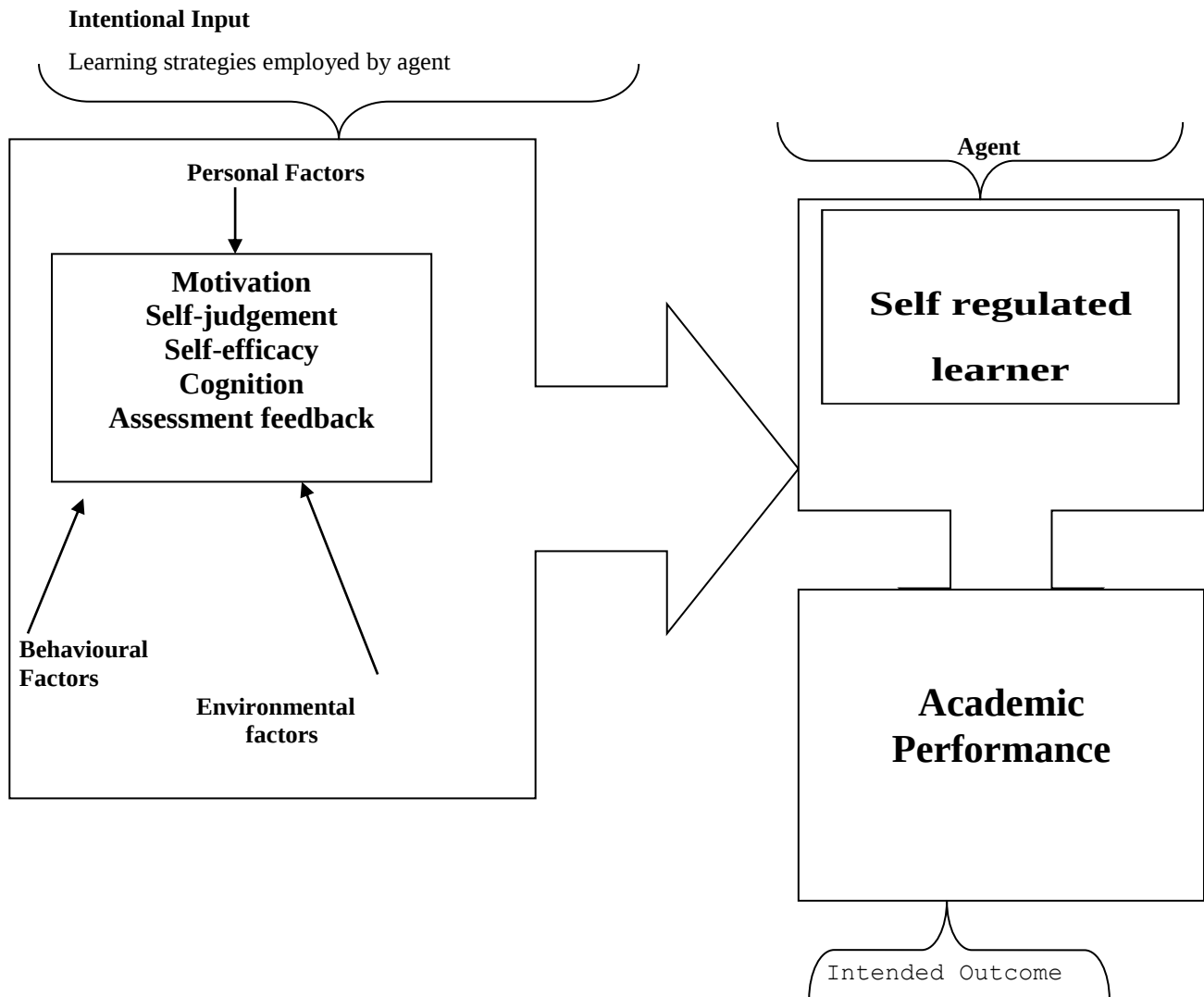


Figure 1.2 Theoretical model of the *agentic* perspective of the social cognitive theory, self-regulated learning and academic performance.

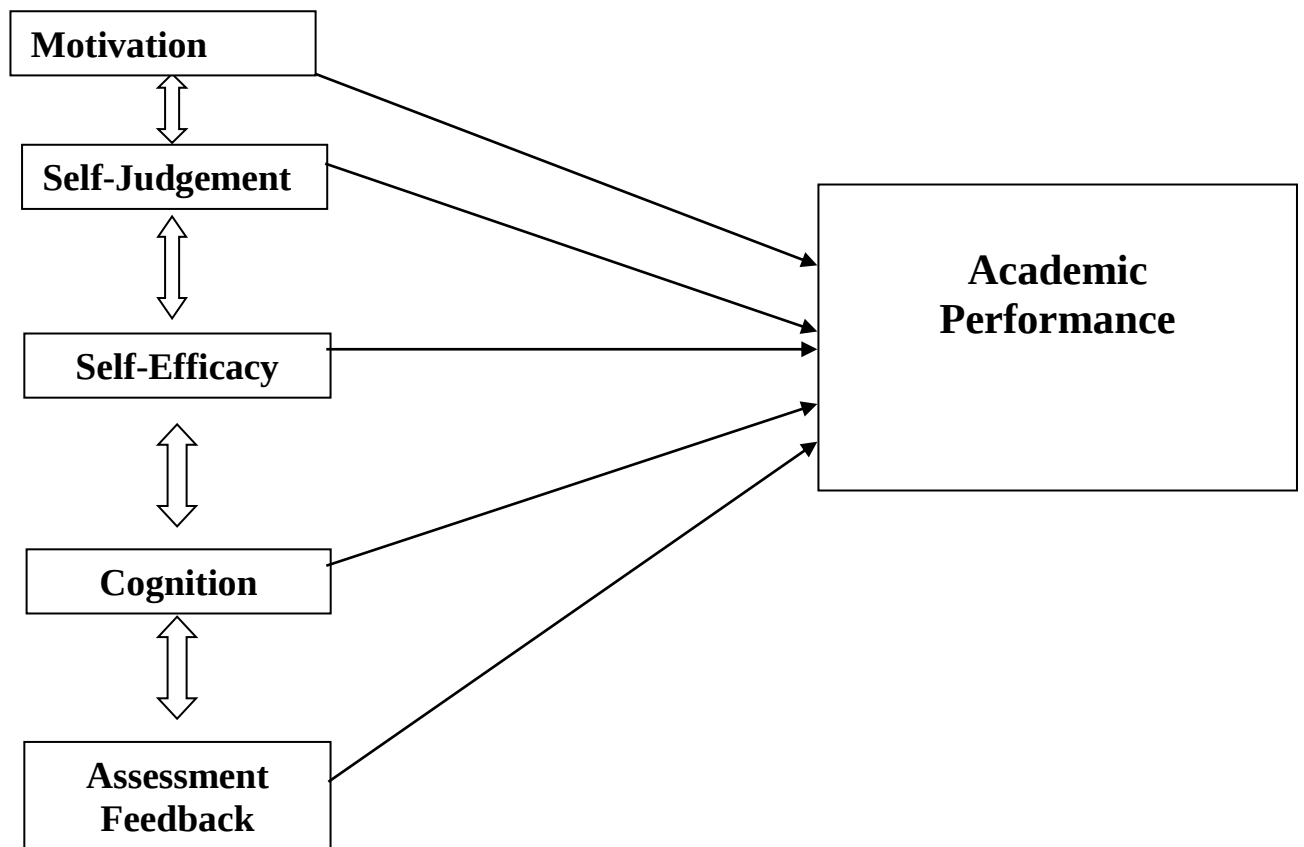


Figure 1.2 Hypothetical model of Self-regulated learning and academic performance.

1.2 Research Problem

The secondary school learning environment may be more complex than elementary school as academic achievement expectations increase (Rafiq et.al, 2013). According to Simkins (2013), the low pass rate situation in Grades 10 to 12 is much less acceptable. A great number of pupils arrive in Grade 10 unready to tackle the three-year National Senior Certificate curriculum. High repetition and dropout are the inevitable result. In South Africa (SA), this question is more pressing. South African students score at low levels in mathematics and

language tests even when compared with students in other African countries (van der Berg & Louw, 2006). Further, the South African governments' own evaluations of ten years of democracy show little improvement in educational outcomes despite significant policy changes (Department of Education, 2006). While some reasons for this poor performance may be evident, and there is widespread agreement that the main challenge in South Africa is the quality of education, there is little empirical analysis that helps policy makers understand the low level of student performance in South African schools or how to improve it.

Alexander et al. (1995) & Kopp (1982) argue that capacity of Learners' metacognition, self-regulation, and self-regulated learning improves as they grow older, but the results in the Table below show that Grade 10 experiences the highest numbers of repeat(23.4%), drop out (12,6%), and the lowest pass (63,4) and survivor rates(791). Learners' academic capability seems to decrease as they reach grade 10 there. Multiple researchers have raised the issue of an effective teaching strategy that needs to be provided to teachers in order to develop more self-regulated learners (Dinsmore et al., 2008; Loyens et al., 2008; Schunk, 2008). Despite widespread acceptance of the notion, that improving student performance may have a high economic and social payoff; policy analysts in all countries have surprisingly limited hard data on which to base educational strategies for raising academic achievement.

Educational psychologists, policy developers and researchers have provided models and resources to improve academic performance but students are still experiencing high failure and dropout rates when they reach grade 10. This is a problem, since much has been promulgated on the introduction of SRL in the education curriculum as means of curbing poor academic performance of students. Karabenick & Zusho(2015) argue that self-regulated

learning will be well comprehended and effectively institutionalised within the curricula after it is explained from a social perspective.

Most studies conducted on Learners' academic performance are domain specific and such results do not give general academic capability of the students as most students perform above their general average in their favourite subjects. Hypothetical or retrospective reports established by studies on self-regulated learning and academic performance fail to provide the indistinctive direction of causation .

Table 1.1 Promotion, repetition, dropout and transfer rates: 2010-2012 (Simkins, 2013)

Grade	Pass	Repeat	Drop out	Transfer	Survivors
1	80,3%	19,7%	0,1%	0,0%	999
2	87,8%	11,8%	0,3%	0,0%	996
3	91,0%	8,8%	0,2%	0,0%	994
4	90,6%	9,4%	0,0%	0,0%	994
5	94,2%	5,5%	0,4%	0,0%	990
6	94,5%	3,1%	2,4%	0,0%	967
7	95,2%	1,8%	2,9%	0,0%	938
8	91,4%	7,4%	1,2%	0,0%	927
9	82,5%	15,1%	2,4%	0,0%	905
10	63,4%	23,4%	12,6%	0,7%	791
11	64,3%	21,8%	12,5%	1,4%	692

1.3 Significance of the study

This study produces a correlation analysis between variables, which informs a causal analysis. A causal analysis determines if further investigation of the phenomena is needed and allows the development of causal theories. Causal theories are beneficial in the educational practise, they provide further speculations and questions which will lead to policy and pedagogy reforms if answered. Determining the relationship between self-regulated learning and academic performance provides students, policy developers and teachers with aspects of learning that need to either be enforced or abandoned in order to academic progress and development. According to Wolters et al. (1996), a study is needed in order to create an education system with a curriculum that is viable and would help in reaching the much-anticipated 2020 education goals in South Africa.

More research that examines the operation of self-regulatory processes across content areas, such as that conducted by Wolters et al. (1996), is necessary to advance our understanding. Such knowledge would be useful in designing curricula and classrooms that allow for greater self-regulation. Further, because self-regulatory processes may vary depending on the content area, pupils could learn how to modify processes to fit different content areas.

1.4 Aim and objectives of the study

The aim of this study is to establish whether self-regulated learning can improve the academic performance of pupils. The subsequent the following objectives have been developed to achieve this aim:

- 1.4.1 To establish the extent to which, motivation accounts for academic performance among Pupils at Qhakaza High School.
- 1.4.2 To determine if there is a relationship between self-efficacy and pupils' academic performance among Pupils at Qhakaza High School.
- 1.4.3 To explore the effects of pupils' self-judgement on their academic performance among Pupils at Qhakaza High School.
- 1.4.4 To establish the relationship between cognition and academic Performance among Pupils at Qhakaza High School.
- 1.4.5 To determine the relationship between feedback from assessments and Academic performance among Pupils at Qhakaza High School.

1.5 Research Questions

- 1.5.1 Is there a relationship between motivation and pupils' academic performance?
- 1.5.2 What relationship exists between the perception of self-efficacy and pupils' academic performance?
- 1.5.3 What is the effect of pupils' self-judgement and academic performance?
- 1.5.4 Is there any relationship between cognition and pupils' academic performance?

1.5.5 To what extent does feedback from assessments influence pupils' academic performance?

1.6 Research Hypothesis

1.6.1 There is a correlation between motivation and academic performance

1.6.2 There is a correlation between self-efficacy and academic performance

1.6.3 There is a correlation between self-judgement and academic performance

1.6.4 There is a correlation between cognition and academic performance

1.6.5 There is a correlation between assessment feedback and academic performance.

1.7 Secondary Hypothesis

1.7.1 The relationship between motivation and academic performance is mediated by assessment feedback.

1.7.2 The relationship between cognition and academic performance is mediated by assessment feedback.

1.7.3 The relationship between self-judgement and academic performance is mediated by assessment feedback.

1.8 Research design

According to Kothari (2004), a research design is a systematic and scientific plan or strategy of investigation employed to obtain data as well as record evidence for the responses to research questions. The design of this study is quantitative, that is formal and objective systematic process in which numerical data was used to obtain and analyse information.

According to Burns & Grove (2005:23),

“...quantitative design is used to describe variables, examine relationships among variables and to determine cause and effect interactions between variables”.

The nature of the study is explorative. The researcher chose this method of inquiry because it allows for the discovery of casual relationship between variables and allows for the exploration of unknown variables if the predefined are not related. Therefore, it was suitable for assessing the relationship between academic performances of pupils to their use of self-regulated learning.

1.9 Delimitation and Limitations of the study

The study limited its reference of pupils/students to grade 10 learners. Specific interest in grade 10 students was owing to the increased failure and dropout rates in grade 10 (Simkins, 2013; Spaul, 2013; Cleary & Platten, 2013; Kyei, 2014). Academic performance here was limited to learners' perceptions of their previous test performance, average test results, last term results, confidence when attempting assessments and ordinarily scored examination results. Self-regulated learning study was limited to Learners' perceived level of self-regulated learning strategies, i.e. motivation, self-judgement, self-efficacy, cognition

assessment feedback and academic performance. Aguilar, Rosas & Juan Zavaleta (2012), argued that perceptions are derived from experiences; comprising both cognitive and emotional dimensions. According to Mutodi & Ngirande (2014), insight into the perceptions of the learners can prove beneficial in developing effective pedagogy for improved academic achievement. South African students, in particular, are in need of an effective pedagogy that will improve their academic performance.

Due to the time constraints, the researcher was limited to a sample of 101 grade 10 learners. The school only allowed one day for the data collection as this is to limit the intrusion to the planned day-to-day academic activities, which is in the best interest of the learners.

1.10 Operationalisation and Definition of Key Terms and Variables

1.10.1 Academic performance: According to Odunga (2015), academic performance refers to the Learners' perceptions about his/her academic achievement.

1.10.2 Cognition: is a thinking processes involved in the acquisition, organisation and use of information. According to Brandimonte, Bruno & Collina (2006), cognition is the accumulation of external and internal input, which is processed and retrieved by the brain.

1.10.3 **Learning strategies:** are strategies adopted for mastering the art of knowledge retention and retrieval. According to Oxford (2002), learning strategies determine how well a student undertakes difficult learning tasks.

1.10.4 **Motivation:** the online business dictionary (2016) defines motivation as the internal and external factors that stimulate desire and energy in people, to be continually interested and committed to a job or to attain a goal. Motivation is a precursor of self-regulated learning, positive results through self-regulated learning lead to greater motivation (Collins, 2009). According to Shy et.al (2012), the concept of motivation includes self-efficacy and epistemological beliefs.

1.10.5 **Self-Regulation:** Exercise of influence over one's own motivation, thought processes, emotional states and patterns of behaviour. Self-regulation is a conscious process, which an individual willingly chooses to practise or master.(Pintrich, 2004; Zimmerman & Schunk, 2011)

1.10.6 **Self-Regulated Learning:** Self-regulated learning is a purposeful, strategic process governed by a cognitive plan to acquire knowledge and necessary skills to stimulate the ability of attaining goals (Kadhiravan & Suresh, 2008).

1.11 Conclusion

This chapter provides substantial evidence for the significance of this kind of investigation. The chapter also addresses the core argument of the study that self-regulated learning influences learners' academic performance. The aims and objectives of the study were established in the chapter. Furthermore, operational definitions of terms have been provided in order to confine the study within its area of interest. Insights into the theoretical basis of the study as well as the research design were outlined together with a synopsis of all

subsequent chapters. While the orientation of the study has been established in the current chapter, the subsequent chapter provides conceptual, empirical and literature of the study.

Chapter 2: Literature Review

Self-regulation of learning involves more than detailed knowledge of a skill, it involves the self-awareness, self-motivation, and behavioural skill to implement that knowledge appropriately” (Zimmermann, 2002: 65)

2.1 Introduction

The previous chapter presented the orientation of the study. As explained in the previous chapter the study intended to determine if there is a relationship between self-regulated learning and the academic performance of high school learners. The constant decline in Learners’ academic performance was presented as the main problem of the study. The assumptions of the study are also established in the previous chapter. This chapter presents a review concerning the core ideas, deductions and arguments on self-regulated learning and academic performance as investigated. Due to constant attempts for optimal development, wellbeing and learning, self-regulation has been recognised as the common factor in achieving all this (Shanker, 2010). The first section is dedicated to conceptualising and defining self-regulated learning. The second section elucidation of literature on each component of self-regulated learning and lastly the third section is the theoretical framework.

2.2 Self-Regulation Learning explained

Self-regulation is the ability to manage your own energy states, emotions, behaviours and attention, in ways that are socially acceptable and help achieve positive goals, such as maintaining good relationships, learning and maintaining wellbeing (Shanker, 2010). Self-regulated learning is a purposeful, strategic process governed by a cognitive plan to acquire

knowledge and necessary skills to stimulate the ability of attaining goals (Kadhiravan & Suresh, 2008). According to (Pintrich, 2004; Zimmerman & Schunk, 2011) self-regulation is a conscious process, which an individual willingly chooses to practise or master. Academic self-regulatory processes include planning and managing time; attending to and concentrating on instruction; organising, rehearsing, and coding information strategically; establishing a productive work environment; and using social resources effectively (Zimmerman, 1990).

Within education, Self-regulation (SR) is as broadly defined as the effort put forth by students to deepen, monitor, manipulate, and improve their own learning. During the SR process, expert learners “identify what the current task requires in terms of cognitive, motivational, and environmental strategies and determine if their personal resources are adequate to effectively accomplish the task”.

2.3 Social Environment influences on Self-Regulated Learning

Self-regulated learning is a process that requires a goal oriented student with discipline and commitment to reaching envisioned goals. Several recent approaches to embedding SR into instruction offer systematic principles and guidelines to facilitate their design. These guidelines suggest embedding SR training into instruction by modelling SR, using cognitive apprenticeships, and providing Attributional feedback to identify appropriate strategies, among other strategies.

There are various environmental aspects, which are appropriate for effective learning. Avoiding distractions is an environmental factor, which is important for self-regulation. A confirmatory factor analysis on data from 100 college students validated managing distractions as a first-order factor contributing to Self-Regulated learning (Orange, 1999). A

learning environment should enforce maximum attention on the learning task. Students who are top achievers arrange their environment for optimal concentration. Ideal environments for studying are characterised by peace, comfort and motivation. The Learners' social background (home environment (Odunga, 2016) and classroom settings are the key environments that determine the Learners' level of self-regulation.

2.3.1 The Home Environment

Home background influences academic and educational success of students and functioning of the teachers and students. The home is regarded as a learning environment. Lack of encouragement, parents' low quality or lack of stimulating activity at home has reduces the home effectiveness as a learning environment. A student's motivational orientation is determined by the level of support from the home environment (Karabenick & Zusho, 2015).

2.3.2 Parental Involvement

A survey conducted by Rafiq et. al. (2013) in Pakistan on parental involvement and academic performance sought to explain parents' involvement through Epstein's (1995) framework on parenting styles. This study explained presumed the level of parents' dedication in motivating their children to be determined by their level of education. Rafiq et.al, (2013) also asserts that variance in parents' motivation is also attributed to different cultural backgrounds, However this also raises the question of variance in involvement of parents from different cultural backgrounds. Should such variance be confirmed such an explanation cannot be of relevance to the culturally diverse South African society. Koskess' (2014) noted a negative relationship between Learners' academic performance and parental involvement. According to Muola (2010) & Niggil et al (2004), parents' expectations yield unnecessary anxiety on students. Koskess (2014) proposes that parents' involvement should provide effective motivation.

Effective parental involvement leads to socially and cognitively competent children (Thompson, 2002; Lemmer, 2007 & Mwiria; 1987) Going to school will lead me to a prosperous future.

2.3.3 Family Social Economic Status

Studies (Kathuri, 1986; Curry, 1962) showed that households Social Economic Status (SES) do not have an effect upon the academic performance of pupils. However, Morgan, Farkas, Hillemeier & Maczuga (2009) portray a different picture, where children from high SES households develop academic skills more quickly as compared to low SES households. Odunga (2015) posits that good parenting, supported by strong economic home background could enhance strong academic performance of a child. The socio- economic status of a parent is another factor that overwhelms parents, therefore decreasing their involvement in their children's academic life. Middle class parents have resources and knowledge to make the home another learning environment so that learning becomes a familiar process, whether in school or at home. A study carried out by Ezewu (2003) points out that people of stable economic background normally value education more than those of low economic background. Such people often use their income on learning resources, resulting in good student support, hence good performance. Motivation sustains effort and persistence towards learning (Zimmermann & Schunk, 2008). According to Zhao (2009), parental involvement continues to be the most influential factor in student academic performance and student motivation.

2.3.4 Family size

According to Cobb-Clark & Moschion (2013); Suleman, Hussain & Akhtar (2012), family size also determines the academic performance of students. According to Muthoni (2013),

family size refers to the total number of children in the child's family. Lacovou (2001) attributes this to the difference in parental attention in small and larger families. Parents with small families have more time to attend to all problems their children may be encountering at school, but, in contrast, parents with large family sizes do not have sufficient time for each child.

2.3.5 Parents' Level of Education

Literature on Learners' academic performance has given much attention to the influence of parents' academic performance. Shapiro (2009) ascertains that parent's level of academic performance is not an important factor in academic performance. A study conducted by Khan et.al. (2015) found a significant positive relationship between parents' education level and academic performance. Parents' academic performance determines the level of involvement the parent has in his/her child's academic activities.

2.4 Elements of Self-Regulated Learning

2.4.1 Motivation

In general, motivation is seen as both an internal and external process for regulating human behaviour. Academic motivation refers to the cause of behaviours that are in some way related to academic functioning and success, such as how much effort students put forth, how effectively they regulate their work, which endeavours they choose to pursue, and how persistent they are. The quality and intensity variation towards specific tasks is determined by the amount of motivation (Goodman, 2011).

Having an interest in pursuing or doing something is regarded as motivation, within the academic context student motivation refers to the effort and persistence invested by the

student towards their academic tasks and activities (Saeed & Zyngier, 2012). According to Steinberg (2005), students without motivation are more prone to failure. Ryan & Deci (2009) differentiate between two types of motivation i.e. extrinsic and intrinsic motivation. Intrinsic motivation is concerned with motivation, which is regulated, by enjoyment and satisfaction from pursuing the task and extrinsic motivation is concerned with motivation, which is regulated external rewards (van Beek, Taris, Toon & Schaufeli, 2011). The quantity and quality of motivation is another aspect of motivation, which is greatly influenced by the learning context. Masaali (2007) posits that personality, environmental and social factors determine academic motivation, coordination of all these factors is required for academic achievement. Goal orientated students have the most academic motivation (Amrai et.al, 2011; Goodman, 2011). Pintrich & Zusho (2007) ascertain that Learners' decreased academic success may be attributed to lack of motivation. On the contrary, an investigation by Rotgans & Schmidt (2012) into the influence of motivation on academic performance produced results, which invalidated the relationship between academic performance and motivation. Much of this discrepancy was attributed to the weakness of subject specific measures of motivation employed by the scholars. Distinguishing motivation in two seemed as common to most scholars since intrinsic motivation was deemed to be more related to academic performance than extrinsic motivation (Wells, 2011; Areepattamannil, Freeman & Klinger, 2011). Kusurkar et.al (2012) argues that there are forms of extrinsic motivation, which also increase academic performance.

There are different theories of motivation; some focus on quantity of motivation and others on quality. Quality of motivation depends on whether the source of motivation is internal or external. Intrinsic motivation is derived out of genuine interest in an activity. Extrinsic motivation is derived out of an expected gain or a separable outcome (Ryan & Deci 2000).

Identified Regulation, the highly autonomous type of extrinsic motivation, is close to intrinsic motivation. Identified regulation and intrinsic motivation can be summed up to generate Autonomous Motivation (AM). Thus, AM depicts self-determined motivation. Interjected and external regulation, which are low in self-determination, can be summed up together to generate Controlled Motivation (CM). Thus, CM depicts motivation that is very low on self-determination. In other words, academic achievement requires Autonomous motivation (Amrai, 2011). Murphy & Alexander's (2000) review of motivational terminology included goals, intrinsic and extrinsic factors, interest, and self-schema factors as central in the relationship between motivation and academic achievement.

According to Vanlaar & Sidanius (2001), Parents are regarded as the most influential in a student's education. Curiosity during adolescence tends to increase the need for independence, and in turn weakens the parent-child relationship, and this makes it almost impossible for parents to provide academic motivation to their child, Coleman & Maneese, (2002) ; Hill & Taylor (2004).

The Big-Two-Factor Theory of academic self-concept organizes motivational constructs under the two broad dimensions of learning and performance orientations, both considered as stable personal traits. Learning orientation involves mastery, competence, effort, and interest, while performance orientation consists of social comparison and extrinsic evaluations (Byrne 2002). Intrinsic goal orientation concerns the degree to which the student perceives herself to be participating in a task for reasons such as challenge, curiosity, and mastery. Having an intrinsic goal orientation towards an academic task indicates that the student's participation in the task is an end all to itself, rather than participation being a means to an end. Extrinsic goal orientation complements intrinsic goal orientation, and concerns the degree to which the

student perceives herself/himself to be participating in a task for reasons such as grades, rewards, performance, evaluation by others, and competition. When one is high in extrinsic goal orientation, engaging in a learning task is the means to an end.

According to Molavi (2007), Optimism towards the future is detrimental to academic motivation. Expectations are high that education and training will pay off in improved prospects for employment and income (Simkins, 2013). Although awards are rewards given to top performing students as a motivator for them to continue and others to aspire to do better, they can also be seen as a creator of competition amongst students.

2.4.2 Self-judgement

Self-Judgement is often referred to as a self-assessment, it is a self-evaluative process through which the student evaluates his/her thinking and behaviour. This process is done in order to increase performance by identifying and removing strategies of no value (McMillan & Hearn, 2008). This permits the evaluation of effective strategies that improve their understanding and skills. Self-judgement allows students to acknowledge various strategies that improve performance. Academic standards that are put in place by the department of education provide clear targets for the students also help students rate their level of performance (Kitsantas, Reiser & Doster 2004). Self-judgement also allows students to assess areas where corrective action and improvement is necessary.

Student level of self-judgement is predicted by the Learners' ability to monitor and evaluate their academic progress (McMillan & Hearn, 2008). Ability to self-judge allows students to evaluate their strategies and provide feedback in order to enhance performance. According to Dyer (2015), self-judgement a skill empowers autonomy in students and less reliant on

teachers and peers for assistance. Students are able to identify or understand their learning styles and strategies through self-judgement. A distinction of valuable and non-valuable learning strategies is realized through self-evaluation. Through self-judgement students identify learning strategies that help them learn (Rolling-Carter, 2010). Renzulli, (2015) posits that using learning strategies does not guarantee academic success, therefore it is important for students to identify and adopt the valuable strategies which will promote academic success.

Self-judgement also commonly referred to as self-reflection is a necessary skill, which should be taught and encouraged to students although Lew & Schmidt (2011) ascertain that having this skill does not assure academic performance as the results of their study showed an insignificant correlation between academic performance and self-judgement. Bruce (2001) argues that students inability to set realistic goals hinders their ability to assess and evaluate their improvements, according to Macmillan & Hearn (2008) self-judgement is the second component of students self-assessment cycle which enables students to make judgements of their performance. Perceived Self-judgements lead to self-perceived competence (Ferla, Valcke & Schuyten, 2010), scholars warn against high self-perceived competence. This is because students tend to overlook working hard due to their increased confidence and this may lead to laziness and poor academic performance.

In figure 2.1 below, self-judgement is explained through a cyclical process consisting of three components i.e. Self-evaluation, self-monitoring and identification and implementation of instructional correctives as needed. Below is a model reflecting the cyclical process of self-judgement.

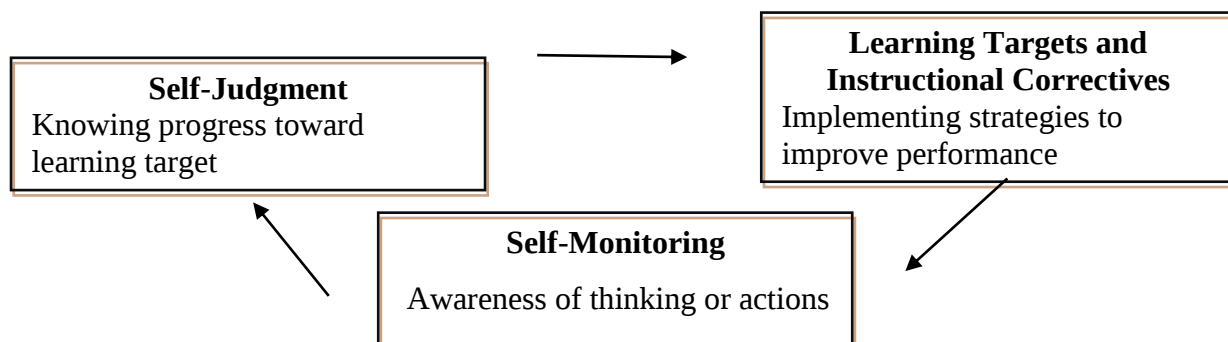


Figure 2.1 Cyclical Process of Self-judgement

Self-monitoring, a skill necessary for effective self-assessment, involves deliberate assessment in various aspects focused on identifying progress (Schunk 2004). A second component is self-judgment, and during this phase students compare their performance against the established standards of performance (Bruce, 2001). The third essential begins after the assessment of obtained performance and expected performance where students enhance their knowledge or skills needed for reaching the expected outcomes or goals. It is believed that if students employ the self-judgement process, a lot of meaningful learning will be achieved and such a process should be emphasised by teachers in order to motivate students.

Variations in Learners' self-judgment responses can influence not only behavioural self-reactions to record keeping such as problem completion, but also such personal self-reactions as knowledge acquisition and perceptions of self-efficacy (Schunk, 1983).

2.4.3 Self-Efficacy

The certainty that an individual personally has in the successful accomplishment of a given task is regarded as self-efficacy (Yusuf, 2011; Snyder & Lopez, 2007). Bandura posits that self-efficacy is concerned with judgement of an individual's capability in effectively managing and organising in various tasks and situations. Self-efficacy determines the actions and tasks we are motivated to do and the level of self-efficacy varies from task to task, this is due to the difference in mastery of tasks (Lunenburg, 2011). This is explained by the theory of self-efficacy, which provides that an individual is more confident and persistent in tasks when they believe they are capable (Van der Bijl & Shortridge-Baggett, 2002). Fostering self-efficacy enables an individual to attempt difficult tasks with a lot of confidence and become committed and interested in accomplishing the task successfully. This heightens an individual's persistence when facing difficult situations. For people with a high sense of self-efficacy, failure motivates more effort rather than discouragement; it encourages them to attain more knowledge and exercise control over threatening situations. Such an efficacious outlook produces personal accomplishments, reduces stress and lowers vulnerability to depression.

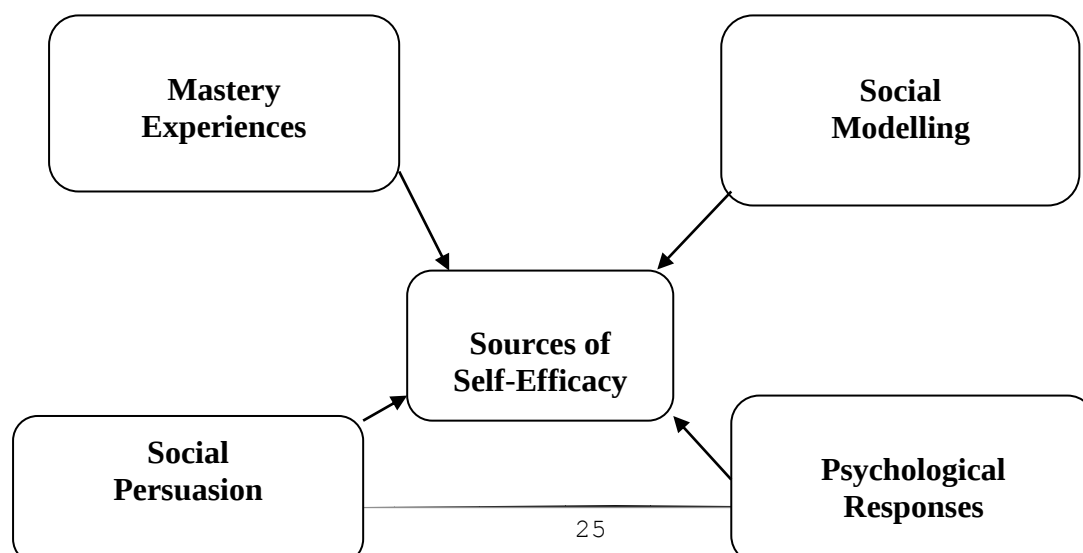


Figure 2.2 Sources of Self-Efficacy

Figure 2.2 above presents a diagram by Bandura presenting four sources of self-efficacy.

According to Bandura (1995), mastery experiences, social modelling, social persuasion and psychological responses are the four main sources of self-efficacy. The formation of self-efficacy is during early childhood and continues throughout life. Such beliefs are formed as we encounter various situations of life.

2.4.3.1 Sources of Self-Efficacy

Mastery Experiences

Bandura (1995) opined that positive accomplishment of task increases our sense of self-efficacy. Nevertheless, negative experiences with tasks can weaken the sense of self-efficacy. This is known as referential performance.

Social Modelling

This aspect is achieved through observation. According to Bandura (1995) recognising, the achievement of people similar to you increases ones belief in their ability to accomplish a task successfully. This is also known as social referential comparisons, where one judges themselves by comparing with others.

Social Persuasion

Persuasion given by other people is an important source of self-efficacy and encouragement. Bandura (1995) asserted that verbal persuasion increases effort towards a given task and helps in instances of hesitations.

Psychological Responses

The interpretation of physical and emotional reactions to tasks determines how the individual perceives their ability in performing that task. Bandura posits self-efficacy could be improved if we learn how to minimise anxiety experienced during these tasks.

There is a sizable body of evidence that enactive mastery experiences improve self-efficacy perceptions in a wide variety of school tasks (Schunk, 1984). For example, Schunk (1983d) gave elementary school children instructional experiences involving written packets of systematic written directions and practice problems in arithmetic division problems. Students who were given rewards for performance accomplishments (i.e., mastery) displayed significantly greater self-efficacy, faster learning, and greater division skill than did students who were given rewards for simply participating or given no rewards. The advantages of earning rewards for performance accomplishments in comparison with rewards for mere participation were large during post testing. The Learners' self-efficacy was 140% higher, their learning was 22% faster, and their division skill was 160% higher. These results indicate that mere enactment is not sufficient to increase perceptions of mastery and to motivate self-regulated learning. Experiencing environmental outcomes of such enactments as rewards for surpassing pre-established criteria of excellence is also important.

The impact of modelling on self-regulation is given particular emphasis in social cognitive formulations. The modelling of effective self-regulated strategies can improve the self-

efficacy for even deficient learners. In Bandura's (1986) view, the modelling of "effective coping strategies can boost the self-efficacy of individuals who have undergone many experiences confirming their inefficacy," as well as "the self-assured" (p. 400). Such modelling is theorised to be especially effective if the model is perceived as similar to the observer. Schunk, Hanson, & Cox (1987) exposed elementary school children who were performing below grade level in mathematics to either a coping model or a model, which displayed errorless mastery. In addition to eliminating errors gradually, the coping model showed high concentration, persistence, and increased effort. Not only did these deficient children view the coping model as more similar in competence to themselves than the errorless model, but they also learned arithmetic fractions more readily and gained a greater sense of efficacy from the coping model. The differential impact of a coping model on children's self-efficacy was substantial: A coping model raised children's self-efficacy perceptions 86% from pretesting to posttesting, whereas a mastery model raised these perceptions only to 32%.

According to Social Cognitive Theory, another important form of social experience is verbal persuasion. This type of experience is often a less effective method for conveying self-regulation strategies because it depends on a learner's level of verbal comprehension. However, when combined with social modelling, verbal description has been found to be a powerful medium through which children can learn a wide variety of cognitive, affective, and academic skills (Rosenthal & Zimmerman, 1978; Zimmerman & Rosenthal, 1974).

Goal orientation is highly influenced by the individual perception of their self-efficacy, the process of pursuing the goal becomes fulfilling because of the confidence the individual has in their capabilities (De Fatima Goulao, 2014; Siegle and McCoach, 2007). Self-efficacy

influences either the cognitive or the affective dimension of the learning process and the persistence. Research indicates that high self- efficacy is found in students who are highly motivated and are academically competent (Taylor, 2014;Lunenburg, 2011). Correlation results from a study completed by Fenning &May (2013). Green, Nelson, Martin and Marsh (2006) there is a positive relationship between self-efficacy and academic competency.

According to Dambudzo (2009), negative beliefs of self-efficacy can impede academic development. Meera & Jumana (2015) reveals the importance of self-efficacy in students and recommends that teachers are provided with teaching strategies for building their Learners' self beliefs. A study conducted Aydin (2016) by reveals that academic motivation is not determined by Learners' self-efficacy. A study evaluating the factors that affect academic performance reported self-efficacy as the highest predictor of academic performance (Dogan, 2015). According to Gardner (2014), there is no predictive relationship between self-efficacy and academic performance. Carol et.al (2008) advocates for the development of mediating models for academic performance and self-efficacy. A longitudinal study by Hwang et.al (2016) establishes a positive reciprocal relationship between self-efficacy and academic performance.

2.4.4 Cognition

Cognitive strategies are acquired strategies and skills used to receive, recognise and retrieve knowledge and the ability to know when and how to apply it (Matseke, 2011; Dignath et al., 2008).Cognitive learning strategies can be specific to a domain or content (Chinn & Chinn, 2009). There are distinctions between two forms of cognition strategies; they are general cognitive strategies and specific cognitive strategies. General cognitive strategies are applicable across all disciplines and situations. Specific cognitive strategies are discipline

specific, pupils who use this strategy become effective learners because of their understanding of the dynamics and requirements of each discipline and through their cognitive ability are able to recognise effective solutions to specific problems.

Puzzifero (2008) recognises cognitive strategies as interceding factor between motivational factors and academic achievement. Yip (2007) perceives students to be motivated by the ability to store retrieve and apply relevant knowledge and skill effectively and how this has a positive impact on their academic performance. In his research, attitude and motivation are two important factors that distinguish self-regulated learners from those who are not. Proctor (2012) maintains that cognitive strategies influence positive academic performance through creating and maintaining interest and he further explains the positive effect which self-generated interest has on increasing the information processing speed.

An experimental study conducted by Botlani et. al. (2013) on the effects of cognitive strategy instruction on academic performance and attitude towards learning revealed the necessity for teaching cognitive strategies and equipping students with flexible skills and strategies for better academic functioning. The experiment showed the positive effect of cognitive strategies on Learners' attitude towards learning. According to Kesici, Sahin, & Akturk (2009) pupils with a positive attitude towards learning use more learning strategies compared to pupils with a negative attitude. Introducing these cognitive strategies to students prior to teaching is an effective method of generating self-regulated pupils with good academic performance. Christian (2008) introduced the aspect of ethnicity as a factor in pupils' cognitive development. His comparative study between African American, Caucasian and Latino pupils revealed a difference in cognitive development across students of different ethnicities and he attributes this to language barrier, where the language of instruction is not

home language and Parents' education, where parents that are more educated were able to stimulate, monitor and support their children's cognitive development.

Problem solving strategies and critical thinking skills are also important. Critical thinking involves a variety of skills, such as identifying a particular source of information and reflecting on whether or not that information is consistent with one's prior knowledge. Activities to help pupils articulate and practice critical thinking include comprehension activities such as self-generated questions before or during reading to focus the learner's attention, constructing graphs and tables of real-world issues, and engaging in classroom debate to articulate arguments for writing a persuasive essay. Successful adaptation to school requires that pupils develop self-regulation, or processes that activate and sustain cognitions, behaviours, and affects, and that are oriented towards goal attainment (Zimmerman, 1994). Self-regulated pupils have the ability to adapt their actions and thinking skills in order to attain personally envisioned goal (Zimmerman, 2005). This description indicates that there is an interactive involvement of cognition, affect, and behaviour when a student is engaged in self-regulation.

Organisational strategies, such as outlining content or relating concepts within content, are among the cognitive learning strategies that individuals use to self-regulate and that usually results in a deeper understanding of the material (Hofer et al, 1998). Strategies that organise content, such as concept mapping, schematising, and structured over viewing have boosted achievement in several studies investigating the relationship between instruction and structural knowledge (Jonassen & Grabowski, 1993).

Sustained attention, response inhibition, speed of information processing, cognitive flexibility and control, multiple simultaneous attention, working memory, category formation and

pattern recognition are all cognitive skills which are regarded as foundational for learning. The results of cognitive training varies from individual to individual, researchers have tried to establish the cause of disparities in cognitive training with no luck (Jaeggi et.al, 2011). Cognitive abilities require constant development because they decline with age (Michelon, 2006, Leeson et.al, 2008). A study conducted by Puerta (2015) investigating the relationship between academic success and cognitive abilities points out a significant relationship between the two variables. Cognitive stimulating social environments are important in motivating academic success especially in early stages of development.

2.4.5 Assessment Feedback

Daniela (2015) posits that feedback is an important component of self-regulated learning, which is a process that relies largely on decisions and action taken after the results of prior experience or actions which is regarded as feedback. After the exploration of the deteriorating motivation in students, Dressel & Haugwitz (2008) proposed the use of feedback by educators' in order to highlight the causal attributions of success and failure. This was to foster motivation and the confidence in attempting learning activities autonomously. Pintrich & Zusho (2002) postulate a cyclical model of self-regulated learning, with four phases in this model namely, the forethought and planning, performance monitoring, and reflections on performance. During the forethought and planning phase, students analyse the learning task and set specific goals towards completing that task performance. Next, is the monitoring phase students employ strategies to make progress on the learning task and monitor the effectiveness of those strategies as well as their motivation for continuing progress toward the goals of the task performance monitoring phase. Lastly, the reflections on performance phase students employ strategies to make progress on the learning task and monitor the

effectiveness of those strategies as well as their motivation for continuing progress toward the goals of the task (Roberts et. al., 2011).

Feedback takes place in the last phase, which is the reflection phase. Such reflection influences the students future planning and skill and strategies they use when it comes to learning. Often, social support comes in the form of feedback. Research indicates that effective feedback includes information about what students did well (Labuhn et al., 2010). In general, we receive direct or indirect feedback from our surroundings, which is also referred to as a stimulus triggered by our actions in contact with both the social and physical environment. Direct feedback is similar to intentional and indirect to incidental feedback (Hawk & Shah, 2008) within the learning context. Chung & Mantak Yuen (2011) refers to feedback given by teachers as direct, remedial or analytic feedback after an activity. Effective feedback inspires intrinsic motivation and learner autonomy (Wigfield, Klauda, & Cambria, 2010).

Studies (Rust, Price, & O'Donovan, 2003) assessing the influence of feedback on academic performance revealed the ineffectiveness of the school report system used as feedback, which indicates pupils scores acquired in each subject. This form of feedback is discredited because of its weakness in providing descriptive and developmental feedback rather than grades or scores. Failure of educators to emphasise the learning outcomes and assessment goals creates ambiguity, confusion on what is important to learn, and this leads to rejection of any form of feedback by pupils if it is negative. This makes the development of self-regulated pupils even more difficult (Nicol, & Macfarlane-Dick, 2006). The National School Climate Centre (NSCC, 2011) emphasises the importance of school officials in creating and maintaining a school climate where both pupils and staff have common goals and structures

that supports a productive and inclusive institution of learning. The school environment is an important factor that greatly influences pupils' academic achievement (Purkey, 2011). Teachers have the biggest role in creating an environment that is suitable for learning and where feedback given is true reflection of the Learners' performance and it informs explicitly where the pupils can improve (Gibson et al., 2011).

Self-regulated pupils reflect on the outcomes of their assessments, evaluate their performance and determine their learning progress (Mofokeng, 1996). When pupils receive feedback, it informs them which learning strategy they should continue or stop using and this decision is based on the outcome of the assessment (Schunk, 1984). According to Schunk (1993), positive feedback motivates pupils towards more challenging goals, whilst negative feedback informs pupils to restructure their learning strategy. Regularly given feedback enables pupils to constantly evaluate their ability and regulate their strategy of learning and thinking.

Feedback enables students to identify their areas of weakness and it is a source of motivation when commending Learners' progress. The emphasis on both formative and summative assessment is largely advocated towards achieving effective learning (Moyosore 2015). From the experimental study of 464 college students conducted by Lipnevich & Smith (2008) it was observed that assessment feedback is more guiding when it is detailed, easy to understand and specific. A study exploring student views on factors affecting academic performance reveals that students are not receiving feedback from their assessments (Sikhwari et.al, 2015). A point of concern when it comes to assessment feedback is that students are more interested in the grades/marks scored as opposed to reading the teachers comments that become beneficial in subsequent assessments (Spiller, 2009). In some instances assessment feedback has proven ineffective in academic achievement and this has

raised interests in uncovering the various effects of assessment feedback and other variables mediating these outcomes. Baadte & Schnotz (2014) ascertain that student's self-concept is a mediating variable between assessments feedback and academic performance.

2.5 Academic performance

The future of any nation is determined by the academic performance of its learners (Dev, 2016). According to Dev (2016), academic achievement represents performance outcomes that indicate the extent to which a person has accomplished specific goals that were the focus of activities in instructional environments, specifically in school, college, and university. School systems mostly define cognitive goals that either apply across multiple subject areas (e.g., critical thinking) or include the acquisition of knowledge and understanding in a specific intellectual domain (e.g., numeracy, literacy, science, history). Therefore, academic achievement should be considered a multifaceted construct that comprises different domains of learning.

The definition of academic achievement depends on the indicators used to measure it. Among the many criteria that indicate academic achievement, there are very general indicators such as procedural and declarative knowledge acquired in an educational system, more curricular-based criteria such as grades or performance on an educational achievement test, and cumulative indicators of academic achievement such as educational degrees and certificates. All criteria have in common that they represent intellectual endeavours and thus, more or less, mirror the intellectual capacity of a person. Therefore, academic achievement defines whether one can take part in higher education, and based on the educational degrees one attains, influences one's vocational career after education (Steinmayr, 2015).

Academic performance also referred to as academic achievement is a Learners' position based on grades or marks scored against the achievement measures. Academic performance provides an evaluation of a Learners' performance. It is a measure of Learners' ability across domains. Various factors affect academic performance of students these factors include, environmental factors, behavioural factors and personal factors. Environmental factors are contextual factors that may influence how a student performs at school. Behavioural factors are factors concerned with the actions performed by students on regular basis and such actions either have a positive or negative impact on academic performance. Lastly, it is the personal factors and these include individual motivation, abilities and goals.

Based on corpus literature postulating on factors influencing academic performance, the home environment, the school environment and students personal factors are commonly attributed to having the most impact in Learners' academic performance (Magati et.al, 2015). Learners' academic performance is negatively influenced by poor immediate surroundings (Odumbe et.al., 2015). Such environments are characterised by low family income, and Bronfenbrenner refers to these as micro systems and interactions within this system have the greatest influence on the students (Berk, 2000).

2.5.1 Self-regulated learning and Academic performance

A great deal of studies within the area of self-regulated learning and academic performance are conducted towards understanding various factors that impede and promotes Learners' academic development. Singh & Akagah (2011) conducted a survey, on the study habits of high, middle and low achieving adolescents in relation to their sex, intelligence and socio economic status and found that study habits of boys and girls differed significantly at different levels of academic achievement. Budhdev (1999) conducted a study, which was

designed to compare academic achievement among children of working and non-working mothers studying in secondary schools of Saurashtra region. The sample included 307 girls of non-working mothers. Academic achievement of the children of working mothers was greater than the children of non-working mothers.

Stella & Purushothaman in Mendezabal (2013) examined the study habits of underachievers. Ninety underachievers from rural and urban schools in Tamil Nadu, India were selected by using randomised block design. Patel's (1976) Study Habit Inventory was used for the study. The 't' test indicated urban and rural students differ significantly in terms of their study habits. The mean value showed that urban students had better study habits compared to students from rural areas, but found no significant difference between boys and girls on study habits.

A survey conducted by Rafiq et. al. (2013) in Pakistan on parental involvement and academic performance, explained that parents' motivation towards their children's schoolwork is determined by their level of education and parenting style. Muola (2010) & Koskess (2014) noted a negative relationship between Learners' academic performance and parental involvement. Much of this is attributed to anxiety that is caused by pressure exerted by parents' expectations (Nigggli. et.al, 2007). A study conducted by De Groot & Pintrich (1990) on motivate on and self -regulated learning in seventh grade English pupils revealed that motivational factors attributed to self-regulated learning are only efficient if the pupil possess both will and skill to be successful. Christian (2008) introduced the aspect of ethnicity as a factor in pupils cognitive development, his comparative study between Africa American, Caucasian and Latino pupils. The comparative study revealed a difference in cognitive development across Learners' different ethnicities and he attributes this to language barrier and parents' level of education. Parents that are more educated were able to stimulate,

monitor and support their children's cognitive development. It is sad to note that education in India has miserably failed to create right social attitudes among the youth of the country and act as an effective means of social control (Shah, n.d).

From Aristotle to William James, philosophers and scientists have long argued that the capacity to control our own thoughts and behaviour is a cornerstone of human nature (Geldhof, Little, & Colombo, 2010; James, 1890). There is consensus amongst researchers (Hrbackova & Hladik, 2011) on the importance of students to become self regulated learners), for self-regulated learning is not only a mental ability but a process which requires full consciousness and self direction to fully transform ones mental abilities into skills (Zimmerman, 1998).

Students who report high academic self-efficacy apply greater effort to academic pursuits, are more persistent in the face of obstacles, and exhibit a greater interest in learning (Schunk, 1984, 1989). Research has demonstrated that efficacy beliefs are often better predictors of academic performance than other commonly used social-psychological variables (e.g. Klomegah, 2007; Paulse & Gentry, 1995; Pintrich & Schunk, 2002). Internalisation of elf regulated learning leads to conscious and unconscious study practises that yield to academic excellence (Daniela, 2015).

2.6 Assumptions of Self- regulated Learners

According to Zimmermann (2001), there are seven famous theoretical perspectives of self-regulated learning they include operant, phenomenological, information processing, social cognitive, volitional, Vygotskian, and cognitive constructivist. These models of self-regulated learning offer a variety of assumptions. The following are four common assumptions of self-regulated learning as postulated by Pintrich (2001).

2.6.1 Active Construction Assumption

Self-regulated learners assume responsibility for their academic work. They are not reliant on teachers to provide them with knowledge.

2.6.2 Control Assumption

Self-regulated learners have the ability to control situations that could divert their focus. This makes it easy for them to avoid and contain distractions in their environment, which could disturb their process of learning

2.6.3 Goal Orientation Assumption

Self-regulated learners goal orientated. Goals are a source of motivation that enables them to have plans put in place to reach specific targets. This is why self-regulated learners are able to accomplish their tasks on time.

2.6.4 Mediation Assumption

The importance of aligning personal, academic and environmental factors is emphasised within the theories of self-regulated learning, this comes from the reciprocal relationship amongst these factors and the influence they have on each other.

2.7 Phases in Academic Self- Regulation

2.7.1 Planning and activation

This is an initial phase of self-regulated learning; it requires the learner to be aware of what is expected from him/ her. Knowing what is expected makes it easy for the student to create a

plan towards reaching the desired outcomes. The plan is developed once sufficient knowledge is accumulated, this include acknowledging both strengths and weaknesses the learner might have. Developing a plan of action becomes easy when the vision and its feasibility are considered. Most learners become victims of procrastination and this often leads to anxiety and depression, which distracts and impedes academic performance.

2.7.2 Monitoring

In the monitoring phase, the student does constant assessment. The assessments are done in order to gather if the plan followed is still in line. It is important to do constant monitoring because when plans derail it easier to substitute corrections before it becomes late.

2.7.3 Control and regulation

This phase introduces learners' ability to enforce and direct motivation, skills required for the successful completion of the task.

2.7.4 Reaction and reflection.

This is the final stage of the self-regulated learning in this phase; the learner judges their performance against set outcome criteria. If the results are, positive this leads to confidence and motivation to do better next time however if the results are negative, a self-regulated learner looks for shortfalls of the plan followed and seeks assistance in order to avoid making the same mistake next time when encountering a similar task.

2.8 Conclusion

This chapter presents an explanation of self-regulated learning. General principles of self-regulation in various contexts of learning have been discussed the chapter. The chapter also provides an empirical analyses of self-regulated learning and academic performance. Furthermore, the chapter presents the type of characteristics or factors required for students to become self-regulated learners. The subsequent chapter (chapter 3), explores the theoretical basis of the study.

CHAPTER 3: THEORETICAL FRAMEWORK

“The modern world is one that depends less on physical strength and brawn and more on conceptual ideas and theoretical frameworks” Gwathrop (2014:4).

3.1 Introduction

The aim of this study was to ascertain if self-regulated learning is related to academic performance. The previous chapter provided an elucidation on self-regulated learning and academic performance. The conceptual and empirical analysis of self-regulated learning and academic performance was further presented in the preceding chapter. The present chapter is devoted to elucidating on the social cognitive theory. Furthermore, this chapter provides a discussion on the significance of the theory. The first section provides the theoretical assumptions of self-regulated learning. An elucidation on the historical background of the *agentic* perspective of social cognitive theory is provided in the second section. The third section provides a discussion on the *agentic* perspective of social cognitive theory, Furthermore; the features of the theory are presented in this section. The fourth section

elaborates on the triadic reciprocal determinism. In the last, section a rationale for the chosen theory is provided followed by the conclusion of the chapter.

A theoretical framework provides an explanation of the current phenomena based on the tenets proven true by previous investigations. According to the deductive approach employed in the study, no knowledge is new but a derivative or refinement of knowledge proven before. Following the deductive reasoning, the researcher has investigated theories (Zimmermann, 2001; Pintrich, 2000 & Winnie, 2001) which have attempted to explain basis of self-regulated learning in conjuncture to academic performance.

3.2 Theoretical assumptions of self- regulated learning

There are different schools of thought that have dedicated theoretical explanations of learning and the adoption of a specific theory is dependent on the researchers' perspective of learning. Though the field of SRL has led to the development of distinct theoretical approaches that focus on a variety of constructs, there are four common assumptions regarding how students can self-regulate their learning (Zimmerman, 2001).

According to Moos & Ringdal (2012), the first assumption is that students can potentially monitor and regulate their cognition, behaviour, and motivation, processes that are dependent on a number of factors, including individual differences and developmental constraints. A second assumption suggests that students actively construct their own, idiosyncratic goals and meaning derived from both the learning context and their prior knowledge. Thus, students engage in a constructive process of learning. It is then assumed that all student behaviour is goal-directed and the process of self-regulation includes modifying behaviour to achieve

goals. Lastly, it is assumed that self-regulatory behaviour mediates the relationship between a student's performance, contextual factors, and individual characteristics.

3.3 Social Cognitive by Zimmermann

Zimmerman (1989) like most scholars of self-regulated learning notes three important advantages of approaching self-regulated learning from a social cognitive viewpoint i.e. firstly; that it distinguishes the effects of personal self-regulatory influences from overt behavioural ones and it explains the relative advantage of each. Secondly, it links Learners' self-regulatory processes to specific social learning or behaviourally enactive experiences and can explain their reciprocal impact and thirdly, it identifies two key processes through which self-regulated learning is achieved. Perceptions of self-efficacy and strategy use can explain their relation to student motivation and achievement in school. Zimmermann (1989) also notes that it can render Learners' self-regulated learning processes observable and trainable through specific experiences that encourage academic interventions.

The teaching process is situated within various environmental contexts, could be the traditional classroom, online or distant learning It is either facilitated by a teacher or it could be self-initiated. According to the social-cognitive theory, learning occurs by doing and by observing the consequences of one's actions, as well as by observing other peoples' behaviour, and the consequences thereof. In other words, people learn from the consequences of their actions. Behaviour that results in pleasant consequences is retained, while behaviour that leads to failure is not repeated. As noted, people also learn vicariously by observing

others (vicarious learning). Vicarious learning occurs when people (such as pupils) observe or listen to models being rewarded or punished for their behaviour, irrespective of whether those models appear live, in electronic form (e.g., in a movie or on television), or in the printed media (e.g., in books).

This study disregards the above assertions of the social cognitive theory. The tenet of the social cognitive theory as postulated by Zimmerman is too much invested in behavioural and social modelling. This study follows the agentic perspective of the social cognitive theory postulated by Bandura because it recognises human agency and includes triadic reciprocal determinism.

3.4 Agentic perspective of the social cognitive theory

The social cognitive theory provides an agentic perspective, which is an elaboration of intentional human functioning. The agentic perspective represents the individuals' active role in producing desired outcomes; this is referred to as human agency. The core feature of human agency are; intentionality; Forethought, self-reactiveness and self-reflection. Each feature of human agency is discussed below.

3.5.1 Intentionality

Intentionally deals with structuring and creating plans and strategies for reaching intended outcomes. The agent is committed towards pursuing the plans .

3.5.2 Forethought

This aspect provides reinforcement to the plan by providing a projection of the future. Forethought guides and motivates the agent towards the envisioned goal. The anticipated outcomes are perceived cognitively and this further enforces self-guidance and self-regulation.

3.5.3 Self-reactiveness

According to Bandura (1991b), Self-reactiveness is the management of the agents' emotions. Agents often become distracted and derailed along the way due to external influences. Self-reactiveness is important because it provides motivation to the agent.

3.5.4 Self-reflection

This feature proclaims that agents undergo self-introspection. Agents measure their capabilities against the demands of the action plan (Bandura, 2000). This feature allows for deviation when faced with difficulties; agents are able to substitute viable and feasible contingency plans.

3.5 Human agency and triadic reciprocal determinism.

According to Bandura (2001), human agency is influenced by triadic reciprocal determinism. Triadic Reciprocal determinism involves the interaction of behaviour, environment, and personal factors (Crothers et al., 2008). The extent of influence each factor exerts varies from individual to individual (Wood & Bandura, 1989). Being an agent requires the ability to override external influences exerted by the environmental, behavioural and personal factors.

During 1931, Edwin Holt and Harold Brown founded the social cognitive theory to advocate the effectiveness of imitation. The theory initially argued that drives, cues, response and rewards contribute to learning. Drivers were considered as motivation received from the social factors such as the immediate family environment. Cues represent the ability to determine when the necessary action is needed and therefore applied. Modelled behaviour is imitated based on the negative or positive response received. Rewards reinforce behaviour.

The evolution of the social cognitive theory was brought by Bandura when he introduced triadic reciprocal determinism into the social cognitive theory. Bandura's (1986) social cognitive theory is collectivistically and individualistically oriented, with both orientations rooted in human development (Pajares, 2002). Born out of the deficiencies of the behaviourists and corpus theories of learning (Redmond, 2010), the social cognitive theory advocates human agency as the solution to development within the ever-changing society (Bandura, 2005). Bandura's theory was initially focused on observational learning. Albert Bandura's experiment with the Bobo doll proved successful and further provided evidence for the influence of observed behaviour. Bandura expanded the social cognitive theory by introducing the environmental factor within the theory. The social cognitive theory offers a multi dimensional explanation of learning; this approach puts emphasis on the repercussions of the external stimuli received from the environment. This approach incorporates influences of the individual and the environment as leading factors that could impede or promote achievement.

Unlike the behaviourist theory, which explains learning as a response to an environmental stimulus, the social-cognitive theory acknowledges the role of thinking, the affect, and motivational factors in the learning process. Therefore, the view of the social-cognitive

theory is that people can think about what they learn, and control their thinking, emotions, behaviour, and even the environment during the process of learning. This has important implications for this study with its focus on the development of the SRL of adolescents.

The basis of the social cognitive theory is in the importance of behavioural, environmental and personal factors that have a reciprocal relationship and have an influence on shaping the individuals capabilities. Figure 3.1 below provides an illustration of the triadic reciprocal determinism by Bandura. An elucidation of each factor is provided thereafter.

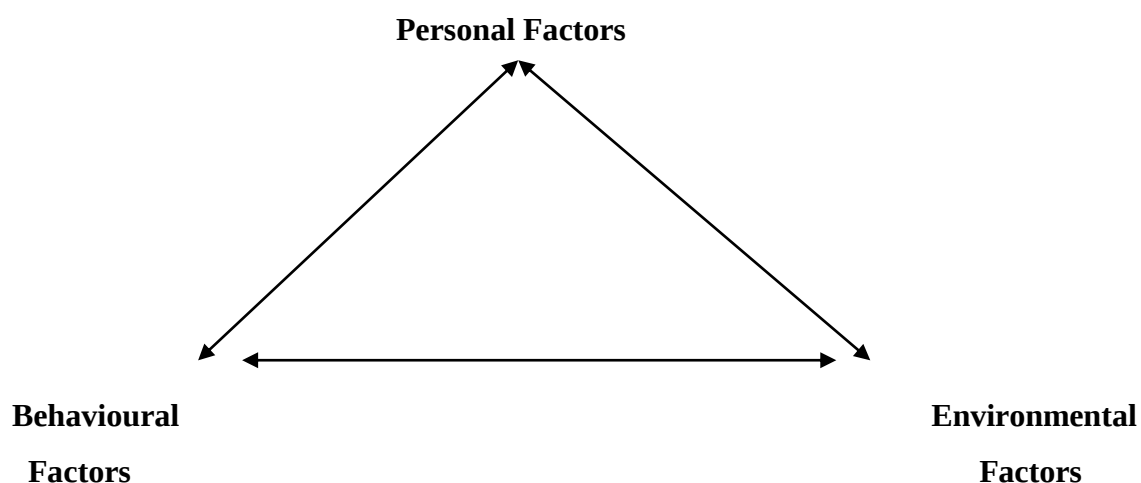


Figure 3.1 Reciprocal Determinism

Personal factors

Personal factors represent cognitive abilities. Personal factors are determined by the individuals' characteristics and values. Characteristics associated with academic progress are

sustained. Personal factors such as expectations , beliefs determine an individuals' behaviour in various contexts of life.

Behavioural Factors

Behavioural factors are responses to stimuli received from various influences. They are a representation of the planning skills an individual possess. The ability to follow procedure for an envisioned goal is important in the academic context. Daily routines established towards reaching objectives are to be followed and the ability to ignore distractions is an important skill offered by the self-system.

Environmental Factors

The environmental factor represents external factors that have an influence on how the individual functions. Environmental influences include both physical and social influences.. Availability and access to learning resources predicts Learners' academic success. Learning surroundings include learning spaces in which the student uses when studying. Social influences come from people who are present in the social circle of the students. People can be both encouraging and discouraging. The Learners' ability to extract only the positive social influences is important for sustaining self-regulated learning.

3.6 Application of agentic perspective of social cognitive theory to self-regulated learning and academic performance.

According to the agentic perspective, intention is the root of all human functionality (Bandura, 2008). With intention human capability is developed. This agentic perspective recognises the human capability to exert influence on the environment, personal and behavioural factors intentionally towards achieving desired goals. Self-regulated learning and academic performance is related to the agent perspective postulated by the social cognitive theory. Based on the agentic perspective of the social cognitive theory self-regulated learning is viewed as the intentional human agency process of controlling environmental, personal and behavioural influences towards achieving academic goals. Using the triadic reciprocal determinism model, an elucidation on how self-regulated learning is applied as the human agency toward achieving academic performance within the learning context.

The components of self-regulated learning (motivation, self-judgement, self-efficacy, cognition and assessment feedback) are regarded as the learning skills and strategies intentionally employed by the agent (in this case would be the student) towards achieving academically. The social cognitive theory posits that students are affected by environmental personal and behavioural factors. Students use these learning skills and strategies to buffer any negative influences exerted by the factors of triadic reciprocal determinism.

Following the agentic perspective of the social cognitive theory, self-regulated learners are considered as agents who intentionally influence control and manage their learning with the goal of achieving academic success. This perspective uncovers the benefits of human agency within the academic context.

3.7 Conclusion

This chapter provide the theoretical framework of the study. An elucidation of the social cognitive theory is presented in this chapter. Moreover, this chapter emphasises the significance of social cognitive theory in the study. According to the theory learners' motivation, self-judgement, self-efficacy cognition and assessment feedback is influenced by their school environment, home environment, behavioural characteristics and personal factors, learners ability to self-regulate their learning is determined by their capability to manage and control the forces provided by these factors. Background of the theory is also provided. The following chapter provides an explanation of the research methodology for the study. An elucidation of various strategies and methods employed in the collection and analyses of the quantitative data is provided in the subsequent chapter.

CHAPTER 4: RESEARCH METHODOLOGY

“...Learners’ perceptions matter when the object of inquiry is self-regulated learning”

McCardle and Hadwin (2015).

4.1 Introduction

This study aimed to explore the effect of self-regulation on academic performance. The previous chapter elucidated on relevant sources related to self-regulation and academic performance amongst pupils. Scholarly reviews, empirical investigations, models and theoretical frameworks guiding most investigations of this subject have been provided and the scrutiny of both proven and disapproved hypotheses and methodologies has been provided in the preceding chapters (2,3 and 4). Choice of research design should be based on its merits in providing valid, reliable and generalisable findings (Thomas, 2010). The present chapter provides the rationale for the quantitative research design that was adopted for the study. The chapter also discusses the instruments used to gather data, the methods of selection of research subjects, data collection and analysis techniques. Furthermore, the chapter reports on the measures taken to assure reliability and validity of the findings and scale construction processes are expressed together with the reliability statistics and an elucidation of the variables studied. As a principle of research, ethical considerations are expressed. Difficulties encountered whilst conducting the study are discussed. Finally, the chapter ends with a conclusion.

4.2 Methodological Approach

The principal aim of this study was to establish if self-regulated learning can improve academic performance of students. Due to the nature of the research problem, the positivist ontology was adopted. According to Paul (2004) the philosophical orientation of positivism is mainly based on uncovering reality or truth through using a scientific method, which allows for the generalisation of results eventually to develop laws or theories to solve and explain social ills.

The positivist tradition promulgated by the 19th-century writer Auguste Comte (Creswell, 2014). Although providing a concise definition for positivism is difficult due to its relevance in many fields. However, it is based on uncovering the truth through science. Positivism was born out of the dissatisfaction with ideologies of the theological and metaphysical stages. The researcher found the logical analysis of the positive approach fitting for the research because it provides objectivity and independence therefore the researcher had no interests in the found causalities. The philosophy of positivism is that true knowledge is retrieved from the human senses, common sense is not important within the positivist approach this is to guard against bias research findings. According to Crowther and Lancaster (2008), positivists use quantitative designs, which assess cause and effect relationships. Corpus studies have attributed the relation between self-regulated learning and academic performance to different theoretical assumptions, which are still being argued or approved by current scholars. Researchers interested in this subject are subjected to the deductive methodological approach due to the philosophical basis of learning (Creswell & Plano Clark, 2007).

4.3 The choice of Research Design – Justification and Instrumentation

Research design of any study is determined by the objectives and aims which are encapsulated within hypothesis of the study. The main objective of this study was to determine if there is a relationship between self-regulated learning and academic performance. The quantitative research design was the most suitable since it produces scientific fact and researcher detachment. Quantitative research design was considered appropriate because it allows for the examination of the cause and effect within relationships. According to Collins & Hussey (2003) this type of research, although harder to design initially, is usually highly detailed and structured, and results can be easily organized and presented statistically. The strategy of inquiry used study is an analytical survey, because of its deductive nature, which will provide a quantitative or numeric description of perceptions of the population (Fowler, 2008). Data extracted from surveys is reliable because of the lack of researcher subjectivity. The study adopted the inductive approach because of the logic, generalisability offered by the approach. The tenets of the agentic perspective of the social cognitive theory provide a prior framework in determining the causal relationship between self-regulated learning and academic performance. Crowther and Lancaster (2008) opined that it is a common rule for positivist studies to the deductive approach. The objectivity of the researcher in this study validates the positivist approach. The study seeks to collect and convert data into numeric information in order to derive statistics and provide a conclusion. The scientific nature of the study further is best suited for the positivist approach. Past studies have also used this approach due to the.

The instrument used for data collection in this survey was questionnaire, with closed ended questions. The questionnaire was constructed based on the components of social cognitive theory by Bandura (2001). It consisted of 6 sections and 42 items. Section A elicits

information on respondents' social demographic variables. The other five sections consist of questions pertaining to the variables of interest in the study (Section B was on students perceptions of motivation, section C was on students perceptions of self-judgement, section D was on students perceptions of self-efficacy, section E was on students perceptions of cognition and the last section F was on students perceptions of academic performance).

The questions in sections B, C, D,E and F were asked using the Likert scale, from 1 to 5, where 1 = strongly agree, 2 = agree, 3 = not sure, 4 = disagree and 5 = strongly disagree. Sections B and E had been adopted from the Motivated Strategies for Learning Questionnaire (MSLQ). MSLQ is a self-report instrument that was used to assess the college Learners' motivational orientation (Pintrich, et al, 1991). The study did not employ the entire scales of the MSLQ because its scales only assess motivation and cognition.

4.4 Subjects

The study was conducted from a sample of 101 grade 10 learners from Qhakaza High school, a predominately black, middle class local school. Students were randomly chosen as subjects of the study because of the elevated value of primary data and recognising them as social agents who should be included in investigations concerning them. The selection of students as respondents/subjects of the study was conceived from the belief that Learners' academic and self-regulated learning perceptions are based on experience. According to Corti (1993), experience is an important source of constructing social reality within the social sciences. Staley (2009) argues that including children as respondents in research which concerns them improves the quality of data. According to recent statistics Learners' academic performance declines when they reach grade 10 (Simkins, 2013), it was against this reason that grade 10

students were considered to be the most significant informants on the hypothesised relationship between academic performance and self-regulated learning.

4.5 Sampling

Based on the literature reviewed, it was apparent that gender and age had no influence on Learners' self-regulated learning and academic performance. The absence of classification proved simple random sampling as a sampling method fit for this study. Simple random sampling allows all members of the population an equal chance of being selected as participants. This is the most preferred method for ensuring a probability sample. Simple random sample was chosen because of its lack of bias when it comes to selecting a representative sample and the lack of bias creates true generalisation, since generalisability is essential in ensuring validity and reliability of findings.

4.6 Sample Size

Based on the estimated population the researcher used the Raosoft sample size calculator, where the error margin was at 5% with 95% confidence levels, a sample size of 101 was achieved. The sample size calculator was obtained online from: (<http://www.raosoft.com/samplesize.html>). Regardless of the advantage of using the entire population of the study, limiting the study to a sample of 101 was chosen due to time constraints. Minimising disruption during classes is of great importance to the department of education and the researcher has opted to use a sample to avoid consuming too much class time.

4.7 Data Collection Process

The researcher employed a research assistant to assist in the collection of data. After being granted permission to conduct the study the researcher arranged an introductory visit to the school prior to the data collection phase. This was done in order to familiarise the students to the research topic and also explain the procedure of data collection and all ethical issues pertaining to it. This was done with all grade 10 pupils (both participants and non-participants) in order to prevent dysfunction and uncertainty on the day scheduled for data collection.

This introductory visit familiarised the researchers to the students and made them comfortable when it came to asking questions where they did not understand.

Data was collected during the Life orientation in class in the presence of the grade 10 teacher, who had been placed by the principal to assist with basic behaviour and co-operation of students during the facilitation of the study. The life orientation teacher chose a day when the grade 10 students have life orientation lessons during the last 3 lessons of the day, so the first afternoon period the researcher collected the data, the second afternoon period the research assistant collected the data and the last group of 35 both researchers were presents to facilitate the data collection.

The researcher and the assistant divided the sample into three groups (2 groups of 33 and one group of 35= total of 101) in order to prevent chaos and save time. Facilitating the filling in of self-report questionnaire required that both investigators read out every statement and provide clarity when needed, In so doing the researcher wanted to be certain that the respondents understood and were therefore able to self report without problems.

4.8 Variables

A Measurable and observable distinct individual trait, which varies from one individual to another is called a variable (Creswell, 2014). A variable refers to a specific characteristic of a subject that assumes one or more different values. The study has two sets of variables, the independent variables and one dependent variable. Social demographic factors, Perceived Level of Motivation (PELOM), Perceived Level of Self Judgement (PLOS), Perceived Level of Self Efficacy (PELSE), Perceived Level of Cognition (PELOC) and Perceived Level of Feedback (PLAFE) are all Independent variables of the study and the Dependent Variable is Perceived level of Academic Performance (PLAP).

4.8.1 Independent Variables

An independent variable is that variable whose values (or levels) the experimenter selects to determine what effect this independent variable has on the dependent variable. The independent variable is the experimental counterpart to a predictor variable. According to Creswell (2014), Independent variables are also called treatment or predictor variables because they influence outcomes.

4.8.1.1 Social Demographic Factors

Social demographics factors were included for the establishment of the populations' characteristics. Variables included were gender, age, home location, siblings, parents' scholastic background, parents' occupation, "have you ever repeated a class and do you have a learning barrier". Many researchers have stressed the need to determine the impact of socio-economic variables on self-efficacy, self-confidence and related variables (Meral, Colak & Zereyak, 2012). Another reason for including these set of variables is contributed by the

adopted Social Cognitive Theory, which necessitates the assessment of the populations' social surroundings as they are assumed to have an influence on academic performance.

4.8.1.2 Perceived Level of Motivation (PELOM)

This measure also included ratings of beliefs that represent goal orientation, where the researcher sought to find Learners' academic beliefs. The particular scales selected reveal the range of achievement motivation constructs, encompassing the four central areas of motivation research, as reviewed by Eccles and Wigfield (2002); expectancies for success (i.e., self-concept theories), task value (i.e., intrinsic motivation and self-determination theories), expectancy and value theories (i. e., expectancy–value theory), and motivation and cognition (i.e., achievement goal theories).

Measures of the perceived level of academic motivation included in this variable is multi-dimensional, unlike other unidirectional measures, such as self-concept [e.g., Piers' (1984) Piers–Harris Children's Self-Concept Scale (PHCSCS); Boersma and Chapman's (1992) Perception of Ability Scale for Students (PASS)]. This variable had a KMO of .514.

4.8.1.3 Perceived Level of Self-Judgement (PLOS)

PLOS sought to measure students perception of their self-judgement Responses were measured on a Likert Scale 1-5, where 1=strongly agree, 2= agree, 3= neutral, 4= disagree and 5= strongly disagree. Highest possible score was indicating the perception of the level of participation. Reliability of scale was with KMO .686.

4.8.1.4 Perceived Level of Assessment Feedback (PLAFE)

PLAFE sought to measure Learners' perception of assessment feedback. Responses were measured on a Likert Scale 1-5, where 1= strongly agree, 2= agree, 3= neutral, 4= disagree and 5= strongly disagree. Highest possible score was indicating the perception of the level of participation. Reliability of scale was with KMO .546.

4.8.1.5 Perceived Level of Self-Efficacy (PELSE)

PELSE sought to measure Learners' self appraisals of ability to master a tasks, accomplish a task as well as one's confidence in one's skills to perform that task. A key determinant of whether learners employ self-regulatory strategies rests in the beliefs they hold about their capabilities to do so (see Zimmerman & Cleary, 2006). Hence, knowing self-regulatory strategies is not enough to ensure their effective use; students must also possess the belief that they can use them effectively. This belief in one's self-regulatory capabilities, or self-efficacy for self-regulated learning, is an important predictor of Learners' successful use of self-regulatory skills and strategies across academic domains.

Perceived self-efficacy is visible in schools as it sets up a cue in the intellectual process: student beliefs in their own self-efficacy individual teachers perceived self-efficacy in their ability to perform effectively with their difficult students perceiving efficacy that their schools can perform The sources of perceived self-efficacy are: performance / accomplishments vicarious experience social persuasion physiological state. The reliability scale revealed KMO of .684 for this variable.

4.8.1.6 Perceived Level of Cognition (PELCO)

PLAFE sought to measure Learners' perception of assessment feedback. Responses were measured on a Likert Scale 1-5, where 1= strongly agree, 2= agree, 3= neutral, 4= disagree and 5= strongly disagree. Highest possible score was indicating the perception of the level of participation. Reliability of scale was with KMO .654.

4.8.2 Dependent Variable

A dependent variable is some aspect of the subject's behaviour assessed to reflect the effects of the independent variable. The dependent variable is the experimental counterpart to a response variable. Dependent variables rely on the independent variables; influence of independent variables produce dependent variables as response or effect (Creswell, 2014).

4.8.2.1 Perceived level of academic performance (PLAP)

PLAP sought to measure Learners' perception of their academic performance. Responses were measured on a Likert Scale 1-5, where 1= strongly agree, 2= agree, 3= neutral, 4= disagree and 5= strongly disagree. Highest possible score was indicating the perception of the level of participation. Reliability of scale was with KMO .579.

4.9 Data Analysis Techniques

The subsequent items within this section provides explicit statistical instruments, and techniques which will were used in making sense of the data collected .The type of data produced by each technique was provided together with its relevance in satisfying the principal objective of the study.

4.9.1 Principal Component Analysis

Data were analysed using SPSS 24. Variables and scales were constructed using Principal Components Analysis (PCA). Bartlett's Tests of Sphericity (BTS) and Kaiser Meyer Olkin's Test (KMO) of sample size adequacy were administered to determine sample size reliability. PCA is useful in identifying the internal structure of a set of items (Field, 2005). In addition, it helps to identify a reduced set of constructs related to variables under consideration. As Kachigan (1991) noted, factor analysis removes internal inconsistency from a set of correlated variables, However the researcher used the Principal components of analysis because Krishnan (2011) argues that PCA provides of all variables individually in order to weigh the importance of variables individually. PCA deemed more important since it allows the researcher to determine the commonality of SRL components amongst the grade 10 students of Qhakaza High School.

4.9.2 Frequencies and Percentages

Results from social demographic factors were presented using the frequencies and percentages. Tables were also used for the emphasis and presentation of results.

4.9.3 Bivariate Analysis

Bivariate correlation (r) was used to determine if there were positive or negative relationships between variables. Bivariate correlation uncovers associations between two variables and tests the significance of observed covariance (Kachigan, 1991). The correlation coefficient ranges from -1 to + 1. While $r = +1$ indicates a perfect positive correlation, $r = -1$ connotes a

perfect negative correlation. $r = 0$ indicates that the variables are not associated. The critical value of (r) is said to be significant at 0.05 (1-tailed) and 0.01 (2-tailed) depending on the stated direction of hypotheses (Price, 2000).

4.9.4 Regression Analysis

According to Campbell & Campbell (2008), regression analysis predicts if the variance in one variable co-occurs in another variable. Regression analysis was used to determine whether there is a relationship between the predictor variables.

4.10 Reliability and Validity

The use of self-report measures from primary sources as instruments of data collection provides true perspective of students, which supports the validity of the findings.

Table 4.1 Cronbach's Alpha for sub-scales

Scale	Cronbach's Alpha	No. Of items
PELOM	0.33	5
PLOS	0.58	6
PELSE	0,58	6
PELCO	0.59	6
PLAFE	0.50	6
PLAP	0.58	6
All	0.80	35

Cronbach's alpha test for the 25 items used for analysis showed reliability of 0.80, approximately 0.8, which is acceptable. Cronbach's alpha ranges from zero to one. The closeness of the 0.8 to 1 proves that the scale is highly reliable.

4.11 Ethical Considerations

Children under 18 years are considered to be a vulnerable population, therefore careful considerations were undertaken when dealing with the respondents of the study. To achieve this, the study was guided by the basic principles of social research. Gaining access to conduct research in an educational institution requires the permission from the schools gatekeeper (in most cases it is the school principal). The researcher was granted access to conduct the study by the school principal. A letter requesting permission for the child to be part of the study was sent to the parents, and together with a consent form was sent to parents of learners below 18 years, because the law does not allow a minor to sign.

According to Spriggs (2010), Parental consent is provided to ensure the protection of children where they are unable to comprehend what the research requires. An informed consent form for "child" participants was also distributed to the students prior to conducting the study. Children were informed on their right to refuse taking part in the research despite their parents' approval. The proposed study is in accordance with the ethical standard by the University of Zululand, which has been set out to ensure compliance with the National Regulatory Framework and University policy. The researcher ensured participants safety from harm during and after the study. The principle of voluntary participation has been adhered to. The participant consent form informs the potential participant on the nature and aims of the study. Anonymity, confidentiality and right to withdraw at anytime is also enshrined in the consent forms, consequently not all participants gave their consent. The

proposed study will be conducted with scholarly integrity and excellence, which sets to promote research endeavours.

4.12 Problems Encountered

The process of data collection for this study was carried out without much challenge. Respondents' cooperation was secured and the study was completed with great success. However, a few challenges were experienced which may have inhibited the successful completion of the study but for the prompt attention of the researcher in providing solution. In the first instance, at the commencement of the research, the principal of the school limited the time allocated for data collection to two days only. This was to avoid disturbing Learners' lessons as much as possible as the study was conducting merely one week to the examination. Consequently, in order to maximise the time allotted, the researcher decided to collect data on a day when all grade 10 classes had life orientation lessons.

The researcher was permitted one lesson, which was an hour for data collection. Surveys require a lot of time especially when dealing with minor respondents because it becomes necessary to explain the questions; this ensures that they understand each statement and are able to provide accurate responses. Although there was a time constraint, the respondents were able to complete the survey during the hour allocated.

4.13 Conclusion

This chapter has provided a general overview of the methodological approach that was adopted when conducting the research. The main aim of this study was to determine the influence of self-regulated learning and academic performance of high school learners. The quantitative research method was the best in obtaining the learners' perception of self-

regulatory factors and academic performance. The use of the Likert scale survey questionnaire enabled the researcher to have a standardised instrument that can be easily compared and analysed statistically. The research results that will be presented in the next chapters will serve as the means by which the research objectives of this study will be satisfied

CHAPTER 5: MEASURES AND CONSTRUCTS OF SELF - REGULATION

“To be an agent is to intentionally make things happen by one's actions. Agency embodies the endowments, belief systems, self-regulatory capabilities and distributed structures and functions through which personal influence is exercised, rather than residing as a discrete entity in a particular place”(Bandura, 2001:2).

5.1 Introduction

Chapter 1 provided the intent and rationale for conducting this study. Chapters 2 and 3 have established the various conceptual and theoretical positions influenced by Learners' academic performance in relation to self-regulated learning. The preceding chapter (chapter 4) conveys a full discussion and rationale for the chosen research method. The present chapter presents the results of Learners' social demographics. Results on Learners' age, gender and an overview of the environmental influences that include economic conditions, socioeconomic status, and family size and parents educational levels are presented. The social cognitive theory argues that there are certain environmental influences on self-regulation. Pajares (2002) speculates that these conditions influence individuals' aspirations and other self-regulatory influences. The results portray that most students are coming from large rural households, with majority headed by unemployed parents with very little education. The chapter is divided into two sections. The first section provides the social demographics results. The second section presents the principal components of analysis for each variables. The third section provides the discussion of the findings from both sections and lastly a conclusion of the chapter is provided.

Table 5.1: Social Demographics

Characteristics	Frequency	%	Cumulative %
Gender			
Male	54	53.5	53.5
Female	47	46.5	100
Age			
14	1	1.0	1.0
15	20	19.8	20.8
16	23	22.8	43.6
17	30	29.7	73.3
18	10	9.9	83.2
19	8	7.9	91.1
20	6	5.9	97.0
20+	3	3.0	100
Home Location			
Suburb	5	5.0	5.0
Township	35	34.7	39.6
Rural	61	60.4	100
Siblings			
One	4	4.0	4.0
Two	18	17.8	21.8
Three	21	20.8	42.6
Four	14	13.9	56.4
Five	17	16.8	73.3
More than five	27	26.7	100
Parents Scholastic Background			
Read and write	10	9.9	9.9
Lower Primary	6	5.9	15.8
Senior Primary	5	5.0	20.8
High School	52	52.5	72.3
Tertiary	28	27.7	100
Parents Occupation			
Unemployed	37	36.6	36.6
General Worker	29	28.7	65.3
Professional	35	34.7	100
Have you ever repeated a class?			
Yes	48	47.5	47.5
No	53	52.5	100
Do you have any form of reading/Learning Barrier			
Yes	45	44.6	44.6
No	56	55.4	100

5.2 Section A: Social Demographic factors

5.2.1 Gender

Suleman et.al, (2013) stated that gender, ethnicity, and income level of parents can affect a student's academic performance (also; Slaughter, 2007). Bandura's (1995) *agentic* perspective of the social cognitive theory adopted in this study is a fusion of personal factors, environmental factors and behaviour, therefore the data from the social demographic factors As the table 5.1 below shows, 53.5% (N= 54) of the respondents were male while 46.5% (N= 47) were females. There is a fair representation of both genders.

5.2.2 Age

Table 5.1 below also shows that the majority 29.2% (N= 30) of the respondents are 17 years old. A mere 22.8% (N= 23) of the respondents were 16 years old. Age 16 is the exact age that students should be when in grade 10. This is the as recommended by the South African department of basic education. Age may be another influencing variable. Rather generally, it is assumed that there are big differences between younger and older people in their learning.

5.2.3 Home Location

Table 5.1 below reports that 60% (N=61) of respondents live in rural areas. Studies (Egunsola, 2014; Hassan & Rasiah, 2011; Zhao, 2009) have provided great deal of results, which prove that there is influence on Learners' academic performance that is caused by the type of location they live in.

5.2.4 Siblings

Children from rural locations are more likely to be less motivated or have aspirations, their academic performance tends to be low when compared to students in urban areas 26.7% (N=27) of respondents have more than five siblings. These results are an indication of time and relationship that the parents and their children have, normally, parents with increased number have more responsibilities and less time to check all Learners' progress.

5.2.5 Parents scholastic Background

Table 5.1 below reveals that majority 52.5% (N=52) of the respondents' parents highest education level is high school level education. After analysing and comparing academic results of boys from private and public schools, Orodho (2005) found that parents' scholastic background/level significantly influence pupils academic performance.

5.2.6 Parents Occupation

The results also show that 36.6% (N=37) of parents are unemployed this reveals the SES of the families. Researchers (Coleman, 2009; Dika & Singh, 2002; Sirin, 2005) provide that there is an indirect influence of negative influence of low SES on academic performance, which often leads to students dropping out of school to enter workforce.

5.2.7 Have you ever repeated a class?

Results in table 5.1below shows that repeating a class is a common occurrence. N=48 (47.5%) of the respondents indicated that they had repeated a class. On the other hand however, N=55 (42.5%) had never repeated a class.

5.2.8 Do you have any form of reading/ learning barriers

46.6 % (N=45) reported that they have a learning barrier. Learning barriers are a hindrance to academic performance. Almost half of the respondents believe they have a learning barrier.

5.3 Principal Components Analysis

5.3.1 Introduction

The preceding section provided information on the social demographics of the respondents. Information on the environment and social background of the respondents is understood from the results. Assessing the social demographics is also informed by the social cognitive theory that is the point of reference for the assumptions of this study. This section provides results from the dimension reduction. Each variable is computed electronically through the Principal Components Analysis are provided.

The Principal Components of each variable (PLOM and PLOS, PELSE, PELCO, PLAFE, PLAP & SRL) are illustrated and discussed below. Each variable has a table showing its results on KMO, descriptive statistics, total variance and Scree plot.

5.3.2 Perceived Level of Motivation

Table 5.2 KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.			.514
Bartlett's Test of Sphericity	Approx. Chi-Square		28.680
	Df		10
	Sig.		.001

A variable known as PELOM was computed electronically through PCA from a list of six items derived from the questionnaire for the study. The PCA revealed KMO = .514, BTS, $X^2 = 480.369$, (df = 105), $p < 0.05$ indicating that the sample was adequate for factor reduction.

Table 5.3 Descriptive statistics for PELOM

	Mean	Std. Deviation	Extraction
My parents play an important role in motivating me.	1.30	.558	.267
Going to school will lead me to a prosperous future.	1.34	.621	.649
I only study hard when there is a test coming.	2.31	.925	.597
I want to receive an award in one of my subjects.	1.59	.874	.644
I do not want to repeat my class.	1.38	.915	.595

Table 5.3 above shows the most important item in the describing PELOM is ‘I only study hard when there is a test coming’, mean=2.31, SD = .621.

Table 5.4 Total Variance Explained for PELOM

Total Variance Explained						
Component	Initial Eigen values			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	1.503	30.053	30.053	1.503	30.053	30.053
2	1.249	24.990	55.042	1.249	24.990	55.042
3	.947	18.935	73.977			
4	.714	14.281	88.258			
5	.587	11.742	100.000			
Extraction Method: Principal Component Analysis.						

Form table 6.3 above, the first two components will be retained because their initial eigenvalues are greater than one. Their combined variance is 55.042%.



Figure 5.1 Scree Plot for PELOM

In figure 6.1 above Component 1 and 2 capture most variance than the remaining components, the rest of the components remain irrelevant because of their eigenvalues which is less than 1

Table 5.5 Correlations for PELOM and Social Demographics

Correlations		
		Perceived level of motivation
Gender.	Pearson Correlation	.001
	Sig. (2-tailed)	.994
	N	101
Age.	Pearson Correlation	.059
	Sig. (2-tailed)	.560
	N	101
Home location.	Pearson Correlation	.066
	Sig. (2-tailed)	.510
	N	101
Siblings.	Pearson Correlation	.185
	Sig. (2-tailed)	.065
	N	101
Parents' scholastic background.	Pearson Correlation	-.115
	Sig. (2-tailed)	.253
	N	101
Parents occupation.	Pearson Correlation	.026
	Sig. (2-tailed)	.793
	N	101
Have you ever repeated a class?	Pearson Correlation	-.067
	Sig. (2-tailed)	.508
	N	101
Do you have any form of reading/ learning barrier?	Pearson Correlation	-.178
	Sig. (2-tailed)	.074
	N	101
Perceived level of motivation	Pearson Correlation	1
	Sig. (2-tailed)	
	N	101
**. Correlation is significant at the 0.01 level (2-tailed).		

Result from table 5.5 above shows that there is no correlation between motivation and learners social demographics. The results from the table above provide that the home environment does not influence learners' motivation. These findings contradict with the

previous investigations by Masaali (2007); Zhao (2009) & Koskess (2014) that maintain that social factors have an influence on students; academic performance.

5.3.3 Perceived Level of Self-Judgement

Student level of self-judgement is predicted by the Learners' ability to monitor and evaluate their academic progress (McMillan& Hearn, 2008). Ability to self-judge allows students to evaluate their strategies and provide feedback in order to enhance performance. According to Dyer (2015), self-judgement a skill empowers autonomy in students and less reliant on teachers and peers for assistance. Students are able to identify or understand their learning styles and strategies through self-judgement. A distinction of valuable and non-valuable learning strategies is realized through self-evaluation. Through self-judgement students identify learning strategies that help them learn (Rolling-Carter, 2010). Renzulli (2015) posits that using learning strategies does not guarantee academic success, therefore it is important for students to identify and adopt the valuable strategies which will promote academic success.

Self-judgement also commonly referred to as self reflection is a necessary skill, which should be taught and encouraged to students. Lew & Schmidt (2011) ascertain that having this skill does not assure academic performance. Their study showed insignificant correlation between academic performance and self-judgement. Bruce (2001) argues that students inability to set realistic goals hinders their ability to assess and evaluate their improvements. According to Macmillan& Hearn (2008) self-judgement is the second component of students self-assessment cycle which enables students to make judgements of their performance. Perceived Self-judgements lead to self-perceived competence (Ferla, Valcke & Schuyten, 2010), scholars warn against high self-perceived competence. This is because students tend to

overlook working hard due to their increased confidence and this may lead to laziness and poor academic performance.

Table 5.6 KMO and Bartlett's Test for PLOS

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.	.686
Bartlett's Test of Approx. Chi-Square	71.001
Sphericity Df	15
Sig.	.000

A variable known as PLOS was computed electronically through PCA from a list of six items derived from the questionnaire for the study. The PCA revealed KMO = .686, BTS, $X^2 = 71.001$, (df = 15), $p < 0.05$ indicating that the sample was adequate for factor reduction.

Table 5.7 Descriptive Statistics for PLOS

	Mean	Std. Deviation	Extraction
I know how to plan and manage my study time.	2.42	.863	.639
I know a lot of learning strategies.	2.51	.820	.596
I use all learning strategies.	2.74	1.074	.552
I learn better on my own.	2.14	1.265	.415
I am able to avoid distractions whilst learning.	2.45	1.072	.608
I attain good grades in my favourite subjects.	2.11	1.019	.422

Table 5.7 above shows the most important item in the describing PLOS is ‘I use all learning strategies.’ mean=2.74, SD= 1.074.

Table 5.8 Total Variance Explained for PLOS

Total Variance Explained						
Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2.118	35.298	35.298	2.118	35.298	35.298
2	1.114	18.573	53.871	1.114	18.573	53.871
3	.927	15.458	69.329			
4	.766	12.770	82.098			
5	.573	9.548	91.646			
6	.501	8.354	100.000			
Extraction Method: Principal Component Analysis.						

Form table5.8 above, the first two components will be retained because their initial eigenvalues are greater than one. The cumulative variance for both components is 53.871 %.

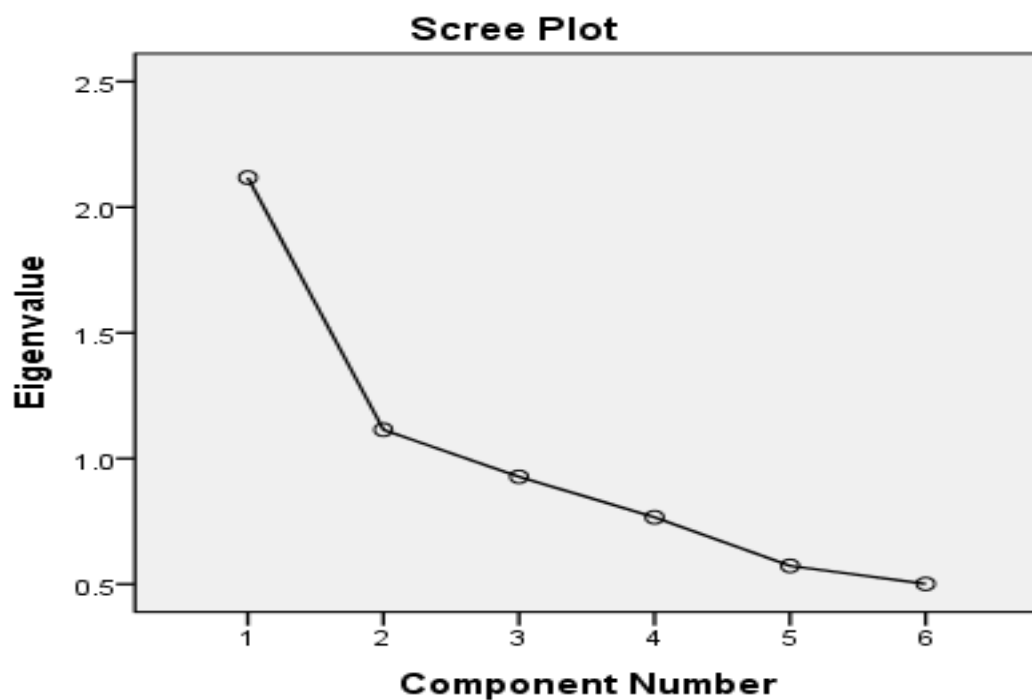


Figure 5.2 Scree Plot for PLOS

In figure 5.2 above Component 1 and 2 capture most variance than the remaining components, the rest of the components remain irrelevant because their eigenvalues are less than 1.

Table 5.9 Correlations for PLOS and Social Demographics

Correlations		
		Perceived level of self-judgement
Gender.	Pearson Correlation	.001
	Sig. (2-tailed)	.990
	N	101
Age.	Pearson Correlation	-.017
	Sig. (2-tailed)	.868
	N	101
Home location.	Pearson Correlation	-.035
	Sig. (2-tailed)	.731
	N	101
Siblings.	Pearson Correlation	.103
	Sig. (2-tailed)	.305
	N	101
Parents' scholastic background.	Pearson Correlation	.067
	Sig. (2-tailed)	.506
	N	101
Parents occupation.	Pearson Correlation	.197*
	Sig. (2-tailed)	.048
	N	101
Have you ever repeated a class.	Pearson Correlation	.036
	Sig. (2-tailed)	.722
	N	101
Do you have any learning barrier.	Pearson Correlation	-.289**
	Sig. (2-tailed)	.003
	N	101
**. Correlation is significant at the 0.01 level (2-tailed).		
*. Correlation is significant at the 0.05 level (1-tailed).		

Results from table 5.9 above shows that there a significant relationship between parents occupation and students self-judgement, Furthermore there is a negative insignificant relationship between learning barrier and students self-judgement. The results presented

above ascertain that learning barriers create a negative impact on how students judge themselves academically. Learning barriers result in decreased self-confidence and competence. The psychological implications caused by learning barriers are detrimental to academic self-concepts. Despite the insignificance of the relationship, we cannot overlook the influence of the parents' occupation on Learners' self-judgement. The assertions by Igbo et.al (2014) are in contrast with the results in table 5.9 indicating that students whose parents have a low social economic status have poor academic performance which lead to negative self-judgements.

5.3.4 Perceived Level of Self-Efficacy

Goal orientation is highly influenced by the individual perception of their self- efficacy, the process of pursuing the goal becomes fulfilling because of the confidence the individual has in their capabilities (De Fatima Goulao, 2014; Siegle and McCoach, 2007). Self-efficacy influences either the cognitive or the affective dimension of the learning process and the persistence. Research indicates that high self- efficacy is found in students who are highly motivated and are academically competent (Taylor, 2014;Lunenburg, 2011). Correlation results from a study completed by Fenning &May (2013). Green, Nelson, Martin and Marsh (2006) posit that there is a positive relationship between self-efficacy and academic competency.

According to Dambudzo (2009), negative beliefs of self-efficacy can impede academic development. Meera & Jumana (2015) reveals the importance of self-efficacy in students and recommends that teachers are provided with teaching strategies for building their Learners' self beliefs. A study conducted Aydin (2016) by reveals that academic motivation is not determined by Learners' self-efficacy. A study evaluating the factors that affect academic performance reported self-efficacy as the highest predictor of academic performance (Dogan,

2015). According to Gardner (2014), there is no predictive relationship between self-efficacy and academic performance. Carroll et.al (2008) advocates for the development of mediating models for academic performance and self-efficacy. A longitudinal study by Hwang et.al (2016) establishes a positive reciprocal relationship between self-efficacy and academic performance.

Table 5.10 KMO and Bartlett's Test for PELSE

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.684
Bartlett's Test of Sphericity	Approx. Chi-Square	63.706
	Df	15
	Sig.	.000

A variable known as PELSE was computed electronically through PCA from a list of six items derived from the questionnaire for the study. The PCA revealed KMO = .684, BTS, $X^2 = 63.706$, (df = 15), $p < 0.05$ indicating that the sample was adequate for factor reduction.

Table 5.11 Descriptive statistics for PELSE

	Mean	Std. Deviation	Extraction
It is possible for me to be in the top ten achievers.	2.32	.969	.630
I can do better if I studied more.	1.48	.657	.477
I can do even the hardest work if I put more effort.	1.71	.887	.636
I am able to organise my activities so that I can meet all course deadlines.	2.24	1.060	.448

I am aware of my areas of weakness, which need improvement.	1.87	.757	.467
Soon after the end of a lesson, I am able to remember most of the key concepts.	2.37	.902	.511

Table 5.11 above shows the most important item in the describing PELSE is ‘Soon after the end of a lesson, I am able to remember most of the key concepts mean=2.37, SD= .902.

Table 5.12 Total Variance Explained for PELSE

Component	Initial Eigen Values			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2.084	34.740	34.740	2.084	34.740	34.740
2	1.084	18.067	52.808	1.084	18.067	52.808
3	.905	15.079	67.887			
4	.773	12.888	80.775			
5	.642	10.703	91.477			
6	.511	8.523	100.000			

Form table 5.12 above, the first two components will be retained because their initial eigenvalues are greater than one. The cumulative variance for both components is 52.808%.

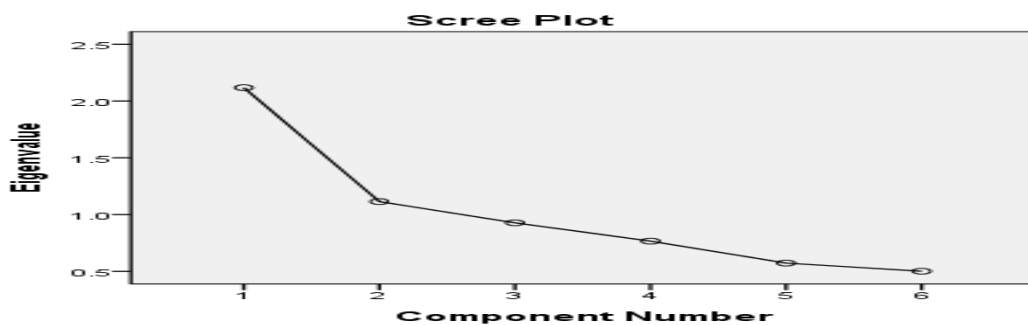


Figure 5.3 Scree Plot for PELSE

In figure 5.3 above Component 1 and 2 capture most variance than the remaining components, the rest of the components remain irrelevant because of their eigenvalues are less than 1.

Table 5.13 Correlations for PELSE and Social Demographics

Correlations		
		Perceived level of self efficacy
Gender.	Pearson Correlation	.095
	Sig. (2-tailed)	.344
	N	101
Age.	Pearson Correlation	.063
	Sig. (2-tailed)	.531
	N	101
Home location.	Pearson Correlation	-.047
	Sig. (2-tailed)	.639
	N	101
Siblings.	Pearson Correlation	.144
	Sig. (2-tailed)	.151
	N	101
Parents' scholastic background.	Pearson Correlation	-.022
	Sig. (2-tailed)	.824
	N	101
Parents occupation.	Pearson Correlation	.105
	Sig. (2-tailed)	.297
	N	101
Have you ever repeated a class?	Pearson Correlation	-.178
	Sig. (2-tailed)	.075
	N	101
Do you have any form of reading/ learning barrier?	Pearson Correlation	-.143
	Sig. (2-tailed)	.153
	N	101
Perceived level of self efficacy	Pearson Correlation	1
	Sig. (2-tailed)	
	N	101
**. Correlation is significant at the 0.01 level (2-tailed).		

Table 5.13 above shows that Learners' social demographic factors are not related to PELSE. The results contradict with the general arguments form scholars (Bandura, 1995) that the social environment is another source of self-efficacy. From these results, it can be deduced that the beliefs learners have about their capabilities is not influenced by their social surroundings.

5.3.5 Perceived Level of Cognition

Sustained attention, response inhibition, speed of information processing, cognitive flexibility and control, multiple simultaneous attention, working memory, category formation and pattern recognition are all cognitive skills which are regarded as foundational for learning. The results of cognitive training varies from individual to individual, researchers have tried to establish the cause of disparities in cognitive training with no luck (Jaeggi et.al, 2011). Cognitive abilities require constant development because they decline with age (Michelon, 2006, Leeson et.al, 2008). A study conducted by Puerta (2015) investigating the relationship between academic success and cognitive abilities points out a significant relationship between the two variables. Cognitive stimulating social environments are important in motivating academic success especially in early stages of development.

Table 5.14 KMO and Bartlett's Test for PELCO

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.654
Bartlett's Test of Sphericity	Approx. Chi-Square	55.685
	Df	15
	Sig.	.000

A variable known as PELCO was computed electronically through PCA from a list of six items derived from the questionnaire for the study. The PCA revealed KMO = .654, BTS, $X^2 = 55,685$, (df = 15), $p < 0.05$ indicating that the sample was adequate for factor reduction.

Table 5.15 Descriptive Statistics for PELSE

	Mean	Std. Deviation	Extraction
I test myself to ensure that I know the material I have been studying.	2.58	1.032	.709
I work on practise exercises and answer end of chapter questions even when I don't have to.	3.06	1.038	.669
I outline chapters in my book to help me study.	2.49	1.073	.376
When studying, I copy notes over to help me remember material.	2.26	1.137	.422
When I study, I put important ideas into my own words.	1.96	.882	.527
When reading I try to connect the things I am reading with what I already know.	1.97	.818	.392

The table above shows the most important item in the describing PELCO is 'I work on practise exercises and answer end of chapter questions even when I don't have to.', mean=3.06, SD=1.038.

Table 5.16 Total Variance Explained for PELCO

Total Variance Explained						
Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2.013	33.550	33.550	2.013	33.550	33.550
2	1.082	18.027	51.576	1.082	18.027	51.576
3	.866	14.436	66.012			
4	.843	14.053	80.066			
5	.654	10.895	90.960			
6	.542	9.040	100.000			
Extraction Method: Principal Component Analysis.						

Form table 7.7 above, the first two components were retained because their initial eigenvalues are greater than one. The total cumulative variance for both components extracted is 51.567%.

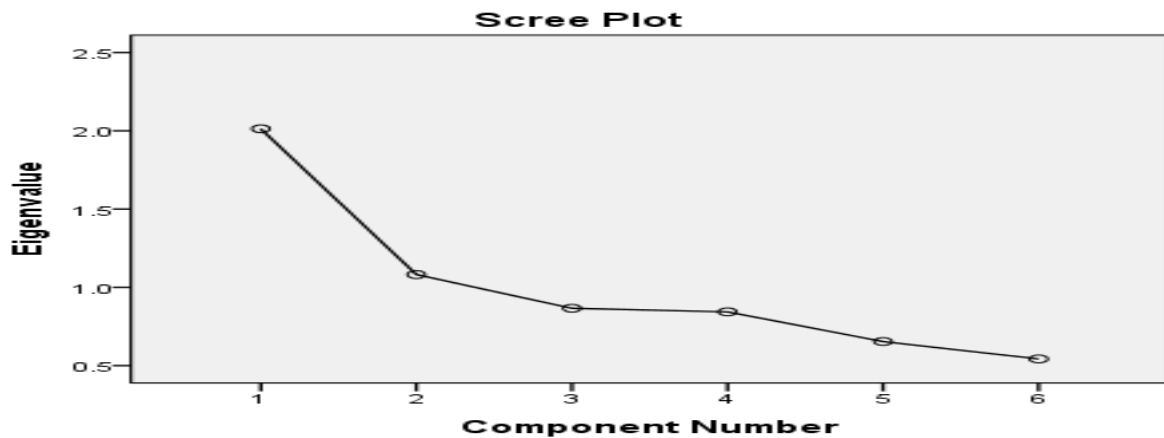


Figure 5.4 Scree Plot for PELCO

In figure 7.2 above Component 1 and 2 capture most variance than the remaining components, the rest of the components remain irrelevant because of their eigenvalues are less than 1.

Table 5.17 Correlation for PELCO and Social Demographics

Correlations		
		Perceived level of cognition
Gender.	Pearson Correlation	.121
	Sig. (2-tailed)	.230
	N	101
Age.	Pearson Correlation	.056
	Sig. (2-tailed)	.580
	N	101
Home location.	Pearson Correlation	.027
	Sig. (2-tailed)	.787
	N	101
Siblings.	Pearson Correlation	.059
	Sig. (2-tailed)	.556
	N	101
Parents' scholastic background.	Pearson Correlation	-.088
	Sig. (2-tailed)	.379
	N	101
Parents occupation.	Pearson Correlation	-.033
	Sig. (2-tailed)	.745
	N	101
Have you ever repeated a class?	Pearson Correlation	-.059
	Sig. (2-tailed)	.555
	N	101
Do you have any form of reading/ learning barrier?	Pearson Correlation	-.069
	Sig. (2-tailed)	.490
	N	101
Perceived level of cognition	Pearson Correlation	1
	Sig. (2-tailed)	
	N	101
**. Correlation is significant at the 0.01 level (2-tailed).		

Table 5.17 shows that there is no relationship between PLECO and students social demographic variables. The results present cognition as an entity that is independent and not determined by the environmental/social factors. These findings contradict with Christian (2008), who posits that parents' level of education is related to learners' cognitive

development. He maintains that highly educated parents monitor and assist their children by providing motivation for Learners' cognitive development.

5.3.6 Perceived Level of Assessment Feedback

Feedback enables students to identify their areas of weakness and it is a source of motivation when commending Learners' progress. The emphasis on both formative and summative assessment is largely advocated towards achieving effective learning (Moyosore 2015). The experimental study of 464 college students conducted by Lipnevich & Smith (2008) portrays that assessment feedback is more guiding when it is detailed, easy to understand and specific. A study exploring student views on factors affecting academic performance reveals that students are not receiving feedback from their assessments (Sikhwari et.al, 2015). A point of concern when it comes to assessment feedback is that students are more interested in the grades/marks scored as opposed to reading the teachers comments that become beneficial in subsequent assessments (Spiller, 2009). In some instances assessment feedback has proven ineffective in academic achievement and this has raised interests in uncovering the various effects of assessment feedback and other variables mediating theses outcomes. Baadte & Schnotz (2014) ascertain that student's self-concept is a mediating variable between assessments feedback and academic performance.

Table 5.18 KMO and Bartlett's Test for PLAFE

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.546
Bartlett's Test of Sphericity	Approx. Chi-Square	53.607
	Df	15
	Sig.	.000

A variable known as PLAFE was computed electronically through PCA from a list of six items derived from the questionnaire for the study. The PCA revealed KMO = .546, $\chi^2 = 53.607$, ($df = 15$), $p < 0.05$ indicating that the sample was adequate for factor reduction. PCA extracted only two factors that accounted for 51.046% of variance, other factors became irrelevant for the extraction purposes once the PLAFE variable was extracted. Figure 7.5 the Scree plot reveals that other factors become irrelevant once the third factor of the PLAFE variable was extracted.

Table 5.19 Descriptive statistics for PLAFE

	Mean	Std. Deviation	Extraction
I turn criticism into constructive suggestions.	2.12	.816	.653
I ask teachers for clarity when I do not understand.	2.58	1.219	.710
I do corrections after an assessment.	2.67	1.312	.494
It is important for teachers to suggest specific ways to improve the assignment.	1.57	.876	.375
I complain when I get a low mark.	2.49	1.346	.439
I benefit a lot when discussing in groups.	1.89	1.057	.392

Table 5.19 above shows the most important item in the describing PLAFE is ‘I do corrections after an assessment’, mean=2.67, SD=1.312.

Table 5.20 Total Variance Explained for PLAFE

Component	Initial Eigen Values			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	1.793	29.885	29.885	1.793	29.885	29.885
2	1.270	21.162	51.046	1.270	21.162	51.046
3	.949	15.818	66.865			
4	.881	14.683	81.547			
5	.616	10.265	91.812			
6	.491	8.188	100.000			

Extraction Method: Principal Component Analysis.

Form table 5.20 above reveals that the first two components will be retained because their initial eigenvalues are greater than one, majority of variance explained by these components is 51.046%.

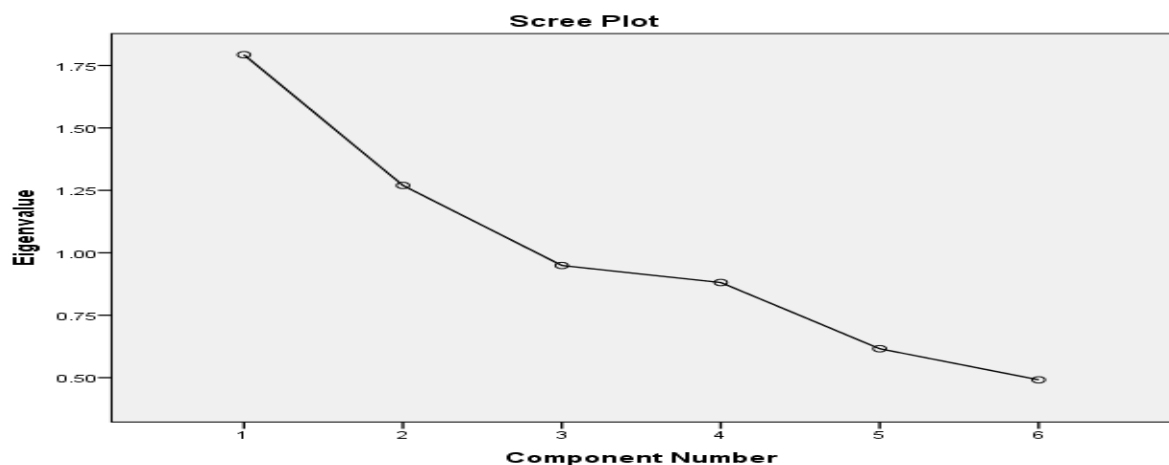


Figure 5.5 Scree Plot for PLAFE

In figure 7.3 above Component 1 and 2 capture most variance than the remaining components, the rest of the components remain irrelevant because their eigenvalues are less than 1.

Table 5.21 Correlation for PLAFE and Social Demographics

Correlations		
		Perceived level of assessment feedback
Gender.	Pearson Correlation	.138
	Sig. (2-tailed)	.169
Age.	Pearson Correlation	-.122
	Sig. (2-tailed)	.226
Home location.	Pearson Correlation	.112
	Sig. (2-tailed)	.267
Siblings.	Pearson Correlation	.057
	Sig. (2-tailed)	.570
Parents' scholastic background.	Pearson Correlation	.073
	Sig. (2-tailed)	.468
Parents' occupation.	Pearson Correlation	.160
	Sig. (2-tailed)	.111
Have you ever repeated a class?	Pearson Correlation	-.137
	Sig. (2-tailed)	.171
Do you have any form of reading/ learning barrier?	Pearson Correlation	-.132
	Sig. (2-tailed)	.189
Perceived level of assessment feedback	Pearson Correlation	1
	Sig. (2-tailed)	
**. Correlation is significant at the 0.01 level (2-tailed).		

Table 5.21 above shows that there is no correlation between PLAFE and learners social demographic factors. These results provide that Learners' feedback is not received from external but internal sources. Since social demographic are regarded as external sources of feedback. According to Handley & Cox (2007), Learners' feedback is more effective when received internally.

5.3.7 Perceived Level of Academic Performance

Academic performance also referred to as academic achievement is a Learners' position based on grades or marks scored against the achievement measures. Academic performance provides an evaluation of a Learners' performance. It is a measure of Learners' ability across domains. Various factors affect academic performance of students these factors include, environmental factors, behavioural factors and personal factors. Environmental factors are contextual factors that may influence how a student performs at school. Behavioural factors are factors concerned with the actions performed by students on regular basis and such actions either have a positive or negative impact on academic performance. Lastly, it is the personal factors and these include individual motivation, abilities and goals.

Table 5.22 KMO and Bartlett's Test for PLAP

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.579
Bartlett's Test of Sphericity	Approx. Chi-Square	54.142
	Df	15
	Sig.	.000

A variable known as PLAP was computed electronically through PCA from a list of six items derived from the questionnaire for the study. The PCA revealed KMO = .579, $\chi^2 = 54.142$, (8df = 15), $p < 0.05$ indicating that the sample was adequate for factor reduction.

Table 5.23 Descriptive Statistics for PLAP

	Mean	Std. Deviation	Extraction
I performed excellently in the last test.	2.66	1.023	.276
I am an excellent student.	2.76	1.167	.575
I have never failed any test or examination.	3.15	1.314	.642
I had outstanding marks last term.	2.93	1.275	.430
I am always confident when writing a test or exam.	2.79	1.160	.630
I always score good marks in my exams.	2.98	1.058	.432

The table 5.23 above shows the most important item in the describing PLAFE is ‘I have never failed any test or examination.’ mean=3.15, SD=1.314.

Table 5.24 Total Variance Explained for PLAP

Component	Initial Eigen Values			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	1.949	32.484	32.484	1.949	32.484	32.484
2	1.035	17.256	49.740	1.035	17.256	49.740
3	.975	16.244	65.985			
4	.830	13.830	79.814			
5	.731	12.184	91.998			
6	.480	8.002	100.000			

Extraction Method: Principal Component Analysis.

Form table 5.24 above, the first two components will be retained because their initial eigenvalues are greater than one, majority of variance explained by these components 49.74%

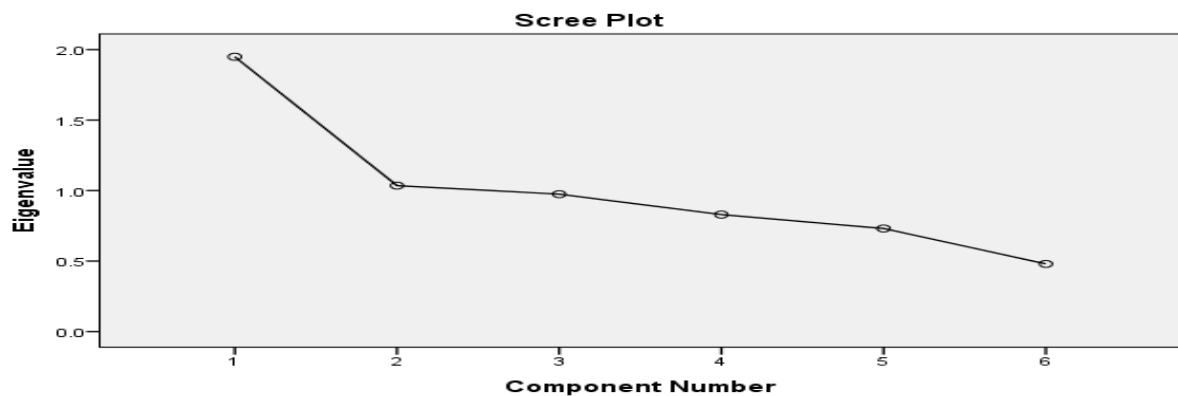


Figure 5.6 Scree Plot for PLAP

In figure 7.4 above Component 1 and 2 capture most variance than the remaining components, the rest of the components remain irrelevant because their eigenvalues are less than one.

Table 5.25 Correlation for PLAP and Social Demographics

Correlations		
		Perceived level of academic performance
Gender.	Pearson Correlation	.017
	Sig. (2-tailed)	.866
Age.	Pearson Correlation	.135
	Sig. (2-tailed)	.180
Home location.	Pearson Correlation	.016
	Sig. (2-tailed)	.872
Siblings.	Pearson Correlation	.156
	Sig. (2-tailed)	.119
Parents' scholastic background.	Pearson Correlation	.003
	Sig. (2-tailed)	.976
Parents occupation.	Pearson Correlation	-.048
	Sig. (2-tailed)	.631
Have you ever repeated a class?	Pearson Correlation	-.157
	Sig. (2-tailed)	.117
Do you have any form of reading/ learning barrier?	Pearson Correlation	-.035
	Sig. (2-tailed)	.728
Perceived level of academic performance	Pearson Correlation	1
	Sig. (2-tailed)	

Table 5.25 above shows that there is no relationship between PLAP and students demographic factors. Social factors are regarded as external forces that exert some form of influence on the academic performance of learners. These results contradict to Bandura's (1999) social cognitive theory that social factors have an influence on academic performance. These results therefore presumes that regardless of the age, gender, home location, numbers of siblings, parents' scholastic background, parents occupation, learning barrier and class repetition .

5.3.7 Self-Regulated Learning

Self-regulated learning is also described as a process of active knowledge construction whereby, according to Zimmerman (2002), an individual utilises cognitive, motivational, emotional, social and volitional resources. Self-regulation skills also support lifelong learning by making learners independent and self managing. This chapter presents results on the assumption of the study, where each independent variable is correlated with the dependent variable to determine if there is a relationship between the two variables. A relationship between two factors signifies that a change in one variable results in a change in the other variable.

Table 5.26 KMO and Bartlett's Test for SRL

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.764
Bartlett's Test of Sphericity	Approx. Chi-Square	94.745
	Df	15
	Sig.	.000

All independent variables were computed electronically through the PCA. The results reveal that KMO= .764, $\chi^2 = 94,745$, ($df = 15$), $p < 0.05$, indicating that the sample was very adequate for factor reduction. The variable, PELOM sought to reveal the level of motivation as perceived by the student, the second variable, PLOS sought to reveal the level of self-judgement as perceived by the student. The third variable, PELSE sought to reveal the students perceived level of self-efficacy, the fourth variable, PELCO sought to reveal the students perceived level of cognition. The fifth variable, PLAFE sought to reveal the level of Assessment feedback as perceived by the student.

Table 5.27 Descriptive Statistics for SRL

Descriptive Statistics			
	Mean	Std. Deviation	Extraction
Perceived level of motivation	.00	1.0	.106
Perceived level of self efficacy	.00	1.0	.583
Perceived level of self judgement	.00	1.0	.569
Perceived level of cognition	.00	1.0	.566
Perceived level of assessment feedback	.00	1.0	.495

Table 5.27 above shows that all items have a normal distribution since the means for all items is zero and the standard deviations for all items is one.

Table 5.28 Total Variance Explained for SRL

Total Variance Explained						
Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2.402	40.042	40.042	2.402	40.042	40.042
2	1.079	17.982	58.024	1.079	17.982	58.024
3	.846	14.092	72.116			
4	.608	10.140	82.256			
5	.555	9.252	91.507			
6	.510	8.493	100.000			
Extraction Method: Principal Component Analysis.						

Table 5.28 shows that the first two components with a cumulative percentage of 58.024% were extracted. The two variables will be retained because their eigenvalues are more than 1.

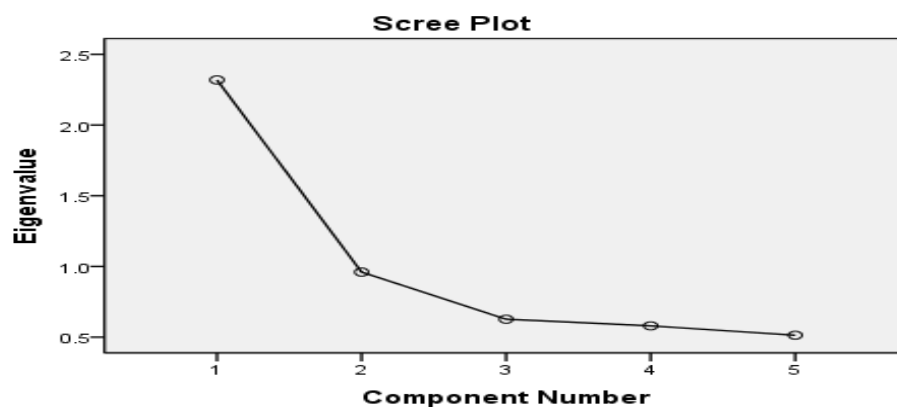


Figure 5.7 Scree Plot for SRL

Figure 5.7 above shows that the first two variables capture the most variance, the plot drops after they have been captured. The remaining variables are not captured since they have eigenvalues that are less than one.

Table 5.29 Correlation for SRL and Social Demographics

Correlations		PELOM	PLOS	PELSE	PELCO	PLAFE
Gender.	Pearson Correlation	.001	.001	.095	.121	.138
	Sig. (2-tailed)	.994	.990	.344	.230	.169
Age.	Pearson Correlation	.059	-.017	.063	.056	-.122
	Sig. (2-tailed)	.560	.868	.531	.580	.226
Home location.	Pearson Correlation	.066	-.035	-.047	.027	.112
	Sig. (2-tailed)	.510	.731	.639	.787	.267
Siblings.	Pearson Correlation	.185	.103	.144	.059	.057
	Sig. (2-tailed)	.065	.305	.151	.556	.570
Parent's schooling	Pearson Correlation	-.115	.067	-.022	-.088	.073
	Sig. (2-tailed)	.253	.506	.824	.379	.468
Parent's occupation.	Pearson Correlation	.026	.197*	.105	-.033	.160
	Sig. (2-tailed)	.793	.048	.297	.745	.111
Repeating a class.	Pearson Correlation	-.065	.054	-.133	-.006	-.116
	Sig. (2-tailed)	.518	.589	.186	.951	.250
Learning barrier.	Pearson Correlation	-.178	-.289**	-.143	-.069	-.132
	Sig. (2-tailed)	.074	.003	.153	.490	.189
**. Correlation is significant at the 0.01 level (2-tailed).						
*. Correlation is significant at the 0.05 level (2-tailed).						

5.4 Discussion of Findings

The results interpreted above provide information on the social demographics and the results from the dimension reduction analysis for the Learners' perceptions on self-regulated learning. The findings in this chapter inform on the demographic information of the sample and the represented population. The social demographics revealed that 53.5% of students were male and 46.5% were female. 22.8% of the students were 16 years old. The South African Department of Basic education (2017) stipulates that the rightful age for students in grade 10 is 16 years. The results show that 77.2 % of students in grade 10 are over 16. This further shows that a large number of students are stuck in the education system, although there may be different reasons for this, other than students failing classes. The results also

show that most students are from rural areas. According to Redding & Walberg (2012), there is not enough evidence to support that academic performance of students in rural settings is poor when compared to performance of students in urban schools. The results also show that most students come from low SES households; this was gathered from the 36.6% of unemployed parents and their low scholastic background. Odunga (2015) argues that a households' financial and economic stability is important in supporting academic performance of students, relating this argument to the results of this study it was argued that academic performance of students was expected to be poor since most students in the study come from low SES households.

Results from the PCA revealed that the measures of self-regulated learning and academic performance were adequate but the sampling adequacy was ranked between the mediocre and miserable KMO scores. Having established the strength of the variables, the results further showed that Learners' motivation is largely influenced by extrinsic rewards, from the large number of students who only study hard when there is about to be a test. Although Wells (2011) advocates that intrinsic motivation is more important and effective in promoting academic achievement. Kusurkar e.tal. (2012) however argued that there are aspects of extrinsic motivation that also support academic performance. The distinction between intrinsic and extrinsic motivation is important. Majority of the respondents are motivated by extrinsic factors that are not related to academic performance as provided by the correlation results of this study. Despite the knowledge and use of learning strategies, it is important that students be taught when specific strategies are to be used. This concern was raised by the findings that majority of students are using learning strategies but this has no impact on academic performance. From the Learners' self-judgement, it was understood that most of the learners' perceptions of self-judgement is influenced by their use of all learning strategies.

Although the results do not tell us if the student does or does not use all learning strategies. Renzulli, (2015) highlights the importance of identifying relevant and effective learning strategies for specific tasks. The importance of learning all strategies is not overlooked but it is of greater importance to be able to apply relevant strategies.

Learners' self-efficacy is largely influenced by the ability to remember key concepts soon after the end of a lesson. Lunenburg (2011) refers to this as the action of mastering tasks and individual' self-efficacy is increased by such action. Learners' persistence on tasks even when it is not required largely influences their cognition. Sustained attention is an important foundation for cognitive development. Learners' perceptions of assessment feedback are largely influenced by doing corrections after assessments. According to Moyosore (2015), corrections are an important aspect of feedback, which are required for effective learning. Learners' perceptions of academic performance are largely influenced by class failure.

The social demographic factors were correlated to each variable. The correlations revealed that Learners' motivation, self-efficacy, cognition, assessment feedback and academic performance have no relationship with Learners' social demographic factors. The variable Learners' self-judgement was found to be correlated to the social demographic factor. Parents' occupation and learning barrier were the two demographic items that were found to be related to students self-judgement. There was a significant relationship between parents' occupation and Learners' self-judgement. The literature informs us that middle class parents are able to provide resources for their children to achieve academically. The findings of this study inform us that the students are from low SES household since majority of parents are unemployed. As Morgan, Farkas; Hillemeier & Maczuga (2009) asserts, Learners' self-judgement is largely determined by their household SES. The results further show how the

students learning barrier have a negative impact on their self-judgement. This is because learning barriers impede academic achievement. From the findings it was gathered that the measures used to collect data were good and significant, Furthermore it was established that students learning strategies or self-regulated learning is not influenced by social demographic factors.

5.5 Conclusion

This chapter provided the demographic information of the respondents, it is also established that majority of learners in the sample are from low SES households in rural areas and their parents' level of education is very low. Learners come from large families in which the majority of respondents have more than two siblings. Based on the social cognitive theory adopted in this study, Learners' self-regulated learning is greatly influenced by the social environment in which they exist. Furthermore, the chapter provided results from PCA and from the results a linear exploration of the variance of predictor variables. The subsequent chapter provides the presentation and the interpretation of results from the correlation and regression analysis.

CHAPTER 6: SELF REGULATION AND ACADEMIC PERFORMANCE AMONG HIGH SCHOOL PUPILS

6.1 Introduction

The aim of the study was to determine whether self-regulated could improve the academic performance of high school learners. The previous chapter presented the results of the social demographic factors and the PCA analysis. This chapter provides results of the hypothesised relationships between the variables of the study. Bivariate correlations have been conducted towards satisfying the aims of the study. Further investigation was done by running regressions in order to establish if there are mediating variables. Results from both correlation and regression analyses are provided in this chapter. Furthermore, a discussion of findings is presented in the chapter. The first section provides the correlations followed by the regressions. After these sections, a discussion of the findings is provided.

6.2 Correlations

Hypothesis 1

Ho: Perceived Level of motivation is correlated with Perceived level of Academic performance.

H1: There is no correlation between Perceived level of Motivation and Perceived Level of Academic Performance.

Hypothesis 2

Ho: Perceived Level of Self-Judgement is correlated with Perceived level of Academic performance.

H1: There is no correlation between Perceived Level of Self-Judgement and Perceived Level of Academic Performance.

Hypothesis 3

Ho: Perceived Level of Self-Efficacy is correlated with Perceived Level of Academic Performance.

H1: There is no correlation between Perceived levels of Self-Efficacy and Academic performance.

Hypothesis 4

Ho: Perceived level of Cognition is correlated with Perceived level of Academic performance.

H1: There is no correlation between Perceived level of Cognition and Academic performance.

Hypothesis 5

Ho: Perceived level of Assessment Feedback is correlated with Perceived Level of Academic Performance.

H1: There is no correlation between Perceived level of Assessment Feedback and Perceived Level of Academic Performance.

Table 6.1 Correlations for PELOM, PLOS, PELSE, PELCO and PLAP

		Correlations					
		PELOM	PLOS	PELSE	PELCO	PLAFE	PLAP
PELOM	Pearson Correlation	1	.212*	.092	.164	.107	-.038
	Sig. (2-tailed)		.033	.363	.102	.285	.705
	N	101	101	101	101	101	101
PLOS	Pearson Correlation	.212*	1	.453**	.417**	.378**	.092
	Sig. (2-tailed)	.033		.000	.000	.000	.360
	N	101	101	101	101	101	101
PELSE	Pearson Correlation	.092	.453**	1	.460**	.412**	.146
	Sig. (2-tailed)	.363	.000		.000	.000	.147
	N	101	101	101	101	101	101
PELCO	Pearson Correlation	.164	.417**	.460**	1	.389**	.219*
	Sig. (2-tailed)	.102	.000	.000		.000	.028
	N	101	101	101	101	101	101
PLAFE	Pearson Correlation	.107	.378**	.412**	.389**	1	.263**
	Sig. (2-tailed)	.285	.000	.000	.000		.008
	N	101	101	101	101	101	101
PLAP	Pearson Correlation	-.038	.092	.146	.219*	.263**	1
	Sig. (2-tailed)	.705	.360	.147	.028	.008	
	N	101	101	101	101	101	101
*. Correlation is significant at the 0.05 level (2-tailed).							
**. Correlation is significant at the 0.01 level (2-tailed).							

The study sought to investigate the relationship between 5 variables, PELOM, PLOS, PELSE, PELCO, PLAFE and PLAP. Results shows that there is no relationship between PELOM and PLAP, therefore Ho is rejected and H1 is accepted. These results differ with Steinberg (2005) who maintains that students without motivation are more prone to failure however, they concur with Rotgans & Schmidt (2012) who argue that the influence of motivation on academic performance produced results, which invalidated the relationship between academic performance and motivation.

There is no relationship between PLOS and PLAP, therefore H_0 is rejected and H_1 is accepted. Scholars (Renzulli, (2015) Lew & Schmidt (2011)) have also not been able to guarantee the significant effect of self-judgement on academic performance.

Results also show that there is no relationship between PELSE and PLAP, therefore H_0 is rejected and H_1 is accepted. The results differ from that of a longitudinal study by Hwang et.al (2016) which establishes a positive reciprocal relationship between self-efficacy and academic performance.

PELCO correlated with PLAP $r = .219$, $p < 0.05$ (1 tailed), therefore H_0 is accepted and H_1 is rejected. Support for Proctor (2012) is maintained since cognitive strategies have proven to influence academic performance positively.

PLAFE is correlated to PLAP $r = .263$, $p < 0.01$ (2 tailed), therefore H_0 is rejected and H_1 is accepted. Feedback is correlated to academic performance, as scholars stress the use of summative feedback to be more effective in promoting academic progress it is also important that students are provided regularly with summative feedback.

6.3 Regressions

This section provides results from the linear regressions, the aim of such an analysis was for the researcher to be able to predict the value of one variable based on the value of another. A stepwise linear regression was computed between variables. Three regression models are presented below. Each model has PLAFE as the mediating variable. PLOS, PELOM and PELCO are variables selected for the three regression models. Each model is analysed using the Model summary, ANOVA and Coefficients table. A conclusion is provided at the end of the chapter.

Hypothesis 6

H_1 : The relationship between PLOS and PLAP depends on PLAFE.

H_0 : The relationship between PLOS and PLAP is not dependent on PLAFE.

Hypothesis 7

H₁: The relationship between PELOM and PLAP depends on PLAFE.

H₀:The relationship between PELOM and PLAP is not dependent on PLAFE.

Hypothesis 8

H₁: The relationship between PELCO and PLAP depends on PLAFE.

H₀:The relationship between PELCO and PLAP is not dependent on PLAFE.

Variable selection

Variable selection is a step followed in order to create a regression equation by providing a variable with the highest t- value, which becomes constant in the regression equation.

The regression equation $Y = B_0 + B_1X_1 + B_2X_2 + B_3X_3 + B_4X_4 + B_5X_5$

X₁= Motivation

X₂= Self-Judgement

X₃= Self-Efficacy

X₄= Cognition,

X₅= Assessment Feedback

Y= Academic Performance

Table 6.2 for Variable Selection

Y, regressed only on:	X1	X2	X3	X4	X5
B ₁	-.038	.092	.146	.219	.263
t –statistic	-.380	.920	1.463	2.230	2.710
P value	.705	.360	.147	.028	.008

Table 9.1 above depicts results from a variable selection method , where the variable with the highest t- value (in this case x5, which is assessment feedback) cannot be removed from the regression model

6.3.1 Regression for Self-Judgement, Assessment for Feedback and Academic Performance

Table 6.3 for Model summary of PLOS, PLAFE and PLAP

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.092 ^a	.008	-.002	1.000	.008	.846	1	99	.360
2	.263 ^b	.069	.050	.974	.061	6.385	1	98	.013

a. Predictors: (Constant), Perceived level of self judgement

b. Predictors: (Constant), Perceived level of self judgement, Perceived level of assessment feedback

Table 6.3 above shows that in model one PLOS has an R-value of .092, which indicates that its level of prediction is not impressive. When PLAFE is introduced to the equation the R-value becomes .263 this means that introduction of PLAFE in model 2 makes a significant impact in the model. It is evident that the adjusted R^2 of the model for PLOS is -.002, with the introduction of PLAFE the adjusted R^2 changes to .050. If the $r^2 = .069$, this means that the predictors in model explains 6.9% of the variance in the academic performance. These results could be supported by Baadte & Schnotz (2014) who ascertain that student's self-concept is a mediating variable between assessments feedback and academic performance.

Further scrutiny on how self concept is influenced by assessment feedback could lead to more insight in to this theory.

Table 6.4 ANOVA for PLOS, PLAFE and PLAP 1

ANOVA ^a						
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	.848	1	.848	.846	.360 ^b
	Residual	99.152	99	1.002		
	Total	100.000	100			
2	Regression	6.912	2	3.456	3.639	.030 ^c
	Residual	93.088	98	.950		
	Total	100.000	100			

a. Dependent Variable: Perceived level of academic performance

b. Predictors: (Constant), Perceived level of self judgement

c. Predictors: (Constant), Perceived level of self judgement, Perceived level of assessment feedback

Table 9.4 above provides the F-ratio of the ANOVA test, which determines whether the overall regression model is a good fit for the data. The results show that model 2 is a good regression model since $p = .030$. Regression models are considered fit when $p < .05$.

Table 6.5 Coefficients for PLOS, PLAFE and PLAP

Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.688E-17	.100		.000	1.000
	Perceived level of self judgement	.092	.100	.092	.920	.360
2	(Constant)	3.927E-17	.097		.000	1.000
	Perceived level of self judgement	-.009	.105	-.009	-.082	.935
	Perceived level of assessment feedback	.266	.105	.266	2.527	.013

Table 9.5 presents the information on the Estimated Model Coefficients

The general form of the equation to **predict PLAP from PELOC** is:

$$PLAP = 4.564 + (0.219 * PELCO)$$

The general form of the equation to **predict PLAP from PELOC and PLAFE** is:

$$PLAP = 2.647 + (0.137 * PELCO) + (0.209 * PLAFE)$$

Unstandardized coefficients are also presented and they indicate how much the dependent variable varies within an independent variable when all other independent variables are held constant.

This means the following for each independent variable

- In model 1 for 1 unit increase in the level of self-judgement, there is a 9.2% increase in academic performance.
- In model 2 during the addition of PLAFE, for 1 unit increase in the level of self-judgment, there is a 0.9% decrease in academic performance.
- For the 1 unit increase in the level of assessment feedback, there is a 27% increase in academic performance. The results further support Baadte & Schnotz (2014), on the positive effect of self-judgement on academic performance.

Statistical significance of the independent variables are also presented, this test if the Unstandardized or standardize coefficients are equal to 0 (zero) in the population. If $p < .05$, then the coefficients are statistically significantly different to 0 (zero).

Using an alpha of 0.5:

- The coefficients for PLOS in the first model (.092) is not statistically significantly different from zero because its p value=.360, which is more than 0.05.

- The coefficient for PLOS in the second model (-.009) is not statistically significantly different from zero because its p value=.935 is larger than 0.05.
- The coefficient for PLAFE (.266) is statistically significantly different from 0 because its p value=.013 is less than 0.05.

The null hypothesis is accepted since there is insignificant evidence to conclude that the relationship between self-judgment and academic performance depends on assessment feedback

6.3.2 Regression for motivation, assessment feedback and academic performance

Table 6.6 Model Summary for PLEOM, PLAFE 1

Model Summary ^c										
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					
					R Square Change	F Change	df1	df2	Sig. F Change	Durbin-Watson
1	.038 ^a	.001	-.009	1.004	.001	.144	1	99	.705	
2	.271 ^b	.074	.055	.972	.072	7.622	1	98	.007	1.587

a. Predictors: (Constant), Perceived level of motivation

b. Predictors: (Constant), Perceived level of motivation, Perceived level of assessment feedback

c. Dependent Variable: Perceived level of academic performance

Table 9.6 above illustrates that in the first model perceived level of motivation (PELOM) has an R-value of .038, which indicates that its level of prediction is not so strong. After including PLAFE in the second model, the R-value changes to .271. R square the results show an increase of .074 in the second model from .001 in model 1, R square results of model 2 explains that the variability is increased by the introduction of the PLAFE in the model. This regression model further provides support of Baadte & Schnotz (2014). It is evident that the adjusted R^2 of the model for PELOM is -.009, with the introduction of PLAFE there is a

change to .055. If the $r^2 = .074$, this means that the 7.4% variance in academic performance is explained by the second regression model.

Table 6.7 ANOVA for PELOM, PLAFE and PLAP 1

ANOVA ^a						
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	.146	1	.146	.144	.705 ^b
	Residual	99.854	99	1.009		
	Total	100.000	100			
2	Regression	7.352	2	3.676	3.888	.024 ^c
	Residual	92.648	98	.945		
	Total	100.000	100			

a. Dependent Variable: Perceived level of academic performance

b. Predictors: (Constant), Perceived level of motivation

c. Predictors: (Constant), Perceived level of motivation, Perceived level of assessment feedback

Table 9.4 above provides the F-ratio of the ANOVA test, which determines whether the overall regression model is a good fit for the data. The results show that PLOS and PLAFE regression model is a good fit for the data since $p = .024$. Regression models are considered fit when $p < .05$.

Table 6.8 Coefficients for PELOM, PLAFE and PLAP

Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.299E-17	.100		.000	1.000
	Perceived level of motivation	-.038	.100	-.038	-.380	.705
2	(Constant)	3.957E-17	.097		.000	1.000
	Perceived level of motivation	-.067	.098	-.067	-.687	.494
	Perceived level of assessment feedback	.270	.098	.270	2.761	.007

From the results in table, 9.8 above we are able to form Estimated Model Coefficients

The general form of the equation to **predict PLAP from PELOM** is:

$$PLAP = 1.299 - (.038 * PELOM)$$

The general form of the equation to **predict PLAP from PELOM and PLAFE** is:

$$PLAP = 3.957 - (.067 * PELOM) + (.270 * PLAFE)$$

Unstandardized coefficients indicate how much the dependent variable varies within an independent variable when all other independent variables are held constant.

This means the following for each independent variable

- In model 1 for 1 unit increase in the level of motivation, there is a 4% decrease in academic performance.
- In model 2 during the addition of PLAFE, for 1 unit increase in the level of motivation, there is a 7 % decrease in academic performance.
- For the 1 unit increase in the level of assessment feedback, there is a 27% increase in academic performance.

Statistical significance of the independent variables

This test if the Unstandardized or standardize coefficients are equal to 0 (zero) in the population. If $p < .05$, then the coefficients are statistically significantly different to 0 (zero).

Using an alpha of 0.5:

- The coefficients for PELOM in the first model (-.038) is not statistically significantly different from zero because its p value=.705, which is larger than 0.05.
- The coefficient for PELOM in the second model (-.067) is not statistically significantly different from zero because its p value=.494 is larger than 0.05.
- The coefficient for PLAFE (.270) is statistically significantly different from 0 because its p value=.007 is less than 0.05.

The null hypothesis is accepted because there is insignificant evidence to conclude that the relationship between PELOM and PLAP is dependent on PLAFE.

6.3.3 Regression for cognition, assessment feedback and academic performance

Table 6.9 Model Summary for PELCO, PLAFE and PLAP

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.219 ^a	.048	.038	.980	.048	4.974	1	99	.028
2	.292 ^b	.085	.066	.966	.037	3.983	1	98	.049

PELCO has an R value of .219, which indicates that its level of prediction is not so strong. When PLAFE is introduced in the second model the R value becomes .292. R square the results show an increase of .085 in the second model from .048 in model 1, R square results of model 2 proves that the variability is increased by the introduction of the PLAFE variable.

It is evident that the adjusted R^2 of the model for PLECO is .038, with the introduction of PLAFE there is a change to .066. If the $r^2 = .085$, this means that the regression explains 8.5% of the variance in the data.

Table 6.10 ANOVA for PELCO, PLAFE and PLAP

ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	4.784	1	4.784	4.974	.028 ^b
	Residual	95.216	99	.962		
	Total	100.000	100			
2	Regression	8.503	2	4.251	4.554	.013 ^c
	Residual	91.497	98	.934		
	Total	100.000	100			

a. Dependent Variable: Perceived level of academic performance

b. Predictors: (Constant), Perceived level of cognition

c. Predictors: (Constant), Perceived level of cognition, Perceived level of assessment feedback

The ANOVA results in table 9.10 above show that the regression model is a good fit for the data since the $p < .05$

Table 6.11 Coefficients for PELCO, PLAFE 1

Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	4.564E-19	.098		.000	1.000
	Perceived level of cognition	.219	.098	.219	2.230	.028
2	(Constant)	2.647E-17	.096		.000	1.000
	Perceived level of cognition	.137	.105	.137	1.308	.194
	Perceived level of assessment feedback	.209	.105	.209	1.996	.049

a. Dependent Variable: Perceived level of academic performance

Estimated Model Coefficients

The general form of the equation to **predict PLAP from PELOC** is:

$$\text{PLAP} = 4.564 + (0.219 * \text{PELCO})$$

The general form of the equation to **predict PLAP from PELOC and PLAFE** is:

$$\text{PLAP} = 2.647 + (0.137 * \text{PELCO}) + (0.209 * \text{PLAFE})$$

Unstandardized coefficients indicate how much the dependent variable varies within an independent variable when all other independent variables are held constant.

This means the following for each independent variable

- In model 1 for 1 unit increase in the level of cognition, there is a 22% increase in academic performance.
- In model 2 during the addition of PLAFE, for the 1 unit increase in the level of cognition, there is a 14% increase in academic performance.
- For the increase in the level of assessment feedback, there is a 21% increase in academic performance.

Statistical significance of the independent variables

This test if the Unstandardized or standardize coefficients are equal to 0 (zero) in the population. If $p < .05$, then the coefficients are statistically significantly different to 0 (zero).

Using an alpha of 0.05:

- The coefficients for PELCO in the first model (0.219) is statistically significantly different from zero because its p value=0.028, which is less than 0.05.
- The coefficient for PELCO in the second model (0.137) is not statistically significantly different from zero because its p value=0.194 is larger than 0.05.

- The coefficient for PLAFE (0.209) is statistically significantly different from zero because its p value=0.049 is less than 0.05.
- 6.3 Conclusion

Results for the regression model provide insignificant evidence to conclude that the relationship between motivation and academic performance is dependent of assessment feedback; therefore, the null hypothesis is accepted.

6.4 Discussion of Findings

The aim of the study was to determine if self-regulated learning could improve the academic performance. The study hypothesised that there is a relationship between components of self-regulated learning and academic performance. Motivation, self-judgement, self-efficacy, cognition and assessment feedback were components of self-regulated learning. Learners' perceptions of self-regulated learning and academic performance were extracted using self-report questionnaire and analysed using the SPSS. The study was guided by the *agentic* perspective of the social cognitive theory by Albert Bandura, which offers a human agency explanation of self-regulated learning and academic performance. Self-regulated learning is a process that is largely advocated by educational researchers and policy developers for improving academic performance.

According to the *agentic* perspective of the social cognitive theory, self-regulated learning is achieved by maintaining a reciprocal relationship between the learners' personal, behavioural

and environmental factors. Five hypotheses were formed and in proving these hypotheses, bivariate correlations were processed.

The first hypothesis is; “There is a correlation between motivation and academic performance”. The correlation between motivation and academic performance proved there was no relationship between the two variables. These results support the assertions by Rotgans & Schmidt (2012) that motivation has no influence on academic performance. Wells, 2011; Areepattamannil, Freeman & Klinger(2011) distinguished between two types of motivation is more related to academic performance. The results of the study further revealed that Learners’ motivation is largely influenced by extrinsic motivation; this explains why motivation was found to be unrelated to academic performance. Extrinsic motivation is largely influenced by rewards or punishments that come with assessment outcomes. Although this may seem as a potential hazard for self-regulation in learning rewards may promote hardworking learners.

The second hypothesis is; “There is a correlation between self-judgement and academic performance”. The results presented that there is no relationship between self-judgement and academic performance. McMillan & Hearn, 2008 postulate that self-judgement is as self-evaluative process of identifying strategies to increase academic performance. The result of this study further provided that students self-judgement is largely influenced by their knowledge of all learning strategies. Renzulli (2015) argued that Learners’ identification of strategies does not assist if students fail to necessarily apply the strategies. The results support Renzulli since they prove that knowledge of learning strategies does not influence academic performance. It is possible that students lack the skills of applying relevant strategies. The disapproval of this hypothesis signifies that students are not affected by their perceptions of previous performance outcomes but they approach each task differently.

According to the third hypothesis, there is a correlation between self-efficacy and academic performance. There was no correlation between the two variables, therefore the study contradicts with the findings of Fenning& May 2013; Green, Nelson, Martin and Marsh 2006& Dogan, 2015. However, findings of Gardner (2014) support the results of the study that self-efficacy and academic performance are not related. According to the fourth hypothesis, there is a relationship between assessment feedback and academic performance. The results revealed that the hypothesis was acceptable since there exit a relationship between the two variables. The results from the study have proven assessment feedback as an important component for academic performance as posited by Daniela (2015). Baadte & Schnotz (2014) posit that the relationship between assessment feedback and academic performance is mediated by self-concept. From the results of this hypothesis, it could be argued that students can be motivated or discouraged by the feedback they receive before or after their assessments.

The last hypothesis assumed a relationship between cognition and academic performance. Based on the results it was gathered that cognition was correlated to academic performance. Cognitive skills are applicable and important across all learning domains. The findings correspond to the findings of past studies. Puzzifero (2008) reported that cognitive strategies promote academic performance (also; Proctor, 2012; Puerta, 2015). The results of the study determine which hypothesis is refute or accepted. From the correlations hypothesis4 and 5 are accepted since there is a correlation between cognition and academic performance there is also a correlation between assessment feedback and academic performance. The results from the regressions of all the three models were insignificant, meaning that the small amount of variance caused by the mediating variable provides little or no effect on Learners' academic

performance. From the results of this hypothesis it can therefore be noted that cognitive development should be introduced to children/ learners at a young age. This enables learning to become easy throughout their academic life

6.5 Conclusion

This chapter provided the interpretation and analyses of correlations, which provide statistics on the relatedness of each independent variable (PELOM, PLOS, PELCO, PELSE and PLAFE) to the dependent variable (PLAP). Furthermore, the chapter provides regression analysis, an interpretation of the results from three-regression models formed in order to test the secondary hypothesis is provided. The results from all three regression models aimed to determine the possible dependence of the relationship between each independent variable and academic performance on another independent variable. The following chapter concisely sums up the current and preceding chapters, also highlighting the outcomes based on the objectives of the study.

CHAPTER 7: CONCLUSION

7.1. Introduction

The main objective of this study was to determine if there is a relationship between self-regulated and academic performance among high school learners. A number of sub-hypotheses were formulated towards achieving this principal aim. The hypotheses assume correlations between constituent variables of the core argument of the study. The study is guided by the proposition of the agentic perspective of the social cognitive theory, which attributes academic performance to self-regulated learning, self-regulated learning, which is an attribute of human agency. Self-regulated learning is differentiated into four components namely, motivation, self-judgement, self-efficacy, cognition and assessment feedback which are assumed to determine academic performance. Establishing a positive and significant relationship between these components of academic performance would render self-regulated learning effective in improving academic performance of pupils.

The following are a list of research questions, which the researcher intended on answering.

- Is there a relationship between motivation and pupils' academic performance?
- What relationship exists between the perception of self-efficacy and pupils' academic performance?
- What is the effect of pupils' self-judgement and academic performance?
- Is there any relationship between cognition and pupils' academic performance?
- To what extent does feedback from assessments influence pupils' academic performance?

Corpus literature and research techniques were used towards reaching conclusions of the above research questions. Chapter 1 presents an elucidation of self-regulated learning from its conception and its applicability within the academic context. The aims, objectives, hypothesis and significance of the study are also outlined in this chapter. In chapter 2, a conceptual framework is provided as it was derived from various scholars who previously established common factors of self-regulated learning. Academic performance is defined and explained in chapter 2. The assumed relation between self-regulated learning and academic performance is explored from studies of various scholars. The assumptions of this study are rooted within the social cognitive theory, rationale for adopting this theory or approach of self-regulated learning and academic performance is provided in chapter 3. A discussion on the social cognitive theory is provided as well as the rationale for basing the tenets of this study within the theory.

Chapter 4 provides a rationale for the choice of the survey design adopted. The research instrument used to collecting data is a likert scale questionnaire comprising of six sections. Section A is dedicated to the social demographic information of the respondents. It is vital to gather such data since demographic factors form part of the model of the study. The other 5 sections are dedicated to the four independent variables (PELOM, PLOS, PELSE, PELCO and PLAFE) and one dependent variable (PLAP). Data generated from the survey is presented in chapter 5 & 6. Each chapter represents separate segments of the derived data.

Chapter 5 reports on the social demographic information of the respondents. The results showed that the gender of the respondents is fairly distributed but the majority being the male students (53.5%). Majority (29.7%) of the students are a year older than the stipulated age for

grade 10 students. Most students come from rural areas and have more than five siblings. From the results, it is evident that most parents (52.5%) have only attained the national senior certificate, as the respondents have reported that most parents have a high school education. It also deduced that most parents are unemployed (36.6%), these results assist by shedding the light on possible the environmental influences which could be supporting or impeding the Learners' academic performance. Surprisingly most (55.4%) students reported that they do not have a learning barrier and have that 52.5% hitherto have repeated a class.

Having established that most students come from low SES backgrounds the chapter 5 further presented results for the PCA for all variables. Results from PELOM showed that Learners' perception of motivation is highly influenced by receiving an award and the preparation for a test and parents are the least perceived source of motivation. The results further reveal that the social background does not influence Learners' perceived motivation as sources from the students environment were found to be unrelated to their perceptions of motivation. Results of PLOS portray students to be knowledgeable when it comes to the application of all learning strategies and majority of the students reported least to attaining good grades in their favourite subjects, this is contradictory to other studies that have reported that student's performance well in their favourite subjects. There is a relationship between the Learners' perceived self-judgement and their parents' occupation.

Studies have shown that parents whom are in professional professions provide better resources and material to support Learners' academic performance and further posits that students who have unemployed parents or parents who are general workers tend to be poor performing students with little knowledge of planning and managing their learning and adopting learning strategies. However, the results from PLOS are in contradictory with the

latter assumption because most students in the study have, unemployed parents but they are able to plan, manage their time and use all learning strategies. As the model of the study has attributed motivation and self-judgement to be factors influencing students self-regulating learning which in turn determines academic performance. The results reveal that the students are extrinsically motivated and this form of motivation is not a positive trait of becoming a self-regulated learner. Learners' self-judgement has proven to be influenced by parents' occupation.

From the results the PCA results for PELSE, it is understood that students hold high levels of confidence towards attaining a top ten position in the grade. However, the Learners' self-efficacy is not related to Learners' social background or demographics. The chapter also provide results on PELCO and they show how Learners' perception of cognition largely consists of self-examination and assessment of cognition, results further provide that students cognition is not related in any way to their social environment and demographics. Results in for PLAFE, provide that students perception of assessment feedback largely comprises of students interaction with the teacher only for clarity and complaint in cases of bad performances. These results provide that students are only receiving summative feedback. Results from the PCA provide the variance of each variable and most importantly present the most significant factor in each variable.

As a step towards the objectives of the study, a bivariate correlation analysis between each independent variable and the dependent variable was conducted. Chapter 6 provides results that determine whether the hypothesis of the study are accepted or rejected. Results for regressions are also provided in this chapter. According to the findings of the study guided by the agentic perspective of the social cognitive theory, there is a relationship between two

independent variables and academic performance of the study. Correlation between PELOM and PLAP reveal that there is no relationship between the two variables, correlation between PLOS and PLAP reveal that there is no relationship between the two variables and correlation between PELSE and PLAP reveal that there is no relationship between the two variables. Correlation between PELCO and PLAP reveal that there is a positive relationship between the two variables and the correlation between PLAFE and PLAP reveal that there is a positive relationship between the two variables. These results prove that only two factors postulated by the model determine Learners' academic performance, therefore the Hypothesis for motivation, self-judgement and self-efficacy are rejected and the Hypothesis for cognition and assessment feedback are accepted.

A stepwise linear regression for (PLOS, PLAFE and PLAP; PELOM, PLAFE and PLAP; PELCO, PLAFE and PLAP) was conducted. The regression were done in order to determine the influence of the mediating variable on the between two correlated variables. Regression results presents that none of the regression models were significant. The results of the study partially confirm the thesis of the study that self-regulated learning determines academic performance since three out five hypotheses were rejected.

7.2. Core Argument

Improving academic performance is of paramount importance. Scholars from various disciplines have gained interest in investigating factors, which impede and promote excellent academic performance. A sociological analysis of academic performance seeks to encompass all views of different scholars. Bandura's (1989) *agentic* perspective of the social cognitive theory, proposes that human agency is the solution to decreasing academic performance. Self-regulated learning is conceptualised into four predictors of academic performance. Adoption of theses aspects of self-regulated learning is posited to increase academic performance.

The result from the present study showed that the hypothesised relations were true for only two variables. The results showed that there is a significant relationship between Learners' perceived academic performance the two variables (Perceived level of cognition and perceived level of assessment feedback). Findings from regression analysis further showed that the relationship between Learners' academic performance and self-regulated learning components(PLOS, PELOM & PLECO) is not mediated by PLAFE. The results are depicted in figure 9.1 below which is the outcome model for the study.

The results of the study showed that Learners' types of home location and parents' scholastic background do not have any influence on their academic performance. Many studies on academic performance often posited that academic performance is influenced by the social demographics (SES). The *agentic* perspective of social cognitive theory argues that students are considered active agent who self-regulate their learning in order to succeed academically. This connotes that students are able to direct and maintain their motivation, self-judgement, self-efficacy, cognition, assessment feedback in the presence of forces of the environmental, behavioural and personal factors.

The outcome model presented below is a representation of various components of self-regulated learning which according to the present findings predict academic performance. It also illustrates that only two variables (PELCO and PLAFE) are related to academic performance. This means that Hypothesis 1 and Hypothesis 2 are rejected, while Hypothesis 3 Hypotheses 4 and 5 are accepted. All regression models were found to be insignificant.

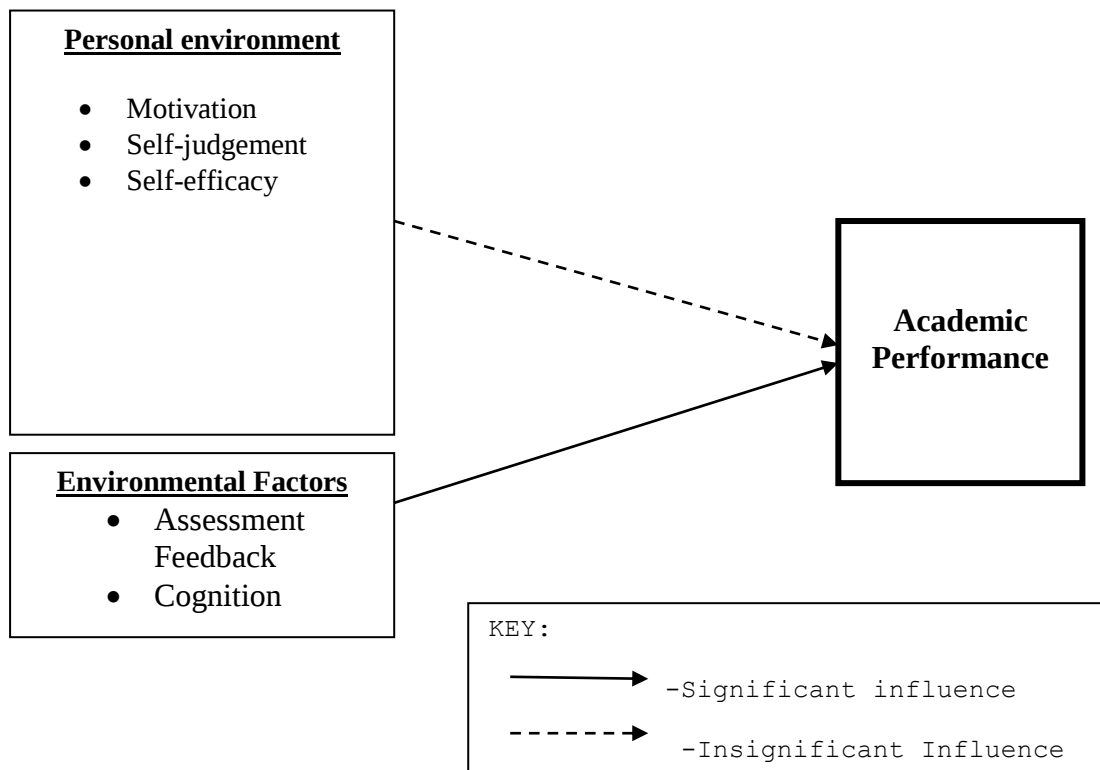


Figure 10.1 Outcome Model.

Cognition and the Assessment feedback are related to academic performance

7.3. Summary and Reflection on of Key Findings

The results from the study revealed that majority of the respondents were male students although the difference between males and female was small. Most of the students in the sample were 17 years old. Majority of the students are from rural locations. Students in the study come from large families and this is evident in the number of siblings that majority of students have. Majority of students reported that they have more than five siblings. The literacy of parents is not so bad given the rural background that the families are situated in and against the assumptions that people from rural areas are illiterate. Despite being

uneducated or receiving a formal education parents with no education are able to read and write. Most parents have high school education as their highest scholastic level. Most parents are unemployed. Repeating a class is common amongst students, since 47.5% of students have failed a class before. The results also attest that 44.6% of the grade 10 students have a learning barrier.

The aim of the study was to determine whether there was a relationship between self-regulated learning and academic performance. This relationship was hypothesised between the independent variables and the dependent variable of the study. Correlation between PELOM and PLAP reveal that there is no relationship between the two variables, correlation between PLOS and PLAP reveal that there is no relationship between the two variables and correlation between PELSE and PLAP reveal that there is no relationship between the two variables. Correlation between PELCO and PLAP reveal that there is a positive relationship between the two variables and the correlation between PLAFE and PLAP reveal that there is a positive relationship between the two variables. These results prove that only two factors postulated by the model determine Learners' academic performance, therefore the Hypothesis for motivation, self-judgement and self-efficacy are rejected and the Hypothesis for cognition and assessment feedback are accepted.

The five variables in the study. Perceived level of motivation, Perceived level of self-judgement, Perceived level of self-efficacy, Perceived level of cognition & Perceived level of feedback sought to determine the Learners' self-reported perception in relation to various components of SRL. Perceived level of academic performance was the dependent variable that sought to establish Learners' self-reported levels of academic performance. Within the Perceived level of motivation variable the item *"I only study hard when there is a test coming"*, has the highest mean=2.31, SD=.925. Further results from Perceived level of

motivation reveal that majority of respondents are motivated by receiving an award in one of their subjects. Awards are regarded as extrinsic motivation. Principal components of analysis for Perceived level of self-judgement showed that the most important item in the describing Learners' Perceived level of self-judgement is the item "*I use all learning strategies*", mean=2.74, SD=1.074. As shown in cumulative responses of Perceived level of self-judgement, students perceived level of self-judgement shows majority of students attain good grades in their favourite subjects. The descriptive statistics of Perceived level of self-efficacy shows that the item "*Soon after the end of a lesson, I am able to remember most of the key concepts.*" with mean= 2.37 and SD = 0.902, has the highest mean rating and is therefore the most important item.

The descriptive statistics for Perceived level of cognition shows that the item "*I work on practise exercises and answer end of chapter questions even when I don't have to*" with mean= 3.06 and SD = 1.038 has the highest mean rating and is therefore the most important item. Furthermore, the results for Perceived level of cognition revealed that most students are able to put important ideas into their own words. This is the most common item amongst factors within this variable (Perceived level of cognition). The Principal components of analysis results for Perceived level of feedback revealed that the item "*I complain when I get a low mark*" has the highest cumulative frequency, which reveals students responses when receiving unpleasant assessment feedback.

A stepwise linear regression was conducted. The following were regression models created in order to determine if the influencing variable had an impact between the independent and dependent relationship.

Model 1: The relationship between self-judgement and academic performance depends on Assessment feedback.

Model 2: The relationship between motivation and academic performance depends on Assessment feedback.

Model 3: The relationship between cognition and academic performance depends on Assessment feedback.

In the first regression model between self-judgement, academic performance and assessment feedback, variance increases when the mediating variable (PLAFE) is introduced. The model has a low variance of 6.7%, even though the ANOVA results indicate that the model is a good fit. The regression is considered insignificant because of the low variance caused by the mediating variable. In the second regression model between motivation (PELOM), academic performance (PLAP) and assessment feedback (PLAFE), with PLAFE as the mediating variable, the regression provides a 7.4% variance. According to the ANOVA results, the model was a good fit for data but the results were considered insignificant due to the low variance. The third regression model of PELCO, PLAP and PLAP as the mediating variable reveals that the model is as a good fit for the data and explains 8.4% variance. However, the regression is considered insignificant.

The results from the regressions of all the three models are insignificant. This implies that in these models, the small amount of variance created by the mediating variable provides little or no effect on Learners' academic performance. These results contradict the corpus findings postulated by scholars, who posit that academic performance is determined by the Learners' self-regulated learning components (Schunk, 2004; McMillan & Hearn, 2008; Puzziferio,

2008; Matseke, 2011; Proctor, 2012 & Botlani et. al. 2013). This discrepancy between the findings of this investigation and that of other scholars may be due to the small sample size used in this study.

7.4. Summary of Contributions: Contributions to Educational Practice

The results of the study have practical contributions to the teaching and learning practice. The findings from the study highlight the importance of enriching students with cognitive training and providing valuable, clear, specific feedback after assessments. In addition, educational psychologists would be more interested in providing information to parents on the development of children's cognitive capability.

7.4.1. Summary of Contributions: Contribution to Theory

The two variables (PELCO & PLAFE) which correlated with academic performance are learning strategies which are to a large extent facilitated by teachers. For example, teachers provide feedback from assessments after assessments are marked. Cognitive skills are part of the life orientation syllabus which is also facilitated by the teachers. None of the strategies facilitated by the individual such as self-efficacy was related to academic performance. This indicated that the theory's attention to the learner as the main agent must be contested. More research is needed in this area. If the premise of the current research are confirmed, then the basis propositions of SRL will be revised.

7.5.Recommendations for Implementation

The findings from the study showed that cognition and assessment feedback predict academic performance of students. Cognitive strategies consist of self-initiated learning and revisions, where the students practise responsibility for their learning. Assessment feedback entails Learners' ability to turn negative feedback from assessments results into motivation to put more effort in learning and the ability to seek clarity where student do not understand concepts. This study recommends that more emphasis is placed on encouraging and enabling students to be able to work collaboratively in their school activities, in order to instil responsibility for learning in students and the ability to teach students to be able to identify and connect new content with prior knowledge or information. This encourages cognitive thinking. Furthermore, investing in training teachers will produce students who take responsibility for their learning and who are intrinsically motivated to learn. This will ultimately curb the increased drop in Learners' academic performance.

7.5.1. Recommendations for future research

Contrary to the assertions of many previous studies, this study has shown limited significance in the relationship between self-regulated learning and academic performance. The possibility for generalization of these results may be hindered by the fact that the study was conducted in only one school. Perhaps future studies could employ a sample comprising many schools, with students from different background. The sample used in the study also consisted of students predominately from rural areas and of low SES households. The sample size of future studies should also be increased in order to determine whether the insignificance of the relationship could have been caused by the small sample size. Using the criteria created by Kaiser (1984) the sample adequacy for the variables PLAFE, PLAP and PELOM could be

considered ‘miserable’ while for PLOS, PELCO and PELSE the sample adequacy were rather ‘mediocre’. Better-suited sample adequacy should be constructed to create ‘marvellous’ models (i.e. when KMO = 0.90 -1.00).

7.6.Summary of Reflections in this chapter

This chapter has provided a summary on the core arguments and findings of the study. The results portray that only two components of self-regulated learning can predict academic performance of students. These components were students perceived level of cognition and students perceived level of assessment feedback. Perceived level of Motivation, Perceived level of self-judgement and Perceived level of self-efficacy were found to be unrelated to academic performance. This contradicts assertions of past studies on self-regulated learning and academic performance. The study shows that not all components of self-regulated learning explored were related to academic performance. The sample adequacy of the hypothesised model, which was 0.764, was found ‘middling’ despite the insignificant regression results. Therefore based on the findings of the study it is apparent that there is a weakness in the explanatory power self-regulated learning with respect to Learners’ academic performance.

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Appendix 1: Research questionnaire

As a requirement to complete my Master's Degree in Industrial Sociology, at the University of Zululand, I am to conduct a study; I therefore request your cooperation in completing the questionnaire. Note that all answers are correct, as this is not an examination or test. Under no circumstance will the information you give be used for purposes other than research. Your confidentiality and anonymity as a respondent is assured.

Section A: Demographic Information

1. Gender

1.Male		2.Female	
--------	--	----------	--

2. Age

12-13		14-15		16-17		18-19		19+	
-------	--	-------	--	-------	--	-------	--	-----	--

3. Home location

Suburb		Township		Rural	
--------	--	----------	--	-------	--

4. Siblings

One		Two		More than two	
-----	--	-----	--	---------------	--

5. Parents literacy

My parent (s)/ guardian can read and write		My parent(s) cannot read or write	
--	--	-----------------------------------	--

6. Parents occupation

Unemployed		General worker		Professional	
------------	--	----------------	--	--------------	--

7. Have you ever repeated a class?

YES		NO	
-----	--	----	--

8. Do you have any form of reading/learning disability

YES		NO	
-----	--	----	--

Section B: Perceived level of Motivation

1. Please rate the following statements

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
My performance will be better If studied regularly					
My parents will be happy if I produce good result					
I always excited about going to school.					
I don't care if I finish high school as long as I can get a job.					
I get discouraged because of low grades.					
I feel confused and undecided as to what my educational goals should be.					
I only study when there is the pressure of a test.					
I come to class unprepared.					
I worry that I will fail my classes.					
I wanted to come to this school.					

Section C: Perceived level of self judgement

2. Please rate the following statements

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
I plan to do better than last term					

I have to improve in certain subject(s)					
After matric, I will study further.					
I want to receive an award in at least one of my subjects.					
I want to do better than last year.					
I study hard so that I do not disappoint my parents.					
Our teachers are always encouraging us to do better.					
I study hard because I want to go to university.					
Sometimes I do not want to come to school.					
My friends and I support each other.					

Section D: Perceived level of Self-Efficacy

3. Please rate the following statements

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
It is possible for me to be in the top ten achievers.					
I can do better if I studied more					
I'm certain I can master the skills taught in class this year.					
I'm certain I can figure out how to do the most difficult class work.					
I can do almost all the work in class if I do not give up.					
Even if the work is hard, I can learn it.					
I can do even the hardest work in this class if I try.					

I am able to organize my activities so that I can meet <i>most</i> course deadlines					
Soon after the end of a lesson, I am able to remember <i>most</i> of the key concepts.					
I can understand most of the key concepts covered in my course.					

Section E: Perceived level of cognition

4. Please rate the following statements

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
I ask myself questions ensure I know the material I have been studying.					
Before I begin studying, I think about the things I will need to do to learn.					
When I'm reading I stop once in a while and go over what I have read.					
I work on practice exercises and answer end of chapter questions even when I don't have to.					
I outline the chapters in my book to help me study.					
When I study for a test, I try to remember as many facts as I can.					
When studying, I copy my notes over to help me remember material					
When I study, I put important ideas					

into my own words.					
When reading I try to connect the things I am reading about with what I already know.					

Section F: Perceived level of assessment feedback

5. Please rate the following statements

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
Teachers should include a brief summary of their view of every assignment.					
I balance negative with positive comments and turn criticism into constructive suggestions					
Making general suggestions on how to go about the next assignment is important.					
I ask questions which encourage reflection on the work					
Comments that are legible and use informal, conversational language is easier to understand.					
When I do not understand I ask my teacher to explain all comments written.					
Teachers suggest follow-up work and references;					
It is important for teachers to suggest specific ways to improve the assignment.					
I ask my teachers to explain the mark or grade, and why it is					

notbetter.					
I seek for help with specific problems and the opportunity to discuss the assignment, and comments.					

Section G: Academic Performance

1. Please rate the following:

	Strongly agree	Disagree	Neutral	Agree	Strongly disagree
I performed excellently in the last test					
I always score 'A's in my assignments					
I am an excellent student					
I have never failed any test or examination					
I always perform excellently in my test					
I had outstanding marks last term					
I always produce good marks for activities					
I am always confident when writing a test or exam					
I always score good marks in my exams					
I always score good marks for presentations					

Appendix 2: Translated research questionnaire

Imibuzo Yocwaningo

Njengesidingo sokuphuthula isifundo sobuchwepheshe kwi Industrial Sociology, Kwisikhungu semfundo ephakema sase Zululand, Kumle ngenze ucwningo; Ngalokhoke ngicela ukubambisana kanye nani. Ayikho impendulo elungile noma engalungile. Impendulo esizoyithola iszosetshenziselwa uphenyo kuphela. Sithembisa kunivikela ngayoyonke indlela.

Isahluko A: Imininigwane

1. Ubulili

1.Owesilisa		2.Owesifazane	
-------------	--	---------------	--

2. Iminyaka

12-13		14-15		16-17		18-19		19+	
-------	--	-------	--	-------	--	-------	--	-----	--

3. Indawo yanagasekhaya

Iphethelo		Ilokishi		Emaphandleni	
-----------	--	----------	--	--------------	--

4. Izelamani

Sinye		Zimbili		Zidlulile kwezimbili	
-------	--	---------	--	-------------------------	--

5. Izinga lemfundo yabazali

Abazali wami bayakwazi ukufunda nokubhala		Abazali bami abakwazi ukufunda nokubhala	
--	--	--	--

6. Basebenzaphi abazali?

Abasebenzi		Usebenza umsebenzi ojwayelekile		Uchwepheshe	
-------------------	--	--	--	--------------------	--

7. Likhona iqhaza olibambayo kwi mdlalo esikoleni?

YEBO		CHA	
-------------	--	------------	--

8. Useke waphinda ibanga?

YEBO		CHA	
-------------	--	------------	--

9. Unayo inkinga yokufunda noma yokubhala?

YEBO		CHA	
-------------	--	------------	--

10. UYayiphatha ilansthi esikoleni?

YEBO		CHA	
-------------	--	------------	--

Isahluko B: Imibono ngokugqugquzeleka

6. Yahlulela imisho elandelayo

	Ngyavuma Impela	Ngyavuma	Angithathi Hlangothi	Angivumi	Angivumi Impela
Imphumela yami ibizoba mihle ukube ngziiselile ngokufunda					
Abazali bazojabula uma ngenza kahle					
Kuyangithokozisa ukuza esikoleni					
Kusemqoka kakhulu ukuthola umsebenzi kunokuqeda isikole					
Kuyangilulaza ukwenza kabi ezifundweni zam.					

Ngisanokudideka nokungaqondi ngenjonga yokufunda kwami.					
Ngifunda uma ngiphansi kwengcindezi yesivivinyo					
Ngivame ukufika eklasini nginga lungiselelanga					
Kyangethusa ukuphinda ibanga					
Bengifuna ukuza esikoleni					

Isahluko C: Imbono ngokuzihlola ukwenza kwam

7. Yahlulela imisho elandelayo

	Ngyavuma Impela	Ngiyavuma	Angithathi hlangothil	Angivumi	Angivumi Impela
Ngizimisele ngokusebenza kanzima kule kwata					
Kumele ngenze kancono kwezinye izifundo					
Emvenika matikiletsheni ngizoqhubeka nemfundo ephakeme					
Ngifuna ukuthola					

isabelo kunoma esisodwa isifundo					
Ngifuna ukwenz akancono kunonyaka odlule					
Ngifunda ngokuzimisela ukuze ngingajabhisi abazali					
Othisha bahlezi besi qhuqhuzela ukuba sizimisele					
Ngyazimisele ukuza ngizofunda imfundo ephakeme					
Kwezinye ikathi angthandi ukuza esikoleni					
Siyakhuthazana nabangani bami					

Isahluko D: Imbono ngokuzithemba

8. Yahlulela imisho elandelayo

	Ngyavuma Impela	Ngiyavuma	Angithathi hlangothi	Angivumi	Angivumi Impela
Kungenzeka ngibe phakathi kohlwi labayi shumi abenza kahle efundwen					
Uma ngifunda kakhulu ngingenza kahle					
Nginesiqinseko					

sokuthi ngizofunda ngokuzimisela kulonyaka					
Nginesqinseko sokufunda lokhu okungihlulayo					
Uma ngingaqinisela ngingafunda okungingi okunghlulyo					
Noma umsebenzi unzima nginganyamazela					
Umsebenzi olukhuni ngangawenza uma ngizama					
Ngyakwaz ukqeda umsebenz iskhathi sisekhona					
Emva kwe klasi ngiyazikhumbula izinto ebezifundiswa					
Ngyazi qonda izifundo eziningi					

Isahluko E: Imibono ngendlela yokuhlulisa imicabango

1. Yahlulela imisho elandelayo

	Ngyavu- ma Impela	Ngiya - vuma	Angith -athi Hlango -thi	Angivu- mi	Angivu- mi Impela
Ngizibuza imibuzo ukuze ngiqiniseke ukuthi ngiyazwisisa					

Ngacabanga okmele ngikwazi ngaphambi kokufunda					
Uma ngifunda ngyama ngicabanga ngosengikfundile					
Ngiphendla imibuza noma kungena siding					
Ngihlukanisa izihloko ukuze ngifunde kancono					
Uma ngifundela isivivinyo ngicabanga loku okuyi qiniso kakhulu					
Ukuze ngikhumbule ngibhala phansi ngokwam					
Uma ngifunda ngibhala phansi imiqondo ebalulekile					
Ngyazama ukuhlanganisa engikufundayo nolwazi lwam					

Isahluko F: Imbono ngokukhishwa kwemiphumela

2. Yahlulela imisho elandelayo

	Ngiyavuma Impela	Ngiyavuma	Angithathi hlangothi	Angivumi	Angivumi Impela
Othisha kumle babhale imibono yabo kuzozonke izivivinyo zethu					
Ukuqhekwa uyangiqhuqhuzela					
Ukubalula ngendlela yokwenza kancono ekubhaleni kuyasiza					
Ngibuza imbuzo					

emveni kokufunda					
Ukuphawula ngolime ululula kuyasiza					
Uma ngingaqondi ngokuphawula kwathisa ngiyacela acacise					
Othisha bafundisa ngokulandela umsebenzi					
Kubalulekile ukuba othisha baphawule ngendlela zokwenza kancono					
Uma ngenze kabi kwisvivinyo ngike ngibuze ukuba kungan					
Ngiyakuthanda ukucela usizo lapho ngingaqondi khona					

Isahluko G: Imphumela yezifundo

11. Yahlulela okulandelayo:

	Ngiyavuma Impela	Angivumi	Angithathi Hlangothil	Ngiyavuma	Ngiyavuma Impela
Ngenze kahle kwisivivinyo sokugcina					
Ngithole phambili kumbhalo wokugcina					
Ngingumfundi					

oncomekayo					
Angikazi ngifeyile isivivinyo					
Ngihlezi ngenza oukncomekao ezifundwen					
Ngitholeamamaki amahle ngokudlule					
Ngihlez ngizimisela kwimsebenz yam					
Nghelzi ngizethemba um sibhala izivivinyo					
Nghelz ngenza kwizivivinyo zokugcina					
Nghlezi ngthola amamaki amahle kwezokwethula.					

Appendix 3: Ethical Clearance

**UNIVERSITY OF ZULULAND
RESEARCH ETHICS COMMITTEE**
(Reg No: UZREC 171110-030)



RESEARCH & INNOVATION

Website: <http://www.unizulu.ac.za>

Private Bag X1001

KwaDlangezwa 3886

Tel: 035 902 6887

Fax: 035 902 6222

Email: Manqeles@unizulu.ac.za

ETHICAL CLEARANCE CERTIFICATE

Certificate Number	UZREC 171110-030 PGM 2016/285									
Project Title	Self-regulated learning and academic performance among pupils at Thambolini High School in Esikhaleni, Kwa-Zulu Natal: A psycho-educational prospect									
Principal Researcher/ Investigator	S Ngcobo									
Supervisor and Co-supervisor	Dr KD Ige					Prof MM Hlongwane				
Department	Sociology									
Nature of Project	Honours/4 th Year			Master's		x	Doctoral			Departmental

The University of Zululand's Research Ethics Committee (UZREC) hereby gives ethical approval in respect of the undertakings contained in the above-mentioned project proposal and the documents listed on page 2 of this Certificate.

Special conditions:

- (1) This certificate is valid for 2 years from the date of issue.
- (2) Principal researcher must provide an annual report to the UZREC in the prescribed format [due date-31 July 2017]
- (3) Principal researcher must submit a report at the end of project in respect of ethical compliance.

The Researcher may therefore commence with the research as from the date of this Certificate, using the reference number indicated above, but may not conduct any data collection using research instruments that are yet to be approved.

Please note that the UZREC must be informed immediately of

- Any material change in the conditions or undertakings mentioned in the documents that were presented to the UZREC
- Any material breaches of ethical undertakings or events that impact upon the ethical conduct of the research

Classification:

Data collection	Animals	Human Health	Children	Vulnerable pp.	Other
X					
Low Risk		Medium Risk		High Risk	
X					

The table below indicates which documents the UZREC considered in granting this Certificate and which documents, if any, still require ethical clearance. (Please note that this is not a closed list and should new instruments be developed, these would require approval.)

Documents	Considered	To be submitted	Not required
Faculty Research Ethics Committee recommendation	X		
Animal Research Ethics Committee recommendation			X
Health Research Ethics Committee recommendation			X
Ethical clearance application form	X		
Project registration proposal	X		
Informed consent from participants	X		
Informed consent from parent/guardian			X
Permission for access to sites/information/participants	X		
Permission to use documents/copyright clearance			X
Data collection/survey instrument/questionnaire	X		
Data collection instrument in appropriate language		Only if necessary	
Other data collection instruments		Only if used	

The UZREC retains the right to

- Withdraw or amend this Certificate if
 - Any unethical principles or practices are revealed or suspected
 - Relevant information has been withheld or misrepresented
 - Regulatory changes of whatsoever nature so require
 - The conditions contained in this Certificate have not been adhered to

- Request access to any

The UZREC wishes the researcher well in conducting the research



Professor Nokuthula Kunene
Chairperson: University Research Ethics Committee
 04 August 2016
 S Ngcobo - PGM 2016/285



Appendix 4: Confirmation of Project Registration

UNIVERSITY OF ZULULAND HIGHER DEGREES COMMITTEE



RESEARCH & INNOVATION

Website: <http://www.unizulu.ac.za>
Private Bag X1001
KwaDlangezwa 3886
Tel: 035 902 6887
Fax: 035 902 6222
Email: ManqeS@unizulu.ac.za

Confirmation of Project Registration

Registration Number	S529/16									
Project Title	Self-Regulated and learning academic performance among Pupils at Thambolini High School in Esikhaleni Kwazulu-Natal: a Psycho-Educational prospect.									
Principal Researcher/ Investigator	Ngcobo S									
Student number	201158438									
Supervisor and Co-supervisor	Dr K.D Ige									
Department	Sociology									
Nature of Project	Honours/4 th Year			Master's		x	Doctoral			Departmental

Dear Student

I have the pleasure of informing you that the Higher Degrees Committee, at its meeting held on 20 May 2016, approved your research proposal.

Please note: Your proposal can now be considered for ethical clearance after which you can apply for research funding. Kindly provide this letter with your ethical clearance certificate when submitting your final thesis for external examination.

Yours sincerely,

Mr Siyanda Manqe
Post-graduate Studies
21 June 2016



Appendix 5: Letter requesting permission to Conduct Research

UNIVERSITY OF ZULULAND
DEPARTMENT OF SOCIOLOGY



University of Zululand
PO Box X1001
KwaDlangezwa
3886
12 August 2016

The Principal
Qhakaza High Scholl
Private Bag X1033
KwaDlangezwa
3886

Dear Mr Mbatha

REQUEST FOR PERMISSION TO CONDUCT RESEARCH

I am a registered Master's student in the Department of Sociology at the University of Zululand. My supervisor is Dr. K. D Ige

The proposed topic of my research is Self-regulated learning and academic performance amongst pupils at Thambolini High School in Esikhawini, Kwa-Zulu Natal: A psycho- educational prospect. The main objective of the study is to establish whether self-regulated learning can improve academic performance of pupils.

I hereby seek your consent to conduct research in your institution. Should you require any further information please do not hesitate to contact me or my supervisors on 0788251162/ 0359026239/0359026341 or sthembangcobo@gmail.com/Igek@unizulu.ac.za/HlongwaneM@unizulu.ac.za

Upon completion of the study, I undertake to provide you with a bound copy of the dissertation.

Your permission to conduct this study will be greatly appreciated.

Yours Sincerely,

S, Ngcobo

Candidate:

Supervisor:

Appendix 6: Permission letter from Qhakaza High School.

	KwaZulu – Natal Department of Education
QHAKAZA HIGH SCHOOL	
PRIVATE BAG X 1033, Kwa-Dlangezwa 3886 TEL: 035-7933217 FAX 035-7933217 E-Mail: qhakazahigh@telkomsa.net	
Date : 15 August 2016	Enquiries: Mr E.B Mbatha

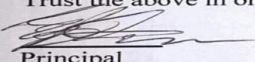
**PERMISSION TO CONDUCT RESEARCH: Miss S NGCOBO, STUDENT
NUMBER: 201158438**

Your letter dated 12 August 2016 is hereby accredited, contents of which have been duly considered.

Hence, this letter serves as a confirmation that your request has been approved and welcomed.

We hope your study will help to develop our school.

Trust the above in order.


Principal

KZN DEPT OF EDUCATION
QHAKAZA HIGH SCHOOL
P/BAG X1033 KWA-DLANGEZWA, 3886
29 08 2016
TEL: 035-793 3217/544
EMAIL: qhakazahigh@telkomsa.net
Sign: _____

Appendix 7: Participant Informed Consent and Declaration
UNIVERSITY OF ZULULAND



FACULTY OF ARTS
DEPARTMENT OF SOCIOLOGY

Participant informed consent and declaration

Researcher: Sinethemba Ngcobo

Supervisor: Dr K. D. Ige.

Title of study: The relationship between academic performance and self regulated learning:
The case of Qhakaza Secondary school, Esikhawini Kwa-Zulu Natal province.

I..... agree to participate in Sinethemba Ngcobo's research study. I understand that I can withdraw from the study, without effects, at any time, whether before it starts or while I am participating. I understand that anonymity will be ensured in the report by hiding my identity.

Signature: Participant.....Signature: Researcher.....

Date.....

Appendix 8: Translated participant informed consent form

IFOMU LOKUZIBOPHEZELA

(obambe iqhaza)

Isihloko sogcwaningo: Academic Performance and the academic performance of pupils at Thombolini High school..... uSinethemba Ngcobo ovela eUniversity of Zululand ube nesicelo semvume yokuzibandakanya kulolucwaningo olulotshwe nenhla.

Imvelaphi kanye nenhloso yaloluncwaningo , nalolu lwazi nophawu lokwamukela ukuziphobezela ngichazelekile ngalo ngolimi engilwaziyo.

Ngityaqonda kahle ukuba kulindelekile ini kimi kololucwaningo. Angiphoqwangwa nakancane ukubamaba iqhaza kulokhu kulolucwaningo.

.....

Isissicilelo kobambe iqhaza

.....

usuku

Appendix 9: Child Participant's Consent Form

INFORMED CONSENT DECLARATION

(Child participant)

Project Title:

Researchers Name:

Name of Participant:

1. Has the researcher explained what s/he will be doing?
YES ☐ NO ☐
2. Has the researcher explained why s/he wants you to take part?
YES ☐ NO ☐
3. Do you understand what the researcher wants to do?
YES ☐ NO ☐
4. Do you know if anything good or bad could happen during the research?
YES ☐ NO ☐
5. Do you know that your name and what you say will be kept a secret from other people?
YES ☐ NO ☐
6. Did you ask the researcher any questions about the research?
YES ☐ NO ☐
7. Has the researcher answered all your questions?
YES ☐ NO ☐
8. Do you understand that you can refuse to participate if you do not want to take part and that nothing will happen to you if you refuse?
YES ☐ NO ☐
9. Do you understand that you can pull out of the study any time if you do not want to continue?
YES ☐ NO ☐

10. Do you know who to talk to if you are worried or have anything to ask?

YES ☐

NO ☐

11. Has anyone forced you or put pressure on you to take part in this research?

YES ☐

NO ☐

12. Are you willing to take part in this research?

YES ☐

NO ☐

Appendix 10: Participant Appendix B 1: Translated Child Participant's Consent Form

IFOMU LOKUZIBOPHEZELA

(OBAMBE IQHAZA USEMNCANE)

Isihloko socwaningo:

Igama lomncwaningi:

Igame lobambe iqhaza:

1. Umcwaningi ukuchazelile ngakwenzayo?

Yebo ☐ Cha ☐

2. Umcwaningi ukucazelile kungani efuna ubamabe iqhaza kulolucwaningo?

Yebo ☐ Cha ☐

3. Uyaqonda ngokufunwa ngumcwaningi?

Yebo ☐ Cha ☐

4. Uyazi ngokubi noma okuhle okungenzeka ngenkathi kwenziwa ucwaningo?

Yebo ☐ Cha ☐

5. Uyazi kuba igama nokuphawula kwakho kuzogcinwa kuyimfihlo?

Yebo ☐ Cha ☐

6. Kukhona okubuze umcwaningi mayelana lolucwaningo?

Yebo ☐ Cha ☐

7. Uphendulekile kuyo yonke imibuzo?

Yebo ☐ Cha ☐

8. Uyaqonda ukuba ungahoxisa ukuba ingxenye yololucwaningo futhi akukho okubi okuzokwenzakalela ngalokho?

Yebo ☐ Cha ☐

9. Uyaqonda ukuba ungashiya noma inini uma ungasathandi ukuba ingxenye yalolu cwaningo?

Yebo ☐

Cha ☐

10. Ukhona ongakhuluma naye uma kukhona okhathazekile ngako noma ofuna ukukbuza?

Yebo ☐

Cha ☐

11. Ukhona okufake ingcindezi yokuba ubambe iqhaza kulolucwaningo?

Yebo ☐

Cha ☐

12. Uzimisele ngokubamba iqhaza kulolucwaningo?

Yebo ☐

Cha ☐

Appendix 11: Parent/ Guardian Consent Form

UNIVERSITY OF ZULULAND



FACULTY OF ARTS

DEPARTMENT OF SOCIOLOGY

Parent/Guardian consent form

Dear Parent/Guardian

I am conducting a research study entitled: Self regulated learning and academic performance: A psycho educational prospect. Under the supervision of the department, I am requesting that you allow your child to participate in the study. Participants in the study will be asked to complete a brief questionnaire with questions related to the study. No names will be used in filling out the study's forms so all responses will be anonymous. Participation in the study is entirely voluntary and there will be no penalty for not participating. All participants for whom we have parent consent will be asked if they wish to participate and only those who agree will complete the forms. Moreover, participants will be free to stop taking part in the study at any time. The University of Zululand has approved this study. Please give your permission by signing the enclosed consent form and please keep this letter for your records.

Sincerely

S Ngcobo

Consent to participate

I have read the attached informed consent letter and agree to have my child to participate in the study entitled: The relationship between academic performance and self regulated learning : The case Qhakaza Secondary school, Esikhawini Kwa-Zulu Natal Province.

Participant's name:

Parent or Guardian's name:

Parent or Guardian's signature: Date.....

Appendix 12: Participant Translated Parent/ Guardian Consent Form

UNIVERSITY OF ZULULAND



FACULTY OF ARTS

DEPARTMENT OF SOCIOLOGY

IFomu Lemvumo yomzali

Mzali othandekayo

Ngingumfundi kwi Nyuvesi yakwaZulu, ngenza ucwaningo olusihloko sithi: The relationship between academic performance and self regulated learning: the case Qhakaza Secondary school, Esikhawini Kwa-Zulu Natal Province. Ngicela Imvume yakho ukuba ingane yakho ibambe iqhaza kulolu cwaningo. Ekubandakanyen kwengane yakho kulolu cwaningo kuzoba nemibuzo ephathelene nocwaningo akmele ayipendule. Akukho laphokudinga afake igama lakhe kulo iFomu ayobe ephendula kulo. Akaphoqiwe ukubamba iqhaza kulolucwaningo anagahoxisa noma inini uma efisa. Ngicela uma uvuma ushicilele igama lakho kwi fomu leli, iphinde uligcine njengobufakazi bemvuma yakho.

Ngokweqiniso

Ngcob, S.

Imvume Yomzali

Mina ngifundile konke lok okubhalwe ngenhla futhi ngiyaqonda okubhaliwe. Ngyavuma ukuth igane yami ibambe iqhaze kulo lolu gcwaningo olushloko sithi: The relationship between academic performance and self regulated learning : The case Qhakaza Secondary school, Esikhawini Kwa-Zulu Natal Province.

Igama lobambe iqhaza.....

Igama Lomzali.....

Isishicilelo somzali.....Usuku.....