THE INFLUENCE OF ACADEMIC INTERVENTIONS ON THE ACADEMIC PERFORMANCE OF HUMAN RESOURCE MANAGEMENT STUDENTS

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DECLARATION:

In accordance with Rule G5.6.3, I hereby declare that the above-mentioned treatise is my own work and that it has not previously been submitted for assessment to another University or for another qualification.

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ABSTRACT

There are many contextual challenges related to this problem. Some of these include the mass of diverse students entering tertiary institutions and the level of educational preparedness of these students. Moreover, the lasting legacy of Apartheid brings its own challenges in relation to widening access for students entering South African higher education institutions. There are considerable repercussions related to the costs of re-educating students and re-admitting failing students into continuously growing classes. Furthermore, there is a protruding argument that the level of student readiness/preparedness is continually declining. The above-mentioned challenges place extreme pressure on higher education institutions and their staff to provide academic support to students, along with maintaining adequate pass rates. Reflecting on the challenges faced in the South African higher educational context, it is evident that the development and implementation of academic support programmes are important. These programmes are aimed at providing quality learning and teaching and counteracting declining success rates. In addition, there is a need to transform how massification of higher education takes place, to address the challenges of diverse student profiles, dropout rates and low throughput rates.

This study explored the impact of academic support interventions on academic performance by focusing on student engagement as it is the leading factor of academic success. For the purpose of this study, this was measured through the attendance of academic interventions. Student engagement may be defined as the time and energy learners dedicate to educational activities both inside and outside of the classroom, along with the policies and practices institutions use to persuade students to partake in these activities.

The findings revealed that academic interventions indeed have a positive influence on student behaviour and student academic progress. The results of this study could assist the department of HRM in determining the effectiveness of academic interventions created for first year students.

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CHAPTER 1: INTRODUCTION, BACKGROUND TO THE RESEARCH, PROBLEM STATEMENT AND OUTLINE OF THE RESEARCH STUDY

1.1 INTRODUCTION

The aim of the study was to investigate whether attending academic interventions influenced the academic performance of students enrolled for the Diploma in Human Resource Management (HRM) and the Diploma in HRM (Extended) Programmes, in particular in three of the first year modules, namely Business Management, Accounting for Personnel Practitioners and Personnel Management at the Nelson Mandela University.

The purpose of this chapter is to provide an overview of the theoretical background, problem statements and objectives of the study. In addition, a brief explanation of the method will be included, as well as an outline of the chapters of the treatise.

1.2 BACKGROUND TO THE RESEARCH

The success rates of students in higher education institutions are appalling (Strydom, Kuh & Mentz, 2010). There are several contextual challenges directly related to this problem, including the mass of diverse students entering tertiary institutions and the lasting legacy of the Apartheid education system, which to date has not been completely resolved. More importantly, students' preparedness, readiness and engagement or lack thereof to enter tertiary institutions largely contribute to their success or failure rates (Strydom et al., 2010). Bergh and Theron (2009) refer to student readiness as the point where individuals are mature enough to benefit from a learning experience such as entering a tertiary institution. In relation, preparedness can be seen as a state of readiness. The main focus of this study is on student engagement as it is the leading factor of academic success. Student engagement therefore refers to the time and energy learners dedicate to educational activities both inside and outside of the classroom, along with the policies and practices institutions use to persuade students to partake in these activities (Kuh, 2007). Student engagement is therefore positively linked to desirable learning outcomes such as critical thinking and good academic results (Carini, Kuh & Klein, 2006).

Following the first democratic election in 1994, the higher education system in South Africa has changed dramatically. Currently, the higher education system is more open and accessible, bearing diverse student populations with various mobility profiles. Students are also enrolled in flexible degree programmes where engaged academics aim at producing a reformed curriculum which assesses students in terms of competencies and outcomes (Scott, Yeld & Hendry, 2007). However, Lewin and Mawoyo (2014) question the efficacy of this 'dramatic change', given that student persistence and retention remain very ambiguous.

There are a number of factors that contribute to students' success or lack thereof at university level. In South Africa particularly, students' socio-economic and cultural backgrounds are examples of prominent contributing factors (Fraser & Killen, 2003; Petersen, Louw & Dumont, 2009). In addition to this, several students are also faced with learning disorders. Feast (2002) states that teaching methods also contribute to the engagement of students. Kuh et al. (2005) define student engagement as the amount of time and effort that a student invests in academic or other activities leading to the experiences and outcomes associated with academic success. Moreover, student engagement is also influenced by the methods the institutions use to allocate their resources, and organise learning opportunities and services in such a way as to induce the student to partake and benefit from these activities (Strydom et al., 2010).

An additional, major contributing factor to the academic success of students' is the difference between the language of teaching and the student's home language (van Dyk, Zybrands, Cillie & Coetzee, 2009). This view is similar to that of Butler and van Dyk (2004) who state that poor or no proficiency in the language of instruction has a large impact on academic success.

Several studies have indicated that one of the primary reasons for first year failure or high dropout rates of students, is academic unpreparedness, which can be directly related to student readiness (Makoni, 2010). Inequality in South Africa, as an effect of Apartheid policies, is the most prominent cause for academic unpreparedness where low graduation and throughput rates still affect black students, particularly those from poor backgrounds

(Scott et al., 2007). Apartheid policies enforced separate education opportunities and are still influencing policies and education today. Nagel (2010) states that the importance of being placed in either an English or Afrikaans class as the only mediums of instruction in secondary schools, continue to create inequality and many students do not perform adequately in tertiary education as a result. Academic literacy, which comprises reading, writing, listening and speaking, has been identified as the determinant of academic success or failure in university students (van Dyk et al., 2009). Learners, who do not speak English as their first language, are often taught and assessed in English. As imagined, students find learning new and advanced subject content very challenging, along with the complexity of learning the content in an unfamiliar language which is not their mother tongue. This is a somewhat daunting experience for many students entering various universities in South Africa.

In relation to the above-mentioned, student preparedness is a concept related to student readiness. Bergh (2011) defines readiness as the point whereby an individual has matured enough to benefit from learning experiences, such as being ready to benefit from tertiary education. At the time of this study, people applying to study at a university in South Africa, including Nelson Mandela University had to meet prescribed minimum admission requirements. This included the calculation of an APS score based on school results as well as requirements for achievement in Mathematics. Should an applicant not have met the requirements and fell within a specific band, the applicant would be sent for a National Benchmark Test (NBT), which is proficiency test designed to measure students' abilities to transfer their understanding of academic literacy. If the applicant met the requirements for passing the NBT assessment, they would be recommended for intake. At the Nelson Mandela University in 2011, the APS score for the Diploma in HRM Programme was increased from 22 to 32, as illustrated in Table 1.1.

Table 1.1: Adjusted APS admission score for the Diploma in HRM Programme at Nelson Mandela University

UNIVERSITY	PREVIOUS APS SCORE	ADJUSTED APS SCORE	MATHEMATICS SCORE REQUIRED	MATHEMATICAL LITERACY
Nelson Mandela University	22	32	Minimum Level 3 (40-49%)	Minimum Level 6 (70-79%)

Source: (https://www.mandela.ac.za/www/media/Store/documents/apply/admission/quickdoc/prospectus/2019-BES-Prospectus.pdf)

In 2011, the minimum APS score requirements were adjusted at a number of South African universities due to high failure and dropout rates amongst first year students. Table 1.1 illustrates the increase in the APS admission score for Diploma in HRM Programme at Nelson Mandela University, which was adjusted from 22 to 32 points. In addition, the table includes the minimum mathematical band required. At the Nelson Mandela University, provision was made for those students who did not meet the direct requirements for their chosen programme. At the university, the Centre for Access Assessment and Research (CAAR) administered proficiency tests to university applicants who did not meet the direct academic requirements for an academic programme, but who did meet the testing requirements as an opportunity to be assessed for admission into their academic programme of choice.

Several factors are considered before an admission's decision is made regarding whether or not an applicant could be accepted into their preferred programme. It should be noted that currently CAAR no longer exists at Nelson Mandela University, due to the introduction of a new assessment system. The university however makes provision for school-leaving students to write the National Benchmark Test. As already indicated, the NBT measures students' abilities to transfer understanding of academic literacy, quantitative literacy and Mathematics to the demands of tertiary coursework. The National Benchmark Tests are

comprised of three multiple choice tests, written as a combined Academic Literacy and Quantitative Literacy (AQL) Test, and a separate Mathematics Test (NBT, 2019).

The crux of this particular study is student engagement, specifically measured through the attendance of academic interventions. The background of the study therefore centres on the readiness and engagement of entering university students and the need for academic interventions to ensure successful programme completion as a desired outcome. The study focuses on readiness and engagement, but ultimately on the influence of interventions on the success of students enrolled for the Diploma in HRM and the Diploma in HRM (Extended) Programmes.

1.3 PROBLEM STATEMENTS

From the above overview, several problems emerge from an overview of current research.

1.3.1 Problem statement 1

First year failure and high dropout rates stem from academic unpreparedness, which imply that students are not ready to benefit optimally from learning experiences offered. The HRM department at the Nelson Mandela University has introduced interventions to assist their students with their academic preparation. It is necessary to determine whether the various academic interventions offered, impact the performance of students in the Diploma in HRM and the Diploma in HRM (Extended) Programmes.

1.3.2 Problem statement 2

Not all students are equally prepared and ready for tertiary education and as a result, previous academic successes and experiences could affect the effect of academic interventions on academic success. The research objectives are discussed in the next section.

1.4 RESEARCH OBJECTIVES

The following objectives were formulated to address the problem statements.

1.4.1 General research objective

The primary aim of this research study was to investigate the impact of academic interventions on students enrolled in the Diploma in HRM and the Diploma in HRM (Extended) Programmes at Nelson Mandela University. This was done by comparing the baseline (average of first two tests) performance of students with their final performance levels and determining whether students who attended academic interventions experienced a greater improvement in performance than those who did not attend.

A secondary objective of this study was to investigate whether the relationship between participation in academic interventions and academic success is moderated by whether students were admitted to the Diploma in HRM or the Diploma in HRM (Extended) Programme.

1.5 DELINEATION OF TERMS, CONSTRUCTS AND CONCEPTS

It is generally acknowledged that different constructs and concepts have different meanings, depending on the nature of one's perspective and research background. For the purposes of this treatise, a list of operational terms is clearly defined to minimise any confusion.

a. **Academic interventions:** A strategy used to teach a new skill, build fluency in a skill or encourage a student to apply an existing skill to new situations or settings (Wright, 1996). In the context of this study, academic interventions include academic advising interventions and tutorials.

b. **Engagement:** The amount of time and effort that a student invests in academic or other activities leading to the experiences and outcomes contributing to academic success

(Kuh, Kinzie, Schuh & Whitt, 2005). In this study, engagement is measured in terms of attendance of academic interventions.

c. **Student readiness:** Student readiness is referred to as the overall ability of students to meet basic requirements for succeeding in higher education without attending remedial classes and within the recommended minimum amount of time required to complete the qualification (Agherdien, 2014).

d. **National Benchmark Test (NBT):** The National Benchmark Tests (NBTs) are assessments for first year applicants into higher education institutions. The NBTs were designed to measure a writer's ability to transfer understanding of Academic Literacy, Quantitative Literacy and Mathematics to the demands of tertiary coursework.

e. **CAAR (Centre for Access Assessment and Research):** CAAR administers proficiency tests to university applicants who do not meet the direct academic requirements for an academic programme.

f. **HRM students:** In terms of this particular study, HRM students refer to students enrolled in the Human Resource Management Diploma Programme and Extended Programme. The National Qualifications Framework (NQF) is a comprehensive system, approved by the Minister of Higher Education and Training for the classification, registration and publication of articulated and quality-assured national qualifications and part-qualifications obtained from tertiary institutions (South African Qualifications Authority, 2014). The study focused specifically on HRM students enrolled for three modules: Business Management, Accounting for Personnel Practitioners and Personnel Management, presented on a first year level.

1.6 THE RESEARCH PROCESS

The research process involves an account of how the researcher plans to interact with the research domain to produce scientifically valid research. While this research aimed to be descriptive, explanatory and evaluative to some extent, emphasis was placed primarily on

its validity goal where the research specifically measured what it was intended to measure, and secondly on its reliability goal, which aimed to ensure consistency in the results of the study throughout the research process. The central theoretical statement is provided next.

1.7 CENTRAL THEORETICAL STATEMENT

The testable statement derived from the theoretical section of this treatise is that academic interventions influence the academic performance of first year Diploma in HRM and Diploma in HRM (Extended) Programme students. Therefore, there is a need to establish a relationship between the two. As such, the following hypothesis is formulated:

H1= Participation in academic interventions influence the academic success of students.

1.8 RESEARCH DESIGN

In the following sections, the research design is discussed with specific reference to the type, the sample, the measuring instrument, validity, reliability and ethical aspects.

1.8.1 Research type

This study is of a quantitative nature. A quasi-experimental and correlational research design was used. This method is an empirical study used to estimate the causal impact of an intervention on its target population without random assignment. Furthermore, the research design was evaluative in nature as it investigated the effect academic interventions had on the academic performance of Diploma in HRM and Diploma in HRM (Extended) Programme students and whether attending interventions contributed to student success. Labaree and Scimeca (2016) suggest that quantitative research focuses on looking at research from an objective angle, highlighting the use of numerical analysis and statistics. Furthermore, the research design was exploratory in nature as it explored the impact of academic interventions on the academic performance of Diploma in HRM and Diploma in HRM (Extended) Programme students in three first year modules.

1.8.2 Validity and reliability of the study

Validity is referred to as the ability of the test to accurately measure what it is intended to measure (Foxcroft & Roodt, 2013). Moreover, Moerdyk (2015) refers to reliability as the degree of consistency in what the study intends to measure. More specifically, a study will be reliable when it gives the same repeated result under the same conditions. A number of measures were taken to ensure that this study was both reliable and valid. To ensure that the research was conducted within an ethical framework, several ethical issues were taken into consideration. The validity and reliability of the literature and empirical study were improved by:

- Utilising accredited scholarly journals and articles as well as previous studies conducted at the Nelson Mandela University;
- Ensuring that literature was gathered in a logical and coherent manner;
- Gathering valid data; and
- Utilising the services of a statistician.

1.8.3 Population and sampling

The population included Diploma in HRM and Diploma in HRM (Extended) Programme students who were registered for the Business Management, Accounting for Personnel Practitioners and Personnel Management modules on a first year level in 2018. The sample consisted of Diploma in HRM and Diploma in HRM (Extended) Programme students who agreed to participate in the study. Other than meeting the previously mentioned criteria for inclusion, no restrictions were made with regard to the demographics of students, as the researcher wanted a diverse and representative sample.

1.8.4 Data collection

Existing data was used for the study. The data for the study was collected by having access to academic records via the HRM department. Unobtrusive measures were

therefore used for data collection. An unobtrusive measure is referred to as a method of making observations without the direct participation of the participants. Unobtrusive measures are therefore designed to illuminate a major problem faced in research, which is how participants' awareness of the research study affects their behaviour and the potential distortion of research results (Crossman, 2017). It is noted that participants in the study gave permission for accessing their records even though they did not directly participate in the process.

1.8.5 Data processing

To process the collected data, a Microsoft Excel file was compiled with information relating to academic performance and attendance of academic interventions.

1.8.6 Data analysis

Descriptive and inferential statistical analyses were used. Descriptive statistics included measures of central tendency, namely mean, standard deviations, percentages and frequency distributions.

In addition, t-tests were used to establish statistically significant differences between the results of students based on their attendance of academic interventions and their academic performance. A paired t-test is used to compare two population means where two samples exist in which observations in one sample can be paired with observations in the other sample (Shier, 2004). For this study, the results for the first two tests per module, called the baseline mark were compared against the final mark for the selected modules, with attendance of academic intervention being a moderating variable.

1.8.7 Ethical responsibility in the research

To ensure that the research was conducted within an ethical framework, the researcher applied for ethical clearance at the Nelson Mandela University (H19-BES-HRM-007). Furthermore, the following issues were considered:

- The researcher, to the best of her ability, conducted the research in a responsible manner;
- The researcher avoided plagiarism throughout the research process;
- To the best of the researcher's knowledge, the research was not biased towards any parties involved in the study; and
- In terms of confidentiality, the researcher, ensured that no identifying information was made available to any parties not directly related to the study. In addition, the researcher worked under the guidance of the Head of Department of Human Resource Management, Professor Amanda Werner, who was also the research supervisor.

1.9 ANTICIPATED VALUE OR BENEFITS OF THE STUDY

The results could assist the department of HRM in determining the effectiveness of academic interventions created for first year students.

1.10 CHAPTER LAYOUT

CHAPTER 1	**INTRODUCTION**
Chapter 2	**Literature review**
Chapter 3	**Methodology**
Chapter 4	**Presentation and analysis of results**
Chapter 5	**Conclusions**
References	

1.11 DISSEMINATION OF RESULTS/FINDINGS

Since the study was based on current students at the Nelson Mandela University, the general results of this study could be shared within the department amongst staff and students. Moreover, a copy of this treatise will be placed in the Nelson Mandela University library.

1.12 CONCLUSION

The researcher has provided a background to the research theme and defined objectives relevant to the study. In the following chapter, the proposed theoretical model, the literature report on the constructs under analysis as well as the presentation of the hypothesis of the study are discussed.

CHAPTER 2: LITERATURE REVIEW

2.1 INTRODUCTION

In Chapter 1 of this study, the main problem and sub-problems were introduced and briefly discussed. The purpose of this study was to investigate the influence of academic interventions on the academic performance of Diploma in HRM and Diploma in HRM (Extended) Programme students at Nelson Mandela University. This chapter is comprised of a theoretical overview presenting the current challenges facing higher education in South Africa, and the factors contributing toward academic preparedness, student engagement and academic support provided by higher education institutions which can be directly related to academic success. These topics will be discussed in greater detail in the sections to follow below.

2.2 CHALLENGES FACING HIGHER EDUCATION

Despite the dramatic change in the higher education system in South Africa following the first democratic election in 1994, the country still faces several challenges related to tertiary education. Following the establishment of the National Qualifications Framework (NQF) and simultaneous transformation of the education system, entry into the higher education system is more open and accessible with diverse student populations and various mobility profiles. The primary objective of the massification of higher education is to address past inequalities through creating equal educational opportunities, therefore making provision for historically disadvantaged individuals. The National Development Plan (NDP) supported this massification of education by setting a goal for South Africa to increase its university student enrolment from 1 million to 1.6 million by 2030 (DHET, 2018). Table 2.1 illustrates the number of students enrolled in higher education institutions in South Africa in addition to identifying the numbers enrolled in public and private institutions and colleges in the country. Furthermore, Figure 2.1 illustrates the percentage distribution of student enrolments in post-school education and training institutions. This is promising evidence for the transformation of the higher education system presented by

the massification of higher education, highlighting how accessible post-school education has become, given the diverse student populations that prevail.

The Council on Higher Education (CHE) highlighted progress made in terms of widening access in its twenty-year review to the Parliamentary Committee (Parliamentary Monitoring Group, 2015). Moreover, the overall enrolment at public and private higher education institutions (HEI) in South Africa has grown to 1.1 million in 2016 with public higher education institutions enrolling 975 837 students and private higher education institutions enrolling 167 408 students (Annual Stats Report, 2016). Adversely, cohort studies indicate that approximately 30% of students drop out of tertiary education in their first year, and a staggering 55% of all students never graduate (CHE, 2014). Therefore, as much as massification has taken place to widen access and address historical inequalities, major challenges emerge that relate to students with diverse profiles and mobility, as well as unacceptable first year dropout rates and low throughput rates.

Table 2.1: Student enrolment at Post-school Education and Training (PSET) Institutions in South Africa

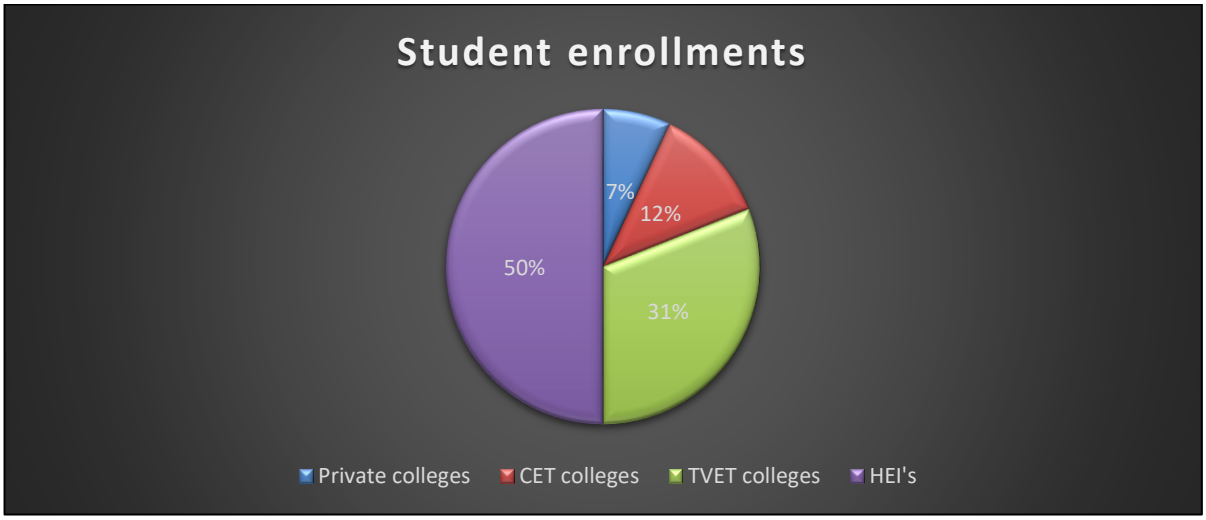
	Higher Education Institutions (HEIs)			**Colleges**				**Total**: Post-School Education & Training (PSET)
	Public	Private	Total	TVET	CET	Private	Total	
Number of institutions	26	123	**149**	50	9	279	**338**	**487**
Number of students enrolled	975 837	167 408	**1 143 245**	705 397	273 431	168 911	**1 147 739**	**2 290 984**

Source: DHET Annual Stats Report (2016)

Referring to the table above, in 2016 there were 26 public Higher Education Institutions, 123 registered private Higher Education Institutions, 50 Technical and Vocational Education and Training (TVET) colleges, 279 registered private colleges and nine

Community Education and Training (CET) colleges. A total of 229 0984 students enrolled in PSET. The majority, 975 837, enrolled in public HEIs. Almost two thirds of these students (638 001) enrolled in 2016, through contact mode of learning, whilst 337 836 students enrolled for distant learning (DHET Annual Stats Report, 2016). The 2016 DHET Annual Stats Report further highlights that enrolment in TVET colleges reached 705 397 in 2016. This figure was deduced from a count of students enrolled in the TVET colleges for each registration cycle. The NDP stated that the headcount enrolment in TVET colleges should increase to 2.5 million by 2030. Making reference to the above statistics relating to student enrolment at Post-School Education and Training (PSET) Institutions in South Africa and in relation to the massification of higher education, implementing academic support interventions for students entering university is likely to have positive implications in terms of reduced dropout rates and the overall success rates of students.

Figure 2.1: Percentage distribution of student enrolments in post-school education and training institutions in 2016



Source: DHET Annual Stats Report (2016)

Referring to Figure 2.1 above, it is evident that half of students (50%) who enrolled in post-school education and training institutions in South Africa did so through HEIs. Whilst Private Colleges had the least enrolments (7%), it was still 52% more enrolments than the previous year. Private Colleges enrolled 168 911 students in 2016, compared to 88 203 in 2015 which is just over double the previous number of students. CET Colleges enrolled

273 431 students in 2016, which was 3.6% (10 171) less students compared to 2015 enrolments. Provided that the NDP target for CET Colleges is 1 million students, it is obvious that achieving this target is difficult. When referring to the increasing number of students enrolling in higher education institutions, it is important to consider the statistics on how many students actually graduate in comparison to the number of enrolments. It is therefore necessary to contemplate the implications for success. Generally, the implications for student success are related to factors such as student motivation, student retention, engagement, academic support and other interventions provided by institutions. In addition, one must investigate the factors around the challenges faced in higher education in South Africa.

South African students entering universities do so from conditions of severe inequality regarding schooling, race, class, financial and other resources. Despite the South African higher education system being reconditioned following 1994, poor performance at school level prevails due to a lack of quality teachers, textbooks and time-on-task teaching, particularly in disadvantaged schools (Chetty & Pather, 2016). The authors further assert that policies regarding widening access to higher education have led to an increased institutional intake from poor and disadvantaged backgrounds without the 'cultural capital' considered necessary for success. It can therefore be reasoned that numerous students drop out for several reasons relating to poor programme choice, maladjustment, social circumstances, health and finance (Chetty & Pather, 2016).

The 2019 South African Budget speech conducted by the Minister of Finance at the time, Tito Mboweni stated that R111.2 billion – half of the total budget deficit – would be used to assist 2.8 million deserving students from poor and working-class backgrounds to attend universities and TVET colleges. The finance minister stated in his speech: "*Fully subsidised education and training for the poor is the government's flagship in higher education intervention"* (Mboweni, 2019). This statement accentuated the importance the government placed, at the time, on improving the education system and developing the skills needed in South Africa.

To redress imbalances in education, South Africa has in contrast to other countries that have decreased their spending on education, increased its budget for education. However, despite most of the budget being allocated to education, the education system itself is not working (Stephen, Welman & Jordaan, 2004). All of the challenges in higher education demand that South African universities prioritise focusing on the standards of academic programmes and the success rates of their students. Universities are obliged to admit a wide range of students and must ensure that students admitted have realistic opportunities to succeed. This includes changing university entry requirements standards along with introducing development programmes that emphasise outcomes-based learning in addition to accommodating a diverse student population.

The European National Plan for Equity of Access to Higher Education (2015-2019) addressed the issue of non-completion in higher education institutions and highlighted that addressing the non-completion of programmes, particularly for those in underrepresented target groups needs attention to maximise students' chances of success. Moreover, developing mechanisms to track progression, retention rates and the student experience of under-represented target groups are required. As such, it is evident that it student success and especially the success of under-represented target groups require attention. The tracking of student progress, retention rates and experience are therefore also important in South Africa, and this study aims to contribute to this challenge.

The National Plan for Higher Education (Department of Education, 2005) displayed concern for South Africa's low throughput and graduation rates which are amongst the lowest in the world. For example, it states that less than 22% of three-year generic bachelor's degree students graduate. Letseka and Maile (2008) contend that the low throughput rates place excessive pressure on National Treasury regarding subsidies and grants provided to higher education institutions without an akin return on investment. Kuh et al. (2010) also highlight that low throughput rates are considered a key challenge facing South African higher education systems.

An observable need is to establish both pre-academic and non-academic factors that students consider as influencing their first year experience. Tertiary institutions face

constant challenges with declining resources, whilst having to simultaneously deal with more students from diverse backgrounds and pressures for increased accountability and quality assurance (Kuh et al., 2010). Understanding the factors influencing first year students, mean that resources can be spent where they will have the greatest impact. As previously stated, most South Africans entering universities do so from positions of extreme inequality and are regarded as historically disadvantaged. Msila (2006) highlights that poor academic preparation of numerous students coming from historically African schools in rural townships is a great challenge to higher education institutions. Furthermore, these students most likely do not have access to resources such as computers and laboratory equipment, which are central to bridging the gap from school to tertiary education.

A major challenge South Africa faces is providing quality education that will sustain the country's human resources. Wolhuter (2006) supports this by highlighting that "any education system stands or falls by the quality of its teacher education programmes" (Wolhuter, 2006, p.124). A need for exceptional quality teaching programmes is inferred by good quality teachers. The recruitment of passionate, committed and enthusiastic teachers is therefore of paramount importance for the country.

South Africa's national concern regarding the quality of school education, is aggravated by high teacher attrition rates, which present a forthcoming scarcity of teachers in the country. To ensure the supply of excellent teachers, it is critical that higher education institutions understand the nature of the student entering the teaching profession. Wolhuter, van der Walt, Potgieter, Meyer and Mamilala (2012) assert that often students enrolling for a teaching qualification do so as a last resort. This is supported by Pitsoe (2013), who states that teaching has become a 'stopgap' profession or profession of 'last resort'. This mentality results in many prospective teachers not being intrinsically motivated or being passionate about the profession (Wolhuter et al., 2012). A secondary consequence is that scholars do not develop an aptitude or a love for learning and are ill-equipped to enter tertiary education.

A result of the massification of education, is that more scholars qualify for tertiary education, yet when they enter, they are less prepared in terms of real accomplishment (James, 2007). According to this author, the under preparedness of students is reflected in the perception of academics that students' lack basic skills to undertake higher education. This perception is constantly verbalised in the context of declining education standards. Msila (2006) contends that because teachers tend to let scholars choose modules that are easier to pass, students are more likely end up lacking the necessary 'depth' or critical thinking to meet challenges encountered by university education. Faculty staff members then face additional student challenges related to the language and communication content in various programmes.

Wright (1996) as quoted by Thomas (2002), highlights that students are often blamed for being poorly prepared for tertiary education and/or lacking academic ability. Apart from this, the extensive increase in the number of students participating in higher education is seen as cause for declining input standards (Wright, 1996). James (2007) however, contends that in higher education settings, academic standards are defined by the value added during higher education rather than by achievement prior to entry. Strydom et al. (2010) are in accordance with this and indicate that it is therefore evident that institutions have minimal influence over the educational preparedness of students entering the system. The above reflects a clear indication that throughput rates and completion rates cannot be regarded as the only criteria of quality and high standards.

A further challenge noted in higher education is that increased student diversity has led to a changing student population (Keane, 2006). This diversity implies differences in prior education, social and family background, gender, age, life circumstances, motivation to study, membership of minority groups and disabilities. Fiske (2004) highlights that a major concern with regard to student diversity is that students, who previously were most at risk of dropping out of tertiary education, come from low-income families, are students of colour and are first generation students whom now constitute a notable proportion of all students in higher education. In accordance, Chetty & Pather (2015) affirm the importance of student diversity and its influence on academic outcomes and persistence. In this

respect, the author argues that a more vigorous profiling of first year students is vital in the academic planning process.

Students leave tertiary educations with study debt and without any academic credentials to assist them in repaying this debt. Roberts and McNeese (2010) add that students who do not graduate and have nothing to display for their efforts, become excluded from higher education and discourage other people who are considering attending tertiary education institutions.

When taking into consideration all of the above-mentioned findings, the challenges facing higher education are vast and stem from different sources. Along with the massification of higher education institutions, are many unprepared students, ever increasing class sizes, growing diversity and the need to accommodate the needs of first generation learners. Moreover, long-term institutional, personal and societal demands are evident for increased numbers of graduates to be well-equipped for the global workplace. The subject of accountability is therefore critical in this case and is directly associated with ensuring that faculty staff members are well-positioned regarding their teaching and learning strategies to combat all of these challenges. Table 2.2 provides a summary of the main challenges faced in higher education, as discussed in this section.

Table 2.2: A summary of main challenges faced in higher education as gleamed from the theoretical study

Challenges	Author or source
Massification of tertiary education	CHE Annual Report (2013/14)
Diverse student population (e.g. race, gender etc.)	Keane (2006)
Under preparedness of students	Msila (2008)
Financial	Chetty & Pather (2016)
Declining resources in institutions	Kuh et al. (2010)

2.3 FACTORS CONTRIBUTING TOWARDS STUDENT UNDER PREPAREDNESS

While the previous section presented challenges facing higher education in South Africa, this section focuses specifically on the factors affecting student preparedness.

Academic under preparedness of first year students and its effect on throughput rates is not only a South African concern, but also an international one and is well-documented in literature. Research indicates that in the academic domain, under preparedness stems from a combination of a lack in English and mathematical proficiency, as well as a lack of effective study skills (du Plessis & Gerber, 2012). With South Africa being a country rich in language diversity and having eleven official languages, it is surprising how much inequality still exists in the secondary school system (Lafon, 2009). Nagel (2010) asserts that the importance placed on education in English and Afrikaans as the primary medium of instruction, is one reason why so many students are not performing adequately in tertiary institutions. This 'unpreparedness' in terms of language could be the result of insufficient instructing at secondary school level, and particularly in a subject such as English, which is required for completing all academic activities including assessment, presentations, and teaching and learning at university level. In addition, regular changes with regard to Grade 12 examinations and language policies are contributing factors linked to student unpreparedness (van Dyk et al., 2009). These authors further contend that academic literacy, which is comprised of reading, writing, listening and speaking, is a main determinant of success or a lack of success in university students (van Dyk et al., 2009). The point is that students who do not speak English as their first language are being assessed in English. Not only do these students have to adapt to learning new and advanced subject matter, but they also have to learn subject matter in a language that is different to that of their mother tongue.

Research conducted by the South African Institute of Physics (SAIP) and the Council for Higher Education (CHE) in more than 20 South African universities, revealed that "school mathematics is failing university entrants, and that to a great extent" (Nkosi, 2013). The report highlights the 'under preparedness' of students and refers to curriculum reform that left students with a lack of adequate mathematical and essential problem-solving skills. In

this respect, mathematics is considered the gateway subject requirement for university access.

Wolhuter (2011) states that the problems students face at the end of their senior secondary phase stem from a deep-seated failing throughout the school system. Local and international assessments divulge that South African students are consistently performing poorly in numeracy, reading literacy, mathematics and science. For example, the South African Democratic Teachers' Union (SADTU) claim that the new curriculum reform has led to two casualties, namely the teacher and the student. It can therefore be reasoned that firstly, students' levels of competency have dropped and secondly, teachers have battled to adapt to the content presented by the new curriculum (Nkosi, 2013). One could reason that if teachers, who are the embodiment of knowledge, are grappling with the curriculum, then surely a serious problem lies with the state of education in South Africa.

Based on the afore-mentioned, serious admonition for systematic change is necessary. As apparent, the poor success rates of students in the public higher education system encapsulates the dysfunctionality in the education system itself. However, there are no easy and immediate solutions to these challenges. To reduce the high dropout rates, sufficient effort needs to be made to facilitate a major improvement in the quality of secondary education. In addition to this, more attention needs to be focused on fixing the undergraduate university and college system as it stands. This will however take time, and requires extensive support including financial input and support from the government to assist PSET institutions for future succession planning.

2.4 MEASUREMENT OF STUDENT READINESS

Due to the general lack of readiness for tertiary education, an institution for higher learning may measure student readiness as part of the admission process. Admission is a process whereby people and mostly young people, enter tertiary education. Admission methods vary extensively from country to country and institution to institution (du Plessis & Gerber, 2012). Admission requirements also vary according to programme. In South Africa, the

statutory minimum requirement for degree studies is a National Senior Certificate (NSC) with an achievement rating of 4 (50-59%) in four recognised NSC 20 credit subjects. For diplomas, the statutory minimum requirement is a rating of 3 (40- 49%) or better in four recognised NSC 20 credit subjects. Nel and Kistner (2009) highlight public concerns regarding results for the NSC, but mention that there is insufficient data available from cohort studies to test the accuracy of NSC results as a reliable predictor of students' performance at universities.

In South Africa, higher education institutions, including the university where this study was conducted, have access to a National Benchmark Test (NBT) which, once conducted, provides universities with information about student readiness that is additional and complimentary to school-leaving results. The results of these tests are used for admission decisions and specifically to place entry-level students in appropriate programmes such as regular, augmented, extended, bridging or foundation programmes (Griesel, 2006). NBTs measure students' academic readiness for university. The introduction and use of an NBT is acknowledgement of the diversity found amongst student applicants with regard to educational background and readiness. NBTs illustrate measures that are taken by universities to assess and profile students so that they can be referred to appropriated courses, but also receive appropriate support.

The NBT was designed to:

- Assess the entry level academic, quantitative literacy and mathematics proficiency of students;
- Assess the relationship between entry level proficiency and school-level exit outcomes; and
- Inform the development of curriculum for education programmes.

The core areas of the NBT are:

- Academic Literacy (AL): Students' ability to successfully deal with the demands of the academic coursework in the language of instruction;

- Quantitative Literacy (QL): Students' ability to cope in situations or solve problems of a quantitative nature in realistic contexts relevant to higher education; and
- Mathematics (Maths): Students exhibiting their ability to understand mathematical concepts forming part of the NSC Mathematics curriculum.

Table 2.3 indicates the levels of proficiency on the NBT and appropriate action regarding admission.

Table 2.3: Performance levels of NBTs applicable to diploma students

Level	Description
100% Proficient	Performance in domain areas suggests that academic performance will not be adversely affected. If admitted, students should be placed in regular programmes of study. Academic Literacy (AL) (61%), Quantitative Literacy (QL) (66%) and Maths (MAT) (67%).
Intermediate	Challenges in domain areas identified such that it is predicted that academic progress will be affected. If admitted, students' educational needs should be met in a way deemed appropriate by the institution (e.g. extended or augmented programmes, special skills provision). AL (33%), QL (34%) and Maths (38%).
Basic 0%	The basic category indicates that students are under prepared for university study.

Source: NBT (2019)

Applicants who are 100% proficient are considered ready and able to cope with the demands of tertiary study programmes. The intermediate category indicates that applicants will face challenges with their academic performance in university and will require academic support, whereas the basic category indicates that applicants are unprepared for university. Extended programmes were introduced at universities in SA to improve the academic performance of at-risk students resulting from their educational backgrounds. The primary purpose of an extended qualification is to support educationally

disadvantaged students who are under prepared despite meeting the minimum admission criteria. These students are placed in an extended curriculum to aid them with the academic foundations to successfully complete their studies (CHE, 2013).

While considering the readiness levels of student applicants, it is also useful to consider what the characteristics of a successful student are. Comparing the readiness levels of student applicants to the profile of a successful student can assist in identifying the gap that students have in terms of readiness so that appropriate support interventions can be introduced. In the next section, the concept of a successful student is explored and described.

2.4.1 The successful student

According to Conley (2010, p.49), students are considered adequately prepared when they can master four dimensions of college and career readiness, namely key cognitive strategies, key content knowledge, contextual skills and awareness. The author highlights a list of general characteristics describing students who are ready and fit for tertiary education. These characteristics include the following:

- **Consistent intellectual growth and development**
  Learners attend secondary school for a minimum period of five years, where after leaving school and entering a tertiary institution, it is expected that they will have the capacity to engage and challenge themselves and their intellectual ability.
- **Deep understanding and application**
  This is the students' ability to gain insight and understand key concepts and be able to apply what they have learned.
- **Reading and writing ability**
  The capacity to read and write is crucial when pursuing a certificate, diploma or degree in higher education. Students are required to understand a variation of reading material and case studies in addition to being able to conduct different written assignments.

- **The ability to accept criticism**

  An important aspect of tertiary education includes being regularly assessed. Students must therefore be open to accepting constructive criticism for their own benefit to improve where needed.

- **The ability to study alone and/or in a group**

  There will be instances where students will be required to complete group tasks and give their input and/or supply the content expected of them. Further to this, students should be able to work alone and must possess the time management skills required to succeed.

- **Prepared for class**

  Tertiary education courses require students to prepare the outcomes, complete homework and read through both the textbook and other additional study material for each module. Successful students thus have a clearer understanding of the lecture and are more prepared, participative and engaged in class.

- **Develop a set of study skills strategies**

  Successful students constantly reflect on what they have learned. These students develop creative methods for organising their work. In essence, this ensures their success since to re-organise the work, they are required to understand and engage with it. This facilitates easier commitment to memory and recall of the concepts.

- **Take responsibility for their success**

  Students who excel in higher education understand the significance of time management. These individuals have a balance between their social lives and aligning their priorities correctly. These students are willing to make small sacrifices to achieve long-term success.

Reflecting on Conley's (2010) characteristics of a successful student, it is evident that there are a number of factors that influence whether or not students are successful at tertiary level. However, all of the characteristics mentioned can be taught to students at secondary level to ensure that when students enter tertiary institutions, they are better equipped, prepared and not surprised by the outcomes expected of them in tertiary institutions. Sufficient preparation of students at secondary schooling level can therefore impact on their success at tertiary level.

Maslovaty, Cohen and Furman (2008, p.165) highlight that Bloom's taxonomy can be used to interpret the traits of the ideal student. It advocates that for students to accomplish furthering their education, higher levels of thinking, feeling and action are required. Bloom's taxonomy is comprised of three domains namely, cognitive, affective and psychomotor. Bloom's taxonomy model indicates that these levels form a hierarchy, suggesting that the level of difficulty increases when shifting from one domain to the next. Moreover, it is stated that the domains are interconnected and build on one another. (Maslovaty et al., 2008). The following are domains of Bloom's taxonomy.

Cognitive: This domain is related to academic ability and achievement. The domain is separated into six parts each identifying certain characteristics such as the ability of learners to understand the content, analyse and synthesise information, evaluate and draw comparisons and conclusions between various materials, as well as the application of information to contrasting situations. All of these are required from a student when entering tertiary education (Agherdien, 2014).

Affective: This domain mainly focuses on students' ability to successfully adapt to their new surroundings and includes how students manage different situations. Valuable aspects of this domain include feelings, attitudes, motivation and levels of enthusiasm which play a pivotal role in the success of students (Agherdien, 2014).

Psychomotor: The psychomotor domain is centralised on the performance aspect. In this incidence, it includes readiness to act and adapt (Erasmus, Loedolff, Mda & Nel, 2013).

Referring to the above-mentioned characteristics, Bloom identifies the ideal student as an individual who possesses academic ability, emotional stability and the ability to adjust to the university environment as well as being self-motivated to succeed. The ideal student should therefore possess several characteristics including aspects such as intellectual capabilities, effective reading and writing abilities, interpersonal skills and willingness to accept constructive criticism for continued learning and development (Agherdien, 2014). The huge gap related to several of these skills contribute to the high dropout and low throughput rates experienced by many higher education institutions in South Africa. An

integration of Conley's (2010) characteristics and Bloom's taxonomy (Maslovaty et al., 2008, p.165; Agherdien, 2014) reveal that a successful student is well prepared for tertiary education at secondary level already and utilises all of their learned skills and abilities to cope with and balance the demands of the university environment, both academic and social. In comparison, students who are under prepared could fall short in one or more of the areas described.

Although much is being said about student preparedness and under preparedness, it is also important to explore the concept of student engagement. The reason why student engagement should be considered separately is because even if a student is prepared for tertiary education, most of the factors discussed such as cognitive ability, language and mathematics, do not impact that much if they do not engage, and the student may not be successful. As such, a link between engagement and preparedness could be expected.

2.5 STUDENT ENGAGEMENT

Student engagement is referred to as "the time and effort students devote to activities that are empirically linked to desired outcomes of college and what institutions do to induce students to participate in those activities" (Kuh, 2009, p.683). In simple terms, student engagement consists of two components, first, what students do - the time and effort they dedicate to academic activities and secondly, what the institutions do - the degree to which institutions facilitate effective academic practices to motivate students to do the right thing.

Student engagement provides a practical foundation for examining student persistence and retention in South Africa (Wawrzynski, Heck & Remy, 2012; Strydom, 2014). Student persistence is influenced by a range of interrelated factors including those prior to enrolment, teaching and learning strategies such as classroom and curriculum design, external experiences, teacher and peer relationships and campus climate.

Student engagement refers to various behaviours characterising those individuals who are identified as being more involved with their university community, by engaging in educationally purposeful behaviours that contribute to desired outcomes (Krause, 2008).

Chen, Gonyea and Kuh (2008) agree with Krause (2005) and state that engagement is the extent to which learners utilise educational activities for academic success and that engagement is positively associated with a host of desired outcomes, including high grades, student satisfaction and perseverance.

Harper and Quaye (2009) believe that engagement consists of more than mere ‘student participation’, and requires active decision making and responding to the educational context. A study conducted by Wawrzynski et al. (2012) at Nelson Mandela University, explored the engagement and integration patterns of students at the university and found that a multifaceted approach to the understanding of engagement is required to explore the complexities in the South African context.

Engagement is widely understood as a useful representative for academic success, persistence and retention (Schreiber & Yu, 2016). Research conducted on student engagement highlights institutional ‘high impact practices’ that are academic encounters making notable differences in student persistence, learning outcomes and student success (Kuh, 2009; Strydom, 2014; Schreiber & Yu, 2016). The study of student engagement has developed extensively over the last 10 years, serving as a reliable indicator of student success (Kuh, 2009; Strydom & Mentz, 2010). Student engagement is also particularly important for the South African context as it enables an all-inclusive illustration of influences on student persistence and institutional practices either promoting or inhibiting student success (Wawrzynski et al., 2012).

The concept of student engagement is deemed significant due to its relationship with accomplishment, school retention and positive lifelong outcomes as well as social and psychological well-being (Marks, 2000). This concept is also related to the disconcerting evidence that several students are not engaged. In the attempt to comprehend the idea of student engagement, alternatively defining student disengagement may be simpler. For example, paying close attention to behaviours such as students slouched in their chairs, not paying attention to teachers and/or actively participating in the lesson.

Although students may be physically present, their disengagement with the learning process, the institution and the opportunities around them are likely to be a state of unconsciousness or daydreaming. Students cannot always be blamed for this as education is often promoted as a means to an end and there is minimal attention centred on the journey and the course of learning to get there (de Villiers, 2013). According to Keane (2006), students place their social lives as a first priority, then followed by academic work in second place whereas, it should be the other way around. The authors further postulate that students engage with the least possible amount of effort in completing their work and are not willing to do any additional reading or academic related preparation. In attempt to rationalise the 'misplaced focus' of students, Nel et al. (2011, p.303) identify four factors that influence students' level of motivation, namely:

1. Outcomes (e.g. obtaining a certificate);
2. Probability (the chance of being successful);
3. Delay in realisation of outcomes (e.g. three years to complete a qualification); and
4. Impulsiveness (e.g. giving in to social media or friends instead of studying).

Moreover, the authors highlight that people often procrastinate when the rewards (outcomes) appear long term and prefer making choices that result in immediate gratification (impulsiveness). This may provide an explanation for why students choose to engage in activities such as socializing with their friends, giving them instant satisfaction of their social needs. This is in contrast to engaging in activities related to longer-term academic success and/or outcomes. Graduating and entering the world of work is considered a long-term goal and students tend to become easily distracted by external influences and seeking immediate gratification can be deemed a prominent characteristic of Generation Y (Nel et al., 2011). In addition, when students do not perceive a strong probability that they will be successful, perhaps due to being under prepared, they may put in less effort. Academic support programmes provide students with more structure in their studies, help them to overcome potential impulsiveness and give them additional hope (probability) that they will succeed (having positive outcomes).

Kazmi (2010) asserts that engaged students are more likely to have a better understanding and exert a more conscious effort in their learning process, graduating with

the adequate critical thinking skills required by the working world. The author further contends that leadership in higher education need to acknowledge that students are ‘sleepwalking’ through their education and the necessary steps need to be taken to prevent a rude awakening as they enter the ‘real world’.

The NSSE (National Survey of Student Engagement) was developed in 1998 and later became a national survey instrument for both Canada and the USA in 2000. The NSSE has being used by more than 1300 North American colleges and universities and it has since being modified and used in 35 universities in Australia and New Zealand, in addition to being piloted in 23 Chinese higher education institutions (Strydom & Mentz, 2010). The SASSE (South African Survey of Student Engagement) is based on the NSSE and measures five benchmarks for adequate educational practice, namely: level of academic challenge, active and collaborative learning, student-staff interaction, enriching educational experiences and a social supportive campus environment (CHE, 2009).

In 2016, South Africa obtained permission to adapt and use the NSSE for field testing purposes. The SASSE is administered annually, following the end of the academic year and requires students to review how much effort they have dedicated, and the advantages and benefits gained from their time spent at the university. Other dimensions evaluate the focus on university activities taking place inside and outside of the classroom such as reading, writing and educational programme characteristics, students’ time management, personal growth and students’ view of their contentment with the institution (Strydom et al., 2010, p.265). Strydom and Mentz (2010) assert that a focal point on student engagement provides South African institutions with a chance to increase academic success among a range of students, and in particular address the needs of under prepared students and aid them to persist and prosper in tertiary education.

In 2009, the CHE-UFS (Council on Higher Education and University of the Free State) research project plotted the SASSE in seven higher education institutions in South Africa, including Nelson Mandela University. The seven were distinctly chosen to ensure the representation of both rural and metropolitan universities and to include different institutional types (universities, universities of technology and comprehensive

universities). The results displayed key characteristics between specific sub-groups in relation to the benchmarks of good educational practice. These sub-groups consisted of year of study (first year versus senior student experiences), institutional types, self-reported race groups and gender (Strydom & Mentz, 2010).

Nel and Foxcroft (n.d.) narrowed down and produced interesting findings from this study in relation to Nelson Mandela University's participation and succinctly link the findings to Nelson Mandela University's Vision 2020 strategy. The findings are considered drivers of all models developed by the study to support teaching and learning methods that increase levels of student engagement. The themes and factors affecting student engagement according to SASSE is discussed in Table 2.4 below.

Table 2.4: The four themes and ten student engagement factors in SASSE

Theme	Indicator
Academic challenge	***Higher-order learning (HO)***: amount academic work emphasized challenging learning tasks, including applying learned information to practical problems, identifying ideas and experiences, evaluating information from other sources, and forming new ideas
	Reflective and integrative learning (RI): how often students connected prior knowledge, other modules or subjects, and societal issues; took into account diverse perspectives; reflected on their own views while examining the views of the others
	Learning strategies (LS): How often students enacted basic strategies for academic success, for example, identifying important information in readings, reviewing notes after classes, summarizing subject material
	Quantitative reasoning (QR): How often students engaged with numerical and statistical information across curriculum, and used such information to examine real-world problems, reach conclusions, and evaluate what others have concluded
Learning with peers	***Collaborative learning (CL)***: How often collaborated with others when mastering difficult material, such as explaining materials to others, preparing for exams, working on group projects, and asking for help
	Discussion with diverse others (DD): How often students discussed with people who differ from themselves in terms of economic background, religious belief, ethnicity, or political views
Experience with staffs	***Student-staff interaction (SS)***: How often students had meaningful and substantive interactions with advisors and lecturers, such as discussing career plans, subject material outside class or discussing their academic performance, and working on student groups or committees
	Effective teaching practices (ET): Amount lecturers emphasised student comprehension and learning, by means of clear explanations and organisation, using illustrative examples, and providing feedback that is formative and effective.
Campus environment	***Quality of interaction (QI)***: How students rated their interactions with important people in their learning environment, such as academic staff, student support services, peer learning support, and other students
	Supportive environment (SE): Amount the institution emphasised help for students to persist and learn through academic support programs, encouraged diverse interactions, and provided social opportunities, campus activities, wellness, health, and support for non-academic responsibilities

Source: University of Free State 2015

The findings of the SASSE reported that:

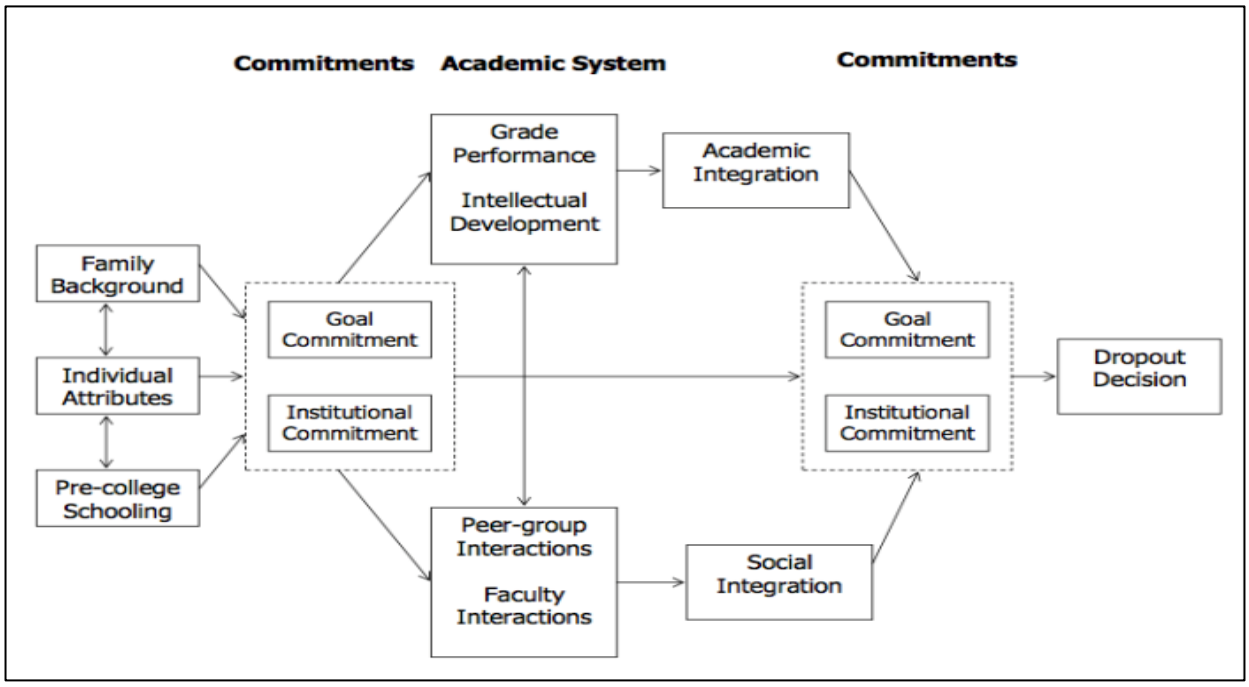
- Students want a multi-cultural experience. This requires a diverse student and staff profile that enriches the campus-life experience;
- Students prefer engaging in learning through electronic mediums of technology. The implications for this is a blended-learning teaching and learning approach, lecture venues and ICT infrastructure and support;
- Students favour working collaboratively with other students in and outside the classroom. The implications for this include teaching and learning methodology, design of lecture halls and study spaces for out-of-class activities;
- Students desire greater interactions with lecturers both in and out of the class. The implications for this are the student to staff ratio and the participation of staff in the vibrant campus lifestyle; and
- 75% of students value a supportive, enriching learning environment to foster success and a sense of connection with the Nelson Mandela University.

The concept of student engagement is rather extensive and it is influenced by a diverse range of factors as mentioned above. The views and models of various authors and researchers regarding student engagement are presented to obtain a greater understanding of the concept.

2.5.1 Tinto's Student Retention Theory

Tinto's (1987) model of student retention (cited in Draper, 2009), illustrates a distinct relationship between readiness levels and withdrawal behaviours in students. This model centres on two key components namely, academic and social integration at the place of study. The model affirms that whether a student persists or drops out of tertiary education is largely a factor of academic and social integration. Figure 2.2 below displays the factors influencing student retention.

Figure 2.2: Tinto's Model of Student Retention



Source: Tinto (1987)

According to this model, academic integration focuses on actual performance, personal development and engagement of students. In addition to this, whether or not students identify with their role as a student along with whether or not they enjoy their subjects, all contribute to their academic integration (Draper, 2009). The author further states that academic integration includes aspects such as grade performance, personal development, student's enjoyment of their subjects, identification with academic norms and values and identification with one's role as a student.

Social integration refers to students feeling at home, participating in extra-curricular activities, identifying with their institution, its norms, values and culture and also having a connecting experience with fellow peers and academic staff (Severiens & Smidt, 2008). These authors further contend that without social integration, it becomes challenging for students to persist in higher education and potentially graduate.

Integration implies academic and social aspects, as a student's inclination to identify with certain groups partially depends on their ability to meet a specific education level. Whilst

this simply entails particular cognitive abilities, time and effort are also required. In essence, it is important that academic staff cultivate an educational context which invites students to integrate academically (Severiens & Wolff, 2008).

Upon reflection of Tinto's 1987 model, it's evident that student success in higher education is largely dependent on their integration with both their academic and social environments. Tinto (2008) highlights that a student's entry into higher education is followed by hopes, dreams and beliefs. The author emphasizes the importance of the role of integration in student success. Tinto (1993) is of the opinion that a student's decision to persist or withdraw from tertiary education only occurs once the student has entered the institution (Tempel, Callender, Grove & Kersh, 2014). It can therefore be inferred that if students are adequately prepared for tertiary education at a secondary school level, they will be readily equipped for the transition of entering a higher education institution and effectively make the integration between their academic and social environments. Whilst Tinto (1987) highlighted the role positive academic or social experiences could play in creating a sense of belonging within institutions (Tinto, 1987), the provision of academic support will enhance student engagement and create an environment conducive to learn and with less challenges. This in essence could minimise a student's decision to withdraw from tertiary education, motivate them for continuation and achievement and ultimately increase succession rates.

2.5.2 Theories of motivation related to academic success

Motivation is deemed to be a very important factor related to student success. It is a driving force that reminds the student of their purpose for starting something, provides focus for goal achievement and ultimately completion. Chickering and Kuh (2005, p.1) substantiate this by stating that it is the "key to persistence and to learning that lasts. The challenge is to help each student clarify his or her important purposes and then to find, or create, the combination of educational experiences that lead to those desired outcomes". Academic support programmes can therefore be regarded as tools aimed at engaging students by increasing their motivation to work hard and succeed. Higher education research indicates

that some of the best predictors of whether or not a student will graduate are academic preparation and motivation (Pascarella & Terenzini, 2005).

“One of the most important factors that leads people to their goals is their drive. This driver is known as motivation. It is a zest and determination with a kind of excitement that leads people to persevere and reach greater heights, in no matter what avenue of their life, be it personal or professional” (Singh, 2011, p.161). Singh (2011) further postulates that achieving one goal promotes the will to achieve another, therefore being motivated is a continual process.

Guay, Chanal, Marsh, Larose and Boivin (2010) define motivation as the reason underlying people’s behaviour. Greler, Broussara and Garrison (2004) further describe motivation as the attribute that drives people to do or not to do something. Motivation is comprised of several beliefs, perceptions, values, interests and behaviours that are all closely connected. Consequently, many approaches to motivation are based on cognitive actions (e.g. monitoring or thinking strategically), non-cognitive aspects (these include perceptions beliefs and attitudes) or both.

Gottfried (1990, p.525) defines student motivation as the “enjoyment of school learning characterised by mastery orientation; curiosity, persistence, task-endogeny and the learning of challenging, difficult and novel tasks”. However, Turner (1995, p.413) is of the opinion that motivation is synonymous with cognitive engagement which he defines as “voluntary uses of high level self-regulated learning strategies such as paying attention, connection, planning and monitoring”.

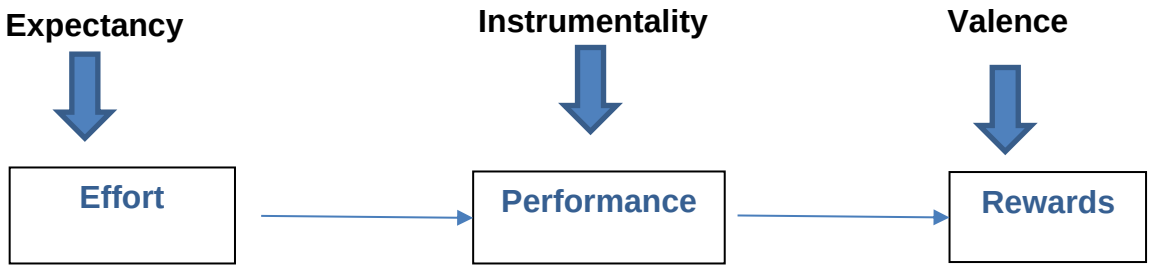
Student success can be impacted by a student understanding what motivates them. When students are intrinsically motivated, the will to succeed will come from within as they are securing achievement for themselves, whereas if they are extrinsically motivated, monetary incentives such as money can drive them to accomplish more.

The theories of motivation discussed in the subsequent sections describe the relationship between preparation and motivation for success in greater detail.

2.5.2.1 The Expectancy Theory

The Expectancy Theory is a cognitive process theory of motivation that is derived from the idea that individuals believe that the effort they invest in completing specific tasks will influence their performance in the task along with the rewards linked to the outcome of the completed task (Lunenburg, 2011a). Therefore, the end result of a task is influenced by the level of motivation required to complete that task. The Expectancy Theory is of comprised of three variables discussed in Figure 2.3 below.

Figure 2.3: Expectancy Theory of Motivation



Source: Lunenburg (2011, p.2)

Expectancy: A person's perceived effort leading to performance.
Instrumentality: The rewards/outcomes linked to achievement.
Valence: How valuable is the reward to the person.

The logic behind the Expectancy Theory is that individuals are very often motivated by the end result. If students retain a positive outlook in terms of academic success and/or graduation, they are more likely to be motivated for achievement. Furthermore, this model investigates the effort (expectancy) people exert which leads to their expected performance (instrumentality) and ultimately that performance will result in the anticipated reward (valence). Adversely, if a reward is not deemed to be important or even perceived as negative, it will result in the opposite effect. In this instance, the individual will not deem it necessary to perform when the reward is of no value to them (Agherdien, 2014).

In conclusion, this model is particularly useful to interpret student performance in addition to how they are motivated. It is crucial to acknowledge that if students do not place

importance on the end result, they will have a low level of achievement. However, if they perceive the end result as a positive outcome of accomplishment for themselves, there will be a substantial increase in their performance to succeed in higher education. Academic support therefore exists to meet the performance challenges of students by directly or indirectly improving the student learning experience and potential for success. Academic development and student support should be identified as essential tools for improving performance by fostering conditions for learning to flourish across the student population.

2.5.2.2 Self-efficacy

Self-efficacy refers to an individual's confidence in their ability to complete specific tasks (Siegle & Mccoach, 2005). In addition, it can also be considered as a realistic method of dealing with complex situations. Self-efficacy is perceived as a competency used to manage undesired changes (Achmed, Qazi & Jabeen, 2011). In essence, if a person is allocated a task and the outcome thereof is successful, the person will exert just as much effort to obtain the same positive outcome.

High self-efficacy in one area is not guaranteed to correspond with high self-efficacy in other areas. Therefore, possessing high levels of self-efficacy does not confer that students believe they will be successful. Although self-efficacy provides an indication of how strongly students believe they have the skills to achieve, they may believe that there are various factors preventing them from succeeding (Schunk & Pajares, 2009).

Self-efficacy affects the activities students choose, how much effort they exert, their persistence when faced with complex situations and the complexity of the goals they set. Students with low self-efficacy do not expect to perform and do not achieve at levels proportionate with their capabilities. They believe that they do not possess the skills levels to do well so there is no attempt to produce acceptable results (Siegle & Mccoach, 2005).

Provided that academic support provided by tertiary institutions is linked directly to student engagement and, based on the theory of self-efficacy, students with high levels of self-

efficacy are most likely to participate and engage with the academic interventions provided by the institution and are highly motivated to work hard towards achieving desired academic goals.

2.5.2.3 Achievement motivation: McClelland's Motivational Needs Theory

"Achievement Motivation Theory attempts to explain and predict behaviour and performance based on a person's need for achievement, power and affiliation" (Lussier & Achua, 2007, p.4). McClelland's Theory of Needs was developed by David McClelland and his associates Robbins, Judge, Odendaal & Roodt in 2009. The theory is comprised of three specific needs which can be defined as:

1) Need for achievement (nAch) which is the motivation to excel, to achieve in relation to particular standards and striving to succeed;
2) Need for power (nPow) which is the need to influence others to behave in ways they would not have behaved otherwise; and
3) Need for affiliation (nAff) which is the desire for social interaction and close interpersonal relationships.

Achievement motives include both the need for achievement and the fear of failure. These are common motives directing individual behaviour towards positive and negative outcomes identified as the need to perform well or striving for success, and persistence and effort in the face of difficulties. Achievement motivation is regarded as the centre of human motivation.

All of the above-mentioned theories and factors are directly related to academic success. It can therefore be inferred that student engagement, motivation and student retention are strongly linked and supplemented by academic support interventions and the influence academic support interventions have on students entering university and ultimately, influencing their overall success in university completion. Student engagement and motivation are therefore regarded as crucial for academic success, and even if academic support interventions are offered, it is important for students to actually engage with those opportunities to optimally benefit from them.

2.6 STUDENT SUPPORT OFFERED AT NELSON MANDELA UNIVERSITY

The purpose of this study was to investigate whether selected academic interventions impact Diploma in HRM and Diploma in HRM (Extended) Programme students' academic performance at Nelson Mandela University. Therefore it is necessary to provide an overview of learning development opportunities available at Nelson Mandela University to enhance the academic success of students.

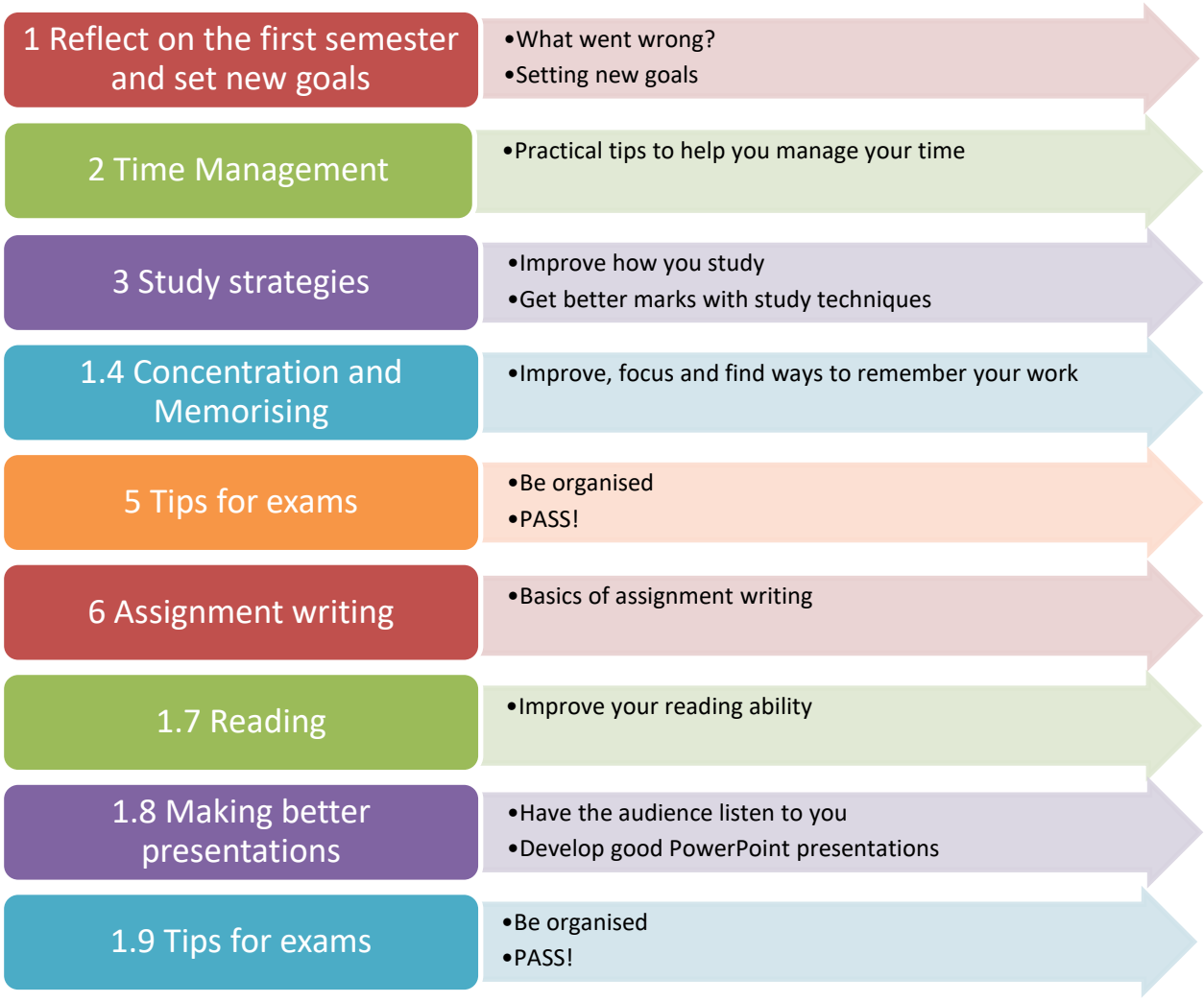
Nelson Mandela University offers various academic development programmes for students who require additional academic support for under prepared students as well as for students who would like to improve their current performance (https://www.mandela.ac.za/www/media/Store/documents/apply/admission/quickdoc/prospectus/2019-BES-Prospectus.pdf).

There are a range of learning development opportunities available to enhance academic success which is offered through:

- In-classroom presentations.
- Supplemental Instruction (SI).
- Electronic Peer Assisted Learning (E-Pal).
- Tutoring and mentoring development.
- Academic and life management modules.

For this study, information was obtained from an academic development professional, Ms Ronelle Plaatjes from the CTLM (Centre for Teaching, Learning and Media) at Nelson Mandela University. The role of an academic development professional in CTLM is to provide advice, guidance and support to both staff and students in relation to the improvement and maintenance of the quality of teaching and learning at Nelson Mandela University. Ms Plaatjes identified nine Academic Success Student Seminars which would take place over the duration of the second semester 2018, which are illustrated in Figure 2.4 below.

Figure 2.4: Academic Success Student Seminars



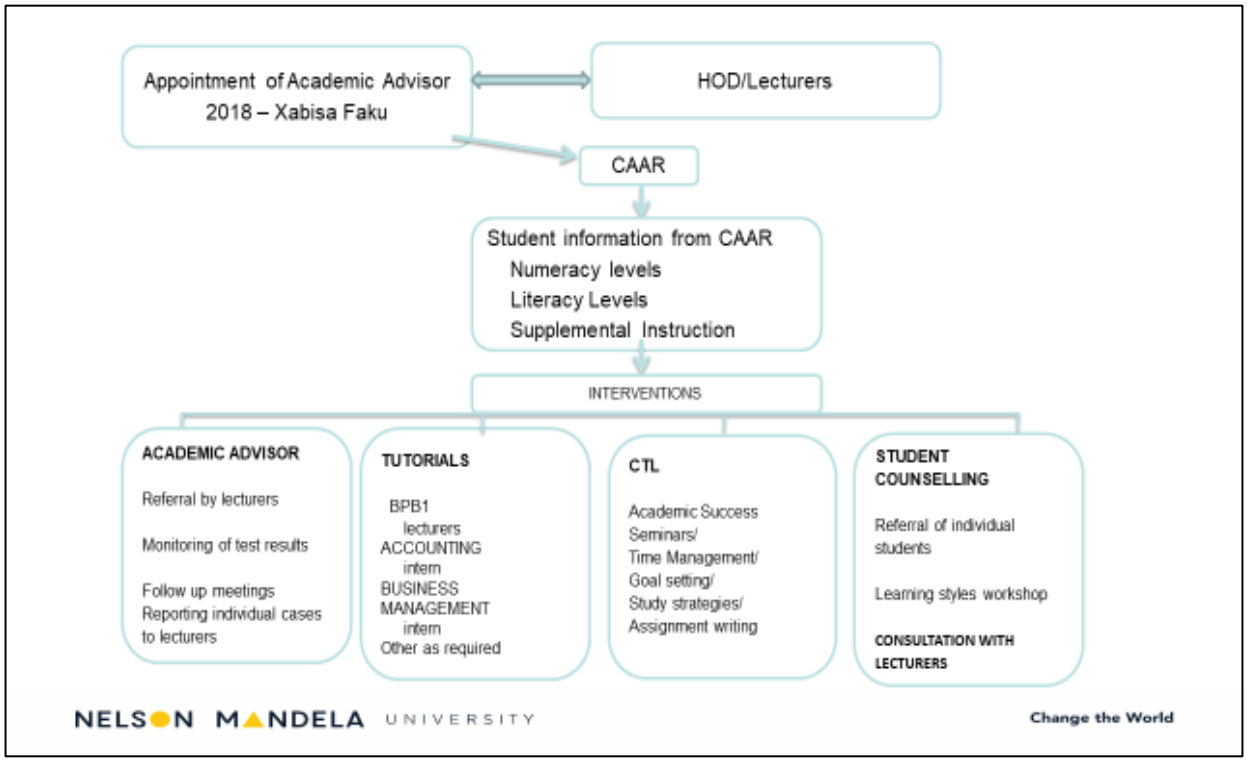
Source: Centre for Teaching, Learning and Media (2018)

All of the above-mentioned seminars are voluntary for students, however students are encouraged to attend for their own benefit.

2.6.1 Support provided within the Department of HRM

The Department of HRM also provides academic support to students studying the Diploma in HRM or the Diploma in HRM (Extended) Programmes.

Figure 2.5: Academic advising and support programme of the HRM Department



Source: Centre for Teaching, Learning and Media (2018)

Information was deemed from Ms Xabisa Faku, an academic advisor in the department of Human Resource Management who works closely with CTLM in selecting and facilitating academic interventions for first year HRM students. Ms Faku describes those students enrolled for the HRM Programme who are struggling or under prepared as ‘at-risk students’. She makes use of tests and examination results to identify the particular at-risk students, after which she sets up one-on-one meetings to discuss their current position and advises students as to how they can improve their results which academic interventions they are required to attend. By conducting one-on-one interviews, students have the opportunity to share exactly what challenges they face, as well as receive individual counselling and assistance from academic advisors.

The Diploma in HRM and Diploma in HRM (Extended) Programme students have a career-directed course, therefore they do not have the choice of selecting modules in their first year. The prospectus for the Diploma in HRM is presented as follows:

Figure 2.6: Course outline – Diploma in HRM

6.8 NATIONAL DIPLOMA (HUMAN RESOURCE MANAGEMENT): FULL-TIME/PART-TIME (QUALIFICATION CODE: 3541 – 06/27) (NQF LEVEL: 6, TOTAL NQF CREDITS FOR QUALIFICATION: 360) (NO NEW INTAKE)

ADMISSION REQUIREMENTS

- Admission Points Score of 32.
- Minimum NSC requirements for diploma entry must be met.
- English, Afrikaans or isiXhosa (home language or first additional language) on at least level 4 (50-59%).
- NSC achievement rating of at least level 3 (40-49%) for Mathematics or 6 (70-79%) for Mathematical Literacy.
- Applicants with an Admission Points Score between 24 and 31 may be referred to write the Access Assessment Battery before a decision is made on whether or not to admit the applicant to the course.
- Registration for the language course for this diploma, Communication in English A, requires that the candidate has passed the English Placement Test.

Final year for admission

The final year for new admission into this programme was 2015.

Completion of qualification

The final year for all students to comply with all requirements for this qualification is 2020.

QUALIFICATION OBJECTIVE(S)

The main objective of the qualification is to equip the student for a career in the three fields of Human Resources Management viz:

- Industrial Relations.
- Training Management.
- Personnel Management.

SELECTION PROCEDURE

Full-time and Part-time Study

The Faculty has limited capacity, both full-time and part-time. This implies that, should the number of applicants meeting the minimum requirements exceed capacity, a selection procedure has to be applied. The following are three core elements of this selection system:

- Candidates who satisfy the minimum requirements and who apply before the official closing date receive preference. Should these applicants exceed capacity, however, selection is done on academic grounds using the rating system.
- Late applications are only considered where capacity is available. Selection of late applications who satisfy the minimum requirements is done on the basis of first come, first served.
- Final acceptance is based on official Grade 12 results. Selection based on other school results (e.g. November Grade 11 results) is provisional and subject to the Grade 12 results.

DURATION

The qualification shall extend over three years of full-time or four years of part-time study.

Students will not be allowed to register for more than 120 credits per year.

CURRICULUM

		Presented	Module Code	Credit Value
Full-time First Year				
	Compulsory modules:			
	Communication in English A	Year	BKH1120	24
	Personnel Management I	Year	BPB1120	24
	Accounting for Personnel Practitioners	Year	BTI1110	24
	Management of Training I	Year	BTR1110	24
	Business Management I	Year	SBM1110	24
	Credits First Year			**120**

		Presented	Module Code	Credit Value
Second Year				
	Compulsory modules:			
	End-User Computing	Year	BEU1110	24
	Industrial Relations I	Year	BIR1110	24
	Personnel Management II	Year	BPB2220	24
	Business Management II	Year	SBM2110	24
	Credits Second Year			**96**

		Presented	Module Code	Credit Value
Third Year				
	Compulsory modules:			
	Industrial Relations II ♦	Semester 1	BIR2211	30
	Personnel Management III ♦	Semester 1	BPB3321	30
	Management of Training II ♦	Semester 2	BTR2212	30
	Individual Employment Law	Semester 1	JHR1101	12
	Collective Labour Law and Social Security	Semester 2	JHR1202	12
	Business Management III ♦	Semester 2	SBM3112	30
	Credits Third Year			**144**
	Total Credits			**360**

Source: Nelson Mandela University Prospectus (2018)

2.7 CONCLUSION

It is therefore evident that the factors contributing to student success are quite extensive. This chapter identified the challenges facing higher education in South Africa and some suggestions were made as to how those challenges could be addressed and better managed. Furthermore, the factors affecting student preparedness and the support services offered to under prepared students were discussed, in addition to defining the characteristics of an ideal student. To obtain a better understanding, the study included

specific models and theories of motivation such as Tinto's (1987) model of student retention, motivational theories and the NSSE. These theories play an important role in understanding what prevents students from succeeding as well as how they can be led to success. When taking all of the above-mentioned factors into consideration, it is evident that students have to follow a specific process to succeed in tertiary education. When provided with good quality education, the required resources and support structures, a student's likelihood of being motivated to succeed is enhanced.

CHAPTER 3: RESEARCH METHODOLOGY

3.1 INTRODUCTION

The primary objective of this research was to investigate whether selected academic interventions impacted on the academic performance of students registered for the Diploma in HRM and Diploma in HRM (Extended) Programme at Nelson Mandela University. This chapter outlines the research methodology utilised in the study, and specifically the research type, sample, data collection and analysis methods, validity and reliability, as well as the ethical considerations taken into account for the study. The research process interprets and describes the interaction with the research domain to produce scientifically valid research. While the research was aimed at being descriptive, explanatory and evaluative in nature, emphasis was primarily placed on its validity goal, aimed at measuring what it intended to measure, and secondly on its reliability goal to ensure consistency in the results of the study throughout the research process.

3.2 RESEARCH PARADIGM AND TYPE

The study was conducted from a positivistic paradigm which implies that in social sciences, behaviour can be quantified and studied objectively to arrive at objective conclusions (Antwi & Kasim, 2015). The study was also exploratory and descriptive in nature in the sense that it explored the impact of academic support interventions and first year HRM student academic success.

3.2.1 Research approach

The study was both qualitative and quantitative in nature, but for the empirical study a quantitative approach was followed. A qualitative literature study was conducted before the empirical objectives were addressed. The literature study focused on challenges faced in higher education related to student academic success, factors influencing student

preparedness, as well as student engagement. The information collected from the literature study was qualitatively analysed and synthesised.

The empirical study, however, was quantitative in nature and aimed at measuring and correlating constructs: student participation in academic support interventions and academic performance. The empirical component of the research was conducted within the Department of Human Resource Management, which is situated at the Second Avenue Campus of the Nelson Mandela University, located in Port Elizabeth in the Eastern Cape. An empirical study is a method of gaining knowledge by means of direct and indirect observation or experience. In the case of this study, academic performance of students was measured via a baseline mark (average of first two tests written) and the final test mark, and participation in academic support interventions was measured via attendance registers. Therefore, the data utilised in this study were readily available.

Quantitative research considers data or information from an objective point of view through the use of numerical analysis and statistics (Labaree & Scimeca, 2016). The advantages of using quantitative methods include making provision for a broader study by involving a greater number of participants and enhancing the generalisation of the results. In addition to this, utilising quantitative methods enables the research to be replicated, analysed and compared with similar studies. This is supported by Kruger (2003), asserting that quantitative methods enable vast sources of information to be summarised and compared across categories. Personal bias is avoided by maintaining a distance from participants and employing participants unknown to them (Kruger, 2003).

A quasi-experimental and correlational research design was used. This method is used to estimate the causal impact of an intervention on its target population. The research design was evaluative in nature as it explored the effect of academic support interventions on the academic performance of the Diploma in HRM and the Diploma in HRM (Extended) Programme students and whether participating in these interventions contributed to student success. Moreover, the research design was also exploratory in nature as it explored the impact of academic interventions on the academic performance of Diploma in HRM and Diploma in HRM (Extended) Programme students.

3.3 THE POPULATION AND SAMPLE

Social research requires investigating a research problem within a population and a sample is referred to as a section of the population that is selected for investigation, as it may not be possible or practical to investigate the entire population.

The population comprised of Diploma in HRM and Diploma in HRM (Extended) Programme students who were enrolled for either the Diploma in HRM or the Diploma in HRM (Extended) Programme and were registered full-time for three modules: Business Management, Accounting for Personnel Practitioners and Personnel Management. All of these modules are on a first year level. The sample for this study included 44 students obtained from the respective class lists for the Diploma in HRM and the Diploma in HRM (Extended) Programmes. Other than being a Diploma in HRM or a Diploma in HRM (Extended) Programme student in terms of meeting the criteria for inclusion, no restrictions were made with regards to the demographics of the students as the researcher aimed to maintain a diverse sample.

The methods for the collection, processing and analysis of data are discussed in detail in the subsequent section.

3.3.1 Data collection

The data for the study was collected from the target group's academic records (provided by the Head of Department). Unobtrusive measures were used for the data collection process. An unobtrusive measure is referred to as a method of making observations without the knowledge of the participants. Unobtrusive methods are therefore designed to illuminate a major problem faced in research which speaks to how participant awareness of the research study affects their behaviour and the potential distortion of the research results (Crossman, 2017).

Specific data collected involved the following:

a) Baseline mark (average of first two tests) and final mark for the module of Business Management 1 (SMB 1110/EBM1000), for students on the Diploma in HRM or the Diploma in HRM (Extended) Programmes.
b) Baseline mark (average of first two tests) and final mark for the module of Accounting for Personnel Practitioners (RTI 1000) for students on the Diploma in HRM and Diploma in HRM (Extended) Programmes.
c) Baseline mark (average of first two tests) and final mark for the module of Personnel Management 1 (BPB1120), for students on the Diploma in HRM and Diploma in HRM (Extended) Programmes.
d) Academic support interventions and attendance: class register information with regards to attendance, and specifically attendance of academic advising interventions and tutorials.

3.3.2 Data processing

For the purposes of data processing, a MS Excel spreadsheet was developed with relevant data related to each subject, namely programme registered for, baseline mark, attendance of academic support interventions and final mark. This was done for each module respectively. The services of a statistician from the Nelson Mandela University was utilised for the statistical processing of the data.

3.3.3 Data analysis

Descriptive and inferential statistical analyses were performed. Descriptive statistics were used to describe the basic features of the data included in a study. Descriptive statistics provide summaries about the sample and the measures (Walliman, 2006). Descriptive statistics include measures of central tendency namely: mean, standard deviations, percentages and frequency distributions. By utilising inferential statistics, conclusions that extend beyond the immediate available data can be made (Walliman, 2006). In terms of inferential statistics, t-tests were used to establish whether statistically significant

differences existed in the academic performance of students based on their attendance of academic interventions.

The study employed both a pre and post-test which required the use of paired sample t-test. A paired t-test is used to compare two population means where there are two samples in which observations in one sample can be paired with the observations in a second sample (Shier, 2004). For this study, baseline marks for the selected core modules were compared against the final marks obtained for the modules. Pearson's chi-squared test was used to identify the likelihood of the observed data occurring by chance in the various sets of categorical data.

3.4 VALIDITY AND RELIABILITY OF THE STUDY

Validity is referred to as the ability of the test to accurately measure what it is intended to measure (Foxcroft & Roodt, 2013). Validity can be viewed as the core of any form of assessment that is trustworthy and accurate (Bond, 2003, p.179). Validity, according to Messick (1989, p.6) refers to the degree to which empirical evidence and theoretical rationale support the adequacy and appropriateness of interpretations and actions based on test scores, which is imperative to ensure the accuracy of the results of this study. The validity of the research findings are influenced by various factors that include the choice of sample, the sample size, researcher bias and design of the research tools. (Cohen, Manion & Morrison, 2011). These authors further state that validity should be viewed as a continuum, as the validity of the findings within a study can be improved. However, a 100% validity can never be achieved.

Moerdyk (2015) refers to reliability as the degree of consistency in what the study intends to measure. More specifically, a study will be reliable when it gives the same repeated result under the same conditions. A measure is deemed as being reliable when it can be used by a number of different researchers under the same conditions, with consistent results and the results not varying. Reliability reflects consistency and replicability over time. Furthermore, reliability is viewed as the degree to which a test is free from

measurement errors, granted that the more measurement errors that occur, the less reliable the test (Fraenkel & Wallen, 2003; McMillan & Schumacher, 2006a; 2006b).

A number of measures were taken to improve the study's validity and reliability. The validity and reliability of the study were improved by:

- A statistician provided by the School of Industrial and Organisational Psychology at Nelson Mandela University assisted with the processing of data and could therefore provide professional advice to ensure the validity of the testing procedures used in the study for the intended purposes.
- The study involved a representative sample of students who were registered for the Diploma in HRM and Diploma in HRM (Extended) Programmes in the department of HRM at the Nelson Mandela University and the results could therefore be generalised to the whole cohort registered in 2018 and also cautiously to past and future student cohorts.
- The study was also approved by the Nelson Mandela University's Research Ethics Committee.

The researcher had to observe very high ethical standards due to the target group of the study involving students. The ethical responsibility of the researcher and how this ethical responsibility was dealt with in the study are explained in the following section.

3.5 ETHICAL RESPONSIBILITY OF THE RESEARCHER

Ethics are of crucial importance when research involves people, and especially if the people involved are considered to be members of a vulnerable group. Although students were not directly involved in the study, personal information related to them was included. As such, there could be a risk involved for them, for example they could feel embarrassed if they did not perform well or even if they performed especially well. Such risks had to be considered and prevented. Therefore, it was required that the research had to be approved by the Nelson Mandela University Research Ethics Committee (REC) (H19-

BES-HRM-007). Specific measures were followed to ensure that ethical standards were upheld. These included the following:

- A best practice approach was adopted to conduct the study in a competent manner by avoiding any harm to participants who may have been caused by incompetence in any way. Any potential risks such as social or psychological distress to participants were considered and prevented.
- To the best of the researcher's knowledge, the research was not biased towards any parties involved in the study. The researcher was employed in CAAR as an intern when the study commenced and was therefore well versed in terms of the confidentiality of student records.
- In terms of confidentiality, the researcher ensured that no student information was made available to any parties who were not directly related to the study. According to The Interagency Advisory Panel on Research Ethics (TCPS) (2003), confidentiality of research data is based on the principle of respect for the dignity and autonomy of research participants. In faculty research with students as participants, anonymity is possible in terms of protecting the identity of participants and keeping their data confidential from others. For example, no other personal identifying information such as name and surname are used in the study.
- The researcher worked under close guidance with Professor Amanda Werner, the research supervisor and Head of Department of the Human Resource Management Department at Nelson Mandela University.
- Lastly, in terms of the literature study, the researcher consistently avoided any plagiarism. According to the Merriam-Webster Online Dictionary (2018), to plagiarise means to steal and pass off (the ideas or words of another) as one's own, to use another's work without crediting the source to commit literary theft or to present as new and original an idea or product derived from an existing source. These practices are illegal, unethical and go against all academic codes of conduct which is why the researcher signed a plagiarism declaration upon submission of the research project.

3.6 ANTICIPATED VALUE OR BENEFITS OF THE STUDY

The results of this study could be of value to the department of HRM to determine the effectiveness of academic interventions provided for first year students.

3.7 CONCLUSION

This chapter clearly defined all of the important aspects of the research methodology that were applied in this study, including the research type, sample, measuring instruments, data collection, processing and analysis, the reliability and validity, as well as the ethical considerations.

The results obtained from the research will be discussed in the next chapter.

CHAPTER 4: PRESENTATION AND ANALYSIS OF RESULTS

4.1 INTRODUCTION

In Chapter 3, the research methodology used in this study was presented and discussed. In this chapter, the results of the empirical study are discussed. The purpose of this chapter is to address the primary and secondary objectives of the study, which are restated below:

Research objective 1:
The primary aim of this research study was to investigate the impact of academic interventions on the Diploma in HRM and the Diploma in HRM (Extended) Programme students' academic performance at Nelson Mandela University. This was done by comparing the baseline (average of first two tests) performance of students with their final performance levels and determining whether students who attended academic interventions experienced a greater improvement in performance than those who did not attend.

Research objective 2:
A secondary objective of this study was to investigate whether the relationship between participation in academic interventions and academic success are moderated by whether students were admitted to the Diploma in HRM or the Diploma in HRM (Extended) Programme.

The primary aim of this study was attained by using existing data on the attendance of academic interventions and academic performance of students. This information was sourced from attendance registers and class lists. The data collected was from HRM students who were registered for either the diploma or the extended diploma programmes at Nelson Mandela University in 2018. The diploma as well as the extended diploma students do Business Management and Personnel Management in their first academic year of registration, while the module of Accounting for Personnel Practitioners is

completed by diploma students in their first academic year and extended diploma students in their second academic year. Should a student fail a module, the module has to be repeated.

The information sourced was carefully recorded in a Microsoft Excel spreadsheet. Information captured on the Microsoft Excel sheet included registration category of each student (diploma or extended diploma), attendance of various academic interventions, baseline mark for selected modules (Business Management, Accounting for Personnel Practitioners and Personnel Management) as applicable and out of 100 and the final mark for each module, also out of 100. The baseline mark for the modules consisted of an average of the first two tests written in the year. The order of information on the Microsoft Excel files was as follows:

1. Student number.
2. Registration category.
3. Academic advising interventions.
4. Goal setting and Academic writing.
5. Accounting for Personnel Practitioners.
6. Intervention: Accounting for Personnel Practitioners tutorials.
7. Baseline: Average of first two tests.
8. Final mark.
9. Pass/Fail.
10. Personnel Management.
11. Intervention: Personnel Management tutorials.
12. Baseline: average of first two tests.
13. Final mark.
14. Pass/Fail.
15. Business Management.
16. Intervention: Business Management tutorials.
17. Baseline: average of first two tests.
18. Final mark.
19. Pass/Fail.

Table 4.1 provides a representation for how the numerical values were captured for each academic intervention and each of the three modules.

Table 4.1: Numerical values used to represent subject data for the study

Registration	**Extended Diploma programme**			**Diploma programme**					
	0			**1**					
Baseline mark	Percentage								
	mark/100								
Academic intervention attendance	Academic advising			Accounting for Personnel Practitioners			Personnel Management		
	/2	No = 0	Yes = 1 (1-2)	**/8**	No = 0	Yes = 1 (0-8)	**/1**	No = 0	Yes = 1 (0-1)
Final mark	Percentage								
	mark/100								
Pass/fail	No = 0		Yes = 1						

As the study was quantitative in nature, numerical values were used to present the data. For the registration categories, numerical values zero (Diploma in HRM Extended Programme) and one (Diploma in HRM Diploma) were used. There were three academic advising interventions and for each attendance, a numerical value from zero (not attended/no) to three (attended/yes) was allocated. Similar to this, the attendance for other interventions were recorded in the same manner. For Accounting for Personnel Practitioners, a total of eight tutorials were presented, therefore numerical values allocated also ranged from zero (not attended/no) to eight (attended/yes). For Personnel Management there was only one tutorial therefore values ranged from zero (not attended/no) to one (attended/yes). There were no specific interventions recorded for Business Management, however, differences in baseline marks and final marks for Business Management were compared to determine the influence of academic advising interventions on performance and to make a comparison with the modules for which there were more interventions.

The research findings are presented in tables and diagrammatic illustrations. The tables and diagrams were developed and collated with the assistance of a statistician employed at the university.

4.2 DESCRIPTION OF THE SAMPLE

This section provides a detailed description of the sample for the study. The sample consisted of HRM students registered in 2018 for Business Management, Personnel Management and Accounting for Personnel Practitioners.

4.2.1 Description of sample based on programme registration

The study included students who were registered for either the Diploma in HRM or Diploma in HRM Extended Programme.

Figure 4.1: Programme Registration (n = 42)

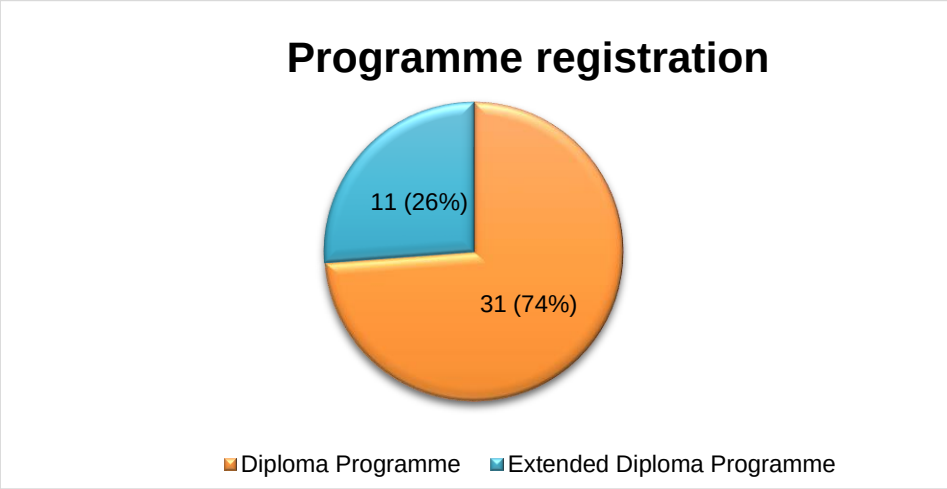


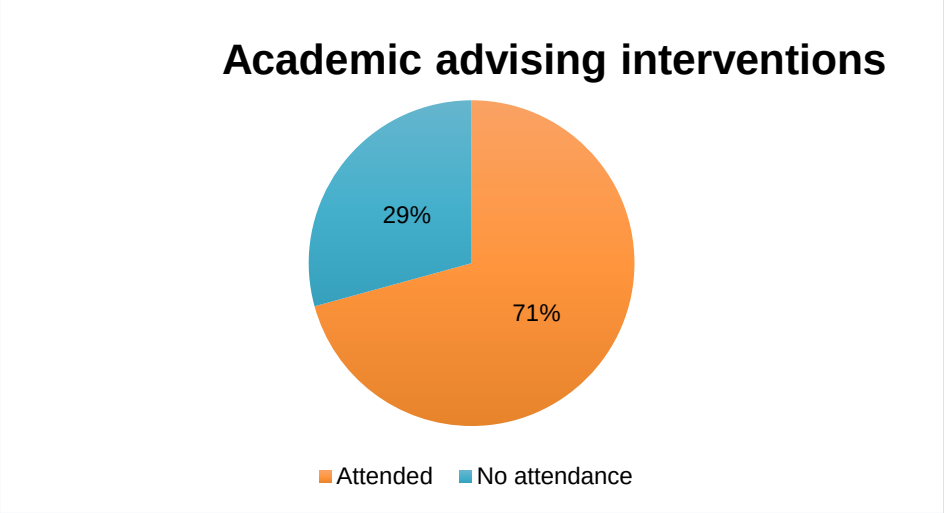
Figure 4.1 indicates that 31 of the participants (74%) were registered for the Diploma in HRM while the rest (26%) were registered for the Diploma in HRM (Extended) Programme.

4.2.2 Description of sample based on attendance of academic interventions

Academic advising interventions refer to the three academic writing and goal setting tutorials that were provided. Attendance registers were used to calculate how often academic interventions were attended. Figures 4.2, 4.3, 4.4 and 4.5 below indicate the overall attendance of interventions, irrespective of registration category.

Figure 4.2 presents results for the attendance of academic interventions.

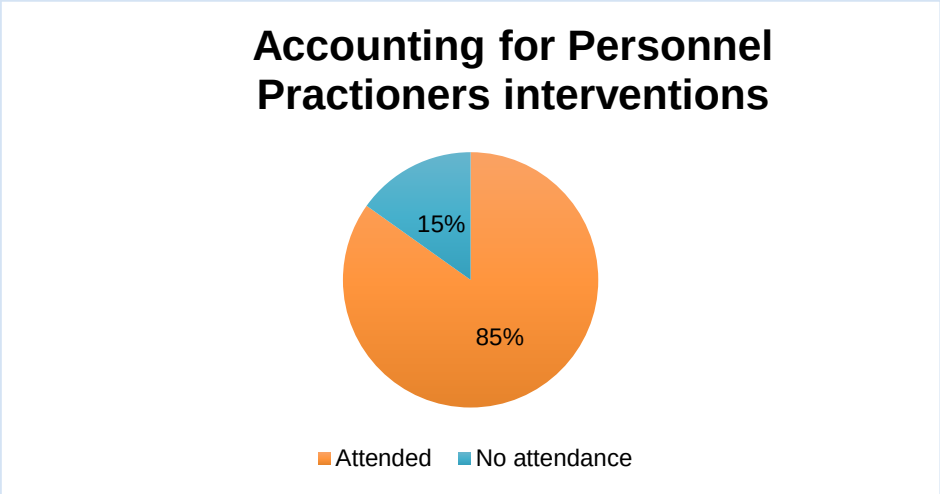
Figure 4.2: Attendance of academic advising intervention(s)



From Figure 4.2 it can be inferred that 71% of the participants attended at least one of the academic advising interventions, followed by 29% of the participants who did not attend any academic intervention.

Figure 4.3 presents results for the attendance of interventions for the module of Accounting for Personnel Practitioners. These interventions consisted of eight tutorials.

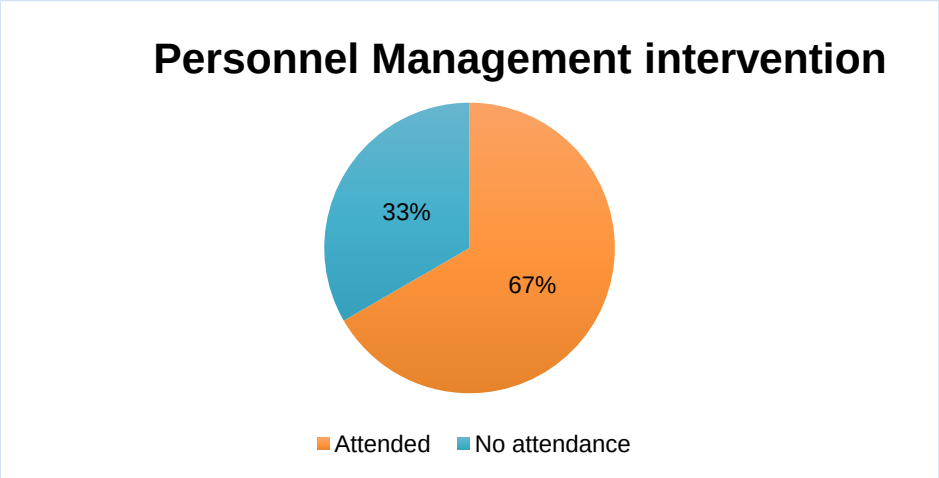
Figure 4.3: Attendance of Accounting for Personnel Practitioners intervention(s) (n = 33)



From Figure 4.3, it is evident that 85% of the participants attended at least one of the Accounting for Personnel Practitioners interventions, followed by 29% of the participants who did not attend any intervention.

Figure 4.4 displays results for the attendance of interventions for the module of Personnel Management. This intervention consisted of one tutorial.

Figure 4.4: Personnel Management intervention attendance (n = 42)



Based on Figure 4.4, it is evident that 67% of the participants attended the Personnel Management intervention, followed by 33% of the participants who did not attend.

4.3 RELATIONSHIP BETWEEN ACADEMIC INTERVENTIONS AND ACADEMIC SUCCESS

In this section, the relationship between academic interventions and academic success is explored by means of descriptive and inferential statistics. Generally, inferential statistics are used to make inferences from a sample of data regarding the broader population. Inferential statistics also allow judgements to be made regarding the probability that an observed difference between groups is the result of a factor that the result depends upon, or alternatively that any differences may have occurred as a result of chance (Trochim, William, Donnelly & James, 2008). In this study, the dependence of improved academic performance on academic interventions is investigated. Alternatively, improvement in academic performance could be the result of chance or factors not investigated in this study.

Inferential statistics used in this study included paired t-tests and analysis of variance (ANOVA). T-tests are referred to as a type of inferential statistic used to determine whether there is a significant difference between the means of two groups, while ANOVA (analysis of variance) is used for testing the different means and various independent variables in a sample group (Coolican, 2014). In this study, t-tests were used to make comparisons between different samples or groups, for example, the difference between baseline academic performance and pass rates for the respective modules. This was necessary to determine whether differences did occur in the initial (baseline) and final performance (pass rates) of the participants. If a positive difference did occur between baseline performance and final performance, it could be determined whether the difference was due to academic interventions or by chance. If no difference occurred, a conclusion could be drawn that academic interventions did not support improved performance.

4.3.1 Comparison between baseline marks and final marks - descriptive statistical analysis

This section presents descriptive statistics, namely the mean, median, minimum, maximum and standard deviation to create familiarity with the differences between baseline marks and final marks for the modules of Business Management, Accounting for Personnel Practitioners and Personnel Management.

Table 4.2 provides the baseline performance (average of the first two tests) versus the final marks obtained for Business Management.

Table 4.2: Comparison between base-line marks and final marks for Business Management – descriptive statistics

Business Management	**n**	**Mean**	**Median**	**Minimum**	**Maximum**	**Standard deviation**
Baseline	42	66.07	68.5	12	100	20.73
Final mark	42	63.14	66.5	22	86	15.36

From Table 4.2 it is evident that the average baseline marks (mean) (66.07) are higher than the final mark (mean 63.14) obtained.

The standard deviation of 20.73 for the baseline mark indicates a wide spread of the marks around the average mark. The median baseline score (middle figure) of 68.5 indicates that half of the participants obtained a baseline mark of 68.5 or lower, whereas the other half obtained baseline marks of 68.5 and higher. The standard deviation of 15.36 for the final mark is much lower than that of the baseline mark indicating that the final marks were spread much closer to the mean. It can be deduced from the table that the average final mark per student varied from 22 to 86. The median score of 66.5 for the final mark suggests that half of the participants achieved a mark of 66.5 or lower and the other half a mark of 66.5 or higher. Therefore, while performance in the final mark seems lower, the standard deviation suggests that the marks were less broadly spread around the mean.

Table 4.3 presents the baseline mean mark (average of the first two tests) versus the final mean mark obtained for Accounting for Personnel Practitioners.

Table 4.3: Comparison between baseline marks and final marks for Accounting for Personnel Practitioners – descriptive statistics

Accounting for Personnel Practitioners	**n**	**Mean**	**Median**	**Minimum**	**Maximum**	**Standard deviation**
Baseline	33	76.12	77	52	100	14.45
Final mark	33	74.33	75	52	90	13.32

From Table 4.3 it is evident that the average baseline mean (76.12) is higher than the final mark mean (74.33).

The standard deviation of 14.45 for the baseline mark displays a spread of marks of 14.45 around the mean mark. It is apparent that the mean baseline mean varied from 52 to 100, while the final mark mean varied from 52 to 90. The median of 77 suggests that half of the students obtained a baseline mark of 77 or less and the other half a baseline mark of 77 or higher. The standard deviation for the final mark is 13.32 which is a little lower than the standard deviation of the baseline mark, indicating that the final marks were spread closer to the mean than the marks were spread around the baseline mean. It is apparent that the final marks varied from 52 to 90. The median score for final marks is 75 suggesting that half of the students achieved average marks of 75 or lower and the other half marks of 75 or higher. It can be concluded that the participants performed fairly well in Accounting for Personnel Practitioners in comparison to Business Management.

Table 4.4 presents the baseline mean mark (average of the first two tests) versus the final mean mark obtained for Personnel Management.

Table 4.4: Comparison between baseline marks versus final marks for Personnel Management

Personnel Management	**n**	**Mean**	**Median**	**Minimum**	**Maximum**	**Standard deviation**
Baseline	42	55	54	29	83	13.34
Final mark	42	52.33	55	20	82	15.9

As represented in Table 4.4, a baseline mean of 55 was obtained for Personnel Management in comparison to a 52.33 final mark mean. The standard deviation of 13.34 for the baseline mark indicated a relatively low spread around the mean mark. It is clear that the baseline marks varied from 29 to 83. The standard deviation for the final marks was 15.9, which was higher than that of the baseline mark indicating that the final marks were slightly more widely spread around the mean. The median score of 55 for the final mark suggests that half of the participants achieved marks of 55 or lower and the other half marks of 55 or higher.

4.4 QUANTITATIVE ANALYSIS OF THE RESULTS – INFERENTIAL ANALYSIS

In this section, the results of the empirical study are quantitatively analysed. The presentation starts with a comparison of the baseline marks and final marks of the three modules, based on registration status. For this purpose, t-tests were utilised and significance was determined by means of Cohen's d. The baseline mark consisted of the first two assessments done for each module and the final mark consisted of one mark combining the year marks for all of the assessments completed, whereas the registration status refers to either diploma or extended diploma programme categories.

Thereafter, a comparison is made between the baseline marks and final marks for the three modules, irrespective of registration, in relation to the academic interventions that were offered. Therefore, all of the results for each module are compared in terms of baseline mark and final mark to determine the extent to which attendance of academic interventions accounted for differences.

Spearman's rho correlations were then utilised to explore relationships between academic advising interventions and tutorials, and differences detected between baseline and final marks. The presentation starts with a comparison of the results of the participants in the diploma programme versus the results of participants in the extended programme.

4.4.1 Comparison between baseline marks and final marks for modules, based on registration status – inferential statistical analysis

An independent sample t-test was performed to determine whether a difference existed in the baseline mean and the final marks for the three modules, based on registration status, namely whether participants were registered for the diploma or the extended diploma. Shier (2004) describes a paired t-test as a technique used to compare two population means in instances where there are two samples in which observations in one sample can be paired with observations in the other sample. Levene's Test for Equality of Variances was used in cases where equal variances were not assumed. Cohen's d was used to determine effect size of significant differences.

Table 4.5 indicates how the Cohen's d has been interpreted.

Table 4.5: Cohen's d effect size interpretation

Cohen's d interpretation	
d = 0.2 -≤ 0.5	Small effect size
d = 0.5 - ≤ 0.08	Medium effect size
d = 0.08 +	Large effect size

An independent t-test was conducted to explore the differences in baseline marks for participants in the diploma and participants in the extended diploma programme. The results for Business Management are presented in Table 4.6.

Table 4.6: Comparison of baseline mark for Business Management, based on registration status (diploma versus extended diploma)

Group Statistics								
		N	Mean	Std. Deviation	Std. Error Mean	Cohen's d	Fisher's Exact Test	
							Exact Sig. (2-sided)	Exact Sig. (1-sided)
Baseline mark	Diploma	31	73.58	14.368	2.581	1.55	0	
	Extended Diploma	11	44.91	21.792	6.571			

Upon review of Table 4.6 it can be deduced that that the baseline mark for Business Management was much higher for participants in the diploma program (73.58) than participants in the extended diploma programme (44.91). Cohen's d (1.55) indicates a large effect size.

If one considers the admission system used for these students, students on the diploma programme obtained higher admission scores than students on the extended diploma programme, and one could assume they were academically more prepared and required less additional academic interventions (Conley, 2010).

The low baseline mark for participants in the extended diploma programme indicates a high failure rate as 50 represents a pass mark. Fisher's Exact Test was conducted to identify if the significant difference found between baseline marks for the diploma and extended diploma participants resulted by chance or if an actual pattern existed. The results from a Fisher's Exact Test supported Cohen's d, indicating the difference in results as significant at 0.

Table 4.7 below represents the results for a comparison of the final marks for Business Management based on registration status.

Table 4.7: Comparison of final mark for Business Management, based on registration status (diploma versus extended diploma)

Group Statistics								
		N	Mean	Std. Deviation	Std. Error Mean	Cohen's d	Fisher's Exact Test	
							Exact Sig. (2-sided)	Exact Sig. (1-sided)
Final mark	Diploma	31	70.13	8.12	1.458	2.35	0	
	Extended Diploma	11	43.45	13.85	4.17			

Upon review of Table 4.7 it can be deduced that that the baseline mark for Business Management was much higher for participants in the diploma programme (70.13) than participants in the extended diploma programme (43.45). Cohen's d (2.35) indicates a large effect size.

The mean score presented in Table 4.7 therefore suggests that students registered for the diploma programme, once again had an overall higher mark for the final mark for Business Management with an average mark of 70.13, compared to those registered for the extended programme who had an average final mark of 43.45. The average final mark (43.45%) for the extended diploma programme students also suggests that the majority of the students registered for the extended diploma programme failed the module as the standard pass rate is 50%. Fisher's Exact Test was once again performed to identify if the significant difference between the extended diploma programme and diploma programme marks resulted by chance or if a pattern existed. The results from the Fisher's Exact Test indicated that the difference was significant at 0. The Cohen's d effect size was very large at 2.35 and when comparing the baseline and final mark averages, it is evident that there was indeed a pattern and that the majority of the participants who were failing were in the extended diploma programme.

Table 4.8 below represents the results for a comparison of the baseline marks for Personnel Management based on registration status.

Table 4.8: Comparison of baseline mark for Personnel Management, based on registration status (diploma versus extended diploma)

Group Statistics								
		N	Mean	Std. Deviation	Std. Error Mean	Cohen's d	Fisher's Exact Test	
							Exact Sig. (2-sided)	Exact Sig. (1-sided)
Baseline mark	Diploma	31	59.03	11.62	2.09	1.32	0	
	Extended Diploma	11	43.64	11.75	3.543			

From Table 4.8 it can be inferred that that the baseline mark for Business Management was higher for participants in the diploma program (59.03) versus the participants in the extended programme (43.64). Cohen's d (1.32) indicates a large effect size.

As with Business Management, Fisher's Exact Test was conducted to identify if the significant difference between the extended diploma programme and diploma programme marks resulted by chance or if an actual pattern existed. The results from the Fisher's Exact Test indicated once again that it was significant at 0. The Cohen's d effect size was also very large at 1.32, indicating that there was indeed a pattern and that the majority of the students who were failing their first two semester tests were enrolled in the extended programme. From the results presented in Table 4.8, it can therefore be suggested that the students registered for the diploma programme had an overall higher mark for the baseline for Personnel Management with an average mark of 59.03, compared to those registered for the extended diploma programme who had an average mark of 43.64.

Table 4.9 below represents the results for a comparison of the final marks for Personnel Management based on registration status.

Table 4.9: Comparison of final mark for Personnel Management based on registration status (diploma versus extended diploma)

Group Statistics								
		N	Mean	Std. Deviation	Std. Error Mean	Cohen's d	Fisher's Exact Test	
							Exact Sig. (2-sided)	Exact Sig. (1-sided)
Final mark	Diploma	31	59.23	10.84	1.946	2.41	0	
	Extended Diploma	11	32.91	10.98	3.31			

From the results presented in Table 4.9, it can be deduced that that the final marks for Business Management were much higher for participants in the diploma program (59.23) versus the participants in the extended programme (32.91). Cohen's d (2.41) indicates a large effect size.

Fisher's Exact Test was significant at 0 and the Cohen's d displayed an exceptionally large effect size at 2.41, indicating that there was once again a pattern and that the majority of the students failing formed part of the extended diploma programme. It is evident that the final marks for the extended diploma programme participants decreased significantly from 43.64% to 32.91%. This result may not be too surprising as students' final marks could drop in the final examination due to the study content being much more for final examinations than that of the basic class tests. It can also be inferred that the majority of the extended diploma programme participants registered for this module failed, as presented by the average mark of 32.91% which in this case is exceptionally low in relation to the prospective pass mark of 50%.

Table 4.10 below represents the results for a comparison of the baseline marks for Accounting for Personnel Practitioners based on registration status.

Table 4.10: Comparison of baseline mark for Accounting for Personnel Practitioners based on registration status (diploma versus extended diploma)

Group Statistics								
		N	Mean	Std. Deviation	Std. Error Mean	Cohen's d	Fisher's Exact Test	
							Exact Sig. (2-sided)	Exact Sig. (1-sided)
Baseline mark	Diploma	31	75.03	14.11	2.53		0	
	Extended Diploma	2	93	9.89	7			

Upon review of Table 4.10, it can be inferred that that the baseline mark for Accounting for Personnel Practitioners was higher for participants in the extended diploma program (93) versus the participants in the diploma programme (75.03). This result should be read with extreme caution as only two participants from the extended programme who were registered for Accounting for Personnel Practitioners were included in this study.

Table 4.11 below represents the results for a comparison of the final marks for Accounting for Personnel Practitioners based on registration status.

Table 4.11: Comparison of final mark for Accounting for Personnel Practitioners based on registration status (diploma versus extended diploma)

Group Statistics								
		N	Mean	Std. Deviation	Std. Error Mean	Cohen's d	Fisher's Exact Test	
							Exact Sig. (2-sided)	Exact Sig. (1-sided)
Final mark	Diploma	31	73.42	11.06	1.99	1.92	0	
	Extended Diploma	11	88.5	0.707	0.5			

Upon review of Table 4.11, it can be inferred that that the final mark for Accounting for Personnel Practitioners was higher for participants in the diploma programme (88.5)

versus the participants in the extended diploma programme (73.42). Cohen's d (1.92) indicates a large effect size.

Although the Cohen's d effect size was large at 1.92, indicating that participants in the extended diploma performed better than those on the diploma programme, it should be considered that only two participants represented the extended programme. It is evident from the final mark for both the extended diploma and diploma programme and the standard deviation that all participants had passed the Accounting for Personnel Practitioners module and passing could therefore be positively linked to active tutorial attendance.

The purpose of the study was to compare the influence of academic interventions on the academic performance of first year HRM students. However, before the influence of academic interventions was determined, a comparison was made between the baseline mark for each of the three modules (Business Management, Personnel Management and Accounting for Personnel Practitioners) and the final mark obtained for each of these modules. This was done to determine whether significant differences existed between the baseline marks and the final marks for the modules. A paired t-test was used to compare the average baseline mark versus the final mark obtained. Shier (2004) describes a paired t-test as a technique used to compare two population means in instances where there are two samples in which observations in one sample can be paired with observations in the other sample.

The results of the paired t-tests are presented in Table 4.12.

Table 4.12: Paired t-test results for a comparison of baseline marks versus final marks Business Management, Accounting for Personnel Practitioners and Personnel Management

Pair	t	df	Sig. (2-tailed)
Baseline: Average of first two tests - Final mark: Business Management	1.967	41	0.056
Baseline: Average of first two tests - Final mark Personnel Management	1.546	41	0.13
Baseline: Average of first two tests - Final mark: Accounting for Personnel Practitioners	1.16	32	0.255

As previously stated, t-tests were conducted to identify whether there were any significant differences between the baseline mark and the final mark for each of the three respective modules.

A paired sample t-test was conducted on the marks of the sample participants before and after the interventions. Levene's Test for Equality of Variances was used in cases where equal variances were not assumed.

Cohen's d was used to determine the effect size, indicating the significant difference. For Cohen's d interpretations, the effect size is deemed small if d = 0.2 and less than 0.5. If the effect size is d = 0.5 and less than 0.8, it is deemed as a medium effect size and when the effect size is 0.8 or greater, it is regarded as a large effect size.

With reference to Table 4.12, it is evident that there was no significant difference between the baseline mark and final mark for either Accounting for Personnel Practitioners or Personnel Management. However, for Business Management there was a small effect size (0.056), implying a small significant difference between baseline mark and final mark. Referring back to Table 4.2 (descriptive statistics for Business Management), a drop in mean score from 66.07 to 63.14 was evident between baseline mean and final mark mean for Business Management.

As no specific interventions were arranged for Business Management, this finding may imply that because students had not attended any interventions for this module, their final marks had dropped and a different outcome may have been achieved if interventions were available. However, at this stage this could still be considered speculation. Further statistical analysis could shed more light on whether a significant drop in final marks for Business Management was indeed a result of a lack of academic interventions specifically aimed at this module. It should be noted that academic advising interventions, for example, were aimed at the general academic performance of students and that learning due to exposure to any type of intervention could be transferred to other modules as well. In the next section, the relationship between attendance of academic advising interventions and attendance of tutorials is explored.

4.4.2 Relationship between attendance of academic advising interventions and attendance of tutorials

Spearman's Correlation Coefficient was used to determine whether the variables measured in the study were related or associated, and specifically whether attendance of academic advising interventions and attendance of tutorials was related for performance in Accounting for Personnel Practitioners, Personnel Management and Business Management.

Spearman's Correlation Coefficient, also referred to as Spearman's rho measures the strength of association between two variables (Lani, n.d). Spearman's rho was used in this particular study because the variables were categorically split according to each module (Business Management, Personnel Management and Accounting for Personnel Practitioners).

For Spearman's rho correlations, if a statistically significant correlation occurs, it is considered small/weak when the *r* coefficient is between 0 and equal to/less than 0.30; when the *r* coefficient is between 0.30 and equal to/less than 0.5, it is regarded as a moderate/medium correlation and when *r* is greater than 0.50, it is deemed a strong correlation.

Table 4.13 presents Spearman's rho correlations for the module of Accounting for Personnel Practitioners.

Table 4.13: Spearman's rho correlations for the Accounting for Personnel Practitioners module

Accounting	***Academic Advising***	***Tutorials***	***Mark difference***
Academic advising	1	-0.135	0.066
Tutorials	-0.135	1	-0.2
Mark difference	0.066	-0.2	1

As displayed in Table 4.13, the top left cell is redundant as it is the correlation of academic advising with itself, which is automatically perfect at +1. The correlation between attendance of academic advising and attendance of Accounting for Personnel Practitioners tutorials indicates a small negative correlation, r = -0.135.

The top right cell in the table indicates a weak correlation between academic advising and mark difference detected (r = 0.066) and a weak negative correlation (r = -0.2) between tutorials and the mark difference detected. Therefore, it can be concluded that no significant relationships existed between academic advising interventions and Accounting for Personnel Practitioners tutorials and mark differences detected. Table 4.14 below displays Spearman's rho correlations for the module of Personnel Management.

Table 4.14: Spearman's rho correlations for Personnel Management

Personnel Management	***Academic Advising***	***Tutorials***	***Mark difference***
Academic advising	1	0.336**	0.12
Tutorials	0.336**	1	-0.056
Mark difference	0.12	-0.056	1

** Correlation is significant at the 0.05 level (2-tailed)

As presented in Table 4.14, it can be deduced that there is a moderate/medium correlation between academic advising interventions and tutorials, with r = 0.336 for the module of Personnel Management. However, there is no significant relationship with mark

differences as can be seen from the top right cell which indicates no significant correlation between academic advising interventions and mark differences with r = 0.12.

The positive medium relationship between Personnel Management tutorials and the academic advising interventions suggests that if the participants were likely to attend the one intervention (for example Personnel Management tutorial), they were likely to attend the other (academic advising tutorial) interventions and vice versa. However, attendance of these interventions did not have a significant influence on the mark differences.

No tutorials were presented for Business Management and the correlation between academic advising interventions and the mark differences for this module revealed a r = 0.063. As such, the correlation analysis did not reveal an association between attendance of academic interventions and mark differences.

4.5 ASSOCIATION BETWEEN ATTENDANCE OF ACADEMIC INTERVENTIONS AND PASS/FAIL RATES

Cross-tabulation was used to demonstrate the joint distribution of two categorical variables: pass/fail versus attendance of academic interventions. Chi-square is the primary statistic utilised for testing the statistical significance of a joint distribution of categorical variables in cross-tables (Coolican, 2014). Chi-square is regarded as a difference test or a ‘test of association’ between two variables and essentially tests the difference between two distributions of data.

For this study, cross-tables and chi-square were used to analyse the association between a pass/fail outcome for the three modules and attendance of academic advising interventions. The purpose of this analysis was to identify whether there were distinctive patterns between participants who attended academic advising interventions and actually passed or alternatively, patterns between participants who failed and did not attend any of these interventions. By applying the data relating to the dimensions of the table, Cramer’s V is used to overcome the difficulty of measuring associations of different dimensions which cannot be compared directly. Cramer’s V equals 0 when there is no

relationship between the two variables, and generally has a maximum value of 1, regardless of the dimension of the table or the sample size. Cramer's V can therefore be used to compare the strength of association between any two cross classification tables. Cramer's V effect size is interpreted as; 0 - 0.1 = Negligible; 0.1 - 0.2 = Weak; 0.2 - 0.4 = Moderate; 0.4 - 0.6 = Relatively Strong; 0.6 - 0.8 = Strong; 0.8 – 1 = Very strong (Coolican, 2014).

Table 4.15 presents cross-tabulation data for testing the association between passing/failing Business Management and attendance of academic advising interventions. Academic interventions relevant here are goal setting and academic writing interventions. The table presents the descriptive statistics for the pass/fail outcome in relation to academic advising interventions, Pearson's chi-square and Cramer's V.

Table 4.15: Association between a pass/fail outcome for Business Management and attendance of academic advising interventions

Goal Setting; Academic Writing * PASS / FAIL Cross-tabulation					
			PASS / FAIL		**Total**
			Fail	Pass	
Goal Setting; Academic Writing	0	Count	8	4	12
		% of Total	19.00 %	9.50 %	28.60%
	1	Count	0	14	14
		% of Total	0.00%	33.30 %	33.30%
	2	Count	0	15	15
		% of Total	0.00%	35.70 %	35.70%
	3	Count	0	1	1
		% of Total	0.00%	2.40 %	2.40%
Total		Count	8	34	42
		% of Total	**19.00 %**	**81.00 %**	**100.00%**

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	**24.71**	**3**	**0**
Likelihood Ratio	**25.624**	**3**	**0**
Linear-by-Linear Association	**16.688**	**1**	**0**
		Value	**Approximate Significance**
Nominal by Nominal	Phi	0.767	0
	Cramer's V	**0.767**	0
N of Valid Cases	42		

The data presented in Table 4.15 indicates that 81% of the participants who completed the Business Management module passed, versus 19% who failed. The chi-square (24.71) reveals that the Asymptotic Significance is 0 and therefore a significant relationship exists between attendance of academic advising interventions and passing Business Management. The Asymptotic Significance figure presents the p-value of the chi-square, indicating that there is a pattern, therefore suggesting that the majority of participants who did attend the academic advising workshops were the ones passing, in contrast to those who did not attend academic advising workshops. A p-value of less than .05 indicates significance and is associated with a 95% confidence level. When the p-value is less than .05, it can be deduced that the variables are not independent of each other and that there is a statistical relationship between the categorical variables. Moreover, Cramer's V is 0.767 and indicates a strong effect size in terms of the association between academic advising interventions and pass rate.

Table 4.16 presents cross-tabulation data for testing the association between passing/failing Personnel Management and attendance of academic advising interventions.

Table 4.16: Association between pass/fail outcome for Personnel Management and academic advising interventions

Goal Setting; Academic Writing * PASS / FAIL Cross-tabulation					
			PASS / FAIL		Total
			Fail	Pass	
Goal Setting; Academic Writing	0	Count	10	2	12
		% of Total	23.80%	4.80 %	28.60%
	1	Count	1	13	14
		% of Total	2.40 %	31.00 %	33.30%
	2	Count	2	13	15
		% of Total	4.80 %	31.00 %	35.70%
	3	Count	0	1	1
		% of Total	0.00 %	2.40 %	2.40%
Total		Count	13	29	42
		% of Total	**31.00%**	**69.00 %**	**100.00%**
		Value	**df**		**Asymptotic Significance (2-sided)**
Pearson Chi-Square		**21.746**	**3**		**0**
Likelihood Ratio		**22.174**	**3**		**0**
Linear-by-Linear Association		**13.694**	**1**		**0**
			Value		Approximate Significance
Nominal by Nominal		Phi	0.72		0
		Cramer's V	**0.72**		0
N of Valid Cases		42			

The data presented by the cross-tabulation in Table 4.16, indicates that 69% of the participants in the Personnel Management module passed, versus 31% who failed. The chi-square revealed that the Asymptotic Significance was 0 and there was indeed a significant relationship between the categories, suggesting a pattern that the majority of

participants who attended the academic advising workshops were the ones who were passing in comparison to the 31% who failed, never attended the interventions. Seeing that there was a significant relationship, it can be deduced that the pattern did not occur by chance. Moreover, Cramer's V indicates an effect size of 0.72, indicating a strong relationship between academic advising interventions and passing.

Table 4.17 indicates results for testing the association between a pass/fail outcome for Personnel Management and attendance of tutorials.

Table 4.17: Association between a pass/fail outcome for Personnel Management and tutorials

Intervention: Personnel Management tutorials * PASS / FAIL Cross-tabulation					
				PASS / FAIL	**Total**
				Fail	Pass	
Intervention: Personnel Management tutorials	0	Count	5	9	14
		% of Total	11.90 %	21.40 %	33.30%
	1	Count	8	20	28
		% of Total	19.00 %	47.60 %	66.70%
Total		Count	13	29	42
		% of Total	**31.00 %**	**69.00 %**	**100.00 %**

	Value	**df**	**Asymptotic Significance (2-sided)**
Pearson Chi-Square	**21.746a**	**1**	**0.637**
Likelihood Ratio	**0.22**	**1**	**0.639**
Linear-by-Linear Association	**0.218**	**1**	**0.641**
		Value	Approximate Significance
Nominal by Nominal	Phi	0.72	0
	Cramer's V	0.72	0
N of Valid Cases	42		

As indicated before, 69% of the participants who completed the Personnel Management module passed, versus 31% who failed. As presented in Table 4.17, the chi-square test reveals an Asymptotic Significance of 0.637, indicating that no significant relationship is present between pass rates for Personnel Management and attendance of tutorials, suggesting that attendance of tutorials did not have any effect on pass and failure rates. However, conversely, Cramer's V indicates an effect size of 0.72, indicating a strong association between the attendance of tutorials and pass/failure outcomes. In the next section, the ANOVA results for the differences between groups based on final marks in relation to interventions attended are discussed.

4.6 DIFFERENCES BETWEEN GROUPS BASED ON FINAL MARKS IN RELATION TO INTERVENTIONS ATTENDED: ANOVA RESULTS

The basic principle of ANOVAs is to test for differences among the means of the populations by examining the amount of variation within each of these samples, relative to the amount of variation between the samples (Coolican, 2014). A p-value of $< .05$ indicates a significant difference among the means obtained by the respective groups. Nevertheless, an ANOVA can only tell that differences exist, but fails to indicate which specific groups differ (for $k > 2$). For this reason, a post-hoc test (Tukey's test) is used to test the differences among the respective groups in case of a significant ANOVA. Once the Tukey test indicates where the differences lie, the descriptive statistics are consulted to identify the actual differences.

In this study, ANOVAS were utilised to analyse the results based on the number of academic advising interventions attended. The participants attended either none, one or two academic advising interventions. In terms of Accounting for Personnel Practitioners, participants could have attended eight tutorials.

4.6.1 Accounting for Personnel Practitioners

For Accounting for Personnel Practitioners, differences were found in terms of attendance of academic advising interventions, baseline marks and final marks, but these differences

were not found to be significant. P-values indicating significance were 0.878 (attendance of academic interventions), 0.333 (baseline marks) and 0.063 (final marks). In addition, no significant differences were found in terms of attendance and non-attendance of tutorials. As such, the tables containing detailed data about the comparisons are not included. However, to confirm the above notion, some descriptive statistics for Accounting for Personnel Practitioners are included in Table 4.18.

Table 4.18: Descriptive statistics for Accounting for Personnel Practitioners for academic advising interventions and tutorials

Accounting for Personnel Practitioners	**Goal Setting & Academic Writing**	**N**	**Mean**
Baseline marks	0	4	82.75
	1	14	72.07
	2	15	78.13
	Total	**33**	**76.12**
Final mark	0	4	81.75
	1	14	69.29
	2	15	77.07
	Total	**33**	**74.33**
Accounting for Personnel Practitioners	**Tutorials**	**N**	**Mean**
Baseline mark	[0 - 4]	24	75.79
	[5 - 8]	9	77
Final mark	[0 - 4]	24	74.67
	[5 - 8]	9	73.44

It is evident that the group that did not attend any academic advising interventions, consisted of only four participants, and they performed well in terms of both baseline mark and final mark. The groups that did attend one or two academic advising interventions also performed well in terms of baseline mark and final mark. Likewise, the results for tutorials attended (0-4 and 5-8 tutorials) also reveal consistent good results. It could be concluded that the lack of differences detected in the results for Accounting for Personnel Practitioners could be attributed to the consistent attendance of both academic advising interventions and tutorials.

4.6.2 Business Management

For Business Management, a significant difference (p = 0) was found for both baseline marks and final marks based on attendance of academic advising interventions, as indicted in Table 4.19 with p-values of 0.

Table 4.19: Baseline and final marks for Business Management, based on attendance of academic advising interventions

ANOVA RESULTS						
Business Management		**Sum of Squares**	**df**	**Mean Square**	**F**	**Sig.**
Baseline mark	Between Groups	6957.921	2	3478.961	12.413	**0**
	Within Groups	10650.079	38	280.265		
	Total	17608	40			
Final mark	Between Groups	5488.466	2	2744.233	24.982	**0**
	Within Groups	4174.314	38	109.85		
	Total	9662.78	40			

Table 4.20 indicates the Tukey HSD results, which indicate between which groups the differences lie.

Table 4.20: Tukey's HSD results for Business Management

Goal Setting & Academic Writing	Goal Setting & Academic Writing	Mean difference	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
0	1	-28.821*	6.586	0	-44.88	-12.76
	2	-28.450*	6.484	0	-44.26	-12.64
1	0	28.821*	6.586	0	12.76	44.88
	2	0.371	6.221	0.998	-14.8	15.54
2	0	28.450*	6.484	0	12.64	44.26
	1	-0.371	6.221	0.998	-15.54	14.8

The Tukey HSD results show that the differences lie between the groups that attended one or two interventions, and the group that attended no interventions. To understand the differences better, the descriptive statistics for these groups are perused. The descriptive statistics are presented in Table 4.21.

Table 4.21: Descriptive statistics for groups that attended none, one and two academic advising interventions and results for Business Management

		N	Mean	SD	St error	95% confidence		Min	Max
						Lower Bound	Upper Bound		
Baseline	0	12	45.75	21.201	6.12	32.28	59.22	12	73
	1	14	74.57	14.02	3.747	66.48	82.67	51	93
	2	15	74.2	15.001	3.873	65.89	82.51	48	100
	Total	41	66	20.981	3.277	59.38	72.62	12	100
Final mark	0	12	45.17	14.69	4.241	35.83	54.5	22	71
	1	14	69.14	6.311	1.687	65.5	72.79	59	80
	2	15	71.73	9.573	2.472	66.43	77.03	53	86
	Total	41	63.07	15.543	2.427	58.17	67.98	22	86

It is evident that the groups that attended no academic advising interventions obtained the lowest baseline mark (mean 45.75) and final mark (45.17). Those that attended one or two academic advising interventions obtained 74.57 (one intervention) and 69.14 (two interventions) for the baseline mark, and 74.2 (one intervention) and 71.73 (two interventions) for the final mark. What should be noted in these results is that the group that needed academic advising interventions the most due to low baseline marks, were also least likely to attend these interventions and most likely to fail the module.

4.6.3 Personnel Management

Table 4.22 below contains the baseline and final marks, based on attendance of academic advising interventions for Personnel Management.

Table 4.22: Baseline and final marks for Personnel Management, based on attendance of academic advising interventions

Personnel Management		**Sum of Squares**	**df**	**Mean Square**	**F**	**Sig.**
Baseline mark	Between Groups	3089.274	2	1544.637	14.256	**0**
	Within Groups	4117.214	38	108.348		
	Total	7206.488	40			
Final mark	Between Groups	4505.427	2	2252.713	14.791	**0**
	Within Groups	5787.695	38	152.308		
	Total	10293.122	40			

For Personnel Management, a significant difference (p = 0) was found for both baseline marks and final marks based on attendance of academic advising interventions, as indicted in Table 4.22, with p-values of 0.

Table 4.23: Tukey HSD results for Personnel Management

Goal Setting & Academic Writing	**Goal Setting & Academic Writing**	**Mean diff.**	**Std. Error**	**Sig.**	**Goal Setting & Academic Writing**	**95% confidence**	
						Lower Bound	**Upper Bound**
Baseline marks	0	1	-15.690*	4.095	0.001	-25.68	-5.7
		2	-21.000*	4.031	0	-30.83	-11.17
	1	0	15.690*	4.095	0.001	5.7	25.68
		2	-5.31	3.868	0.365	-14.74	4.12
	2	0	21.000*	4.031	0	11.17	30.83
		1	5.31	3.868	0.365	-4.12	14.74
Final mark	0	1	-19.238*	4.855	0.001	-31.08	-7.4
		2	-25.267*	4.78	0	-36.92	-13.61
	1	0	19.238*	4.855	0.001	7.4	31.08
		2	-6.029	4.586	0.396	-17.21	5.16
	2	0	25.267*	4.78	0	13.61	36.92
		1	6.029	4.586	0.396	-5.16	17.21

From Table 4.23, it is evident that the changes lie between groups that attended no, one and two academic advising interventions.

To analyse the differences more precisely, the descriptive statistics are consulted in Table 4.24.

Table 4.24: Descriptive statistics for groups that attended none, one and two academic advising interventions and results for Personnel Management

Personnel Management		N	Mean	SD	Std. Error	95% Confidence Interval for Mean		Min	Max
						Lower Bound	Upper Bound		
Baseline mark	0	12	41.67	8.489	2.451	36.27	47.06	29	61
	1	14	57.36	9.12	2.437	52.09	62.62	42	72
	2	15	62.67	12.659	3.268	55.66	69.68	37	83
	Total	41	54.71	13.422	2.096	50.47	58.94	29	83
Final mark	0	12	36.33	15.75	4.547	26.33	46.34	20	73
	1	14	55.57	7.842	2.096	51.04	60.1	41	72
	2	15	61.6	12.704	3.28	54.56	68.64	34	82
	Total	41	52.15	16.041	2.505	47.08	57.21	20	82

It is evident that the group that did not attend any academic advising interventions had the lowest baseline mark (41.67), followed by the group that attended one intervention (57.36), followed by the group that attended two interventions (62.67). The same applied to the final mark. The group that did not attend any academic advising interventions had the lowest final mark (36.33), followed by the group that attended one intervention (55.57), followed by the group that attended two interventions (61.6). It is noted that the group that needed academic interventions the most were least likely to attend. It is also noted that the marks for Personnel Management progressively improved with the attendance of academic advising interventions.

The afore-mentioned can be positively linked to student engagement as engagement is widely understood as a useful representative for academic success, persistence and retention (Schreiber & Yu, 2016). It is suggested that the above results representing

academic advising interventions therefore correlate with research conducted on student engagement highlighting that institutional ‘high impact practices’ are academic encounters making notable differences in student persistence, learning outcomes and student success (Kuh, 2009; Strydom, 2014; Schreiber & Yu, 2016). With specific reference to this study, the ‘high impact practices’ refer to academic interventions in this regard.

4.7 CONCLUSION

In this chapter, the statistical analysis and interpretation of the results of the empirical study were presented and discussed. The quantitative research findings were summarised and reflected upon in a comprehensive fashion.

In Chapter 5, a summary of the conclusions, limitations and recommendations based on the findings of the empirical study will be presented and discussed.

CHAPTER 5
SUMMARY, RECOMMENDATIONS AND CONCLUSIONS

5.1 INTRODUCTION

In this chapter, a summarised overview of the study is provided with particular reference to the extent to which the primary and secondary objectives were addressed. The challenges and limitations of the study are identified, and final conclusions are drawn. Moreover, recommendations pertaining to the study are introduced in addition to suggestions for future research on this topic.

5.2 SUMMARY OF THE STUDY

In combining all of the components of this study, the primary and secondary objectives are reiterated to facilitate a clear understanding of the steps followed to address these objectives. The key findings associated with each of the objectives are accentuated to enable a clear discussion of the process. The primary and secondary objectives are subsequently outlined.

Research objective 1:

The primary aim of this research study was to investigate the impact of academic interventions on the Diploma in HRM and the Diploma in HRM (Extended) students' academic performance at Nelson Mandela University. This research objective was attained by comparing the baseline performance of students with their final performance levels and determining whether attending academic interventions improved performance.

Research objective 2:

A secondary objective of this study was to investigate whether the relationship between participation in academic interventions and academic success was moderated by whether students were admitted to the Diploma in HRM or the Diploma in HRM (Extended) Programme.

The first section of this study entailed completing a literature review to outline the nature of academic interventions and their influence on academic performance. This exploration involved a thorough analysis of the various factors impacting academic success, particularly focussing on student preparedness, student readiness, student engagement and academic support interventions.

The following hypothesis was formulated:
Hypothesis 1: Participation in academic interventions influence the academic success of students.

This hypothesis was addressed in Chapter 4 by analysing the relationship between academic interventions and academic success with relation to three modules, namely Business Management, Personnel Management and Accounting for Personnel Practitioners.

5.3 SUMMARY OF RESULTS AND DISCUSSION

A summary of the results is presented with a description of the sample in terms of numbers and attendance of academic interventions, the descriptive analysis of baseline marks and final marks followed by the inferential analysis to address the main research questions and hypothesis.

5.3.1 Description of the sample

In Chapter 4, a description of the sample was presented. Forty-four HRM students registered in 2018 for the modules of Business Management, Personnel Management and Accounting for Personnel Practitioners gave consent for their academic data to be used in the study. The majority of the participants (74%) included in the sample were registered for the Diploma in HRM programme in comparison to those who were registered for the Diploma in HRM (Extended) Programme. The participants were registered for at least one of the modules investigated in the study, but not necessarily for all three. As stipulated in the literature review in Chapter 2, the purpose of the extended qualification is to

accommodate students who do not meet the minimum admission criteria. The aim of the extended curriculum is to provide them with the necessary academic foundation to successfully complete their studies (CHE, 2013).

From the results presented on the attendance of academic advising interventions (Figure 4.2), an encouraging finding was that 71% of the participants attended at least one of the two academic advising interventions which covered goal setting and academic writing.

In addition, a further uplifting finding was that 85% of the participants attended at least one of the Accounting for Personnel Practitioners interventions, whilst 69% of the participants attended the Personnel Management intervention. While only one tutorial for Personnel Management was included in this study, eight tutorials were presented for Accounting for Personnel Practitioners. From the literature review in Chapter 2, it can be valuable to compare readiness levels of students entering university to the profile of a successful student. This comparison can identify a gap that students may have in relation to readiness so that appropriate academic support interventions can be introduced. It can therefore be deduced that the above-mentioned tutorials were tailor-made to provide the necessary academic support ensuring that students are adequately prepared for module assessments and examinations.

The promising afore-mentioned findings on tutorial attendance provide good indication that the majority of students are investing in their own academic success by attending academic support provided by the university. It can therefore be inferred that they are actively engaged in their academic activities. Trowler (2010, p.1) contends this by suggesting that there is much evidence to suggest a strong correlation between student involvement in educationally purposive activities and student success and development.

5.3.2 Descriptive statistics

A descriptive presentation and analysis of the findings were made. A comparison of the descriptive statistics for the baseline marks and final marks for the modules of Business Management, Accounting for Personnel Practitioners and Personnel Management were

conducted. It was revealed that the participants all performed better in the baseline mark in comparison to the final mark for all three of the modules. This was not a surprising result as students generally obtained better marks for assessments throughout the year compared to their final assessments.

It was also found that the marks for Accounting for Personnel Practitioners final mark (Table 4.3) averaged substantially higher in relation to Business Management (Table 4.2) and Personnel Management (Table 4.4). This result could be linked to the above-mentioned finding related to the high attendance of academic interventions and the fact that more support was provided for students in Accounting for Personnel Practitioners. The provision of academic support can enhance student engagement by creating a more conducive and less challenging environment (Tinto, 1987).

5.3.3 Inferential statistics

Inferential statistics (independent paired t-tests and Cohen's d) were performed to compare the baseline and final marks based on registration status, namely whether participants were registered for the diploma or extended diploma programme. An analysis of these findings revealed that a significant difference was detected for the comparison of both the baseline and final marks for participants in the diploma and extended diploma programmes for the modules of Business Management and Personnel Management. The findings suggested that the diploma students performed better than the extended diploma students and also had a better pass rate. Accounting for Personnel Practitioners is excluded from this discussion since the sample representation for the extended programme was too simple.

The most obvious reason for this was that the extended diploma students did enter tertiary education being academically less prepared, if this observation is based on the entry requirements. It can therefore be concluded that the extended diploma students were academically less prepared and required more academic intervention support as suggested by Tinto (1987). However, other observations in this respect can also be made.

From the above-mentioned findings it could also perhaps be concluded that the extended diploma students may become complacent given the fact that they have an extended curriculum, which is directly linked to student retention (Tinto, 1975). Moreover, the low pass rate of the extended diploma students can be due to work and/or other commitments related to family which may have limited study preparation time and effort. However, one could reason that the same could apply to students not on the extended programme.

Spearman's Correlation Coefficient was used to explore if a relationship existed between attendance of academic advising interventions, attendance of tutorials for the three modules and mark differences for all of the modules. Therefore indicating whether those who attended academic advising interventions were more likely to attend tutorials and more likely to experience a mark difference. The findings revealed a relationship between attendance of the Personnel Management tutorials and attendance of the academic advising interventions, but not a relationship between attendance of academic advising interventions and attendance of tutorials for the Accounting for Personnel Practitioners module. In addition, no relationship was found in terms of attendance of interventions and mark differences. The findings suggest that if the students were likely to attend one intervention, for example a Personnel Management tutorial, they were more likely to attend another intervention, for instance an academic advising tutorial. This result can be linked to student engagement highlighting that academic encounters make notable differences in student persistence, learning outcomes and student success (Kuh, 2009; Strydom, 2014; Schreiber & Yu, 2016). Considering that the descriptive results revealed that the final marks were actually lower the baseline marks, the results were not surprising in terms of mark differences.

To explore further, an analysis was done on the association between attendance of academic advising interventions and pass/failure rates. For this purpose, cross-tabulation with chi-square calculations were used to demonstrate the joint distribution of two categorical variables: pass/fail versus attendance of academic advising interventions. A significant relationship was revealed between the attendance of academic advising interventions and the passing of Business Management and Personnel Management modules. This result suggested that the majority of the participants who attended the

academic advising interventions were the ones passing these two modules. This finding can once again be directly linked to student engagement and motivation which incorporates students voluntarily participating in academic activities with desired outcomes of passing and progressing to the next year of study (Krause, 2005; Chen et al., 2008). Further analysis revealed that the tutorial presented for Personnel Management did not have any effect on pass and failure rates for this module.

Lastly, ANOVAs were utilised to analyse the results based on the number of academic advising interventions attended. The participants attended either none, one or two academic advising interventions. In terms of Accounting for Personnel Practioners, participants could have attended eight tutorials.

For Accounting for Personnel Practitioners, differences were identified in terms of attendance of academic advising interventions, baseline marks and final marks but these differences were not found to be significant. For this module, active attendance of both academic advising interventions and module tutorials were noted, as well as good pass rates. The conclusion is drawn that due to interventions being well attended and good pass rates, no distinct groups could be identified and therefore differences could not be detected. The module provides a good example of participants being engaged and obtaining good baseline and good final marks/results.

For Business Management, results from exploring differences in terms of attendance of academic advising interventions, baseline marks and final marks all indicated that participants who obtained the worst marks were those who did not attend any interventions. In essence, it can be deduced that the participants who needed academic advising interventions the most, were the least likely to attend interventions and the mostly likely to fail the module. Therefore, the importance of attending academic interventions are emphasised. This statement is also justified by the noticeable link between the attendance of academic interventions and pass rates.

For Personnel Management, the results also displayed that participants who needed academic interventions the most, were least likely to attend. However, it is also conferred

from the results that the marks for Personnel Management progressively improved with the attendance of academic advising interventions. This result can perhaps be positively linked to motivation. Academic support interventions are regarded as a tool specifically aimed at engaging students by increasing their motivation to work hard and succeed (Chickering & Kuh, 2005). The above-mentioned finding can be considered a great motivating factor for many students if they realise that their marks could improve by attending academic interventions and module tutorials. As such, they are likely to be motivated to continue this activity with the aim of graduating upon completion of all of their modules.

5.4 RECOMMENDATIONS AND FUTURE RESEARCH AREAS

The objectives of this study were to analyse the influence of academic interventions on academic performance and make recommendations to academic staff and other role players, emphasizing the importance of academic support interventions and the significant role these play in overall student success. In the literature overview, academic performance was outlined in terms of a few outstanding variables, namely student preparedness, student engagement, student retention and academic support. When reflecting on the challenges faced in the South African higher educational context, it is evident that the development and implementation of academic support programmes are important. The programmes are aimed at providing quality learning and teaching and counteracting declining success rates. In addition, there is a need to transform how massification of higher education takes place to address the challenges of diverse student profiles, dropout rates and low throughput rates.

The following recommendations resulted from the literature review.

- Provision must be made in terms of language of instruction by implementing more languages as mediums of instruction. This can provide students with equal opportunities for completing all academic activities, including assessments and presentations.

- Academic development and student support should be promoted by fostering conditions for learning with a safe and secure campus learning environment. This must incorporate supportive, knowledgeable and experienced subject lecturers, as well as the use of tutorials and opportunities for active engagement with course content. The afore-mentioned is likely to set a productive learning environment, supplementing students to progress academically. Provided that tutorials are only offered for certain modules, it is suggested that similar academic interventions are incorporated into all programmes offered by higher education institutions for students who are struggling.
- Students who may be at risk must be more actively enrolled for tutorials and tutorial sessions must be implemented for all subject disciplines in the HRM programme to create a system where student progress can be monitored per module and alternative practices for improving academic performance can be explored.
- Financial challenges experienced by students must be considered. Factors such as student housing and the provision of meals impact student engagement and retention, and such factors could be illuminated to enhance student success.
- It must be noted that student engagement also involves students being more involved with the university community which includes various university social activities that enable students to interact with their fellow university community. This creates opportunities for both institutional and interpersonal support systems to be formed, enriching the campus-life experience. These social activities should be accessible to all campuses of the Nelson Mandela University to foster success and a sense of connection with the university.
- Safe and reliable transportation must be provided to students who live far from the university so that they are not excluded from attending academic and social interventions.
- Blended teaching and learning approaches must be made more prominent by engaging in learning through electronic mediums of technology in terms of lecture venues, ICT infrastructure and support provided by the university to enhance the student learning experience.

- Those students who do not have access to resources such as the internet and computers need to be catered for in terms of extended library hours, access to computer labs and other facilities at the university that provide the required resources.

Specific recommendations for future research include:

- A study can be conducted to identify students' perceptions of academic intervention support by exploring how effective they deem tutorials to be and what content or structural changes could be adopted to increase effectiveness of these interventions. In addition, perceptions in terms of the number of interventions provided and the flexibility thereof should also be explored so that these interventions do not clash with other academic commitments such as tests and assignments.
- A study can be conducted on how students who do not speak English as their first language experience learning in a different language, whether they feel that learning in another language negatively affects their performance and how the university can make provision for these students.
- A study can be conducted on how students utilise and respond to blended learning approaches both on and off campus by utilising relevant content and exploring how different methods of teaching and learning can enhance their overall learning experience.
- A study can be conducted to identify student preferences for learning spaces provided by Nelson Mandela University. This can determine how the provision of learning spaces can enhance student learning experiences by examining study spaces, technology, resources, suitable lecture venues and areas that make provision for interaction which contribute to overall learning experiences.

5.5 PROBLEMS AND LIMITATIONS

The problems and limitations experienced in the study are outlined below.

5.5.1 Limited sample groups

The total number of participants who responded was 44. It appears that many of the students who were approached did not want to participate in the study as they were perhaps of the opinion that their marks and/or identifying information could have been exposed, even with assurances and a consent letter provided. Due to a limited response rate, the overall variability of the sample results may have been affected. Despite this limitation, meaningful inferences could be made from the results.

5.5.2 Generalisation of results

The sample consisted of Diploma in HRM and Diploma in HRM (Extended) Programme students registered for Business Management, Personnel Management and Accounting for Personnel Practitioners. The results of the study are thus limited to these modules and can subsequently not be generalised to similar student groupings in other departments, to other courses offered at Nelson Mandela University or to any other higher leaning institution.

5.6 CONCLUSION

Higher education institutions and their staff work tirelessly to continue to improve facilities and services aimed at enhancing academic success. Curricula and support offered by these institutions are constantly reviewed and updated to provide an adequate standard of education to produce well-equipped graduates for the global workplace. With all of the above-mentioned facilities made available to enhance the student learning experience and promote engagement, it is also up to the student to use effort in their university activities and create a successful university journey for themselves.

It was evident from the literature and results provided by the study that academic interventions indeed have a positive influence on student behaviour and student academic progress. It appears that when a student attends one intervention, they are further motivated to attend another which is admirable in terms of retaining students and student

engagement. It is therefore important for students to remain knowledgeable and make enquiries with academic staff regarding the academic support provided to improve their own academic performance.

REFERENCES

Afzal, H., Ali, I., Khan, M.A., & Hamid, K. (2010). A study of university students' motivation and its relationship with their academic performance. *International Journal of Business and Management, 5* (4), 80-88.

Agherdien, N. (2014). *Investigating student readiness for tertiary education.* Unpublished master's dissertation, Nelson Mandela Metropolitan University: Port Elizabeth.

Antwi, S., & Kasim, H. (2015). Qualitative and quantitative research paradigms in business research: A philosophical reflection. *European Journal of Business and Management, 7* (3), 218-219.

Astin, A.W. (1999). Student involvement: A developmental theory for higher education. *Journal of College Student Development, 40* (5), 518-531.

Babbie, E., & Mouton, J. (2001). *The practice of social research.* Cape Town: Oxford.

Bandura, A. (1997). *Self-efficacy: The exercise of control.* New York: Freeman.

Bergh, Z.C., & Theron, A.L. (2009). *Psychology in the work context* (4th ed.). Cape Town: Oxford University Press.

Bond, T. (2003). Validity and assessment: A Rasch measurement perspective. *Metodoliga de las Ciencias del Comportamento, 5* (2), 179-194.

Burgess, R.G. (ed.). (1989). *The ethics of educational research.* Lewes: Falmer.

Butler, H.G., & van Dyk, T.J. (2004). *An academic English language intervention for first African context* (4th ed.). Cape Town, South Africa: Oxford.

Caplan, N. (1991). The use of social research knowledge at the national level. In D.S. Anderson & B.J. Biddle (Eds.), *Knowledge for policy: Improving education through research* (pp. 193-202). London: Falmer.

Carini, R.M., Kuh, G.D., & Klein, S.P. (2006). Student engagement and student learning: Testing the linkages. *Research in Higher Education, 47* (1), 1-32.

Chen, P.S.D., Gonyea, R., & Kuh, G. (2008). Learning at a distance: Engaged or not? *Innovate: Journal of Online Education, 4* (3), Available: https://www.learntechlib.org/p/104252/ (Accessed 30 September 2018).

Chickering, A.W., & Kuh, G.D. (2005). *Promoting student success: Creating conditions so every student can learn (Occasional Paper No. 3).* Bloomington, IN: Indiana University Center for Postsecondary Research.

Cohen, L., & Manion, L. (1994). *Research methods in education* (4th ed.). London: Routledge Publishers.

Cohen, L., Manion, L., & Morrison, K. (2011). *Research methods in education* (7th ed.). London: Routledge Publishers.

Conley, D.T. (2010). *College and career ready: Helping all students succeed beyond high school.* San Francisco: Jossey-Bass.

Coolican, H. (2014). *Research methods and statistics in psychology* (6th ed.). London: Psychology Press.

Council on Higher Education (CHE). (2009). *The state of higher education in South Africa.* Higher Education Monitor, No. 6, October. Pretoria: CHE.

Council on Higher Education (CHE). (2010). Available: https://www.che.ac.za/media_and_publications/monitoring-and-evaluation/higher-education-south-africa-data-2010 (Accessed 10 March 2019).

Council on Higher Education (CHE). (2013). *A proposal for undergraduate curriculum reform in South Africa: The case for a flexible curriculum structure.* Pretoria: CHE.

Council on Higher Education (CHE). (2014). CHE *Annual Report 2013/2014.* Pretoria, South Africa. Available: www.che.ac.za/sites/default/files/publications/CHE_Annual%20Report%202014.pdf (Accessed 13 September 2018).

Council on Higher Education (CHE). (2015). *Draft policies for Recognition of Prior Learning (RPL), Credit Accumulation and Transfer (CAT), and Assessment.* Pretoria: CHE.

Crossman, A. (2017). *Understanding purposive sampling*. ThoughtCo. Available: https://thoughtco.com/purposive-sampling-3026727 (Accessed 1 April 2018).

de Villiers, B. (2013). *The influence of student engagement on the academic success of first year Human Resource Management diploma students.* Available: https://www.researchgate.net/publication/328828881 (Accessed 21 January 2020).

Denzin, N., & Lincoln, Y. (2011). *The Sage handbook of qualitative research* (4th ed.). Los Angeles: SAGE.

Department of Education. (1995). *White Paper on Education.* (Vol. 375, No. 45621). Pretoria: Government Printers.

DHET Annual Stats Report. (2016). *Statistics on post-school education and training in South Africa 2016.* Available: http://www.dhet.gov.za/DHET%20Statistics%20Publication/Statistics%20on%20Po

st-School%20Education%20and%20Training%20in%20South%20Africa%202016.pdf (Accessed 13 September 2018).

DHET. (2018). *Green Paper for post-school education and training.* Available: https://www.che.ac.za/media_and_publications/draft-legislation/dhet-green-paper-post-school-education-and-training (Accessed 14 September 2018).

DHET. (2018). *National Development Plan Vision for 2030, improving education, training and innovation.* Available: https://www.nationalplanningcommission.org.za/assets/Documents/NDP_Chapters/devplan_ch9_0.pdf (Accessed 14 September 2018).

Draper, S.W. (2009). What are learners actually regulating when given feedback? *British Journal of Educational Technology, 40*, 306-315. https://10.1111/j.1467-8535.2008.00930.x

du Plessis, L., & Gerber, D. (2012). Academic preparedness of students - an exploratory study. *The Journal for Transdisciplinary Research in Southern Africa, 8* (1), Available: https://doi.org/10.4102/td.v8i1.7 (Accessed 19 May 2018).

Erasmus, B.J., Loedolff, P.V.Z., Mda, T.V., & Nel, P.S. (2010). *Managing training and development in South Africa* (5th ed.). Cape Town: Oxford University Press.

Feast, V. (2002). The impact of IELTS scores on performance at university. *International Education Journal, 3* (4), 70-85.

Fiske, E.B. (2004). *Student success. Lumina Foundation Focus.* Available: http://www.luminafoundation.org/publications/focus.pdf. (Accessed 28 July 2018).

Foxcroft, C., & Roodt, G. (2013). *Introduction to psychological assessment in the South African context* (4th ed.). Cape Town: Oxford University Press. (ISBN 978-0-1990-4473-3).

Fraenkel, J.R., & Wallen, N.E. (2003). How to design and evaluate research in educational benefits. *Teaching of Psychology, 30* (2), 102-106.

Fraser, W.J., & Killen, R. (2003). Factors influencing academic success or failure of first-year and senior university student: Do education students and lecturers perceive things differently? *South African Journal of Education, 23* (4) 254-263.

Gottfried, A.E. (1990). Academic intrinsic motivation in young elementary school children. *Journal of Educational Psychology, 82,* 525-538. Available: http://dx.doi.org/10.1037/0022-0663.82.3.525 (Accessed 30 September 2018).

Gravetter, F.J., & Wallnau, L.B. (2013). *Statistics for the Behavioral Sciences* (9th ed.). New York: Wadsworth Cengage Learning.

Gredler, M.E., Broussard, S.C., & Garrison, M.E.B. (2004). The relationship between classroom motivation and academic achievement in elementary school aged children. *Family and Consumer Sciences Research Journal, 33,* 106-120. Available: https://doi.org/10.1177/1077727X04269573 (Accessed 30 September 2018).

Griesel, H. (2006). *Access and entry level benchmarks: The national benchmark tests project.* Pretoria: Higher Education South Africa.

Guay, F., Chanal, J., Marsh, H., Larose, S., & Boivin, M. (2010). Intrinsic, identified, and controlled types of motivation for school subjects in young elementary school children. *The British Journal of Educational Psychology, 80,* 711-35. Available: https://10.1348/000709910X499084 (Accessed 30 September 2018).

Harper, S.R., & Quaye, S.J. (2009). Beyond sameness, with engagement and outcomes for all. In S.R. Harper & S.J. Quaye (Eds.), *Student engagement in higher education* (pp. 1-15). New York and London: Routledge.

James, R. (2007). *Students and student learning in mass systems of higher education: Six educational issues facing universities and academic leaders*. Paper presented at the 2007 Mass Higher Education in UK and International Contexts seminar series. Centre for Research in Lifelong Learning.

Karakowsky, L., & Mann, S.L. (2008). Setting goals and taking ownership: Understanding the implications of participatively set goals from a causal attribution perspective. *Journal of Leadership and Organizational Studies, 14* (3), 260-270. Available: https://doi.org/10.1177/1071791907308047 (Accessed 21 January 2020).

Kazmi, A. (2010). Sleepwalking through undergrad: Using student engagement as an institutional alarm clock. *The College Quarterly, 13* (1). Available: http://www.collegequarterly.ca/2010-vol13-num01-winter/kazmi.html (Accessed 20 June 2018).

Keane, E. (2006). *The views and experiences of academic staff in the context of increasing student diversity: A post-positivist grounded theory approach.* Paper presented at the 2006 Higher Education Closeup 3: Qualitative research into higher education. Society for Research into Higher Education, London.

Krause, K.L., & Coates, H. (2008). Students' engagement in first year university. *Assessment and Evaluation in Higher Education, 33* (5), 493-505. Available: https://doi.org/10.1080/02602930701698892 (Accessed 21 January 2020).

Kruger, D.J. (2003). Integrating quantitative and qualitative methods in community research. *The Community Psychologist, 36*, 18-19.

Kuh, G.D., Kinzie, J., Schuh, J.H., & Whitt, E.J. (2005). *Student success in college: Community College Journal of Research and Practice, 30* (7), 579-582. Available: https://doi.org/10.1080/10668920600742093 (Accessed 28 September 2018).

Kuh, G.D. (2007). What student engagement data tell us about college readiness. *Peer Review, Association of American Colleges and Universities,* Winter 2007, 4-8. Available: http://hdl.handle.net/2022/24379 (Accessed 19 September 2018).

Kuh, G.D. (2009). The national survey of student engagement: Conceptual and empirical foundations. *New Directions for Institutional Research*, *2009* (141), 5-20.

Labaree, R.V., & Scimeca, R. (2016). *Research guides: Organizing your social sciences research paper: Types of research designs.* University of Southern California. Available: http://libguides.usc.edu/writingguide (Accessed 27January 2019).

Lafon, M. (2009). T*he impact of language on educational access in South Africa.* (Research Monograph no. 24). Brighton, UK: Sussex University Press. Available: http://srodev.sussex.ac.uk/2313/1/PTA24.pdf (Accessed 29 July 2018).

Lani, J. (n.d.). *Conduct and interpret a Spearman Rank Correlation.* Available: https://www.statisticssolutions.com/wp-content/uploads/kalins-pdf/singles/spearman-rank-correlation.pdf (Accessed 18 November 2019).

Letseka, M., & Maile, S. (2008). *High university dropout rates: A threat to South Africa's future*. HSRC. Available: http://www.hsrc.ac.za/uploads/pageContent/1088/Dropout%20rates.pdf (Accessed 22 September 2018).

Lewin, T., & Mawoyo, M. (2014). *Student access and success: Issues and interventions in South African universities*. Inyathelo Kresge Access and Success Seminar, Cape Town. The South African Institute for Advancement.

Locke, E.A., & Latham, G.P. (2006). New directions in goal setting theory. *Current Directions in Psychological Science, 15* (5), 265-268.

Lunenburg, F.C. (2011). Expectancy Theory of Motivation: Motivating by altering expectations. *International Journal of Management, Business and Administration, 15* (1), 1-5 Available: http://www.nationalforum.com/Electronic%20Journal%20Volumes/Luneneburg,%20Fred%20C%20Expectancy%20Theory%20%20Altering%20Expectations%20IJMBA%20V15%20N1%202011.pdf (Accessed 29 August 2018).

Lussier, R.N., & Achua, C.F. (2007). *Effective leadership*. Mason, Ohio: Thomson South-Western.

Maholtra, N.K. (2010). *Marketing research: An applied orientation* (6th ed.). Upper Saddle River: Pearson.

Makoni, M. (2010). *South Africa: Universities raise admission standards.* Available: http://www.universityworldnews.com/article.php?story=2010080618132494 (Accessed 20 June 2018).

Marks, H.M. (2000). Student engagement in instructional activity: Patterns in the elementary, middle and high school years. *American Educational Research Journal, 37* (1), 153-184. Available: https://doi.org/10.3102/00028312037001153 (Accessed 22 September 2018).

Maslovaty, N., Cohen, A., & Furman, S. (2008). The structural validity of the perceived traits of the "ideal student" multi-faceted theory among education students. *Studies in Educational Evaluation*, *34,* 165-172.

Mboweni, T. (2019). *National Budget Speech, 20 February 2019.* Parliament, Cape Town.

McMillan, J.H., & Schumacher, S. (2006a). *Research in education: A conceptual introduction* (5th ed.). New York: Longman.

McMillan, J.H., & Schumacher, S. (2006b). *Research in education – Evidence-based Inquiry* (6th ed.). Boston: Pearson Education, Inc.

Merriam-Webster Online Dictionary. (2019). Available: https://www.merriam-webster.com/dictionary/harm (Accessed 13 October 2019).

Messick, S. (1989). Meaning and values in test validation. The science and ethics of assessment. *Educational Researcher, 18* (2), 5-11.

Moerdyk, A. (2015). *The principles and practice of psychological assessment* (2nd ed.). Pretoria: van Schaik.

Msila, F. (2006). *Massification: Preparing faculty for open learning systems.* Available: http://uir.unisa.ac.za/bitstream/handle/10500/5053/progress_v28_n1_2_a8.pdf?sequence=1&isAllowed=y (Accessed 18 July 2018).

Nagel, A. (2010). Stepping up to the tertiary challenge. *Times Live.* Available: https://www.timeslive.co.za/sunday-times/lifestyle/2010-01-17-stepping-up-to-the-tertiary-challenge/ (Accessed 7 March 2018).

National Benchmark Test. (2019). Available: https://www.nbt.ac.za/content/faq (Accessed 10 March 2019).

National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research. (1979). *The Belmont report: Ethical principles and guidelines for the protection of human subjects of research*. Available: https://www.hhs.gov/ohrp/regulations-and-policy/belmont-report/read-the-belmont-report/index.html (Accessed 15 April 2018).

National Planning Commission. (2013a). *National Development Plan: Our future - make it work.* Pretoria: Government Printer. Available: https://www.gov.za/issues/national-development-plan-2030 (Accessed 3 October 2018).

Nel, C., & Kistner, L. (2009). The National Senior Certificate: Implications for access to higher education. *South African Journal of Higher Education, 25* (5), 953-973. ISSN 1011-3487.

Nel, H., & Foxcroft, C. (n.d.). *Using SASSE findings to improve student success: Evidence-based strategic planning at all levels.* Available: https://www.ufs.ac.za/docs/librariesprovider42/sasse-documents/workshops-documents/using-sasse-findings-to-improve-student-success-40-eng.pdf?sfvrsn=dc67c921_0 (Accessed 30 September 2018).

Nel, P., Werner, A., du Plessis, A., Ngalo, O., Poisat, P., Sono, T., van Hoek, L., & Botha, C. (2011). *Human Resources Management* (8th ed.). Cape Town: Oxford University Press.

Nelson Mandela University. (2018). *Centre for Teaching, Learning and Media.* Available: https://ctlm.mandela.ac.za/ (Accessed 21 January 2020).

Nelson Mandela University. (2019). *Faculty of Business and Economic Sciences Prospectus.* Available: https://www.mandela.ac.za/www/media/Store/documents/apply/admission/quickdoc/prospectus/2019-BES-Prospectus.pdf (Accessed 18 October 2018).

Nkosi, B. (2013). School maths failing varsity entrants. *South Africa: Mail and Guardian.* Available: https://mg.co.za/article/2013-07-19-00-school-maths-failing-varsity-entrants (Accessed 30 September 2018).

Omenyi, A., Agu, N., & Odimegwu, C. (2010). A measure of students' connectedness in tertiary institutions in Anambra State of Nigeria. *Educational Research and Reviews, 5* (2), 90-98.

Parliamentary Monitoring Group. (2015). *Higher education in South Africa review: Council on Higher Education briefing.* Cape Town: Parliament (Higher Education and Training Portfolio Committee). Available: https://pmg.org.za/committee-meeting/21351/ (Accessed 17 September 2018).

Pascarella E.T., & Terenzini P.T. (2005). *How college affects students: A third decade of research.* San Francisco, CA: Jossey-Bass.

Pather, S., & Chetty, R. (2016). A conceptual framework for understanding pre-entry factors influencing first year university experience. *South African Journal of Higher Education, 30.* 10.20853/30-1-548.

Petersen, I., Louw, J., & Dumont, K. (2009). Adjustment to university and academic performance among disadvantaged students in South Africa. *Educational Psychology, 29* (1), 99-115.

Pitsoe, V.J. (2013). Teacher attrition in South Africa: Trends, challenges and prospects. *Journal of Social Sciences, 36,* 309-318.

Shier, R. (2004). *Statistics. The Wilcoxon Signed Rank Sum Test.* Mathematics Learning Support Centre. 1-3. Available: https://www.lboro.ac.uk/media/wwwlboroacuk/content/mlsc/downloads/2.3_mann_whitney.pdf (Accessed 21 January 2020).

Robbins, S.P., Judge, T.A., Odendaal, A., & Roodt, G. (2009). *Organisational behaviour: Global and southern African perspectives* (2nd ed.). South Africa: Pearson Education South Africa.

Schreiber, B., & Yu, D. (2016). Exploring student engagement practices at a South African university: Student engagement as reliable predictor of academic performance. *South African Journal of Higher Education, 30* (5), 157-175.

Schunk, D.H., & Pajares, F. (2009). Self-efficacy Theory. In D.H. Schunk & M.K. DiBenedetto (Eds.), *Handbook of motivation at school* (pp. 35-53). New York, NY: Routledge. Available: https://www.routledgehandbooks.com/doi/10.4324/9781315773384.ch3 (Accessed 21 January 2020)

Scott, I., Yeld, N., & Hendry, J. (2007). *Higher Education Monitor 6: A case for improving teaching and learning in South African higher education*. Pretoria: Council on Higher Education.

Severiens, S.E., & Schmidt, H.G. (2008). Academic and social integration and study progress in problem based learning. *Higher Education, 58* (1), 59-69.

Siegle, D., & Mccoach, D.B. (2005). Making a difference: Motivating gifted students who are not achieving. *Teaching Exceptional Children*, *38* (1), 22-27. Available: https://doi.org/10.1177/004005990503800104 (Accessed 21 January 2020).

Singh, K. (2011). Study of achievement motivation in relation to academic achievement of students. *International Journal of Educational Planning and Administration, 1* (2), 161-171.

South African Qualifications Authority (SAQA). (2014). *National policy and criteria for designing and implementing assessment for qualifications, part-qualifications, and professional designations on the National Qualifications Framework in South Africa.* Pretoria: SAQA.

Stephen, D., Welman, J., & Jordaan, W. (2004). English language proficiency as an indicator of academic performance at a tertiary institution. *South African Journal of*

Human Resource Management, 2 (3), 42-53. Available: http://10.4102/sajhrm.v2i3.48 (Accessed 20 September 2019).

Strydom, F. (2014). *Using SASSE data to improve student success on a national scale.* Paper presented at the Inyathelo Kresge Access and Success Seminar, Cape Town.

Strydom, J., & Mentz, M. (2010). *South African Survey of Student Engagement (SASSE). Focusing the student experience on success through student engagement.* Pretoria: Council on Higher Education. Available: https://www.ufs.ac.za/docs/librariesprovider42/sasse-documents/publications-documents/focusing-the-student-experience-on-success-through-student-engagement-92-eng.pdf?sfvrsn=8a60c921_0 (Accessed 30 September 2018).

Temple, P., Callender, C., Grove, L., & Kersh, N. (2014). *Managing the student experience in a shifting higher education landscape*. Heslington, York: The Higher Education Academy.

Thomas, L. (2002). Student retention in higher education: The role of institutional habitus. *Journal of Education Policy*, *17* (4), 423-442.

Tinto, V. (1975). Dropout from higher education: A theoretical synthesis of recent research. *Review of Educational Research*, *45* (1), 89-125. Available: www.jstor.org/stable/1170024 (Accessed 15 September 2018).

Tinto, V. (1987). *Leaving college: Rethinking the causes and cures of student attrition*. Chicago: University of Chicago Press.

Tinto, V. (1993). *Leaving college: Rethinking the causes and cures of student attrition* (2nd ed.). Chicago: University of Chicago Press.

Trochim, W.M.K., & Donnelly, J.P. (2008). *The research methods knowledge base*. Mason, Ohio: Atomic Dog/Cengage Learning. Available:

https://www.worldcat.org/title/research-methods-knowledge-base/oclc/451606827 (Accessed 21 January 2020).

Trowler, V. (2010). *Student engagement literature review*. York: Higher Education Academy. Available: https://www.advance-he.ac.uk/knowledge-hub/student-engagement-literature-review (Accessed 6 September 2018).

Turner, J.C. (1995). The influence of classroom contexts on young children's motivation for literacy. *Reading Research Quarterly, 30,* 410-441.

Van Dyk, T.J., Zybrands, H., Cillie, K., & Coetzee, M. (2009). On being reflective practitioners: The evaluation of a writing module for first year students in the Health Sciences. *Southern African Linguistics and Applied Linguistics Studies, 27* (3), 333-344.

Walliman, N. (2006). *Sage course companions: Social research methods*. London: SAGE Publications. Available: https://dx.doi.org/10.4135/9781849209939 (Accessed 18 November 2019).

Wawrzynski, M., Heck, A., & Remley, C. (2012). Student engagement in South African higher education. *Journal of College Student Development, 53* (1), 106-123.

Wolhuter, C. (2006). Teacher training in South Africa: Past, present and future. *Education Research and Perspectives, 33* (2), 124-139.

Wolhuter, C., van der Walt, H., Potgieter, F., Meyer, L., & Mamiala, T. (2012). What inspires South African student teachers for their future profession? *South African Journal of Education*, *32* (2), 178-190. Available: http://www.scielo.org.za/scielo.php?script=sci_arttext&pid=S0256-01002012000200005&lng=en&tlng=en (Accessed 15 September 2018).

Wolhuter, C. (2011). The international impact of education research done and published in South Africa. *South African Journal of Education*, *31* (4), 603-616. Available:

http://www.scielo.org.za/scielo.php?script=sci_arttext&pid=S0256-01002011000400011&lng=en&tlng=en (Accessed 15 September 2018).

Wright, P. (1996). Mass higher education and the search for standards. *Higher Education Quarterly, 50* (1), 71-85. Available: https://doi.org/10.1111/j.1468-2273.1996.tb01691.x (Accessed 21 December 2019).

Zhang, M. (2006). The relationship between college students' academic self-efficacy and achievement motivation. *Journal of Taiyuan University, 7* (2), 61-63.

Zhao, C.M., & Kuh, G.D. (2004). Adding value: Learning communities and student engagement. *Research in Higher Education, 45* (2), 115-138. Available: http://home.ubalt.edu/ub78l45/My%20Library/storage/HV3TEDZ2/12231609.pdf (Accessed 21 January 2020).

APPENDIX 1 – CONSENT TO PARTICIPATE IN STUDY

CONSENT TO PARTICIPATE IN THIS STUDY

I, _____ (student name and number), confirm that the person asking my consent to take part in this research has informed me about the nature, procedure, potential benefits and anticipated inconvenience of participation.

I have read the participant information sheet and understand the content.

I have had sufficient opportunity to ask questions and I am prepared to participate in the study.

I understand that my participation is voluntary and that I am free to withdraw at any time without penalty (if applicable).

I am aware that the findings of this study will be processed into a research report, or a journal publication and/or conference proceeding paper, but that my participation will be kept confidential. I understand that I will be allocated a number to protect my personal identity.

I agree to my academic results being used as part of a set of data without my personal details being revealed.

I have received a signed copy of the informed consent agreement.

Participant Name and Surname: _____ (please print)

Participant Signature: _____ Date: _____

Researcher's Name and Surname: _____ (please print)

Researcher's signature: _____ Date: _____