

**Academic self-concept, academic motivation, perceived support and academic
performance of immigrant learners in south african schools**

by

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DECLARATION

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I declare that *Academic Self-Concept, Academic motivation, Perceived support and Academic Performance of Immigrant Learners in South African Schools* is my own work and that all the source that I have used or quoted have been indicated and acknowledged by means of complete references.

SIGNATURE

(Mr. Jesse Ashley)

__20th May, 2019__

DATE

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ABSTRACT

Several children immigrate to South Africa every year and it has been shown that some migrant children experience challenges in their host countries. These challenges have been documented to affect their academic performance in school. A total number of 164 immigrant learners from Gauteng schools, in grade 11 and 12 participated in the study. The study first, determined the positive correlation between academic motivation, academic self-concept and perceived support and academic performance. Second, the study established whether academic motivation, academic self-concept and perceived support would predict academic performance. Third, the study determined whether academic self-concept would mediate the relationship between academic motivation and academic performance. Correlation, regression and mediation analyses were used to address the aims of the study. There was a positive relationship between academic motivation, academic self-concept, perceived support and academic performance. Only academic self-concept predicted academic performance. Academic self-concept significantly mediated the relationship between academic motivation and academic performance. The results from the study demonstrate the importance of psychological factors informing immigrant learners' academic performance in school.

Key words: immigrant learners; academic motivation; academic self-concept; perceived support; self-determination theory

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CHAPTER I

INTRODUCTION

This chapter introduces the study as it gives a background to issues related to the role of academic motivation, academic self-concept, perceived support in academic performance among immigrant learners in South African schools. It further explains the rationale for this study by highlighting the important issues with regard to the reason why immigrant learners need to develop academic motivation, academic self-concept, and have support to be able to do well academically at school. The research questions, aims, objectives, and significance of this study are also presented. The key concepts and the outline of the study are presented at the end of the chapter.

1.1. Background to problem statement

The alarming rate of adolescents migrating to various countries for the past decade has become a global concern (United Nations, 2015). In the year 2014, an estimated number of 60 million people worldwide were displaced either within or beyond their country's border (Fratzke, 2015; United Nations, 2015). In 2013, three-quarters of all international migrants were between the ages of 20 and 64 years with the rest being children. Statistically, 61% of the 171 million international migrants resided in developed regions (United Nations, 2013). Statistics further showed that 15% of all international migrants were under the age of 20 years and were accompanied with or without their parents. The proportion of young migrants is therefore significantly higher in developing regions.

South Africa has temporarily resettled the majority of immigrants from the African continent and some from overseas (Documented immigrants in South Africa, 2013). Statistics

published in the 2013 yearbook of immigrant statistics in South Africa showed an estimated number of 101,910 immigrants who received temporary residence permits in South Africa. Of this number, 85.3% (86,902) were adults whilst 12.0% (12,211) were children below the age of 15 years. A total number of 55,951 immigrants were from the neighbouring countries and other parts of the continent and 45,938 from overseas.

Migrant children have been demonstrated to experience challenges in their host countries (Assouline, 2015; Milevsky, 2016). These challenges have been documented to affect their academic performance in school (Huynh, 2010). When immigrant learners attend school, they may have to deal with some psychological challenges such as the lack of academic motivation, academic self-concept and the need for support (Areepattamannil & Freeman, 2008; Areepattamannil et al., 2011; Bang 2011). These psychological challenges may affect their academic performance in school. As a result of the modern infrastructure and relatively developed economy, South Africa is perceived as an alternative destination for immigrants from neighbouring countries and other parts of the world (CoRMSA, 2010; Documented immigrants in South Africa, 2013).

The Department of Education (Department of Education, 2001) has increased enrolment policies for migrant learners due to the high influx of these learners in South Africa. Although the Department is putting structures in place to encourage immigrant learners to attend schools, it can be assumed that some psychological factors such as their academic motivation, academic self-concept and lack of perceived support may have a negative impact on their academic performance.

¹ Immigrant learners are referred to as adolescents who have migrated to South Africa and have been enrolled in schools

Research has shown that academic motivation, academic self-concept and perceived support are important for immigrant learners to be able to perform well academically (Areepattamannil & Freeman, 2008; Areepattamannil et al., 2011; Bang 2011). Lack of these psychological factors leads immigrant students to experience challenges in school (Areepattamannil & Freeman, 2008; Areepattamannil et al., 2011; Bang 2011). These challenges encountered by immigrant learners in South African schools may be stressful and thus affect their academic performance (Areepattamannil & Freeman, 2008; Mistry, Benner, Tan, & Kim 2009). It is estimated that 35% of immigrant learners in South Africa do not attend schools (Marishane, 2013).

1.2. Problem statement

Immigrant learners in South Africa can enrol in schools irrespective of their country of origin. They are expected to develop academic self-motivation, academic self-concept and have support to be able to perform well. In addition, they are expected to perform well academically, in order to gain admission into a university and have a better job prospect.

Marishane (2013) estimated that about 35% of immigrant learners in South Africa do not attend schools. This may be as a result of some psychological factors such as lack of academic self-motivation, academic self-concept, and perceived support. As a result, learners may not perform well academically and dropout from schools. The current study, therefore, seeks to understand the effect of psychological factors (i.e. academic motivation, academic self-concept and perceived support) on immigrant learners' academic performance in South African schools.

1.3. Significance of the Study

The findings from the study may contribute to policies implemented and be modified to comprehensively address all factors which affect the academic performance of immigrant learners in South African schools. Moreover, this study can contribute to the field of Educational Psychology because it addresses the needs of immigrant learners in South African schools.

1.4. Purpose and aims of the study

Lack of academic self-concept, academic motivation and perceived support have been shown to influence immigrant learners' decision to academically persist in schools (Areepattamannil, Freeman, & Klinger, 2011; Li, Ruah, & Junkoski, 2014). These factors have been investigated by several international researchers to influence the academic performance of immigrant learners (Areepattamannil & Freeman, 2008; Areepattamannil, Freeman, & Klinger, 2011; Bang, 2011). Therefore, it is important to examine the impact of these psychosocial factors (i.e. academic motivation, academic self- concept and perceived support) on the academic performance of immigrant learners in South African schools.

The present study, first, determined whether academic motivation, academic self-concept and perceived support would be positively correlated with academic performance. Second, it established whether academic motivation, academic self-concept and perceived support would predict academic performance. Third, it determined whether the relationship between academic motivation and academic performance would be mediated by academic self-concept.

1.5. Rationale of the Study

Various research has been conducted on the impact of the psychological factors (Academic motivation, academic self-concept and Perceived support) on learners academic performance (Areepattamannil & Freeman, 2008; Areepattamannil et al., 2011; Bang 2011; Bryan 2008, Fuligni, 1997). However, there has not been enough research on psychological constructs that affect immigrant learners.

The present study, therefore, contributes to the body of knowledge by investigating the academic motivation, academic self-concept concept and perceived support as there has not been enough research on these psychological constructs and their relationships on immigrant learners in South African schools.

1.6. Research questions

The present study addressed the following research questions. First, I asked whether there is a positive correlation between academic motivation, academic self-concept, perceived support and academic performance. Second, I asked whether academic motivation, academic self-concept and perceived support predict academic performance. Finally, I asked if academic self-concept mediates the relationship between academic motivation and academic performance.

1.7. Outline of the study

Chapter I provided a background on psychological challenges encountered by immigrant learners and statistics regarding the dropout rate of immigrant learners in South African schools. It further highlighted the need for additional research, particularly in South

Africa, into the understanding role of psychological factors on immigrant learner's academic performance.

Chapter II presents an extensive literature review on immigrant learners' academic motivation, academic self-concept and perceived support on academic performance. It highlights dominant theories and models and applies the most contemporary ones on which the present research is based.

Chapter III focuses on the research methodology of the present study and outlines the steps followed in conducting the study. This encompasses the information about participants, survey items, research design, data collection procedure, ethical considerations and data analysis.

Chapter IV contains a report of the results of the study, outlining both significant and not significant findings in the study. In this chapter, descriptive and inferential statistics are presented, and correlation, regression and mediation analyses are presented.

Chapter V is the final chapter which provides a comprehensive discussion of the findings. This chapter encompasses the implementation of the findings as well as recommendations.

1.8. Chapter summary

This chapter presented an overview of the study, the background to the research problem and the significance of the study. The chapter, also highlighted the research questions, as well as the aims of this study. Next, Chapter 2 discusses the literature reviewed for the study.

CHAPTER II

LITERATURE REVIEW

This chapter reviews the literature on the role played by academic motivation, academic self-concept, and perceived support on immigrant learner's academic performance in schools. The first section examines various literature on academic motivation, academic self-concept and perceives support on academic performance of immigrant learners.

2.1. Introduction

Immigrant learners are expected to have the support and develop academic motivation, academic self-concept in order to perform well in schools (Areepattamannil & Freeman, 2008; Alfaro & Umara-Taylor, 2006; Areepattamannil, Freeman, & Klinger, 2011; Mitchell, 2005). Those learners who can develop academic motivation, academic self-concept and have supported have been found to perform well academically (Areepattamannil & Freeman 2008; Areepattamannil et al., 2011; Bang, 2011). Learners who receive support from significant others can be able to perform well academically (Bang, 2011).

Although the provision of perceived support to immigrant learners have shown to vary and not fully aid them in their academic performance (Leibkind, Jasinskaja-Lahti, & Solheim, 2004; Vedder, Boekaerts, & Seegers, 2003), psychological factors such as academic motivation have been reported to influence immigrant learners' academic performance (Areepattamannil et al., 2011; Areepattamannil & Freeman, 2008). Immigrant learner's

ability to develop academic motivation has, therefore shown to be vital in their academic performance in school.

2.2. Academic motivation

Academic motivation has many and different definitions because many researchers differ in opinion over the specific nature of motivation (Pintrich & Schunk, 1996). Pintrich (2003, p. 104) gave a general definition of motivation as “what gets people going, keeps them going and helps them finish a task”. Various motivation theorists have expanded the understanding of motivation as they try to describe human behaviour; however, other studies on motivation have come to address behaviour in a specific context (Shunk, Pintrich & Meece, 2008). These theories have been used in educational environments to explain learner’s academic performance in schools (Meece, Anderman & Anderman, 2006).

Academic motivation has been reported to be positively related to a learner’s academic performance (Diseth & Kobbeltvedt, 2010; Gupta & Mili, 2016; Hasan & Sarkar, 2018; Jaiswal & Choudhuri, 2017; Ryzin, 2011; Wang & Holcome, 2010). Wang and Holcombe (2010) state that various features in the school environment are related to learners’ academic performance. Learners who have a positive perception of the school were found to participate more and had a higher academic performance as opposed to learners who had negative perceptions and were not participating in their academic activities.

The work of Amrai et al. (2011) revealed a relationship between academic motivation and academic performance. They further explained that academic motivation is important to academic performance as learners can achieve their future goals, develop an interest in learning, and also develop their abilities. Their findings were consistent with the work of Tella (2007), whose study also showed a relationship between academic motivation and

academic performance. This, therefore, suggests that learners tend to learn better when they are academically motivated.

Pokay and Blumenfeld (as cited in Lee et al., 2010) in their study showed that learners who are motivated are more likely to persevere in their school activities and are more willing to try different strategies to perform well. Kim, Lin, and Mckeachie (2003), in their study, showed that high levels of motivation are positively related to academic performance. In a cross-sectional and a longitudinal group study of learners from eighteen public elementary schools in North of Portugal, Lemos and Verissimo (2014) presented that learner's development of motivation consistently enhanced their academic performance.

Furthermore, academic motivation has also shown to have a positive effect on academic performance among immigrant learners (Areepattamannil & Freeman, 2008). The work of Areepattamannil et al. (2011), in their study on Indian immigrant and non-immigrant high school learners in Canada, indicated that motivation had a predictive effect on academic performance for immigrant learners. This, therefore, suggests that immigrant learners who can develop academic motivation may perform well academically in school.

In summary, the general trend in the literature on academic motivation in relation to academic performance is that learners who can develop an academic motivation may perform well in school. This study, therefore, suggests that academic motivation will have a positive effect on academic performance among immigrant learners.

2.3. Academic self-concept

Academic self-concept has shown to be an important component of immigrant learner's academic performance (Areepattamannil & Freeman, 2008). Academic self-concept

is defined as an assessment of self-perception that is formed through a learner's experience and the interpretation of the school environment (Guay, Litalien, Roy & Ratelle, 2010; Shavelson, Hubner, Stanton, 1976). Brunner, Keller, Dierendonck, Reichert, Ugen, Fischback and Martin (2010) also define academic self-concept "as a mental depiction of one's abilities within the school or academic settings, or in relation to one's academic progress". The development of self-concept is valued as a desirable outcome in many educational settings (Marsh, 1990).

The present study defines academic self-concept as the development of self-confidence that a learner enjoys from his/her school environment on their academic performance. Some examples of an immigrant learner's academic self-concept may be a situation where their peers go to them for assistance with their academic work or if they are able to work hard, they could attain high achievements as they may be adjudged the best in their school year.

A learner's development of academic self-concept has shown to be one of the psychological factors that influence their academic performance (Marsh, 2016; Boivin, Guay & Marsh, 2003). Various studies have assessed the relations between academic self-concept and academic performance (Pinxten, de Fraine, van Damme, & D'Haenens, 2010; Valentine & Dubois, 2005). Pinxten, Fraine, Van Damme and D' Haenens (2013) in their study, explained the causal effect in understanding academic self-concept and academic performance from grade 7 to 12 learners. Prior research has also shown that academic self-concept is strongly linked to academic performance (Areepattammanil, 2008; Mitchell, 2005; Tatar, 2012).

2.4. Perceived support

Perceived support is the ability to turn to others for help when facing problems (Tummala-Narra 2015, p. 25). Perceived support has been found to be critical to immigrant learner's well-being (Tummala-Narra, 2015). Several studies demonstrated that perceived support could motivate immigrant learners to perform well in school (Alfaro, Umaña-Taylor, & Bámaca, 2006; Fuligni 1997; Suarez-Orozco, Pimentel, & Martin & Dowson, 2009). Research has shown that support from peers, educators and their parents may positively influence immigrant learners to perform well in schools (Sosa & Gomez, 2012; Lopez, 2001).

Researchers argue that parents and teachers can create a condition for the development of learner's motivation which can positively influence their academic performance Reeve (as cited in Guay, Litalien, Roy and Ratelle, 2010; Vatankhah & Tanbakooei, 2014). Learners who do not get assistance from parents, peers, and educators may end up becoming frustrated, bored and alienated from learning activities (Furrer and Skinner, 2003). Some learners may experience stress which may affect their academic performance (Azmitia, Brown, & Cooper, 2009; Fuligni, 1997). This may further interfere with their academic progress (Furrer and Skinner, 2003).

Wentzel (1998), investigated the effect of perceived support on learner's academic performance. She explained that parents, peers, and educators seem to play relatively independent roles in learners live. The effects of having multiple sources of support on academic performance are, therefore, primarily additive rather than compensatory (Wentzel, 1998).

Research shows that immigrant learners learn alongside their peers from whom they can receive assistance which helps them in their academic performance (Bang, 2011; Fuligni,

1997). Fuligni (1997) explains that parents often show dissatisfaction to immigrant learner's academic performance when they perform poorly and as a result, seek support from their peers who assist them in their academic activities.

Immigrant learners' parent's involvements in their academic work have shown to aid their children's academic progress in schools which influences their academic performance (Bang, 2011; Martin, 2009). Bang (2011) further explained that homework that engages familiar cultural referents and resources in the learner's families and communities could not only help parents assist them in their homework completion, but also allow them to experience empowerment to perform well academically. Wentzel (1998), who showed that perceived support from parents was the only type of support that predicted learner's academic performance among other support variables tested. Furrer and Skinner (2003), in their study, explained that learners with high support from parents might enter their classroom with a readiness to be socialised by their peers and educators. This, therefore, may influence their attitude and willingness to concentrate in the grade. However, according to Furrer and Skinner (2003), learners with low parental support may come to school not prepared and unwilling to meet the motivational demands of their grade.

When immigrant learners perceive that their parents are monitoring their academic activities, they may desist from unacceptable behaviours that can affect their academic performance (Plunkett, Behnke, Sands & Choi, 2009). Immigrant learners may, therefore, focus on their academic work, such as homework and attendance in school. In addition, Bang (2011) explained that immigrant learners were able to complete tasks necessary for academic success such as obeying school rules. Hardie and Seltzer (2016) showed that their parents guide immigrant learners who grow into adulthood have a strong advantage relative to their

non-immigrant counterparts. This, according to their study, may translate into greater academic performance.

Parenting practices within the home environment have shown to aid immigrant learners to perform well academically (Eamon, 2005). Eamon (2005) further suggests that immigrant learners whose parents cognitively engage in academic discussions with their children at a home environment using books, musical instruments, computer, discussing school-related issues, events outside the school and engaged in less conflict over television and homework were able to perform well academically. However, the study of Plunkett, Behnke, Sands and Choi (2009) reported that mothers and fathers' activities could negatively or positively predict immigrant learner's academic performance.

According to Plunkett et al., (2009), learner's report of mothers' behaviour influenced their academic performance than reported fathers' behaviour. It can, therefore, be assumed that immigrant learners who do not stay with their mothers may lack academic support at home which may affect their performance at school. Furthermore, immigrant mother's monitoring of school-related activities may be an observable indication of the importance mothers place on education (Plunkett et al., 2009). Immigrant learners may, therefore, internalize this value which can aid them in their academic performance.

Plunkett and colleagues further explained that immigrant fathers who worked for long hours might not have enough time for their children. The contributions of immigrant mothers on the academic performance of their children were more significant than their fathers in their study. Educators may represent sources of social support meeting learner's psychological needs such as their academic motivation Reeve et al., (as cited in Danielsen, Wiium, Wilhelmsen and Wold, 2010; Wentzel, 1997). Academic support takes into account learners'

satisfaction with their relationships with their educators and other interpersonal relationships as well as their involvement in the social activities of their school (Aronowitz, 1984; Yeh & Inose, 2002; Kuperminc, Darnell, & Alvarez-Jimenez, 2008). These relationships make it easier for immigrant learners to consult their educators when they encounter challenges in their studies. Immigrant learners can perform better in school as a result of their interpersonal relationship with their educators (Kuperminc, Darnell & Alvarez-Jimenez, 2008).

Danielsen et al. (2010) emphasised that educators are among the most powerful influence on learner's academic performance. Their findings were consistent with the work of Peguero and Bondy (2011), who showed that educator's support is necessary to learners' engagement in school. They further explained that learners who see educators as creating a caring and providing support took part in school activities which influenced their academic performance. In a study of Latino learners, Woolley, Kol and Bowen (2009) showed that educator's support was associated with their academic performance in school.

Perceived support has therefore shown to influence immigrant learner's academic performance (Bang, 2011; Fuligni, 1997). Despite the critical role that perceived support may play in immigrant learner's academic performance in schools, only a small body of research has specifically assessed the impact of perceived support on immigrant learner's academic performance in schools.

2.5. Academic self-concept as mediator variable

Academic self-concept has further been shown to mediate the relationship between academic motivation and academic performance of an immigrant learner (Areepattamannil, Freeman 2008; Areepattamannil, 2012). Other studies have shown the role of academic self-concept as a mediator variable between self-efficacy and academic performance among

adolescents (Ferla, Valcke, & Cai, 2009); home environment and academic performance (Song, 1984) as well as between reference group and academic performance among children (Zeidner & Schleyer, 1999).

In the South African context, adjustment and academic motivation have been shown to be mediator variables (Petersen, Louw, & Dumont, 2009; Silinda, 2017; Sommer & Dumont, 2011). However, the mentioned studies only among university students. This study will make a contribution to literature as it will be the first to measure the mediation relationship between academic motivation and academic performance via academic self-concept among immigrant students in the South African context.

2.6. Theoretical framework

Several variables (family obligations, linguistic proficiency, parental aspirations) may affect the academic achievement of immigrant learners. However, among these variables, academic motivation, academic self-concept and perceived support have shown to be an important concern in policy development for high schools. This has shown to aid in the integration of immigrant learners.

The Self-Determination theory (SDT) is a meta-theory which approaches human motivation, personality, social development and psychological functioning (Deci & Ryan 2002). It further consists of five mini-theories which are the cognitive evaluation theory, organismic integration theory, causality orientations theory, goal contents theory, and basic needs theory (Deci & Ryan, 2002). The present study applied three components of the theory. These were the organismic integration theory/social context (which the researcher referred throughout the study as the school environment), basic needs theory and goal content

theory/motivation. In general, according to the SDT, the social context has an influence on the satisfaction of needs and this in turn influences motivation.

The SDT further states that all individuals including learners have inborn tendencies to grow and develop towards their full capabilities. The SDT however argues that the three basic psychological needs which are autonomy, competence and relatedness should be satisfied (Deci & Ryan, 2000). Learners may have their autonomy needs satisfied when they experience an idea of being initiative or maintain a good behavior required of them (Deci & Ryan, 2000). Their competence need can be satisfied when learners are able to improve their abilities or academic performance (Boezeman & Ellemers, 2009). Their relatedness need gets satisfied when they feel related to significant others (educators, family, classmates) as they feel cared for by them (Vansteenkiste et al., 2007).

To experience needs satisfaction, the theory further states that support from the social context are necessary (Deci & Ryan, 2000). In this respect, the SDT differentiates between two types of context. These are the autonomy supportive context and a controlling supportive context. According to Deci and Ryan (2000), the autonomy supportive context refers to environment in which persons with authority (such as parent) takes the academic needs of their children into account as they provide relevant support. A controlling supportive context, however, refers to an environment in which learners may experience the need to think, engage or behave in a specific way such as the school environment (Deci & Ryan, 1985).

SDT assumes that social context promotes two major types of motivation through satisfaction of the three basic needs (Deci & Ryan, 2000). In this respect, one of the motivation which is the autonomous motivation was relevant to the study. Deci and Ryan

(2000) defined autonomous motivation as a behavior that is performed because learners may choose to find pleasure in school activities.

2.7. Chapter summary

This chapter provided a review of previous literature on academic motivation, academic self-concept, perceive support of immigrant learners proved to be necessary in understanding their influence on their academic performance.

Furthermore, the review of literature also highlighted how perceived support may influence the academic performance of immigrant learners. The gaps within perceived support (that is, family, classmate, school mate, educators) as important role players in immigrant learner's academic performance emerged during the literature review – and this highlighted how this study could close some of the gaps, especially as far as academic performance is concerned. It is clear that much needs to be put in place for immigrant learners to perform well in South African schools. Hence, studies such as this one are important to close such gaps. In this way, conducting literature helped me to get a solid background of the phenomenon under study and also helped me to refine my research questions and methods. The research design and methods adopted in this study are discussed in detail in the next chapter.

CHAPTER III

RESEARCH DESIGN AND METHODOLOGY

3.1. Introduction

This chapter provides a discussion of the research design and methods. It therefore includes a discussion of the information about participants, survey items, reliability, descriptive and inferential statistics. It further includes correlation, regression and mediation analysis. A discussion of the sampling techniques and population of interest is also provided. It further discusses the research methods of data collection, data analysis and ethical consideration.

3.2. Preliminary Analysis

3.2.1. Participants

In total 174 participants responded to the questionnaires. A total of 9 questionnaires were discarded because they contained incomplete data. A total of 164 participants met the outlined criteria and were included in the data analysis. The age of participants ranged from 14-21 years with a mean age of 18 years. More male 91 (55.5%) than female 73 (44.5%) participated in the present study. Participants of the study were grade 11 and 12 immigrant learners in South African schools. Furthermore, Black students were the majority with 162 (98.2%), Coloured 2 (1.2) with no Indian and White learners. Grade 11 learners were the highest participants with 101 (61.2%), and 63 (38.2%) learners from grade 12 class participated in the study. The demographic characteristics of 164 participants are summarised in Table 1.

Table 1*Demographic characteristic of participants*

Gender	n	%
Male	91	55.5
Female	73	44.5
Race		
Black	162	98.2
Coloured	2	1.2
Indian	0	-
White	0	-

Participants were provided with a 5-point Likert scale to respond to all items. The scale ranged from 1 (*strongly disagree*) to 5 (*strongly agree*). Some of the items were reversed scored. An asterisk is used to identify these items.

3.2.2. Reliability analysis

Academic motivation. This factor was measured using the Academic Motivation Scale-High School Version Scale. The Academic Motivation Scale-High school version (Areepattamannil & Freeman, 2008) is based on the SDT. The twenty-seven-item instrument was divided into seven subscales. These were assessing three ordered subscale of extrinsic motivation (i.e. external regulation, introjected regulation, identified regulation) and three distinct unordered subscales of intrinsic motivation (i.e. intrinsic motivation to know, to accomplish things, and to experience stimulation). These items were rated on a 7-point Likert scale ranging from 1 (strongly agree) to 7 (strongly disagree), however, these items were rated on a 5-point Likert scale 1 (strongly agree) to 5 (strongly disagree) in the current study.

All the scale items were used to measure academic motivation. An example of item used to measure Intrinsic Motivation to Know is, “I go to school because I develop pleasure and satisfaction while learning new things” and “I go to school for the pleasure I experience when I learn new things never seen before”. Intrinsic Motivation to Accomplish was measured using the following items: “I go to school for the pleasure I experience while I am performing well in my studies” and “I go to school for the pleasure that I experience while I am performing well in one of my personal accomplishments. Another example of the items used to measure Intrinsic Motivation to Experience Stimulation was measured is: “I go to school because I want to study” and “I go to school because school is fun for me”. Some items used to measure Extrinsic Motivation External Regulation were “I go to school because I need a matric certificate” and “I go to school in order to obtain a decent job later on”.

Extrinsic Motivation Introjected Regulation was measured using the following items “I go to school to because I want to show myself that I can succeed in my studies “I go to school to because I think that a high school education will help me better prepare me for a career I have chosen”. An example of the items used to measure Extrinsic Motivation Identified Regulation are “I go to school to because eventually it will enable me find a job in a field that I like”.

Several empirical studies investigating issues related to motivation have used Cokley (as cited in Areepattamannil, 2008) version of the AMS scale. Fairchild et al. (as cited in Areepattamannil, 2008) study reported reliability coefficient of the construct to be between $\alpha = .77$ and $.90$. Areepattamannil (2008) also noted a reliability coefficient between $\alpha = .70$ and $.85$. In the present study, academic motivation reported a reliability coefficient of $\alpha = .76$.

Academic self-concept. The factor was measured using the Descriptive Discriminant Analysis scale (DDA) (Areepattamannil & Freeman, 2008). The scale consists of ten items

measuring three academic self-concept dimensions: verbal self-concept, math self-concept, and schools self-concept. All ten items were used in the study $\alpha = .77$. An example of the items used to measure academic self-concept are the following: “My classmate comes to me for help in most school subjects*”, “I am able to learn quickly in most school subjects*”, “If I work hard, I could be one of the best learners in my school year*”, “I do well in task in most school subjects”, and “I am good at most school subjects”.

Perceived support. This was measured using the Social Support Scale for Children scale (SSSC) (Harter 1985). The scale consists of twenty items with reliability coefficients ranging from $\alpha = 0.78$ – 0.82 . All items from the scale were used to measure perceived support in the study $\alpha = .79$. This scale measures four dimensions of social support (i.e. social support from parents, classmates, teachers and friends). Examples of the items used are: “My teachers encourage me to ask questions in class”, “My classmate encourage me to participate in other extra-curricular activities”, “I spend time together with my close friend when I need them” and “My parents help me with my homework assignment”.

Academic performance. This factor was measured using learner’s actual academic performance was used as a dependent variable in the present study. In line with Areepattamannil and Freeman (2008), participants’ academic records were accessed with consent from principals of various schools. To measure academic performance, Areepattamanil, Freeman and klinger (2011) asked participants to report their overall school GPA on a 5-point scale ranging from 1=A (*Mostly 90’s*) to 5=F (*Mostly 50s*). The scale was later reversed scored. Participant’s academic records were collected to measure their academic performance in the current study. In the present study, for each participant’s result, obtained total GPA for a term (percentage) was added together and divided by the number of subjects studied. The average percentage that students obtained for all their subjects at the

end of their academic term was then used to measure academic performance. The grading scale used in South African Secondary schools since 2008 was used in the current study (Department of Basic Education,). The scale ranges from 1 = (80% - 100% = A) to 7 (0% - 29% = FF). This scale was also reversed scored.

3.3. Quantitative Research Approach

The present study adopted the quantitative approach in an attempt to gain understanding of immigrant learner's development of academic motivation, academic self-concept, perceived support and academic performance in South African schools. In quantitative research survey objective measurements as well as the statistical analysis of data gathered through administering of questionnaires or surveys data are applied using computational techniques (Frels & Onwuegbuzie, 2013). The main aim of quantitative research therefore is gathering numerical data as the researcher generalises it to represent a population or to explain a particular event.

In conducting quantitative research one goal is for the researcher to ascertain the relationship between an independent variable and a dependent variable within a group of people. Quantitative research design is therefore either descriptive or experimental (Babbie & Earl, 2010). A descriptive study may further establish a relationship between variables in a study. Since the main aim of the study is to investigate the impact of psychological factors (academic motivation, academic self-concept and perceived support) on the academic performance of immigrant learners in South African schools, the quantitative method was appropriate for the study. Furthermore, the quantitative method appears to be the appropriate method because it enables the researcher to obtain objective, personal data which affects the experiences of the participants. The following characteristics of the quantitative approach were used as a guide in the study as outlined by Babbie and Earl (2010).

- (a) The data in quantitative research is usually collected from respondents by using structured research instruments.
- (b) The findings in quantitative research are determined by the size of the sampled group of people who represents the population under study.
- (c) In quantitative research, the research may be repeated, which gives room for a high reliability.
- (d) A researcher applying the quantitative research method defines his research questions clearly as his respondents produce objective answers.
- (e) In quantitative research, the researcher takes time to design his work carefully before he/ she gathers data from his respondents.
- (f) Data collected from respondents are normally in the form of numbers and statistics in quantitative research. These may be analysed to produce results in tables or charts forms.
- (g) Quantitative research allows research study as it may be used to generalise concepts in different context. This further aids in predicting future results, or possible research investigations.
- (h) Instruments for data collections or computer software are tools used by the researcher in quantitative research to gather data.

Saunders, Lewis and Thornhill (2009) suggest that developing a good research methodology is the foundation of a research project. In quantitative research, the main purpose is therefore the analysis of the data which produces an information. As the researcher quantifies the data, this allows the researcher to generalise his findings by surveying the views of his respondents. According to Younus (2014) quantitative research may be made up of two comprehensive stages which are the planning and execution stages. In executing these

stages in quantitative research, there is likely to be some constraints which may be difficult for the researcher to control (Simon 2011).

When a sampled population is not fairly represented in quantitative research, it may result in obstructing the researcher for reaching his desired aims and objectives in a study. Although a researcher may apply appropriate sampling design that may represent his respondents in a research study, it is based on the probability distribution of observed data. This may therefore lead to inappropriate results in the analysis of the researcher's data (Simon 2011).

Furthermore, a large sample size is necessary for quantitative research design. However, because it is expensive to undertake a quantitative research as the researcher needs enough resources, it becomes difficult to perform a large-scale research becomes (Foxcroft & Roodt, 2006). A structured questionnaire with close ended questions is appropriate to use when administering questionnaires using the quantitative research approach (Gorard, 2003). This approach may sometimes produce limited results as outlined in the research proposal. The findings may therefore not always be representative of the actual event, as it may not be generalised. Furthermore, the sampled population answering quantitative research questionnaires are limited in their response. This may be based on the researcher's choice in selecting research questionnaires (Gorard, 2003).

Quantitative research is therefore demanding, costly, time consuming to perform your analysis. Quantitative research therefore must be well planned as it is aimed to ensure a proper selection of your target population and proper selection of control groups (Morgan 1980). A large selection of sampled size is normally suitable to represent the target population. Therefore, for a researcher to have a fair response from his targeted population, data gathering using the quantitative research approach is often too costly. I was aware of

these limitations and I understood that I should address them. In respect to being time consuming and labour intensive, I was proactive enough and started with the process while I still had enough time. To sharpen my data collection skills, I did some trials before I started collecting the actual data. I also relied on the experience I gained when I was doing my honours and my skills I have developed as a junior psychometrist (Independent Practice).

3.3.1. Post-positivist approach

According to Crotty (as cited in Scotland, 2012), physicist Werner Heisenberg and Niels Bohr shifted from an imperative view of positivism and turned away from a complete truth to possibility. They further described a physical scientist or a social scientist as one who discovers knowledge, instead of just accepting noting the laws of nature. They therefore argued that “no matter how fair and accurate the scientist follows the appropriate scientific method research, research results may not be totally accurate in their interpretation” (Scotland, 2012).

Therefore, in this study, it is perceived that there may be some possibility for the truth as it can be measured and explained if found. However, there must be room for doubt. Reality therefore cannot be known with certainty. According to Foxcroft and Roodt (2006) systematic error and non-sampling error may originate from two broad source in a research which are the research administration of questionnaires and respondent error (social desirability bias, halo effect and extremity bias) as well as the administrative error (variations in instructions, variations in assessment conditions and variations in the interpretations of instructions). The following displays the characteristics of post positivist position as used in the study category. These are the post positivist impression about the nature of reality (ontology), value (axiology), methodology, and knowledge (epistemology).

3.3.2. Ontology

According to Mertens (2009), post-positivist reality does exist in a research study but maintains that there may be some influence that may negatively affect the research study because of some administrative errors (known as critical realism). He therefore claims that the researcher may strive to attain some level of truth in his/ her research study.

In this study therefore, reality in this sense is limited to the South African context as respondents were targeted at high schools in Gauteng with high immigrant populations. The results and the interpretations of the study may not be generalised as a common truth. Furthermore, the instruments used to measure the various variables were instruments originating from western countries. The items in the instrument may mean differently to immigrant learners in the South African context.

3.3.3. Axiology

According to the position of the post-positivist, a researcher and his targeted population are independent by recognising that the theories, hypothesis and background knowledge based on the investigation may influence what the researcher intends to investigate, how the phenomena will be investigated and the result of what is being investigated (Mertens, 2009). In this study therefore, immigrant learner's development of academic motivation, academic self-concept, perceived support and academic performance when studying in South African schools where the variables observed.

3.4. Methodology

According to the post-positivism model, the aim of a research is to predict a specific behaviour. It further tests a theory as it can demonstrate the strength of relationships between

a dependent and an independent variable (Scotland, 2012). Quantitative research therefore may begin with ideas, theories or concepts. These may be defined as they are used in a research study as they are aligned to and explain the variables of interest. In a research project, the problem statement explains the variables to be investigated as it further show if there is any relationship among them. It is necessary therefore to operationally define the variables under study as it enables other researchers to reproduce, substantiate and establish the truth in results. Operationally defining a variable in a research suggests that the behaviour observed to be analysed is defined based on how it is applied in the study.

In this study, methodologies applied include data gathering using a close-ended questionnaire. Monette (as cited in Strydom, 2011), considers a questionnaire to collect data from respondents in survey research that has a well-structured and typed questionnaire. Respondents answer to these questionnaires according to a scale provided by ticking questions which speaks directly to them on the questionnaire form. This exercise may be conducted without the aid of the researcher.

3.4.1. Advantages of quantitative questionnaires

Quantitative research questionnaire as research instrument has some advantages (Birmingham & Wilkinson, 2003), as well as some disadvantages (Muijs, 2011). First, quantitative research results may be generalised from a sample to a population as it involves the larger sample which are randomly selected (Rahman, 2017). Furthermore, data analysis doesn't take too much time as it uses SPSS (statistical software). The present study therefore showed that the study sample reflects the population which helped making the study truth-worthy.

Second, quantitative research questionnaires are mostly familiar to participants as it allows answer to questionnaires at their own spare time. It further allows them to choose

answers which best speak to them. Third, quantitative questionnaires often make it easier for a researcher to collect more data from respondents without putting in too much work. Fourth, when research participants are available at one place, it makes it possible for the researcher to save time as the researcher is able to collect enough response from respondents. Fifth, the quantitative research instrument (close-ended questionnaire) measuring a specific behaviour can be replicated over a period of time to measure differences between a specific populations of respondents. This may show a high reliability as a data gathering tool. Sixth, the researcher administering the questionnaire has the opportunity to familiarise himself/herself with participants, explain to his respondents what he/ she intends to do with the research as he/she may further explain the meaning of research questionnaires that may not be clear to respondents. Finally, a well- designed quantitative questionnaire can allow relationships between data to be identified. These are useful to showing relationships with data that are easily measurable in a research.

3.4.2. Epistemology

In understanding what the truth is, the researcher within this paradigm maintain that knowledge is true. According to the epistemology stance, it may further be turned into an activity that empowers as it transforms the lives of the people involved. Theory is therefore the basic tool that helps the researcher to find new facts. According to Neuman (1998), theories are developed from these facts as they are further worked on through research by identifying it with real life practice. True knowledge in the present research context lies in the collective meaning-making by principals of schools which can inform educators and group action that improve the lives of the immigrant learners in South African schools. Knowledge is therefore discovered from immigrant learners' measurement of the variables under study.

3.5. Population and Sampling

The explanation of the results of any research study depends on the characteristics of the population intended for analysis (Wilkinson, 1999). Clearly defining the population of the research study is therefore important for the researcher. In identifying the population and sample of the present study, it was important to firstly define the terms population and sampling. Furthermore, the study population and sampling techniques used were guided by the research focus and interest.

3.5.1. Population

According to Polit and Beck (2008), population of a research study can be defined as units from which the sample is drawn, and from which the data is collected. These units may further consist of individuals, events, artefacts or objects and substances. Therefore, the targeted population for this study included individuals, specifically immigrant learners studying in South African schools.

3.5.2. Sampling

Sampling refers to the process where a researcher chooses the targeted population to represent the entire population (Choy, 2014). In practical terms, this meant selecting some school with high immigrant population studying in high schools in Guateng. These population of learners possessed a particular knowledge and understanding of what the researcher intends to investigate. Also, in recruiting participants for this study, I used sampling techniques which made it possible to recruit suitable participants. According to Choy (2014) the researcher can use either probability or nonprobability sampling techniques as whatever techniques the researcher uses must give a sample. In the present study, the

researcher applied a purposive sampling technique to select the sample of schools with majority of the targeted participants.

Purposive sampling therefore entails that only individuals who meet certain criteria are selected as participants (Bryman, 2008). For this study, a participant was an individual who met the following criteria:

Participant should be/have:

- (a) An immigrant learner studying in South African high school
- (b) Must be in grade 11 or 12
- (c) Between 16-25 and above
- (d) Study in a high school in Guateng

Exclusion criteria:

- (a) Immigrants learners who are not registered in any school
- (b) Participants who are below 16 years and may be in lower grades
- (c) Participants studying in a school outside Gauteng

3.6. Data collection procedure

3.6.1. Establishing rapport

The relationship established between the researcher and the participant constitutes a power relationship in which the researcher holds most of the power as it may leave the participant in a vulnerable position (Foxcroft, 2011). According to Foxcroft (2011), it is therefore necessary for the researcher to associate with participants prior to the actual process of data gathering by building rapport. The researcher may therefore be able to establish the level of comfort in participants prior to the initial administering of research questionnaire.

Therefore, the researcher started familiarising themselves with participant prior to the initial administration of research questionnaire. Building rapport to some extent was made easy by our shared attributes. The researcher is an international student who resides in Gauteng as the study participants and he had more or less similar socioeconomic backgrounds. This therefore made it easy to understand some challenges that may have occurred. Data collection took place in a conducive classroom setting, with proper ventilation and lights in all the selected schools.

3.6.2. Acquiring consent

After rapport with participants was established, participants were engaged in a discussion of the nature of the study. Informed consent from participants who were below 18 years was received and their parents or guardians also signed for them as they accented to it. Participants who were above 18 years were also made to consent to be part of the study (see Appendix C).

After participants had submitted the consent forms, I collected them and put them safe in my locking bag, and later put them in my room and locked them inside a cabinet. Each participant were allowed each to debrief before they could answer the questionnaires. To debrief means each participant could briefly reflect on their feelings and thoughts about the nature of the study before the questionnaires were distributed. Participants were seated in a classroom setting at individual tables to ensure privacy while they completed the questionnaires. The researcher made sure there was a proper lighting as well as enough ventilation provided in the room. The data collection session took approximately 20 minutes and included all the questions. This was conducted a month to the end of second term of their academic year.

3.7. Ethical Considerations

3.7.1. Permission for the study

When research project involves the use of psychological testing, it is ethically appropriate to seek permission from the appropriate institutions (Foxcroft, 2011). The study proposal was therefore presented to the Department of Psychology at the University of South Africa as ethical clearance was obtained from the department's research ethics committee (Reference number: PERC-16073, Appendix A).

3.7.2. Informed consent

According to Foxcroft (2011), obtaining informed consent from an appropriate institution is essential to conducting a research in an ethical manner. Furthermore, obtaining informed consent when children are part of a study may pose many challenges. In this case, parents of participants due to the distance from home to their work places may leave their children in the care of their neighbours, friends or guardians. Foxcroft (2011) advice that it is the ethical responsibility of the researcher to obtain consent from the child's parents or legal guardians.

Consent forms were therefore given to participants below 18 years to be given to their parents or guardians to ask for their voluntary agreement to be part of the study. This therefore made them know about their rights and what they were getting themselves into. The researcher also seeks the consent of participants who were above 18 years and interested to participate in the research. Furthermore, the aim, significance, and ethical considerations of the study were explained to participants. This was to ensure that the participants understood what they were being asked to do and therefore, to make informed decisions (Neuman, 2006).

3.7.3. Respect for participants

According to Butler (2002), in conducting a research, the researcher must acknowledge the individuality, the dignity and the right of his respondents to make their own decisions regarding matters that speaks to them as they respond to research questionnaire. Therefore, the participants in this study were given the full right to exercise their autonomy by ticking questions that speak directly to them on a 5-point Likert scale without deliberately obstructing them or degrading them.

3.7.4. Confidentiality

According to Foxcroft and Roodt (2006), confidentiality in research is the ethical principle of holding research data in confidence or keeping data secret from the public. Therefore, the researcher does not release information in a way that would link specific individuals to specific responses. Participants further have the right to know who will have access to their results in a research and the extent to which confidentiality will be ensured (Foxcroft & Roodt, 2006).

To ensure confidentiality in this study, the participants were made to understand that all the information they share will be kept in secrete and that the findings from the study will be reported in collective forms. Additionally, the researcher kept the answered questionnaires that were used for data collection in a safe locked place. The researcher details were included informed consent letter to help address research participant's enquiries.

3.7.5. Beneficence

Terre Blanche and Durrheim (2002), in their study explained that researchers should design research studies in such a way that they will be of benefit to research participants, researchers and society at large. The results may be used for interventions to help provide the

relevant support to immigrant students in South African schools. This support will among others help improve learner's academic performance.

3.7.6. Non-maleficence

Non-maleficence is an obligation of researchers to do no harm to participants and themselves as well (Foxcroft & Roodt, 2006). This involves no harm to the emotional and physical aspects of a human being (Bryman, Becker & Sempik, 2008). Therefore, to ensure this ethic, the researcher gave the participants permission to quit in participating in the study if they wish to do so. The study was conducted getting to the end of their second term of their academic year so that they can have time to prepare for their end of term exams.

3.8. Data Collection Procedure

After obtaining clearance from the university research ethics committee, the researcher approached principals of three high schools with high proportion of immigrant learners (based on the province demographic report). The research participants were immigrant learners in three schools with high immigrant population participated in the study. Ethical clearance was granted from the University of South Africa (Reference number: PERC-16073, Annexure A1).

In conducting the current study, the following ethical considerations were applied; information letter and informed consent, voluntary participation, anonymity, confidentiality, and protection from harm. Prior to participating in the survey, participants were informed in writing about the purpose of the study, what the study hopes to achieve, and the procedures involved for participating. The participants were also informed that they may withdraw or decline to participate in the survey (i.e. voluntary participation was communicated and guaranteed to the participants in the various consent forms). The participants were further

made to know that their identity will be kept in secret in any of the research material, research report and publications.

Additionally, the participants were told that all the information they share will be kept confidential and that the results from the study will be reported in aggregate forms. The researcher adhered to all the ethical considerations mentioned above and included his contact details in the informed consent letter in case the research participants had further queries about the study.

A discussion of the research methodology underpinning the study was briefly discussed with respondents. All the steps undertaken, as guided by the research questions were outlined. The statistical methods used to analyse the data were also discussed and ethical considerations applicable to the current study. The researcher had a brief meeting with the principals and educators of grade 11 and 12 of various schools about the aims and significance of the study. Participants were seated at individual tables to ensure privacy while they completed the questionnaires. The data collection session took approximately 20 minutes and included all the questions. This was conducted a month to the end of their second term of the academic year.

3.9. Data analysis procedures

The data analysis procedure provides a discussion of the various analysis used to answer the hypothesis in the study. It includes a discussion of the reliability, descriptive and inferential statistics. Correlation analysis was applied to test the strength of the relationship between the variables (academic motivation, academic self-concept, perceived support and academic performance). It further discusses the regression analysis as it was used to test for the various variables. Mediation analysis was applied to test whether academic self-concept mediated academic motivation in predicting academic performance.

3.10. Reliability analysis

Bolarinwa (2015) in his study explained that testing for reliability and how well it is able to consistently measure an observed behaviour over time is a major concern in any research study. According to him, to understand the purpose of a psychological test, it is important that the test which is used consistently measure what it intends to measure over time. He further explains that reliability is the extent or the repetition of measurements when a different a population of participants respond to a questionnaire, on different occasions, under different conditions, with supposedly alternative instruments as it measures the same behaviour. Reliability therefore is the ability of an instrument to consistently measure what it intends to measure (Bollen, 1989). Nunnally (1978) also defines reliability as the strength of measurement over a variety of conditions in which produces the same result over a period of time.

When a researcher obtains data from a social science research studies, the result may be influenced by random errors of measurement. Measurement errors may occur in a research either in the form of systematic error or random error (Foxcroft & Roodt, 2006). Howell et al., (2005) argue that the when a research lack of adequate reliability, the result would render researchers not to be able to satisfactorily draw conclusions, formulate theories, or make claims about the generalisability of their research. Furthermore, when a research shows a good reliability it may be concluded that the test used in the study is free from measurement errors as the more measurement errors occur the less reliable the test (Fraenkel & Wallen, 2003)

Among the available methods of establishing reliability, the internal consistency was relevant to the study. Internal consistency reliability in the present study was evaluated through the calculation of Cronbach's Alpha coefficients. Cronbach's alpha is therefore based

on the relationship between the variations of the scaled scores with the variation of the item scores. Poor alpha scores may result in equal to little variation in the scaled scores and greater variation in the item scores (Foxcroft & Roodt, 2006). They further added that the appropriate reliability coefficient depends on what the researcher intends to measure for. Aiken (1997) further describes a Cronbach's alpha coefficient of .60 to .70 as satisfactory for determining whether the mean scores of two groups of participants in a study are significantly different. Based on this therefore, Cronbach's Alpha of .70 or greater was considered adequate for the purpose of understanding immigrant learners' academic motivation, academic self-concept and perceived support scale in the study.

3.11. Descriptive and inferential statistics

In descriptive statistics, an analysis of data may help describe and summarise data as it gives meaning (Lowry, 2014). Descriptive statistics, however, doesn't allow a researcher to draw conclusions beyond the data gathered which is connected to answering the hypotheses questions made in a research study. They are therefore a simplified way to describe a research data.

Descriptive statistics was very essential in the study because when the researcher simply presented a raw data it would be difficult to visualise and make meaning out of the data, especially considering the number of respondents in the study. Descriptive statistics therefore enabled the researcher to present the data by providing meanings as it further allows simpler interpretation of the data. For example, the researcher had about 164 participants in the study and therefore interested in knowing gender, age and race representation as well as the overall performance of immigrant learners. Descriptive statistics allowed the researcher to do this.

3.11.1. Inferential Statistics

As discussed above, descriptive statistics provide an interpretation of results about the various characteristics data. However, on the other hand, inferential statistics related to making inferences that supports the relations found in the sample, to relations in the entire population of learners (immigrant learners). Inferential statistics therefore helped the researcher to decide, whether the differences between the sampled groups that was seen in the data are strong enough to provide support for the hypothesis that group differences exist in the entire population. Regression and mediation analysis were used in the present study.

3.11.2. Correlation analysis

Correlation is a research method where the researcher assesses the relationship between variables (Cohen, West & 2014). Correlation measures the extent of correspondence between the ordering of two random variables. Correlation and regression analysis mostly look similar, however the only difference is their method of interpretation of the relationship (Cohen, West & 2014).

When measuring correlation between variables, researchers make use of the linear product-moment correlation coefficient, also known as Pearson's correlation coefficient, to express the strength of the relationship. When variables are of quantitative nature, that is, ratio or interval scale variables, coefficient may be used. In this study, it was examined if there is positive relationship between academic motivation, academic self-concept, perceived support and academic performance among immigrant learners.

3.11.3. Regression analysis

The purpose of regression analysis in a research study helps to identify which variables have effect on a research topic (Draper & Smith, 1998). When a regression analysis

is performed, it allows the researcher to confidently determine which factors are relevant to the study, which factors can be discarded, as the researcher makes meaning of the factors that influence each other (Draper & Smith, 1998).

To understand regression analysis of the various variables in the study fully, it was essential to understand the following terms:

Dependent Variable. This is the main factor that the researcher was trying to understand or predict (i.e. academic performance).

Independent Variables. These are the factors that the researcher hypothesised may have an influence on the dependent variable (i.e. academic motivation, academic self-concept and perceived support).

3.11.4. Mediation analysis

Mediating variables are important in psychological theory and research. When performing a mediation analysis in a research, mediating variable may cause the effect of an independent variable on a dependent variable (MacKinnon, Fairchild & Fritz, 2007). When a researcher performs a mediation analysis in a research study, they construct the premise of many psychological theories. For example, in social psychology, attitudes may cause intentions, which then may further cause behaviour (Fishbein & Ajzen 1975). Mediation analysis therefore means the thought of how a third variable affects the relation between two other variables. In this study, it was hypothesised that academic self-concept will be mediated via academic motivation on academic performance.

3.12. Chapter Summary

In general, this chapter discussed the information about participants, survey items, research methods used in conducting this study and highlighted the quantitative stance adopted in this study. The researcher discussed the methodology with reference to the research approach and design. The chapter highlighted the methodology used in this study, which also influenced the researcher's selection of the context for the research, methods, tools, and participants that were discussed in this chapter. The ethical considerations were also presented in this chapter.

CHAPTER IV

RESULTS

4.1. Introduction

Chapter 4 outlines the result of the study. The correlation analysis is presented, testing the strength of the relationship between the variables. Thereafter, a multiple regression analysis was tested for the various variables. The final step was to test whether academic self-concept mediated the psychological variable (academic motivation) in predicting academic performance at school.

4.2. Hypothesis testing

The first hypothesis stated that there would be a positive relationship between, academic motivation, academic self-concept, perceived support and academic performance. Academic motivation established a very weak and statistically significant negative relationship with academic performance, ($r = -.209, p < .001$). Academic self-concept displayed a moderate significant correlation with academic performance ($r = .552, p < .001$). Similarly, with academic motivation, perceived support was found to have a very weak and statistically negative relationship with academic performance ($r = -.222, p < .001$). The first hypothesis stated that there would be a positive relationship between academic motivation, academic self-concept, perceived support and academic performance was confirmed. The first hypothesis of the study was, therefore, partly confirmed. Table 2 below provides a summary of the means, standard deviations and correlations of the variables.

Table 2*Means, Standard Deviations and Correlations*

	1	2	3	3
Mean	3.86	1.89	3.84	1.99
SD	1.26	0.38	0.57	0.45
Min	1.00	1.00	1.00	1.00
Max	7.00	5.00	5.00	5.00
1 Academic Performance	-			
2 Academic Motivation	-.209**	-		
3 Academic Self-Concept	.552**	-.321**	-	
4 Perceived Support	-.222**	.317**	-.441**	-

Note. † < .10; *p < .05; **p < .01; ***p < .001

The second hypothesis stated that academic motivation, academic self-concept and perceived support would predict academic performance. Multiple linear regression was used to test this hypothesis. Academic performance was regressed on to academic motivation, academic self-concept and perceived support. The regression model was significant, $F(3,160) = 23.621, p < .001$ and explained 29.4% of the variance in academic performance. Only one predictor variables significantly predicted the outcome variable. The standardised regression coefficients for the significant predictor was academic self-concept ($\beta = .554, t = 7.388, p < .001$). Therefore, the second hypothesis was partially confirmed. The summary of multiple linear regression statistics for the variables predicting academic performance are presented in table 3 below.

Table 3*Regression analysis*

	R ²	B	SE	β	t	Sig.
Academic Motivation	29.4%	-.137	.232	-.042	-.592	.555
Academic Self-Concept		1.222	.165	.554	7.388	.000
Perceived Support		.100	.209	.036	.479	.633

The third hypothesis stated that academic self-concept would significantly mediate the relationship between academic motivation and academic performance. A mediation analysis using the *Process* (Hayes, 2017) software was performed in order to test the proposed mediation model. Academic performance was entered as a dependent variable, and academic motivation was entered as an independent variable, academic self-concept was defined as the mediator variable and perceived support and gender were entered as covariate variables.

The mediation model showed a significant total effect of academic motivation on academic performance ($B = -.5036$, $SE = .2625$, $p < .005$). The results also showed that the total effect was reduced when academic self-concept was included as a mediator variable (direct effect: $B = -.1388$, $SE = .2328$, $p < .001$). As hypothesised, the indirect effect was significant with a point estimate of .3649 ($SE = .1465$) and a 95% confidence interval of .1065 and .6891. A Sobel test was conducted to test whether the indirect effect between academic motivation and academic performance significantly decreased by including academic self-concept as a mediator variable. The results demonstrated that the difference between .40 (the unstandardised beta value of the model without the mediator variable) and .30 (the unstandardised beta value of the model with the mediator variable) was statistically significant, $z = 2.5616$, $p < .001$. The third hypothesis was confirmed since the indirect effect of academic self-concept on the relationship between academic motivation, and academic performance was statistically significant.

4.3. Chapter Summary

A discussion of the research methodology underpinning the study was provided in this chapter. All the steps undertaken, as guided by the research questions, were outlined. The methods used to analyse the data were also discussed and ethical considerations applicable to the current study.

CHAPTER V

DISCUSSION

5.1. Introduction

This chapter provides a discussion of the results of the present study. The results are also into context with previous research. The major findings and its contributions to the understanding of immigrant learner's development of academic motivation, academic self-concept, and perceived support on their academic performance in school is summarised here. Thereafter, each contribution and its implication would be discussed in detail, demonstrating how significant psychological factors can influence learner's academic performance at school. The results of the study, previous findings in the literature, recommendations will help endorse support and help learners to do well academically. The limitations of the present study would also be outlined. Finally, a recommendation for future research would be addressed.

5.2. Research aims of the present study

The first aim of the study was to test the strength of the relationship between academic self-concept, academic motivation, perceived support and academic performance. The second aim was to investigate whether psychological factors (i.e. academic self-concept, academic motivation and perceived support) predict academic performance. Last, this study established whether academic self-concept would mediate the relationship between academic motivation and academic performance.

5.3. Major findings of the present study

The present study aimed to add to the existing body of knowledge on academic performance for immigrant learners. This study established the influence of academic motivation, academic self-concept and perceived support on academic performance. First, this study aimed to test whether there would be a positive relationship between academic motivation, academic self-concept, perceived support and academic performance. The results showed a positive relationship between academic motivation and academic performance. The results are consistent with previous literature that demonstrated an association between academic motivation (Areepattamannil, 2012, 2014; Areepattamannil, & Freeman, 2008; Hsieh, Liu, & Simpkins, 2019; Xu, & Wu, 2017). The results suggest that when immigrant learners' motivation towards their desire to attend school and academics increases, their academic performance also increases.

The results also demonstrated another positive relationship between academic self-concept and academic performance. Research has also demonstrated a positive relationship between academic self-concept and academic performance among immigrant learners in secondary schools (Areepattamannil, 2012; Areepattamannil, & Freeman, 2008). This means that the more learners see themselves as academically capable, the higher their academic performance is.

Perceived support was also demonstrated to have a positive relationship with academic performance. It could be, however, seen that the correlation was negative. This was anomalous and unexpected in the findings. Past research has also demonstrated a positive relationship between perceived support (i.e. from members of family, teachers and peers) and academic performance among immigrant learners in secondary schools (Giraldo-García, Galletta, & Bagaka's, 2019; Sibley, & Brabeck, 2017; Stewart, 2011). The results suggest

that when immigrant learners' performance may increase when they are provided with support from members of their family, teachers and peer.

Second, the study aimed to investigate the role of psychological factors; academic motivation, academic self-concept and perceived support would predict academic performance. Self-concept predicted academic performance for immigrant learners. The results are consistent with previous research showing the influence of academic self-concept on academic performance (Areepattamannil, 2012; Areepattamannil, & Freeman, 2008). This means that learners' perceptions of their academic capabilities can affect their academic performance in school.

Finally, the study aimed to establish whether self-concept would mediate the relationship between academic motivation and academic performance. The results revealed that academic self-concept mediated the relationship between academic motivation and academic performance. The results suggest that immigrant learners who are motivated toward school and academics see themselves as academically competent and may achieve higher grades in school.

Furthermore, as learners get matured in school, the development of their academic self-concept may be linked to their academic performance (Marsh, Herbert, Andrew, 2011). Marsh et al., (2011), explained that if a learner's ability perception are more firmly demonstrated in their school environment, it may result in a positive outcome on performance. Immigrant learners with high perceptions of ability may, therefore, approach new academic work with confidence and high academic performance may increase their confidence in ability.

5.4. Contributions of the present research

The present study contributed to the current understanding of how academic motivation, academic self-concept and perceived support predict immigrant learners' academic performance in South African schools. This study established empirical support for the growing evidence and importance of psychosocial factors when predicting immigrant learners' academic performance in schools.

Moreover, the present study contributed to the Social Determination Theory by applying and validating a theoretical model in the South African context. The mediation analysis extended the current theoretical knowledge about academic motivation and its relationship toward academic self-concept and academic performance, particularly among immigrant learners. It provides a broad theoretical framework to consider when predicting immigrant learners' academic performance in schools.

The present study also contributed to understanding the impact of academic self-concept as a mediator between academic motivation and academic performance among immigrant learners. Academic motivation is the only variable that has been tested as both an independent and mediator variable when predicting academic performance (Areepattamannil, 2012). However, academic self-concept has never been tested as a mediator variable when predicting the role of academic motivation on academic performance among immigrant learners.

5.5. Implications of the present research

South Africa is a country in which immigrants are integrated within the communities of the country. Immigrant learners in this study reported high levels of academic motivation, academic self-concept and perceived support. The findings suggest that learners who are

motivated, perceive themselves as academically competent and have support from home, school and friends are more likely to perform well in the academic domain. Therefore, interventions must be tailored to positively influence these psychological indicators of immigrant learners' educational wellbeing.

An intervention such as immigrant families tracking learners performance in school is an important way for learners to fulfil their aspirations as they may be motivated to achieve higher grades to study at the university. They may, therefore, assist their families to repay their effort to educate them.

Academic motivation was also reported to be important for immigrant learners' academic self-concept, which has a subsequent positive outcome on their academic performance. Educators may devise ways of arousing students' motivation to school and their academics in order to help them perform well academically.

5.6. Limitations and directions and recommendations for future research

The present study has several limitations. The first limitation is that the present study used self-report measures to assess immigrant learners' academic motivation, academic self-concept and perceived support. The validity and reliability of self-report measures are challenged when criticising self-report research (Steenkamp, De Jong, & Baumgartner, 2010). The administration of self-report measures of academic self-concept and academic motivation may result in social desirability. Social desirability may occur when research participants respond in ways that they confirm the researcher's conjecture, make them look good or, make them appear more distressed (Steenkamp et al., 2010).

To avoid the limitation in self-report research, therefore, future research examining the relationships among academic motivation, academic self-concept and perceived support

may benefit from the use of a broader range of methodologies for measuring academic motivation, academic self-concept, perceived support and academic performance in addition to the self-report methodology (Tsouloupas, Carson, Matthews, Grawitch, & Barber, 2010).

Second, data for the present study were administered and response collected from the immigrant learners studying at two secondary schools in Gauteng, a province in South Africa. Since South Africa is a culturally diverse country, the relationships among academic motivation, academic self-concept, perceived support and academic performance for the immigrant learners in the study might not be generalisable to immigrant learners across cultures in South Africa. Given the dearth of research on South African school engagement and achievement, future research involving participants hailing from diverse cultures in South Africa may help to formulate appropriate educational policies and interventions to enhance immigrant learners' motivation, engagement, and academic performance.

Finally, the present study did not measure immigrant learner's parents' academic achievements. The study, therefore, did not investigate the effect of parents' achievement while testing the mediating effect of academic self-concept on the relationship between academic motivation and academic performance. Prior studies, however, have demonstrated that parents' academic achievement might affect subsequent academic self-concept and subsequent academic motivation (Fuligni, & Fuligni, 2007; Fuligni & Hardway, 2004). Therefore, these results of the present study should be considered with caution.

5.7. Conclusion

The current study has served to highlight the impact of academic motivation, academic self-concept and perceived support on immigrant learners in South African schools. Schools may consider increasing learners' motivation to school and perception about their

competence that all migrant immigrant learners may perform well academically at school and beyond.

The present study reported the importance of positive psychological experiences for immigrant learners' academic success in South African schools. A longitudinal research design involving the same research participants with their parents' achievements will help us better understand the changes in immigrant learners' academic motivation, academic self-concept, perceived support and academic performance. Therefore, future research investigating the impact of psychological constructs, such as academic motivation, academic self-concept and perceived support, on the academic performance of immigrant learners in South African schools might benefit from the adoption of a longitudinal research design.

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APPENDIX A

Ref. No: PERC-16073

UNISA

Department of Psychology

Ethical Clearance for M/D students: Research on human participants

The Ethics Committee of the Department of Psychology at Unisa has evaluated this research proposal for a Higher Degree in Psychology in light of appropriate ethical requirements, with special reference to the requirements of the Code of Conduct for Psychologists of the HPCSA and the Unisa Policy on Research Ethics.

Student Name: Jesse Ashley

Student no.: 58538755

Supervisor: Ms. F. T. Silinda

Affiliation: Department of Psychology,
Unisa

Title of project:

Academic motivation, academic self-concept, perceived support and academic performance of immigrant learners in South African schools

The application was approved by the departmental Ethics Committee on the understanding that —

- Any and all formal procedures that need to be followed to gain access to the participants and to obtain information for the purposes of research, as required by the relevant education authorities, will be adhered to;
- All ethical conditions related to voluntary participation, informed consent, anonymity, confidentiality of the information and the right to withdraw from the research must be explained to participants in a way that will be clearly understood;
- Signed letters of informed consent is to be obtained from the schools from which the participants are drawn, and from the parents/guardians of each of the pupils participating in the study. (Persons 18 years and older may give consent on their own behalf).

Signed:



Prof P Kruger

[For the Ethics Committee]

[Department of Psychology, Unisa]

Date: 10 November 2016

The proposed research may now commence with the proviso that:

APPENDIX B

Ref. No: PERC-16073

UNISA

Department of Psychology

REQUEST FOR PERMISSION TO CONDUCT RESEARCH AT SHEIK ANTA DIOP COLLEGE

5th January, 2017.

Jesse Ashley

Department of Psychology, University of South Africa

Contact Number: 0849808147 E-mail: jesseashley25@yahoo.com

Academic self-concept, academic motivation, perceived support and academic performance of immigrant learners in South African Schools

Dear Sir,

I, Jesse Ashley am doing research with Dr. Fortunate Silinda, a lecturer in the Department of Psychology towards a Master's degree at the University of South Africa. We are inviting you to participate in a study entitled academic self-concept, academic motivation, perceived support and academic performance of immigrant learners in South African.

The main aim of the study is to examine the above mentioned impact of psychological factors (academic motivation, academic self-concept and perceived support) on the academic performance of immigrant learners in South African schools. The study further seeks to test the mediation between self-concept and academic performance via academic motivation.

Your institution has been selected because it is among one of the most immigrant dominated high schools in Gauteng.

This will be conducted in which immigrant learners' academic motivation, academic self-concept, and perceived support on their academic performance will be assessed.

Learners will be given a questionnaire to complete at the end of their first academic term. The same will be repeated for the second and third term. The questionnaire will consist of core questions which will be repeated. Learners will be assigned unique numbers linked to their names. These unique numbers will be used to identify them in the three waves.

The benefit of this study makes a contribution to the body of knowledge by investigating the impact of psychological factors on immigrant learners' academic performance in the South African context.

There are no potential risks in the study.

Feedback procedure will entail provision of the researcher's email and contact details on the consent form. Participants can therefore contact the researcher after data analysis.

Yours sincerely

.....



06/01/2017

SHEIKH ANTA DIOP COLLEGE
52 GRAFTON STREET & MULLER STREET
YEOVILLE JOHANNESBURG (RSA)
TEL/FAX: 011 643 9122

APPENDIX C

Ref. No: PERC-16073

UNISA
Department of Psychology

REQUEST FOR PERMISSION TO CONDUCT RESEARCH AT SHEIK ANTA DIOP COLLEGE

5th January, 2017.

Jesse Ashley

Department of Psychology, University of South Africa

Contact Number: 0849808147 E-mail: jesseashley25@yahoo.com

Academic self-concept, academic motivation, perceived support and academic performance of immigrant learners in South African Schools

Dear Sir,

I, Jesse Ashley am doing research with Dr. Fortunate Silinda, a lecturer in the Department of Psychology towards a Master's degree at the University of South Africa. We are inviting you to participate in a study entitled academic self-concept, academic motivation, perceived support and academic performance of immigrant learners in South African.

The main aim of the study is to examine the above mentioned impact of psychological factors (academic motivation, academic self-concept and perceived support) on the academic performance of immigrant learners in South African schools. The study further seeks to test the mediation between self-concept and academic performance via academic motivation.

Your institution has been selected because it is among one of the most immigrant dominated high schools in Gauteng.

This will be conducted in which immigrant learners' academic motivation, academic self-concept, and perceived support on their academic performance will be assessed.

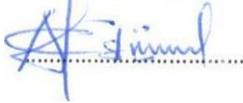
Learners will be given a questionnaire to complete at the end of their first academic term. The same will be repeated for the second and third term. The questionnaire will consist of core questions which will be repeated. Learners will be assigned unique numbers linked to their names. These unique numbers will be used to identify them in the three waves.

The benefit of this study makes a contribution to the body of knowledge by investigating the impact of psychological factors on immigrant learners' academic performance in the South African context.

There are no potential risks in the study.

Feedback procedure will entail provision of the researcher's email and contact details on the consent form. Participants can therefore contact the researcher after data analysis.

Yours sincerely



AFRICA INTERNATIONAL SCHOOL
P.O. BOX 93938
YEOVILLE 2143
TEL: 011 648 5417

APPENDIX D

Immigrant Parent's consent form

Ethics clearance reference number: Ref. No: PERC-16073

Research permission reference number (If applicable):

31st October, 2016.

Academic self-concept, academic motivation, perceived support and academic performance of immigrant learners in South African Schools

Dear Guardian,

My name is Jesse Ashley and I am doing research with Dr. Fortunate Silinda, a lecturer in the Department of Psychology towards a Master's degree at the University of South Africa. We are inviting your son/ daughter to participate in a study entitled: "Academic motivation, academic self-concept, perceived support and academic performance of immigrant learners in South African Schools".

This study is expected to collect important information from immigrant learners that impact on their academic performance in South African schools.

Your son/daughter is chosen as the study focuses on immigrant learners in grade 11 and 12 high schools in South Africa. He/she therefore falls within the group category.

Information about your son/daughter's status as an immigrant learner in the country was taken from the school. He/she therefore is qualified to participate in the study. We are expecting about 100 immigrant learners to participate in the study. The study involves questionnaires. Questions to be asked are closed ended questions. The research will be conducted in a study starting at the end of the second academic term. Participants are expected to complete the questionnaire in 20 minutes. Learners who want to redraw from the study will be allowed to do so. It will not be possible for learners to withdraw once they have submitted the questionnaire. There is no potential level of risk in the study.

Learners will be assigned unique numbers linked to their names. This research will be guided by the ethical aspects according to the University of South Africa standards. Immigrant

learner's right to privacy, confidentiality and anonymity will be ensured. The student will therefore act with sensitivity to matters of privacy through building rapport, being open and honest and clarifying throughout the process of the research. All data and information obtained will be treated as confidential as electronic information will be stored on the student's password protected computer.

This study has received written approval from the Research Ethics Review Committee of the Psychology Department, Unisa. A copy of the approval letter can be obtained from the student if you so wish.

If you would like to be informed of the final research findings, please contact Jesse Ashley on 0849808147. The findings are accessible for a year. Should you have concerns about the way in which the research has been conducted, you may contact Fortunate Silinda, email: silinf@unisa.ac.za if you have any ethical concerns.

Thank you for taking time to read this information sheet and for participating in this study.

Thank you

.....

Jesse Ashley