

The role of psychosocial factors in academic performance of first year psychology students at a historically white university.

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By

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Declaration

I, **Sipho Solomon Dlamini**, hereby affirm and declare that the following is my work, and have not been copied or plagiarised from any source without the appropriate reference for such a source. I hereby declare that no harm, to the best of my knowledge, has come to any of the participants of this study as a result of their participation. All reasonable steps have been taken to ensure that no such harm, either personally or otherwise, occurred now and in future to the integrity and wellbeing of the participants and South African society.

26/August/2016

Date

Signature

Abstract

The success rate of students in higher education has been a cause for concern in South Africa (Letseka & Maile, 2008; Department of Higher Education & Training, 2015). This has been particularly concerning for first-year students, where the rate of attrition is especially high (Letseka, Cosser, Breier, & Visser, 2010). A number of factors have been identified in past research as having an effect on academic performance, which influences attrition and graduation. These factors include age (Justice, & Dornan, 2001), gender (Buchmann, & DiPrete, 2006), socio-economic status which is confounded by race (Letseka, & Breier, 2008), type of educational background (Spren, & Vally, 2006), and whether a student is a domestic or international student (Li, Chen, Duanmu, 2009), social capital (Young & Strelitz, 2014), whether the student is a first language speaker of the language of instruction at the university (Snowball, & Boughey, 2012), student wellbeing (Quinn, & Duckworth, 2007), locus of control (Findley, & Cooper, 1983), and frequency of lecture attendance (van Wallbeek, 2004). The study was conducted at Rhodes University, a small historically white South African institution. For this study, academic performance was measured using the participant's mid-year exam results for an introductory psychology course, a course that straddles faculties. Of the 690 students registered for the course, 361 (52%) completed an electronic survey that explored the various factors associated with academic performance. A hierarchical regression analysis indicates that pre-university factors (age, gender, race, nationality, language, type of school, and socio-economic status) were the only significant predictors of academic performance, contributing 11% of the effect. Race and nationality, when all the other factors were controlled for, were the only predictors of academic performance. The implications of these findings pose troubling questions of the institutional culture at the university.

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1. Chapter 1: Introduction

1.1 Access to Higher Education

In the present democratic South Africa, the issue of access to higher education has to some degree been rectified with the introduction of the National Student Financial Aid Scheme (NSFAS). NSFAS was introduced primarily to raise the number of students who are able to access higher education, specifically those that come from disadvantaged backgrounds (Department of Higher Education and Training (DHET), 2015). However, the initial impact that NSFAS has had on increasing access for this population group was relatively small in that in 2003 only 13% of university students were funded by the scheme (Letseka & Maile, 2008). DHET (2015) reported that this number had went up significantly in 2013, with financial aid scheme having funded 416 000 (42%) students of the 983 698 students in public higher education institutions (these institutions included Further Education and Training colleges) in that academic year. According to the report by the National Financial Aid Scheme (NSFAS, 2015) in 2015 the fund assisted 186 150 students at public universities in South Africa.

This has been reflected in the increase of the number of African¹students in institutions of higher learning. Wangenge-Ouma (2012) pointed out that compared to the cohort of 1986, when white students comprised 60% of the student population while the proportions for African students was 27%, and the coloured and Indian students constituted 13% of the enrolments in that year. The 2005 cohort was almost the inverse with 62% of students being African, 25% white, and coloured and Indian populations constituting 13%. There is a significant turnaround with regards to the enrolment, and the assumption is that many of these students

¹A note of racial terminology: The term black refers to the African, coloured and Indian people who were oppressed during apartheid, the effects of which are still very evident today.

have come from lower socio-economic strata of South African society (Wangenge-Ouma, 2012; Letseka & Maile, 2008).

Bozalek and Boughey (2012) contend that public basic education has failed in that it is producing students that are underprepared for higher education or who cannot gain access to higher education, especially university. Though the number of students who are in universities was limited through caps introduced by the DHET to mitigate government spending on universities (Bozalek & Boughey, 2012; Mbembe, 2015), there is still growing concerns about the small number of disadvantaged people who have access to higher education. Wangenge-Ouma (2012) contends that 80% of schools in South Africa are ex-Department of Education and Training; these were schools that were historically designated for African, coloured and Indian pupils, and which continue to face major infrastructural challenges, teacher under-education, and mismanagement (Crouch & Mabogoane, 2001).

According to the Department of Basic Education (DoBE) (2015), the pass rate for the grade 12 learners of 2015 was at 70.7%, with 25.8% of these pupils being eligible to apply for university studies. Additionally, Wangenge-Ouma (2012) found that even though 80% of schools are ex-DET, these schools only contribute 20% of the students in universities. In real terms it is not just the low number of students matriculating with university entry (25.8%) but also of this there are only 20% coming from disadvantaged backgrounds (DoBE, 2015). It is clear that the grade 12 pass rate is low and the number of students being able to gain access to higher education is even lower. The impact of the schooling system in South Africa is a major challenge to increasing both access and throughput (Reddy, 2005; Bozalek&Boughey,2012; Crouch &Mabogoane, 2001; Letseka &Maile, 2008) alongside the funding of those students who do gain access (NSFAS, 2015; Wangenge-Ouma, 2012; DHET, 2015).

1.2 Retention in Higher Education

In 2015 South Africa saw a number of protests around the country by university students calling for a reform of the higher education system, most of which focused on the cost of university fees (Badat, 2010). Walker and Mkwanzani (2015) argue that the focus in South African higher education has shifted from access alone to how these students cope in the higher education context. The same sentiments are shared by Spreen and Vally (2006) speaking on inequality and education: they argue that the focus should shift away from a right *to* education (access) but rather to focus on rights *in* education (retention). This is a similar idea proposed by Akoojee and Nkomo (2007) in differentiating between access with success and access as participation. Access with success is not limited to the participation of the historically marginalised in South African society but is about how do higher education institutions ensure a high throughput (Akoojee & Nkomo, 2007).

In the context of South African universities, the graduation rates have come under close scrutiny by such researchers as Letseka, Breier, Cosser, and Visser (2010) and the Department of Higher Education and Training (2015). According to Letseka and Breier (2008) in 2003, the national graduation rate for students, studying towards an undergraduate degree was just 25%. However according to the Department of Higher Education and Training (2015), using the 2013 academic year, the average success rate for undergraduate students, almost five years after the study by Letseka and Breier (2008), was estimated at 81.2%.

According to the Council of Higher Education (2010) the statistics presented by the Department of Higher Education and Training (2015) on graduation rates in South African universities are not well representative of actual graduation rates as they do not reflect the year at which the students started their degrees. This problem is further confounded by the fact that students do not stay in the same course and at times they move from one university to another and are

recorded as non-completers (Council of Higher Education, 2010). Even with this problem, being considered there is consensus from both academics and the DHET (2015) that the graduation rate in South Africa is dismally low and as such, there have been great efforts to find the reasons for this. As such, the DHET (2015) graduation rates are a reflection of the total graduate population, which does not account for the length of time students have been studying their degrees. On the other hand, the Letseka and Breier (2008) figures are a reflection of the minimum time taken to complete the degree by a specific cohort of students.

According to Letseka and Maile (2008), an estimated 50% of undergraduate students will drop out of university before they have completed an undergraduate degree, with the attrition rate being the highest during the first year of university. Akoojee and Nkomo (2007) point out that these attrition rates are not something new to the democratic dispensation as the same attrition rates were being happening during colonial and apartheid regimes, from as early as 1936. Letseka and Maile (2008) reported the estimated attrition rates for first year students in 2005 was 30% and an estimated 20% dropped out in each of the second and third year of study. Given the high attrition of students and associated emotional and economic costs, it is important that the factors that predict academic performance amongst students are well understood.

1.3 Current Study

Albach, Reisberg and Rumbley (2009), in a report for the United Nations Educational Scientific Organisation (UNESCO), pondered the question of the function of higher education in a society, and conclude that Higher Education is primarily a vehicle to alleviate inequality. Mbembe (2016) argued that universities have in the past served the function of knowledge generation; he contends that higher education should aim to “redistribute as equally as possible a capacity of a special type” (p.30). If South Africa is to uplift its citizens from poverty, then quality education is key (Mwaniki, 2012; Albach et al., 2009). However, a dropout rate of 50%

in South African universities during the undergraduate years does not facilitate the advancement of this goal.

It is clear that issues of access to Higher Education are still of major concern, whilst retention is also an element that needs consideration. As such the idea by Akoojee and Nkomo (2007) that a focus on *access with success* captures both the complexity of access and retention and is paramount to this study. The current study focuses on the association of a number of factors with academic performance amongst a sample of first-year students, as this is when attrition is highest (Letseka &Maile, 2008; DHET, 2015). The factors that are explored in this research project include; age, gender, race, nationality, type of schooling, socio-economic status, language, social capital, student wellbeing, lecture attendance, and locus of control.

The literature on the Higher Education in general indicates that there is not a clear distinction in the focus on access or retention, however there is a dynamic interplay between the two that continues the low academic performance in higher education. In this current study, the aim is to look at the factors that have received the most attention in international and local research, to determine which of these factors contributes most significantly to academic performance using a first year class in an introductory psychology course.

The next chapter will review the literature on the factors that affect academic performance both internationally however with a great focus on the studies conducted in the South African context. Then the methodology chapter will look at the structure of the survey used to collect data on the first year introductory course in psychology, there after the analysis chapter and the conclusions and recommendation chapter ends this body of work.

2. Chapter 2: Factors Affecting Academic Performance

In an attempt to understand the factors that contribute to student achievement in South African higher education institutions, there have been a number of research studies in historically black institutions (HBI's) and historically white institutions (HWI's) (see Ngidi, 2007; Sommer & Dumont, 2011; Letseka et al., 2010). A number of factors have emerged from these studies, which have either been subjective accounts (Ngidi, 2007), or objective measures (Sommer & Dumont, 2011). In the present, study the focus falls onto some of the factors that have been explored in the South African context, drawing on research that has been done in South Africa and on some international studies.

The interest in the factors that are associated with academic performance amongst students is not unique to our context, but these factors are of interest to researchers and policy-makers around the world. For instance, Barry and Asamen (1989) looked at African American students in the United States of America (USA) and the factors that influence their academic achievement. Other researchers internationally have focused on underprepared or disadvantaged students and the ways that they cope in the university environment (Agar, 1990; Shankland, Genolini, Franca, Guelfi, & Ionescu, 2009; Tinto, 1975) whilst others have focused on first generation students (U.S Department of Education, 2001; Attinasi, 1989; Dennis, Phinney, & Chuateco, 2005).

The studies that have been conducted in South Africa by, for example, Letseka et al. (2010) and Letseka and Maile (2008), are qualitatively distinguishable from the studies in developed nations because South Africa is unique in that it is the majority who are the most disadvantaged, the inverse being true for countries in the west. The history of South Africa, which has been marred with colonisation and apartheid, has resulted in this inverse effect of the oppression of

the majority of the country's population being deprived of opportunities such as quality education (Stephen, Welman, & Jordaan, 2004). It is imperative then that when looking at South African higher education it is done through the lens appropriate to the unique socio-cultural context.

2.1 Overview of the factors affecting academic performance

One of the ways in which the South African context differs from other countries is the pre-university schooling system, which is marred by inequalities that affect the majority of South African children (Reddy, 2005). During apartheid, schools were segregated according to race, and schools for black children were underfunded and under-resourced, while schools for white children were well resourced. The legacy of this system is that the majority of the children still attend schools that remain under resourced in terms of both teaching and infrastructural resources (Crouch & Mabogoane, 2001). According to Letseka and Maile (2008) as late as 1993 the average white child received R4504 in subsidy each year whilst an African child received R1532 for their education from government expenditure, with R3625 and R2855 allocated for Indian and coloured pupils respectfully, a clear indicator of the inferior education that the majority of the country's population received. While funding is no longer racialized, current funding models are not enough to close the infrastructural gap. Schools in the township and rural areas continue to struggle with infrastructural challenges, whilst former Model-C schools who benefited from the apartheid funding system have continued to farewell (van Heerdan, 1995; Bozalek & Boughey, 2012; Letseka et al., 2010).

Educational disparities, however, are not just about funding and infrastructure. Most higher education institutions in the country use English as a medium of instruction whilst the vast majority of the country's population speak English only as a second or even third language (Coetzee-Van Rooy, 2010). Other institutions that were built during the apartheid era to serve

the Afrikaans speaking populations, have been found to have the same kinds of problems for second language speakers of Afrikaans (Baard, Steenkamp, Frick & Kidd 2010). Some researchers have argued that language is one of the primary barriers to academic achievement in tertiary education (Steyn, 2009; Mwaniki, 2012).

Further a concept that has gained much attention in recent times is that of social capital which has been implicated in the adjustment of first year university students both internationally and locally (Ellison, Steinfield, & Lampe, 2007; Young & Strelitz, 2014). Social Capital has been implicated in whether students feel a sense of belonging or alienation within a university setting (Young & Strelitz, 2014).

An important addition to the study is student behaviour within the university context, particularly the regularity of lecture attendance amongst first year students. Further, internationally and in the South African context researchers have investigated the effects of truancy on academic performance (Stanca, 2006; Wadesango & Machingambi, 2011).

Moreover, the present study will look at the influence of wellbeing and locus of control in academic achievement. The concept wellbeing has been predominantly studied from the perspective of life satisfaction, which was conceptualised, by Diener, Emmons, Larson and Griffin (1985) in the development of the Satisfaction with Life Scale, which assesses global life satisfaction. Recently there has been a development of a measure of wellbeing that focuses on the emotional aspect of wellbeing and has been validated for student populations in the United Kingdom (Evans, Sinclair, Barkham, Connell, & Audin, 2005) and in South Africa (Young & Campbell, 2014).

Locus of control is a factor that has been widely researched in the academic sphere particularly internationally since its conceptualisation by prominent social behaviourist Julian Rotter (1966). In the South African context, it has not enjoyed the same popularity but different forms

of it have been looked at particularly motivation (see Sommer & Dumont, 2011) with some studies measuring it directly (Hendrich & Schepers, 2004; Le Roux, Schmidt, & Schepers, 1997).

This chapter turns to the investigation of each factor individually, and how each one of the factors under investigation have been conceptualised in the literature. The review of the current literature begins with the age and gender, then looks at the question of race and inequality that have been topical in South Africa for a number of years; this will be infused with a discussion on nationality, language, social capital, wellbeing, lecture attendance, and ending with a discussion on locus of control.

2.2 Age and Gender in Higher Education

2.2.1 Gender. According to Buchmann and DiPrete (2006), their study was the first in the United States of America to look at the gender disparities in graduation rates from 1959 to 2004. They concluded that female students outperformed their male counter parts, where 58% of Bachelor's degrees being awarded to women in 2004. Similar findings were obtained by Sheard (2009) in the investigation of hardiness, commitment, age, and gender as predictors of academic performance. Additionally, Sheard (2009) found that females scored high on both hardiness and commitment, and subsequently outperformed males in academic performance.

It appears that the relationship between gender and academic performance is mediated by other factors such as commitment. Findley and Cooper (1983) also found that females outperformed males in their meta-analysis of studies investigating locus of control (a construct examined in the current study) and academic performance. According to Findley and Cooper (1983) most of the studies found that the important difference was when the female student was classified as having an internal locus of control than an external locus of control.

2.2.2 Age. In the study by Hoskins, Newstead, and Dennis (1997) they found that mature students (21 years and over at entering university) performed better than those between the ages of 18 years to 20 years old. These differences were found in other studies in which study strategies were explored (Justice & Dornan, 2001) and low-educated parents and absent fathers (Buchmann & DiPrete, 2006).

There are few studies that investigate the relationship between academic performance, age and gender, with the majority using the two variables as grouping factors when other factors are under investigation (Buchmann & DiPrete, 2006; Findley & Cooper, 1983; Justice & Dornan, 2001). However, a direct relationship between academic performance, age and gender is an important one and will be considered in the current study. As such, the current study will look at the relationship between academic performance and age using the categories proposed by Hoskins et al. (1997), and the relationship between gender and academic performance.

2.3 Inequality in Education

2.3.1 Socio-economic status. A distinguishing factor of the South African context from those that are found in the west is its deep-set inequality. According to the World Bank (2011) South Africa is one of the world's most unequal societies in terms of financial resources, when compared to 123 developed and developing countries. Using the Gini coefficient, a measure of inequality where a one denotes perfect inequality and a zero perfect equality (Mohr, Fourie, & associates, 2008), The World Bank (2011) estimates South Africa's Gini coefficient at .65. According to this there is great disparity in terms of the distribution of wealth in South Africa, most of which is race based (Statistics South Africa, 2014). Research by Letseka et al. (2010) and Reddy (2005) implicate financial resources particularly in basic education as a hindering effect in the attainment of quality education, which in turn affects students moving into university.

2.3.2 Intersection between race, socio-economic status and education. Socio-economic status is confounded by race in South Africa in general and in universities, as most people who are African come from a lower SES background and most students who are white from middle to upper socio-economic status (Letseka et al., 2010). Young and Strelitz (2014) further found that the white and black students (taken from both the extended studies program and mainstream university) formed distinct socio-economic groups. There is a clear indication from the research there are still race disparities in terms of financial resources that have implications for education and that cannot be separated from the quality of education (Spren & Vally, 2006).

However, some researchers have argued that it should be imperative at times that we look at the issue as class rather than race (Crouch & Mabogoane, 2001; Natrass & Seekings, 2001). The argument presented by these researchers is that there is a growing black (particularly African) middle class in South Africa that has been able to access former Model-C (former whites only) schools, which are better equipped than former-DET schools (Natrass & Seekings, 2001). Further, these researchers argue that the problem rests on the management of former-DET schools rather than with the financial resources (Crouch & Mabogoane, 2001).

These arguments by Natrass and Seekings (2001) seek to conclude that because of the growing black middle class, race should be abandoned as a basis for analysing the class differences in South Africa. However, Statistics South Africa (2012) reported that in 2011, 94.2% of people living in poverty were black in contrast to 0.6% of white people. Additionally, Letseka et al. (2010) in their study titled *Student Retention and Graduation Destination* which involved seven universities in South Africa found that “70% of non-completers (dropouts) compared with 56% of graduates were from the low socio-economic group while only 12% of non-completers and 21% of graduates were from the high SES group” (p.28). The results of this

study reveal that the likelihood of attrition increases as a person moves further down the SES ladder. Further the DHET (2015) reporting on data for the 2013 academic year, reported that a 78.2% success rate for African students, 81.8% for coloured, 84.8% for Indian/Asian and a success rate of 88.2 for whites. The success rate that is recorded by the DHET (2015) as stated earlier should be taken with caution, as it does not account for cohort (CHE, 2010).

It is apparent that an analysis that involves only class moves us away from the legacy that is entrenched in South Africa's history which was left in the fall of apartheid, that the inequalities in both basic and higher education is still inordinately racially bias in favour of the white minority. According to Durrheim, Mtose and Brown (2010), commenting on race in South Africa affects not only people in the lower strata of society but also the emerging African middle class. That is the feeling of marginality is not only limited to people of lower socio-economic status (Mbembe, 2015; Ratele, 2015). Letseka and Maile (2008) in their investigation on higher education institutions in South Africa revealed that in the period between 2001 and 2004, 69% of African students completed their undergraduate studies as compared to white students who averaged 84% completion. An important addition to this is the analysis made by Letseka et al. (2010), who concluded that 91% of the non-completers were in the low SES group. Essentially, than these studies show that although there may be a growing African middle class (Nattrass & Seekings, 2001) in South Africa there is still a skewed slope of race-based inequality in terms of retention and graduation. While socio-economic status is a relevant factor when considering education as a whole, it is also important that we consider race, and this research considers both factors

2.3.3 Nationality. This concept does not appear to have been adequately researched in the South African context, and even internationally. Nationality becomes an important element in the South African context, as the country is home to a large number of students from other countries particularly those from other African nations. Studies by Rienties, Beusaert,

Grohnert, Niemantsverdriet, and Kommers (2012), indicated that international students in a Netherlands based university performed better than the domestic students even as they scored lower on both academic and social integration. Similar results found by Li, Chen, and Duanmu (2009) researching Chinese international students comparing them to non-Chinese international students found that the former had better academic performance than the former. Further, both groups of international students had higher academic performance than their domestic counterparts; they attributed this to family, English writing ability, and social communication (Li et al., 2009). The current research seeks to understand whether there is a difference between the performances of international students and domestic students at a South African university.

2.4 The Issue of Language

A discussion on factors that affect academic achievement that does not take into consideration the issue of language is incomplete. In a country where there are 11 official languages, the issue of which medium of instruction is used in higher education institutions and how this has an effect on the ability for students to learn is an important one. English is the language of choice for instruction in many universities around the world, more specifically in the university in which this study was conducted. Some research has identified the issue of language as one of the barriers in academic achievement at higher education institutions this is particularly referring to English second or third language speakers (Steyn, 2009; Human-Vogal & Rabe, 2015). Recent research by Snowball and Boughey (2012) conducted at a South African university with participants from a first year economics class revealed that the students who were English first language speakers were more likely to pass than those who were second language speakers, with the white first language speakers out performing black first language speakers (Snowball & Boughey, 2012).

Stephen et al., (2004), in investigating the English proficiency of Indian compared to African students at a South African university, found that Indian students were more proficient in English and, additionally, outperformed African students academically. Additionally, the researchers argued that “white, wealthy, urbanised, English-speaking students tend to obtain the best results, and African, poor, rural students the worst” (Stephen et al., 2004, p. 42). Snowball and Boughey (2012) make the argument that the distinction based on language is one that reflects social class rather than race differentials. This postulation is based on the number of African students who have had much more privileged educational backgrounds from former Model-C schools and private schools (Snowball & Boughey, 2012). A study at the University of South Africa, a distant learning institution, revealed that amongst other factors language was the best predictor of academic achievement (Van der Westhuizen, 2013). The two recent studies reveal that whether we consider contact or distant education institutions the issue of language is one that is worth considering even though social class is an important component. Additionally, second language speakers of English are often African and are also often from low socio-economic status and in this sense African students are doubly disadvantaged in terms of language and class (Stephen et al., 2004).

2.4.1 Language accessibility. In contrast to the arguments presented by Snowball and Boughey (2012), Coetzee-Van Rooy (2010) argued that it is a myth that inadequacy in English is the main reason for low academic achievement in student populations that are not first language speakers of the language. Their argument is that South Africans and particularly Africans are multilingual which has benefits for cognitive function and by implication higher education achievement (Coetzee-Van Rooy, 2010). However, results obtained by Baard et al. (2010) in a study at an Afrikaans medium university revealed that being a second language speaker of Afrikaans does play a role in the academic performance of a student. The results showed that second language Afrikaans (even white) speakers obtained inferior marks from

Afrikaans home language speakers, regardless of race (Baard et al., 2010). The benefits of multilingualism do not appear to outweigh mother-tongue proficiency for academic performance. Although reflecting an ability to acquire language skills, there appears to be a greater benefit for mother-tongue proficiency but does not equivocate non mother-tongue speakers to their counterparts.

In a study conducted at the University of Kwa-Zulu Natal, researchers used an intervention to remediate students who were identified as struggling with Mathematics and English (Miller, Bradbury, & Acutt, 2001). These researchers followed the students over the course of their undergraduate studies, and found that it was those students who showed an increase in their language and mathematics skills that passed their second and third year (Miller et al., 2001). The results from the Miller et al. (2001) study can be taken in conjunction with the arguments made by Snowball and Boughey (2012) in which they argued that the improvement of the results from Economics 101 to Economics102 was a result of socialization of these students into academic writing skills of the university. It is imperative than that a note be made here of the question that the current research is attempting to answer, that is the extent to which language, particularly English first or second language, plays a role in academic achievement. Even with the research that indicates an acculturation (Snowball & Boughey, 2012) and remedial efforts which can be taken to mitigate (Miller et al., 2001), the evidence presented by Letseka et al. (2010) of the attrition rates in the first year of study warrants a full understanding of the relative effects of all the factors that have been mentioned as barriers to academic performance.

2.5 Social Capital

2.5.1 Social Capital in Higher Education. Putnam (2000) defined social capital as the “connections among individuals-social networks and the norms of reciprocity and

trustworthiness that arise from them” (p. 19). It is through these networks that we can gain social support, cooperation, and trust, allowing us to be a little more effective than we could have been alone (Putnam, 2000). Putnam (2000) further argued that there are two kinds of these networks of reciprocity, bonding social capital that is the strong social ties, which are homogeneous such as close friends and family, and bridging social capital, which refers to the weak ties of acquaintances we have met through either work or other activities. In the higher education sector, bridging social capital is often the relationships that foster adjustment and act as a buffer for the difficulty of leaving home.

Ellison et al. (2007) used the two concepts to explore how students who were leaving home for the first time used social media to maintain relationships with people from their communities of origin. This study found that Facebook usage, used to connect with people from home, contributed to the participant’s wellbeing and life-satisfaction (Ellison et al., 2007). Further findings were that bridging social capital had greater contribution to self-esteem and life-satisfaction than bonding social capital (Ellison et al., 2007). This research indicates the relative importance of the bridging social capital in the university context in particular. A similar study that was conducted at a South African university also found that having a higher social network presence, which resulted in an increase in bridging social capital, was slightly predictive of subjective wellbeing (Young & Strelitz, 2014).

Recent research has disputed Putnam’s (2000) argument that economic status amounts to greater social capital, findings by Young and Strelitz (2014) do however reveal that in the university context those from a low socio-economic status have less bonding capital than those from higher socio-economic status. This in turn has implications for the former group of students as they have less social support whilst in the university environment (Young & Strelitz, 2014). Bourdieu (1986), Putnam (2000), and Zhang and Anderson (2014) all argued that bridging social capital has a positive relationship to socio-economic status, that is the higher

the socio-economic status the more bridging social capital a person has. This is in stark contrast to the findings of Young and Strelitz (2014) that bridging social capital did not seem to be linked to or have a relationship to social class. Imperative, however is that the study conducted by Young and Strelitz (2014) was based on online relationships, which may differ from offline relationships, which researchers such as Putnam (2000) based their arguments. These arguments of the relationship between bridging social capital and socio-economic capital, indicates that for first-generation students, for instance, there is an additional challenge to the adjusting to university. This can be understood as a draw back to the attaining of valuable knowledge and information pertaining to the academic program. These bridging networks are invaluable as Bourdieu (1986) has argued for work, and opening opportunities for those involved in these networks.

The research on social capital has focused on an inferred relationship with academic performance rather than making a direct link between the two concepts. However, there has been some research on the effects of social support and the role that it can play in academic achievement. At a South African university, researchers found that social support had a significant effect on academic achievement particularly noting that black students in the study had less social support and had lower marks than their white counterparts (Sennett, Finchilescu, Gibson, & Strauss, 2003). Similar findings were reported by Reeve, Shumaker, Yearwood, Crowell, and Riley (2013) with a sample of student nurses concluding that students with lower levels of social support consumed more alcohol. It is important than to recognise that the network of support that an individual has is not only important for adjustment to the academic environment, but it also has implications for the behaviours that students engage in and their academic achievement (Sennett et al., 2003; Jacklin & LeRiche, 2009; Mokgele & Rothmann, 2014). There is a fundamental lack of empirical research into the relationship between social

capital and academic achievement in South Africa with a few studies attempting to conceptualise the importance of social relationships in different ways.

2.6 Wellbeing

Diener and Ryan (2009) view subjective wellbeing as “an umbrella term used to describe the level of wellbeing people experience according to their subjective evaluations of their lives” (p. 391). This view of wellbeing is based on their idea that people can judge their wellbeing based on their individual experiences. This view lends itself to the argument that subjective wellbeing is dependent on a cognitive process through which evaluation of life circumstances and environments are appraised (Rothman, Kirsten, & Wissing, 2003).

A definition offered by Engels, Aelterman, Schepens and van Petegem (2004) of wellbeing as “a positive emotional state that is the result of a harmony between the sum of specific context factors on the one hand and the personal needs and expectations towards the school on the other hand” (p. 128). This definition by Engels et al. (2004) adds the dimension of emotional state rather than wellbeing as a cognitive appraisal that is postulated in the Diener and Ryan (2009) approach, whilst simultaneously placing wellbeing in the academic context. The current study has interest in both the cognitive and affective component of wellbeing in the academic context, as research has revealed that both are inherently valuable in understanding the factors that influence academic achievement.

2.6.1 Wellbeing as a cognitive process. Diener, Emmons, Larson, and Griffin (1985) argued that wellbeing consists of three components; positive affect, negative affect and life satisfaction. Life satisfaction is the cognitive aspect of wellbeing and can be measured by asking people to evaluate globally their life rather than focusing on particular aspects of life (Diener et al., 1985). Ellison et al. (2007) used this approach in their study on Facebook usage and social capital using the Satisfaction with Life Scale (Diener et al., 1985; Pavot & Diener,

2008; Diener & Ryan, 2009). These researchers found that it was those individuals with high social capital that also reported higher levels of life satisfaction (Ellison et al., 2007). A similar study conducted by Steinfield, Ellison, & Lampe (2008) tracking student populations longitudinally and focusing on life satisfaction also yielded similar results as Ellison and colleagues (2007).

Research conducted by Mokgele and Rothmann (2014) at a South African university revealed that life satisfaction was linked to availability of study resources and social support of peers in the university. These researchers moved away from the global view of life satisfaction which was proposed by Diener et al. (1985) in focusing on specific factors that play a role in life satisfaction (Mokgele & Rothmann, 2014). Indeed, other studies of the concept of life satisfaction have been conducted from this vantage point focusing on the influence on level of institutional commitment (Human-Vogal & Rabe, 2015) and its relationship to eustress (O'Sullivan, 2011). A picture that is emerging from this research is that life satisfaction as a component of wellbeing plays an important role in a number of facets in a person's life. This sentiment is shared by Roothman et al. (2003), who used thirteen scales of psychological wellbeing to measure gender differences in life satisfaction on different spheres including social, cognitive, affective, physical, and spiritual. These researchers concluded that psychological wellbeing could be conceptualized in reference to affective, spiritual, cognitive, self and social processes (Roothman et al., 2003). Some of these factors, although conceptualized differently, have been found to be important to academic achievement.

Research by Quinn and Duckworth (2007) indicated a direct relationship between wellbeing and academic performance in a longitudinal study with primary school children. Another study by Rode et al. (2005) found that life satisfaction was a predictor of academic performance with first-generation students. Van Zyl and Rothmann (2012) recently found that students with higher levels of positive affect and life satisfaction-characterised by psychological wellbeing,

social wellbeing, and emotional wellbeing- outperformed their peers in academics who had lower levels of both positive affect and life satisfaction. This study is an important addition as it speaks to the role that wellbeing plays in academic achievement in the South African context (Van Zyl & Rothmann, 2012).

2.6.2 Wellbeing as psychological distress. Evans et al. (2005) at a United Kingdom based university researched the rationale for developing a symptoms inventory for wellbeing found that it was those students who showed marked signs of distress that performed much poorly than their counterparts who scored higher on the wellbeing scale. This research implicated wellbeing in playing a role in the academic achievement of student populations. Young and Campbell (2014) replicated the study by Evans et al. (2005) at a South African university concluding that black students were more psychologically distressed than their white counterparts were. Young and Campbell (2014) attributed the higher distress of the Black student sample to historical disadvantages and current socio-economic circumstances that often are a condition of this group of students. Although the research by Young and Campbell (2014) did not look at the relationship between psychological distress and academic performance, the Evans et al. (2005) study indicated that there is a correlation. The implications for the current study are as such that the results of studies by such researchers as Letseka et al. (2010) and Letseka and Maile (2008) of the dropout rates of the black population group are not surprising as these students are experiencing university life negatively.

Further, it is important for the current study to build on the relationship between distress and academic performance that Evans et al. (2005) found in their study in the United Kingdom and the work by Young and Campbell (2014) in South Africa. The focus on distress in student populations as an aspect of wellbeing has not been widely researched at this point however presenting with an important dimension in the research of wellbeing and its impact on academic

achievement. Understanding the role of both life satisfaction and psychological distress and the effect both may have in academic performance is a fundamental part of the current research.

2.7 Locus of Control

The last of these factors identified to be investigated in this study is the intra-psyche concept of locus of control originally conceived by the social learning theorist Julian Rotter (1966). Locus of control was conceived by Rotter (1966) as a person's evaluation of the perceived reinforcement of a given behaviour, being contingent on a behaviour he or she performs. Locus of control is divided into two attributes that vary in degree of intensity from individual to individual; these two attributes are internal locus of control and external locus of control (Rotter, 1966). Internal locus of control is defined as a person "to a large extent [believes] have control over their lives" and external locus of control those people who "are inclined to believe that circumstances beyond their control determine their fate" (Meyer, Moore, & Viljeon, 2008, p.301). Rotter (1966) understood the two concepts to be present in every circumstance and influence every sphere of a person's life, further understanding that these concepts are particularly important in learning situations. In this sense, the concept of locus of control is implicated in the university environment and influences the person's ability to learn independently.

2.7.1 Locus of Control in Higher Education. Findley and Cooper (1983) conducted a review of studies that focused on locus of control at universities in the United States of America, most studies in the review found that the more internal beliefs were associated with higher academic achievement. An important addition to this was that the studies reviewed in this analysis did not manipulate locus of control in this sense we cannot conclude that locus of control causes higher academic achievement rather that there exists a relationship between the two (Findley & Cooper, 1983). These results are substantiated by Nord, Connelly, and

Daignault (1974) who concluded that locus of control is a useful predictor of academic achievement however adding that there are other factors that play a role.

Perry (2001) added to the discussion around the concept of control postulating the concept of control environments specifically low control environments defined as “situations that inundate individuals with unpredictable events or outcomes can cause some to lose control psychologically” (p.315). This is seen to be a prominent feature of the first year of university, which has a negative impact on academic achievement and may lead to attrition early on in a student’s academic career (Perry, 2001). According to Perry (2001), in these environments students with high academic control will out-perform those with low academic control. This could be an explanation for the results of other studies finding a correlation between internal locus of control and academic achievement, that is those students with an internal locus of control (internals) compared to those with an external locus of control (externals) are better able to handle these low control environments (Findley & Cooper, 1983; Nord et al., 1974; and Perry, 2001).

2.7.2 Locus of Control in the South African context. What is of interest and concern in South Africa is the limited number of studies that have investigated the concept of locus of control; the few studies that have investigated intra-psychic traits have mostly focused on motivation. Research by Riordan (1981) testing the concept of locus of control amongst different cultural groups at a university level and with a small sample of high school students, found that the coloured student sample were more external than the black sample with the white sample being the more internal. An important notation of these results is that the study was conducted in an era where access for the black population was particularly difficult and the disparities between the three population groups were high (Riordan, 1981). Although Letseka and Maile (2008) have shown that inequalities in education have not shifted to the extent that would have been hoped for in the democratic dispensation access to disadvantaged populations

has increased. Since the research by Riordan (1981), there has been little research into the concept of locus of control in higher education and in education in general. A more recent study in South Africa was conducted by Taylor, Schepers, and Crous (2006) examining the relationship between locus of control and optimal experience. They found that locus of control was an important concept in optimal experience of work and study activities (Taylor et al., 2006). Another study focused on the perceptions that students and lectures have on the factors that affect academic achievement finding that the students mostly perceived the university environment as being out of their control (Fraser & Killen, 2005). These findings are substantiated by the concept discussed earlier by Perry (2001) of low control environments revealing the impact of locus of control in the South African context.

As mentioned before in this section locus of control has not been researched or given the attention that it has been internationally particularly in academic settings (Findley & Cooper, 1983; Nord et al., 1974; Perry, 2001; Gifford, Mianzo, & Briceno-Perriott, 2006). In South Africa, it seems the focus has been on the use and function of locus of control in organisations and/or working life (Le Roux et al., 1997; Stocks, April, & Lynton, 2012) with the results revealing the same trends as that of the academic settings in international research that those who are more internal are more successful. An interesting study with Masters in Business Administration (MBA) students found that it was individuals with a mix between internality and externality, classified as bi-local expectancy, were significantly happier than those who were strong on either pole (April, Dharani, & Peters, 2012). More studies of this kind have not been conducted in the South African context focus instead has fallen on the concept of motivation and the differences between intrinsically motivated people and those that are extrinsically motivated (see Sommer & Dumont, 2011; Goodman et al., 2011). According to Rotter's (1966) conceptualisation of locus of control, motivation can be seen as a part of locus of control as the intrinsically motivated person will display such things as autonomy, which

has been identified as part of the dimensionality of locus of control (Le Roux et al., 1997; Hendrich & Schepers, 2004; Taylor et al., 2006). It seems then that although there has not been a great research interest into the concept of locus of control in academic settings it has been either researched in other achievement settings or there has been focus on the concepts related to it. Further the research that has focused on locus of control in academic settings reveals that locus of control is an important concept for understanding academic performance, however like many of the factors included here it cannot be taken in isolation (Perry, 2001; Riordan, 1981; Nord et al., 1974; Findley & Cooper, 1983).

2.8 Lecture Attendance

One factor that is worth considering is that of lecture attendance and its impact on a student's academic performance. According to Thatcher, Fridjhon, and Cockcroft (2007), lecture attendance at university is low and particularly in psychology as lecture, attendance is often optional. In their study, Thatcher et al. (2007) reported that lecture attendance was between forty and sixty percent and additionally almost half the students attended less than half the lectures. Another relevant finding, from a different subject, this time being economics, suggests that estimates of class attendance, based on registers, often overestimate attendance because students sign for their friends (van Wallbeek, 2004). Wadesango and Machingambi (2011) examined what effect truancy has on the classroom environment in three South African universities, finding that students do not attend class because of their need to catch up on other work, they find classes boring, and can pass without attending the classes, amongst other reasons (van Schalwyk, Menkveld, & Ruiters, 2010).

2.8.1 Lecture attendance and academic performance. In an attempt to understand the effects of lecture attendance on academic performance, Thatcher et al. (2007) used nine attendances registers for different modules, including some that were not compulsory. They

discovered that lecture attendance was only moderately related to better academic performance whilst the students who attended all their classes seemed to do better than those who did not 'always' attend (Thatcher et al., 2007). Similar results were found by van Wallbeek (2004), who reports that students who always attended lectures did better by an average of 7.3% than those who did not always attend their lectures. Additionally, van Wallbeek (2004) found that when students attended no lectures as compared to students that attended all the lectures, the best performers did better than the worst performers by 4.9% indicating a moderate relationship between lecture attendance and academic achievement.

International studies have also found that the relationship between lecture attendance and academic achievement was moderately correlated in the positive direction, that is when attendance decreased so did academic performance (Crede, Sylvia & Kieszczynka, 2010; Stanca, 2006). According to Stanca (2006), lecture attendance or non-attendance is affected by a number of factors that are both environmental/social, intrinsic or psychological, which make it problematic to look at lecture attendance in isolation. In particular, such things as motivation and effort are important in attempts to discern the multitude of factors that play a role in academic achievement (Stanca, 2006; Wadesango & Machingambi, 2011). Crede et al. (2010) argued that the meta-analysis of lecture attendance indicated two mechanisms influenced academic outcomes, that of motivation and cognitive ability.

It may very well be that lecture attendance is a by-product of other factors, and particularly factors that are under investigation in the current study. An important consideration here is that some students in historically white institutions feel a sense of isolation, as is indicated by the results of Young and Strelitz (2014) on social capital and this may have an effect on lectures attendance. Mbembe (2016) postulates that it is against this alienation that the protests of #RHODESMUSTFALL and #FEESMUSTFALL became a reality. It is clear from both South African studies and international literature there is a moderate relationship between lecture

attendance and academic performance of students (Thatcher et al., 2007; Crede et al., 2010; Wadesango & Machingambi, 2011).

It is important that the arguments of Stanca (2006) that in the literature lecture attendance there has been a tendency to investigate the concept without the other multiple factors that play a role in academic performance. However, there has resulted in an improper investigation of truancy and the factors that play a major role in its occurrence. The current study is therefore able to go further than the existing literature by placing truancy in the larger context of the factors that impede or enhance academic performance.

2.9 Conclusion

At this point of the chapter, it is important to note that what has been a central theme is that there is an increased difficulty for a certain kind of student to perform well in university and a propensity of a certain kind to do better. The former kind of student is one that comes from an economically disadvantaged background (Letseka et al., 2010; Sommer & Dumont, 2011; see also Van Zyl, 2014; Jama, Mapesela, & Beylefeld, 2008), had a school education that was marked by infrastructural, and teaching challenges (Crouch & Mabogoane, 2001; Reddy, 2005; Natrass & Seekings, 2001), speaks English as a non-mother tongue language (Steyn, 2009; Snowball & Boughey, 2012; Van der Westhuizen, 2013; Miller et al., 2001), and has little personal connections at the university (Putnam, 2000; Sennett et al., 2003; Young & Strelitz, 2014; Ellison et al., 2007; Steinfield et al., 2008; Reeve et al., 2013).

In addition to this the student may have a decreased psychological and emotional wellbeing (Rode et al., 2005; Quinn & Duckworth, 2007), and may even be an international student (Li et al., 2009; Rienties et al., 2012). A further complexity is the issue of lecture attendance that has yielded mixed results in both international and local studies (van Schalwyk et al., 2010; Crede et al., 2010). The idea of intrinsic or extrinsic factor motivation is one that has also

highlighted the entanglement of the student and academic performance, as a personal experience with the university (Findley & Cooper, 1983; Sommer & Dumont, 2011). Finally, issues of age and gender have also been investigated as a possible source of valuable information for academic performance, explaining groups at risk of attrition and those who succeed at university.

The literature that has been discussed alludes to the importance of these factors in the South African university context however not in a way that it is possible to understand the low academic performance coherently. Other researchers have indicated the need for the factors to be looked at simultaneously with the other factors of performance, for instance Stanca (2006) when investigating lecture attendance, and in the understanding of the role of locus of control in academic performance, Nord et al. (1974) suggested the same. It is important that these factors are brought together in a way that allows for a clearer broader picture of their effects on academic achievement. In the literature, what we have seen up to this point there is a fragmented picture of individual factor focus that has dominated the literature. This is one particular aim of this study to bring the different factors that have dominated literature and look quantitatively at their relationship to the academic performance particularly among first year students. The second aim of this kind of research is to bring focus to the most important factors of performance as such giving a clearer picture of academic performance.

3. Chapter 3: Method

3.1 Research Design

The present study used an online survey to measure the relationship between certain a number of pre-university and post-university variables against academic performance amongst first-year psychology students. These variables included; age, gender, race, subjective and objective measures of socio-economic status, the type of high school the student attended, whether the student was a first or non-first language English speaker, social capital, wellbeing, lecture attendance, and locus of control. While the relationship between many of these variables and student academic performance has been explored previously, there is little research that explores all these factors in the South African context. Academic performance was measured using the mid-year results in an introductory psychology course.

All questions were loaded onto the online platform Survey Monkey™ and sent to all students in the introductory psychology course via their university allocated email address. Participants were sent reminders at two-week intervals for the six-week duration of the study. The data was downloaded onto an excel spreadsheet which was then uploaded onto Statistica™ for analysis.

3.2 Participants

3.2.1 Population Statistics. The participants in this study were drawn from the students registered for the introductory psychology course at a historically white university in South Africa in the first semester of 2016. A purposive sampling technique was used in this regard; as introductory psychology often straddles faculties that is, the students in the introductory psychology course are from different faculties in the university.

The total number of students who were registered for the introductory psychology course was 690. Of these 408 (59%) identify as African, 212 (31%) as white, 48 (7%) as coloured, and 22 (3%) as Indian. In the total number of the students registered for the first-year psychology course, 447 (65%) of them were female students and 243 (35%) of them were male students,

whilst the average age of the student population registered for the introductory psychology course was 27 years old. The number of first-language English speakers and those who do not speak English as a first language were close to being evenly split at for 344 (49.9%) first-language speakers and 346 (50.1%) for non-first language speakers, respectively. The nationality divisions of the students in the class were as follows: 572 (82.9%) of the students were South African, 100 (14.5%) were from the southern African region, whilst students from the rest of Africa were 14 constituting 2 %, and students from the rest of the world were 4 (.6%) of the class.

3.3 Measures

3.3.1 Demographics. The survey included questions on the participant's age, gender, nationality, and race. These demographic factors have been identified in the literature as playing a role in a number of the factors that are under investigation in this study (Findley & Cooper, 1974; Letseka et al, 2010; Young & Strelitz, 2014). These factors have also been found to have a relationship with academic performance (Buchmann & DiPrete, 2006; Rode et al., 2005; McKenzie & Schweitzer, 2001). Additionally, a question on the participants' pre-university schooling was included in the survey as a body of literature has shown that it is often the students from disadvantaged schools that struggle to cope with the demands of university (Letseka et al., 2010; Spreen & Vally, 2006; Reddy, 2005). Students who come from these under-resourced schools often speak English as a second language or, even as a third language, which adds another barrier to success at university, and so an item about home language was included in the survey (Snowball & Boughey, 2012; Miller et al., 2001; Steyn, 2009; Mwaniki, 2012).

3.3.2 Socio-economic status. Socio-economic status was measured using a scale recommended by Taylor and Yu (2009) in another study at a South African university. They postulated that the best way to measure socio-economic status is by using a measure of either

possessions or years of education, and report a strong correlation of .9 between the two measures (Taylor & Yu, 2009). The current study used the years of education as an objective measure for socio-economic status. Other similar studies have used income as a measure of SES (e.g., Letseka et al., 2010; Young & Strelitz, 2014), but with significant inflation, the income cut-offs are out of date and comparisons become complicated.

The measure of socio-economic status using parent's education in years is one that is deemed by many as a more accurate measure of the index, and has been used in a variety of context in varying degrees (see Mueller & Parcel, 1981; Hollingshead, 2011; Adams & Weakliem, 2011). The measure used six levels of educational years: *0-9 Years Schooling (4 years)*, *Completed Grade 9 (9 years)*, *Completed Matric (12 years)*, *Post-Secondary Training /Vocational Training (14 years)*, *First Degree/Diploma (15 years)*, *Honours/Masters/PhD degree (16 years)*. The assumption is that the longer a person has been in school the higher the earnings potential, and economic status (Taylor & Yu, 2009; see also Albach et al., 2009). There is no reliability data available for this measure.

In addition, a measure of subjective social status was also included. The measure that has received the most amount of research in the field of psychosocial studies is the MacArthur Subjective Scale of Social Status (see Adler & Stewart, 2007). The scale uses an image of a ladder in which the individual must place their family in one of the ten steps in terms of where the individual believes their family to belong (Adler & Stewart, 2007). The scale also has an additional question on where relative to the community the individual person places themselves (Adler & Stewart, 2007). The current study defines the community as the university in which the study was being researched, and so it gives a subjective sense of where participants place themselves in relation to other students. As the measure has been used primarily in the field of health studies, there is currently no data available for use with students in higher education context in South Africa.

3.3.3 Social Capital. The two measures of social capital (bonding and bridging social capital) were taken from the study conducted by Young and Strelitz (2014) at the same university in which the present study is located. The measures were adapted by the former researchers from a study by Ellison et al. (2014). The social capital scale is a 14-item Likert scale that measures both bonding and bridging capital with a reported Ellison et al. (2007) report a Cronbach alpha for the bridging social capital scale to be .87 in their American student population. A similar study conducted in a South African student population found that the bridging social capital scale was a reliable measure producing a Cronbach alpha coefficient of .88 (Young and Strelitz, 2014) which was almost identical to that of the Ellison et al. (2007). The five-itemed bonding social capital scale yielded a Cronbach alpha coefficient of .81 in the Ellison et al. (2007) study and .77 in the Young and Strelitz (2014) study.

3.3.4 Satisfaction with Life Scale (SWLS). The SWLS was developed by Diener et al. (1985) and measures the general judgement by an individual of their wellbeing. The scale employs a seven-point response format for each of the five items. Subsequent studies in South Africa have revealed the SWLS to be a reliable and valid measure for global life satisfaction even amongst the student population (Mokgele & Rothmann, 2014; Roothman et al., 2003; Van Zyl & Rothmann, 2012; Young & Strelitz, 2014). In their study to develop a structural model for student wellbeing, Mokgele and Rothmann (2014) reported the reliability coefficient to .89. The other South African study that reported on the reliability coefficient of the SWLS was that of Van Zyl & Rothman (2012), who report a coefficient of .78. Additionally, in the latest South African study, Young and Strelitz (2014) reported a Cronbach alpha of .81, which is slightly higher than that of Van Zyl & Rothman (2012).

3.3.5 General Population for Clinical Routines Outcomes Evaluation (GP-CORE). The scale measures wellbeing amongst the general population (Evans et al., 2007; Young and Campbell, 2014). The GP-CORE scale has items that measure wellbeing over the last week

and the client can respond according to a five-point Likert format. Evans et al. (2005) used the GP-CORE to measure wellbeing amongst a student sample in the United Kingdom and reported that the scale obtained a Cronbach alpha coefficient of .87 in their study. A study conducted by Young and Campbell (2014) amongst a student population at a South African university, which compared the South African results to the United Kingdom student data reported by Evans et al. (2005), reported a near identical coefficient of .86. The Cronbach Alpha reported by Young and Campbell (2014) indicates that the GP-CORE performs equally as well in South African student populations as it does in the United Kingdom.

3.3.6 Lecture Attendance. This variable is one that has been shown to be moderately correlated to academic performance in a number of studies both internationally and locally (Crede et al., 2010; Wadesango & Machingambi, 2011; van Wallbeek, 2004; Stanca, 2007). The present study included two questions on lecture attendance, asking participants to indicate which lectures they attended in the past week and an indication of lecture attendance over the past year. There are no psychometric properties available for these questions.

3.3.7 Internality, Powerful Others, and Chance (IPC) scale. This 24 item Likert-type scale measures internal and external locus of control and is conceptualised to view the construct of locus of control as multidimensional rather than uni-dimensional (Levenson, 1981). In the original conceptualisation of the scale Levenson (1981) obtained a Kuder-Richardson reliability score for the student populations of .64 for the Internality scale, .77 for the Powerful others scale, and the Chance factors scale yielded a coefficient of .78. Clarke (2004) found that the IPC scale was a useful measure for a student population, and reports reliability coefficients of .63 for the Internality scale, .74 for the Powerful others scale, and .82 for the Chance factors. In the only available South African study, Riordan (1981) used both the Internality-Externality scale (Rotter, 1966) and the IPC scale (Levenson, 1981) with a student sample however reporting no reliability coefficients for the IPC scale.

3.3.8 Academic Achievement. The dependent variable that was used is the actual percentage mark awarded to each students for their first semester Examination for the introductory psychology course.

3.4 Method of Analysis

The analysis used in the current study was primarily two-step hierarchical regression analysis. This method allowed the variables to be entered into the model in a temporal sequence that is, the variables are analysed in two blocks rather than individually such as in a standard regression model. This analysis serves two functions, the first being that of explaining the contribution of each block of variables. The second advantage of this model is that it also is able to control for the effects of each variable against academic performance whilst explaining the effects of each variable. The choice of a multivariate approach rather than many bivariate analyses is because many of the variables are overlapping (for example, language, SES, and type of education are likely to be racialized), and so it is important to control for the effects of these different variables.

3.5 Ethical Considerations

Ethical approval was obtained from the Psychology Department's Research Proposal and Ethical Review Committee (RPERC) and the Head of the Department Psychology, including the University's Registrar.

The survey included at the outset a confidentiality and consent page that specified that participation in the study was voluntary and that the data and information would not be shared for any purpose other than for the current study. According to the National Health Act (61 of 2003), individuals under the age of 18 years may not participate in any study without the consent of a parent/guardian. For this reason, a requirement was that participants must be 18 years or older. The research used an incentive to increase the number of participants in the form of a lucky draw cash prize of the first prize winner getting R1000, second prize R600 and third

prize getting R400. The consent form it was stated that the lucky draw for the prizes was limited to those who completed the full survey.

Considering that the current research focused on the participant's socio-economic background and race mild discomfort may be a factor however with no long lasting effects expected.

The participant's right to privacy was also adhered to in the current study as they consented to doing the research. The academic records of the participants had to be consulted for the purposes of this study, for which the individual participant was required to consent to this information being used. The Masters student conducting the study did not have access to any identifying data of the participants' whilst the supervisor who is a member of faculty was the only person who had access individual's student academic record particularly pertaining to their introductory psychology mark and no other marks were consulted.

Further, there was no direct contact between the Masters student, and the research with the participants as the method of data collection was an online survey and as such, the participant's privacy and confidentiality was maintained.

A major aspect is to do with the confidentiality of students. The current study required only the participant's student number for the luck draw that was used as an incentive for participation in the study. The incentive could not be seen as adding undue pressure for the participants to answer in a specific way as the selection of the winner of the first, second and third prizes was to be drawn at random and there was no direct link between questions answered and entry into the lucky draw. Finally, the data was stored in an encrypted file and the digital storage unit was encrypted for confidentiality purposes.

3.6 Conclusion

The literature on the different factors has shown that academic performance is influenced by a number of factors however, each factor has been investigated in isolation to the other factors.

The survey form that the current study has taken allows for the multiple factors that have been identified to be investigated within the context of other factors. The measures used in this study have been shown to be reliable in either the South African or in Higher Education contexts and outside the country. The analysis method aimed to insert the factors under investigation in a hierarchical regression model so as to ascertain the most powerful predictors of academic performance.

This study has taken all reasonable steps to ensure that no harm was endured by the participants. Additionally, the study has met the ethical requirements at the university that it was conducted.

4. Chapter 4: Results

The aim of the current research is to investigate which factors impede or enhance academic performance. A number of factors have been identified in the literature as having either a positive or negative relationship with academic performance. These factors include; race, gender, age, socio-economic status, the type of high school the student attended, class attendance at the university, wellbeing, social capital, and locus of control.

This chapter begins by looking at the descriptive data for the participants, that gives an indication of the extent to which the results may be generalized to the rest of the class population, and the reliability of the methods used to collect the data. Each of these factors has been found to be important in the university context either locally or internationally. However, in order to ascertain their relative importance with the current cohort of students a hierarchical regression analysis was used with results of the survey, with the ultimate goal of understanding which factor contributes the most to academic performance.

4.1 Descriptive Statistics

The total numbers of students who participated and completed the survey were 361, reflecting 52% participation. Those who identified as African were 204 (57%), those who identified as white were 126 (35%), whilst those who identified as coloured were 22 (6%), and those who identified as Indian were 9 (2%).

The nationality distribution of the participants' indicated that there were 293 (81.2%) South African students, 52 (14.4%) participants who reported being from countries from the southern African region, 14 (3.9%), and 2 (.6%) from the rest of the world.

The gender distribution was 248 (69%) female participants and 113 (31%) male participants. Further, the language distribution was as follows: 190 (53%) non-first language English

speakers and 171 (47%) first language speakers, whilst the average age for the sample of participants was; \bar{x} = 18 years old with an σ =1.41

Table 1 below reports the results of the chi-square analyses of the proportions according to race, gender, language and nationality for the sample and the population of first-year psychology students. The results reveal that the sample is representative of the population for these demographic indicators.

Table 1. Chi-square analysis for goodness of fit

Variable	Chi-square	Df	p-value
Race	2.22	1	0.53
Gender	1.62	1	0.20
Language	0.59	1	0.44
Nationality	2.51	3	0.46

Table 2 reports the internal consistency of the different measures. The Cronbach alpha coefficients suggest that the measures report adequate reliability, apart for Bonding Capital and Internality.

Table 2. Reliability Statistics

Measures	Cronbach Alpha
Socio-Economic Status	0.69
GP-CORE	0.95
SWLS	0.99
Bridging Capital	0.85
Bonding Capital	0.37
Internality	0.59
Powerful Others	0.71
Chance Factors	0.66

The rest of this chapter looks at the relationship between academic performance and the factors that are under investigation in the current study. These factors, namely; demographic (age, gender, and race), language, type of high school, class attendance, socio-economic status, wellbeing, social capital, and locus of control are tested individually against academic performance. The final stage of the analysis involves entering all the variables into a regression model in order to ascertain which of these factors contributed most significantly to academic performance.

4.2 Hierarchical Regression Analysis

Table 3. Hierarchical Regression Analysis

Model	R	R²	Adjusted R²	F	df	P	R² Change	P
1	0.35	0.13	0.11	15.33	6	0.00		
2	0.39	0.15	0.11	15.33	7	0.00	0.03	0.25

Table 4. Significance of predictor variable

Predictor Variable	Beta	P
Model 1		
Age	-0.02	0.72
Average Parental Education	0.02	0.67
Type of school	-0.08	0.18
Language	0.08	0.31
Nationality	0.12	0.00*
Race	0.35	0.00*
Sex/Gender	-0.08	0.14
Model 2		
Lecture Attendance	0.10	0.70
GP-CORE	-0.80	0.19
SWLS	-0.01	0.79
Bonding Social Capital	-0.05	0.36
Bridging Social Capital	-0.05	0.41
Internality	0.05	0.34
Powerful Others	-0.05	0.51
Chance Factors	-0.00	0.95

A significant regression equation was found in the current study [$F(15.33)=3.9208$, $p < .00$, with an $R^2 = .11$, indicating that the variables accounted for only 11% of the effect on academic performance for the student participants. It is important to note that the hierarchical regression found that it was only the variables in model one that accounted for the effects on academic performance.

4.3 Conclusions

The use of the hierarchical regression analysis was able to achieve the primary objective of this study, which was to understand the relative effects of the factors that were identified for investigation in this study, on academic performance. Performance was measured using mid-year results for an introductory course in psychology. The results of this analysis indicated that pre-university factors play a larger role in academic performance than do factors that occur during the university year. However, the analysis, which controlled for the effects of each factor in the model, was able to indicate that not all the factors when taken together play a significant role in the academic performance of first years.

5. Chapter 5: Discussion

5.1 The Sample

The chi-square analysis of the demographic variables in this study indicated that the participant distribution of race, nationality, gender, and language were not significantly different to those of the population. That is, the participant sample was representative of the population of the introductory psychology course. This result is important as it indicates that the subsequent results of the hierarchical regression are not confined to the participants, and can be generalized to the rest of the population.

5.2 The performance of the measures

Another important factor was the performance of the different tests that were included in the survey. The majority of these tests have been used in the South African context and have yielded reliable results however, for some the reliability statistics were not available. For the current study, the reliability statistics were collected and most of the tests were found to be reliable measures in the current study.

The measure devised by Taylor and Yu (2009) for socio-economic status using parental education was used in the current study, and was found to be a reliable measure of socio-economic status. The primary reason for using the parental years of education and excluding the McArthur Scale was due to the former's high validity in previous research to measure objectively socio-economic status (Taylor & Yu, 2009; Mueller & Parcel, 1981; Hollingshead, 2011; Adams & Weakliem, 2011).

The Cronbach alpha coefficients for the two measures of wellbeing indicated that the GP-CORE was close to the reliability data found in the study by Young and Campbell (2014) in both the current study and the Young and Campbell (2014) study the GP-CORE was found to

be a reliable measure of emotional distress. There were similar findings for the Satisfaction with Life Scale in the current study similar to the coefficient found by Young & Strelitz (2014). Further the measurement of bridging social capital was reliable which was within range of the South African study conducted by Young and Strelitz (2014) and of the international study by Ellison et al. (2007). The measure that had the lowest coefficient was that of bonding social capital, which meant that the measure's reliability was not as high as would be expected for it to be considered a reliable measure of the student's close ties in this context. These results were contrary to those found by Young and Strelitz (2014). This can be understood in that the Young & Strelitz (2014) study involved online relationships, which were used by the participants in that study to maintain relationships with friends, and family from home, whilst the present study measured face-to-face encounters in the university. The bonding social capital in the regression analysis was not statistically significant however, this should be treated with caution, as the measure did not produce a high reliability.

Additionally, the analysis for the Internality, Powerful Others, and Chance Factors (IPC) scale indicated that it was a reliable measure for use on this particular student population. There was no previous data available on South African populations for this measure however; the current research found that the coefficients were closely related to those of Clarke (2004) with a United States of America student population.

The results of the sample statistics and the performance of the tests suggests that the results of the subsequent hierarchical regression analysis have implications for the student population in the introductory psychology course

5.3 Implications of the results

5.3.2 Nationality and performance. Looking at the results of this present study on nationality they indicated that international students, the majority of whom in this study were from other African countries (99.4%), performed significantly better than the domestic students. This result is collaborated by the findings of Li et al. (2009) with Chinese students studying internationally and further by the results found by Rienties et al. (2012). Both these studies found that international students performed better academically than the domestic students regardless of the cultural background of the former (Li et al., 2009; Rienties et al., 2012).

The explanations for this finding in both international studies and the current South African study, are two pronged; the first being that the international students that move to other countries for university studies have a prior higher academic performance than the domestic students, and the second being that there maybe things other African countries, in particular, are doing that are not being done here in South Africa.

The first explanation can be seen in the study conducted by McKenzie and Schweitzer (2001) on academic performance, finding that prior academic performance predicted the current performance of the participants in that study. As such the likelihood of having an international student who does not have a prior high academic performance rate is diminished, particularly because of the cost (emotional and financial) involved in being an international student at a South African university. Rienties et al. (2012) found that whether or not the students were found to be academically and socially adjusted to the university, international students had better performance than the domestic students did. This finding is in contrast to many of the research findings in social capital and adjustment (Sennett et al., 2003; Mokgele & Rothmann, 2012) as it means that other factors other than academic adjustment may have influenced

academic performance. Prior academic performance as proposed by McKenzie and Schweitzer (2001) may account for the results in this current study for the ability of international students (those of African descent) who do not necessarily have the cultural capital but are a select group of individuals whose performance has earned them international scholarships. The trend found in the study by Rienties et al. (2012) that international students perform better than the domestic students could possibly be explained by this phenomenon.

The second explanation for the international student's performance academically is another old discussion in South Africa, that of a post-school year between high school and university. During the apartheid era in South Africa efforts to mitigate the attrition rates of white South African students, resulted in recommendations on a post-school year that was to prepare white students for the demands of higher education (Malherbe, 1965). In the post-apartheid era Nel, Troskie-de Bruin, and Bitzer (2009) argue that that there is a need for South Africa to consider a post-school year that focuses on preparing students for the demands of higher education. However, it is important to note that all universities in South Africa have extended studies programmes, which according to Young and Strelitz (2014) at the university in which the current study was conducted, the majority of the students come from the low socio-economic strata. Akoojee and Nkomo (2007) argue that the Academic Development that is currently in place in universities, which includes the extended studies program, has not been effective and as such needs to be revised.

Many countries on the African continent have a post-school year system, including Zimbabwe which has the A-level system (Kanyongo, 2005), which may account for the higher performance of some international students. This A-level system is used to prepare students for the challenges of dealing with university academia (Kanyongo, 2005), and ensures a select group move into higher education. This post-school year can be linked to the idea of prior performance as a marker for performance in higher education as those who are able to obtain

better marks during the A-levels, for instance are than accepted into universities in South Africa.

Despite the findings of the present study, which involves a very specific sample of students that while representative of the first year psychology class, is perhaps not representative of all students, where socio-economic status and type of schooling typically do predict performance, as argued by Letseka et al. (2010), Letseka and Maile (2008), and Crouch and Mabogoane (2001). The combination of negative effects can be a double challenge that faces the majority of this country's population. Reddy (2005) points out that 80% of the public schools in South Africa are former DET schools, wherein the majority of African children attend, and the majority come from low socio-economic backgrounds. The possibility of a post-year of schooling needs to be considered as a way to mitigate the effects of these challenges, and which, given that foreign student status has such an effect on academic performance, would possibly benefit both disadvantaged and privileged students.

Further research is needed in the South African context on how such a system could work, however it may be pivotal that it is included in the university context to also facilitate adjustment.

5.3.2 Race and performance. The current findings on the significance of race as a predictor of academic performance is surprising given that race has been argued to be a proxy for other variables that were under investigation in this research. This was the case in the study by Snowball and Boughey (2012), and the study Mwaniki (2012) in their respective investigations on the role of language on academic performance. These researchers along with those that investigated the role of socio-economic status (Nattrass & Seekings, 2001), and educational background (Crouch & Mabogoane, 2001) have argued that race is a proxy for all these factors in South Africa. The findings of the current study are surprising in that they

contradict the prior research and suggest that race is a significant predictor of performance when these other factors, such as language, socio-economic status and schooling history are controlled.

First, it is worth noting that student attrition is not confined to disadvantaged groups. According to Akoojee and Nkomo (2007), even at the height of the exclusion of black students in institutions of higher learning, the problems of attrition were still there. More than half a century ago, Malherbe (1965) found that attrition rates were high for white South African students doing their first year of university, which was at 47%, and attributed this to problems with the way universities taught. The attrition rates reported by Malherbe (1965) are almost identical to those presented by Letseka and Maile (2008) of 50% in the democratic era, even as the racial distributions are at 60% for African students, 27% for white students, and 13% for both coloured and Indian students (Wangenge-Ouma, 2012). Perhaps then, attrition is a particular factor for first-generation students more than it is of race as argued by such researchers as Tinto (1975), Attinassi (1989) and Dennis et al. (2005). This corresponds with race precisely because of South Africa's racist history that, until relatively recently, allowed black students only limited access to university. Unfortunately, the present study did not include first-generation student status as a variable in predicting academic performance, something that would be warranted in future research.

The first-generation status implies a lack of cultural capital. For Bourdieu (1986), to possess cultural capital is to possess the knowledge of systems of knowledge that allow one to access different spheres of society, and in this case academic knowledge. This inherently is a system that is westernised and disadvantages the black student as far as they do not possess the necessary cultural capital that is necessary to perform in higher education. The idea of a cultural injustice is brought to light in the higher education sphere, as Ratele (2015) points out that this is but one of the injustices that face black people of all classes. Mwaniki (2012) argues;

“cultures of universities in contemporary (post-apartheid) South Africa relate quite directly to the history of white political, economic, and cultural dominations...” (p. 221).

Thus, a further though closely related factor has to do with the way in which institutional culture may hinder the performance of black and first generation students at historically white universities (Higgins (2007). There is much evidence to suggest that the historically white South African universities are experienced by many black students as alienating (Gwele, 2002; Jansen, 2009; Makgoba, 1997; Potgieter, 2002), and are places where overt and subtle racism remain sadly common (Pillay & Collings, 2004). This is the bases for which the student movements on #RHODESMUSTFALL have based their struggle of alienation in the, particularly, historically white universities (Mbembe, 2016). From this vantage point, it is argued that the sense of cultural alienation from the institutions of higher learning for the majority of the country’s population has become a barrier in not only the adjustment of students as Sennett et al. (2003) found, but also a barrier to academic performance. Little wonder, then, that born free students are angry and seek to dismantle these cultures that they perceive as foreign to them as evidenced in the protests around #RHODESMUSTFALL

A related concept to institutional culture and cultural capital is that of epistemological access. du Plooy and Zilindile (2014) define epistemological access as “access to the knowledge that an institution distributes” (p. 194). Mbembe (2016) argues that the western forms of knowledge are foreign to most African people and that “There is something deeply wrong when, for instance, syllabuses designed to meet the needs of colonialism and Apartheid should continue well into the liberation era.” (p.32). This point is a fundamental shift as it puts the knowledge systems as the focal point of discussions on student’s performance in their academics. A focus on epistemological access can be argued to be a challenge that transcends the bounds of class, and focuses the challenges on the relevance of the knowledges that are distributed as one of the factors that affect the performance of black students.

Although the number of black students has increased in relation to the white student demographics, there appears to be little change in how institutions have produced and distributed knowledge (Mbembe, 2016; Higgins, 2007; Mwaniki, 2012). This has led to the disadvantaging of the black majority that has not been properly accounted for in the literature on performance. This presents a greater challenge for institutions of higher learning as the shift to a more inclusive context, and more accessible modes of learning and teaching have become pivotal. Race as a proxy for factors such as socio-economic status, type of schooling, and language, was not found to be true in this current participant group however, there appears that the influence of the university context may be alienating to most students.

The trouble appears to be that universities have not heeded the call to properly investigate what the role of institutional culture and the types of knowledge they distribute may play in academic performance. Mbembe (2016) argues that access is not merely confined to the occupation of physical space, but also changing what is being taught, and how this is being taught. This may mean that future research endeavours may do well to look at the other forms of capital that have been identified by Bourdieu (1986), for instance, in the work on cultural capital as to the role that it has in academic performance.

5.3.3 Overall regression. The results of the current study indicated that when many of these factors are analysed together and their interactions observed and controlled for they only contribute 11% of the effects on academic performance. The factors included in this study were wide ranging from demographic (age, gender, race, nationality, and language), to social factors that included socio-economic status, and language. These factors extended to personal variables such as wellbeing, and the student's relationships within the university context understood as social capital, with the addition of motivational factors such as internality, powerful others, and chance factors.

Although this study was wide ranging and inclusive of many factors that have come under investigation in numerous studies both in South Africa and in international studies, it appeared that a large number of other factors were not considered. This finding is a cause for concern as far as it means that research has been unable to capture fully the trend of success or attrition in higher education. It appears that additional factors were needed to explain the academic performance of the students.

Farsides and Woodfield (2003) investigated the role of personality and intelligence in academic performance, finding that personality traits, of the five-factor model, agreeableness and openness to experience were positively correlated to performance. The role of intelligence was also found in that study to be positively correlated with performance (Farsides & Woodfield, 2003). The addition of these two factors may have enhanced the predictive power of the model in the present study.

It is important to note that it is difficult to measure personality using a survey type of study such as the one that was used in the current study. Additionally, the measurement of intelligence is also difficult in this type of research particularly as it often involves the use of standardized measures. The problems with the use of intelligence measures is confounded by the South African context as issues of cultural fairness and ethical challenges are a cause for concern (Foxcroft & Roodt, 2009).

The results of the current study are particularly concerning for the South African context with a dropout rate of 50% during the undergraduate years (Letseka & Maile, 2008). They point to a need for urgent intervention in many spheres of South African society in order for universities to increase throughput. Researchers such as Ratele (2015) have argued that an effort towards social cohesion and -indeed higher education is rooted in cohesiveness if anything but with the environment-, without socio-economic, cultural, and political justice will inevitably fail. The

results of the current study do not negate the fact that a large proportion of student attrition is centred on the working class black student (Letseka & Maile, 2008). In essence, these results affirm that working class black students are not only economically disadvantaged, however also maybe struggling with regards to cultural, and indeed political injustice in higher education institutions.

5.4 Limitations of the research

The primary drawback of this study was that it was a survey research that did not allow for an explanation of the choices. For instance, it is difficult to ascertain the relationship between wellbeing and academic performance with regards to cause. The participant's wellbeing scores may have been as a result of decreased wellbeing because they did not perform well throughout the term or a decrease in wellbeing over the term may have had an effect on academic performance in the exam. The best that this type of study can explain is that there is a correlative relationship with regards to some of the factors and this may not necessarily be causative.

Further, it is worth noting here that the primary aim of the study was to link the most researched factors to understand their impact on academic performance. Even with this aim, it is not possible that all the factors that affect academic performance could be investigated in this study. An additional limitation to this study is that it did not look at institutional factors that may play a role in the academic performance of the students the focus in this research on students makes it of limited scope. As such, the results of the study should be taken with caution, as the regression analysis did not control for any outside factors other than the ones under investigation in the study.

Although great strides were taken to ensure that, the current study was as representative as possible. The purposive sampling of the first year psychology class was intended so that the results maybe generalizable to the rest of the university. The results of the different Chi-Square

tests indicated that it is possible for the results to be generalized to the psychology class. However, the representation of the participants may not necessarily reflect the rest of the university, and certainly not all students nationally. The picture at other historically white universities may be different, while this is almost certainly the case at historically black universities that attract a far larger proportion of working class black students than the historically white ones. This suggests that a wider sampling procedure maybe needed to investigate a university wide understanding of these factors, and were possible an inter-university sampling procedure may be indicated to understand the national trends.

6. Chapter 6: Conclusions

The primary aim of the study was to investigate which factors impede or enhance the academic performance of students in an introductory psychology course. In order to clearly understand the identified factors role in academic performance a hierarchical regression analysis was used.

The hierarchical regression analysis was used to discern the contribution of two models to academic performance. The two models were separated into Model One, which was pre-university variables or factors, which included age, average parental education, type of high school attended, language, nationality, race, and sex/gender. Model 2 were factors that were assumed to be primarily occurring in the university context these included: lecture attendance, wellbeing (measured by the GP-CORE and SWLS), social capital (distinguished into Bridging Social Capital and Bonding Social Capital), and locus of control (Internality, Powerful Others, and Chance Factors).

The results of the regression analysis found that the first model was the most significant predictor of academic performance for the introductory course in psychology, contributing 11% of the effect on academic performance. The second model accounted for 0% of the academic performance of the first year students in this study. Further, the analysis of the predictor variables indicated that it was only race and nationality that contributed significantly to the total effect on academic performance, when the effects of the other variables were controlled.

The results on race were understood within the context of institutional cultures that promote a certain kind of thinking, which is predominately western, and is foreign to most students who are in higher education. This when taken with the results of the Malherbe (1965), the study suggests that the manner in which knowledge is presented to the students continues to be an issue. Two explanations are offered: first is that because of the history of exclusion, many

current black students are first-generation students and, second, institutional cultures at this and probably most historically white institutions are alienating to many black students, which may impact on performance. Foreign African students perhaps benefit from not being subjected to an education system that carries an apartheid legacy and, of course, are typically exceptional rather than average students.

The low predictor capacity of the variables that were included in this current study was concerning as it indicated that there is much that needs consideration when looking at academic performance, which is still needed to help policy makers and practitioners in the sector to be able to make informed decisions. It was discussed in the current study that the conversation on student performance requires much more than the cosmetic changes in terms of demographics but also the manner in which knowledge is distributed. Issues of decolonization of the curricula (Mbembe, 2016) in higher education appear to be important in not only as a reflection of context, but also as a means in which there can be an increased graduation rate. Special consideration is made in this research in advancing the ideas for social and cultural justice in the higher education context, and increasing throughput as far as it serves a public good.

Albach et al. (2009) have showed that higher education has an imperative to serve the needs of the society, be it local or global, in which it operates. Although arguments about how generalizable the results of the present research are to other universities are taken into consideration, the current study adds to the conversations that need to be taken further.

Finally, it is clear that the academic performance of students in university is a complex one and requires further research and understanding. In order to mitigate the high attrition rates and subsequent low graduation rates a concerted effort that looks at higher education in a much broader way than has currently been the case. This effort requires that further studies look at the dynamic interplay between student and context that includes background and university.

Higher education institutions require deep structural and philosophical changes in order to meet the demands that are being presented to them with the current student body.

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Appendix

Consent to participate in research

Thank You for following the link to this survey about factors that predict academic performance amongst first year psychology students at Rhodes University.

All participants that complete the survey will be entered into the lucky draw to stand a chance to win one of three CASH prizes: R1000 first prize, R600 second prize, and R400 third prize

The researcher is an intern psychologist conducting the research as part of the requirements for a Master's degree at Rhodes University. The researcher may be contacted at s.dlamini@ru.ac.za. The research project has been approved by the Psychology Department's Research Proposal and Ethical review Committee and permission to conduct the research was given by the Registrar. The research is supervised by Professor Charles Young of the Psychology Department at Rhodes University, who may be contacted at c.young@ru.ac.za.

The survey takes between five to ten minutes to complete

The strictest confidentiality is observed in handling the data that is provided. No individual data will be published. All published data is aggregated and anonymous.

Some questions are of a personal nature, but you can choose not to answer any questions about aspects of your life which you are not willing to disclose.

You are invited to voice to the researcher any concerns you may have about participation in the study, or consequences you may experience as a result, and to have these addressed to your satisfaction. The Student Counselling Center may be contacted on (046) 603 7070 or alternatively the Psychology Clinic on 046-603-8502 should you feel that participation in this study caused any harm, embarrassment, or offence.

You are free to withdraw from the study at any time.

By clicking the "Next" button you are consenting to participating in the study.

Demographics

* 1. How old are you?

Factors affecting academic performance

Demographics

You may not identify with neither one of these cisgender categories, however for statistical purposes please choose one.

* 2. What is your gender?

* Female Male

Demographics

These categories are for statistical purposes and are not intended to discriminate and/or prejudice certain groups.

* 3. What is your race?

Black/African

White

Coloured

Indian

Other (please specify)

Factors affecting academic performance

Please choose one.

* 4. What language is your home language?

- English
- IsiXhosa
- IsiZulu
- Afrikaans
- Tsonga
- TshiVenda
- SeSotho
- SiTswana
- Swati
- Ndebele
- Northern Sotho(Sepedi)
- Other language

Factors affecting academic performance

Demographics

Please choose One.

* 5. What is your nationality?

- South African
- Southern Africa
- Rest of Africa
- Rest of the world

Factors affecting academic performance

Demographics

Please choose one. If you attended more than one type of school, please select the type of school you matriculated in/completed grade 12.

* 6. Specify the type of high school you matriculated in

Former Model-C (former whites only public school)

Ex-DET (formerly Black, Indian and Colored township and rural South African Public Schools)

Private

Other (please specify)

Factors affecting academic performance

Socio-economic Index

Please choose one

7. What is the highest level of Education your Father/Male guardian achieved? (Ignore this question if you do not have a father or male guardian)

Factors affecting academic performance

Socio-Economic Index

Please choose one

8. What is the highest level of Education that your mother/female guardian achieved? (Ignore if you do not have mother or female guardian)

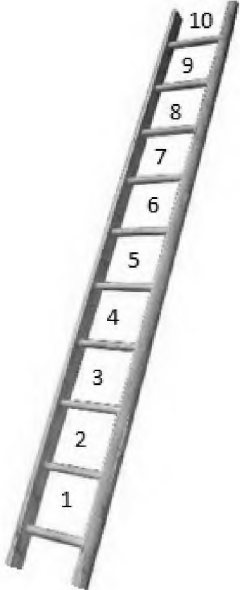
Factors affecting academic performance

Socio-Economic Index

Think of this ladder as representing where people stand in South Africa. At the top are the people who are the best off – those who have the most money, the most education, and the most respected jobs. At the bottom are the people who are worst off – who have the least money, the least education and the least respected jobs or no job.

The higher you are on the ladder, the closer you are to the people at the very top; the lower you are, the closer you are to the people at the very bottom.

Please use this to answer the two questions that follow.



Factors affecting academic performance

Socio-economic Index

* 9. Using the ladder analogy above, in terms of your own family background, where would you place yourself on the ladder?

10

9

8

7

6

5

4

3

2

1

Factors affecting academic performance

Socio-economic Index

* 10. Using the ladder analogy again, compared to other Rhodes students, where would you place yourself on the ladder?

10

9

8

7

6

5

4

3

2

1

Please note that this will not be used to identify who you are. This will be stored separately from the rest of the data and will only be used for the purpose of the lucky draw and link the data you submit now with your actual Psychology 1 June exam result.

* 11. What is your student number?

Factors affecting academic performance

* 12. Where do you live during term?

- Home with parent(s)/guardian(s)
- Digs
- University Residence

Factors affecting academic performance

Class Attendance

You can choose more than one day.

We recognize that psychology one has two lectures a day, however attendance to one of the two is sufficient.

* 13. In the week before this one, I attended my psychology one lectures on

- Monday
- Tuesday
- Wednesday
- Thursday

Factors affecting academic performance

Class attendance

* 14. Do you attend psychology one lectures?

Never

Rarely

Sometimes

Most of the Time

Always

Factors affecting academic performance

Psychological Wellbeing

The following questions are to assess your overall well being and will be taken in conjunction as an aggregated score of all participants. Should these questions arise any form of distress it is recommended that you contact the psychological services that are at the beginning of this survey. Please read each statement and think how often you felt that way in the last week.

Then click the box which is closest to this.

* 15. Over the last week

	Not at all	Only occasionally	Sometimes	Often	Most or all of the time
I have felt tense, anxious or nervous	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I have felt I have someone to turn to for support when needed	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I have felt OK about myself	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I have felt able to cope when things go wrong	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I have been troubled by aches, pains or other physical problems	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I have been happy with the things I have done	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I have had difficulty getting to sleep or staying asleep	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I have felt warmth or affection for someone	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I have been able to do most things I needed to	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I have felt criticised by other people	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I have felt unhappy	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I have been irritable when with other people	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I have felt optimistic about my future	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I have achieved the things I wanted to	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Factors affecting academic performance

Satisfaction with Life

The following questions are to assess your overall well being and will be taken in conjunction as an aggregated score of all participants. Should these questions arise any form of distress it is recommended that you contact the psychological services that are at the beginning of this survey. Please answer as truthfully as possible.

* 16. Choose one that best describes you.

	Strongly agree	Agree	Slightly agree	Neither agree nor disagree	Slightly disagree	Disagree	Strongly disagree
In most ways my life is close to my ideal	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The conditions of my life are excellent.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am satisfied with my life.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
So far I have gotten the important things I want in life.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
If I could live my life over, I would change almost nothing.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Factors affecting academic performance

Social Capital

Please read each statement carefully.

Then click the box which is closest to this.

* 17. At Rhodes University?

	Strongly disagree	Disagree	Neutral	Agree	Strongly Agree
I feel I am part of the RU community	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am interested in what goes on at RU	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
RU is a good place to be	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I would be willing to contribute money to RU after graduation	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Interacting with people at RU makes me want to try new things	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Interacting with people at RU makes me feel like a part of a larger community	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am willing to spend time to support general RU activities	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I come into contact with new people all the time	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Interacting with people at RU reminds me that everyone in the world is connected	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
There are several people at RU I trust to solve my problems	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
If I need an emergency loan of R500, I know someone at RU I can turn to	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
There is someone at RU I can turn to for advice about making very important decisions	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The people I interact with at RU would be good job references for me	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I do not know people at RU well enough to get them to do anything important	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Factors affecting academic performance

Locus of Control

Please answer all questions by choosing from the rows next to each one.

* 18. I believe

	Strongly Disagree	Disagree	Slightly Disagree	Slightly Agree	Agree	Strongly Agree
Whether or not I get to be a leader depends mostly on my ability	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
To a great extent my life is controlled by accidental happenings	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel like what happens in my life is mostly determined by powerful people	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Whether or not I get into a car accident depends mostly on how good a driver I am	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
When I make plans, I am almost certain to make them work	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Often there is no chance of protecting my personal interests from bad luck happenings.	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>
When I get what I want, it's usually because I'm lucky.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Although I might have good ability, I will not be given leadership responsibility without appealing to those in positions of power.	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>
How many friends I have depends on how nice a person I am.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

	Strongly Disagree	Disagree	Slightly Disagree	Slightly Agree	Agree	Strongly Agree
I have often found that what is going to happen will happen	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>
My life is chiefly controlled by powerful others	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Whether or not I get into a car accident is mostly a matter of luck	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
People like myself have very little chance of protecting our personal interests when they conflict with those of strong pressure groups.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
It's not always wise for me to plan too far ahead because many things turn out to be a matter of good or bad fortune	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Getting what I want requires pleasing those people above me	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Whether or not I get to be a leader depends on whether I'm lucky enough to be in the right place at the right time	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
If important people were to decide they didn't like me, I probably wouldn't make many friends	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I can pretty much determine what will happen in my life.	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>
I am usually able to protect my personal interests	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Whether or not I get into a car accident depends mostly on the other driver	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Strongly Disagree Disagree Slightly Disagree Slightly Agree Agree Strongly Agree

When I get what I want, it's usually because I worked hard for it.

In order to have my plans work, I make sure that they fit in with the desires of people who have power over me

My life is determined by my own actions

It's chiefly a matter of fate whether or not I have a few friends or many friends.