AN ANALYSIS OF THE INFLUENCE OF THE PRE-ENTRY TERTIARY EDUCATION (PETE) PROGRAMME ON GRADE 12 (NSSC) STUDENTS ` ADMISSION TO HIGHER EDUCATION: A CASE STUDY OF THE NAMCOL HEAD OFFICE CENTRE

A THESIS SUBMITTED IN FULL FULFILMENT

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ABSTRACT

The purpose of the study was to assess the extent to which the Pre-entry to Tertiary Education Programme (PETE) improves the grades of Gr 12 NSSC (high school) students to meet the admission requirements at institutions of higher learning. PETE was introduced in 2008 at the Namibian College of Open Learning (NAMCOL) to address the mismatch between exit skills at the secondary level and the required entry skills at the higher education level. The main objectives of PETE are (a) to improve the grades of high school students to enable them to meet the admission requirements of higher education and (b) to be able to cope with curriculum demands at the tertiary level. Since its inception in 2008, little research study has been conducted that assesses the extent to which PETE improves the grades of high school students and enables them to meet the admission requirements of higher education. This case study employed a mixed-methods approach, to investigate the influence of the PETE programme on Gr 12 NSSC students' grades. The study aimed to determine the extent to which the programme improves student academic performance and facilitates students' eligibility for higher education admission requirements. Findings revealed that there was improvement among participants. Eighty per cent (16) of the selected 20 students with documented grades before and after the programme demonstrated improved academic performance. The results further showed that there were improvements in subjects and only 20% (4) of the students had at least one ungraded subject. The study identified several factors affecting students' success in PETE studies and potentially influenced their access to higher education. Positive factors included commitment, motivation, supportive social circles (friends and family), self-confidence, encouragement from tutors, dedicated study time on campus, effective examination preparation, and emotional support. Conversely, negative factors

included a lack of motivation, frequent absences, low self-esteem, and insufficient support systems.

Keywords: Pre- entry-to-tertiary-education, admission requirements, improvement, higher education, gain entry.

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ACRONYMS AND ABBREVIATIONS

EFA	Education for All
ETSIP	Education and Training Sector Improvement Programme
GRN	Government of the Republic of Namibia
HEI	Higher Education Institution
IUM	International University of Management
MoEAC	Ministry of Education Arts and Culture
NDP5	Fifth National Development Plan
NAMCOL	The Namibian College of Open Learning
NIED	National Institute for Education and Development
NBC	Namibian Broadcasting Cooperation
NSSCO	Namibia Senior Secondary Certificate Ordinary
NSSCAS	Namibia Senior Secondary Certificate Advanced Subsidiary
NUST	Namibia University of Science and Technology
PETE	Pre-entry to Tertiary Education
SAIDE	South African Institute for Distance Education
UNAM	University of Namibia

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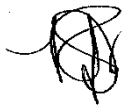
DEDICATION

I dedicate this thesis to my husband, Nicky, and my children, Brandon and Tiffany. Your unwavering support and loving kindness have been my rock through the most challenging times, and for that, I will be forever grateful. This work is also dedicated to my late parents, Herman and Rachel Bampton, whom I lost within a week during the COVID-19 pandemic. Though their passing profoundly affected my studies, their steadfast belief in my ability to complete this journey inspired me to persevere through every obstacle.

Lastly, and most importantly, I dedicate this thesis to my late son, Curtis. Rest in peace, until we meet again.

DECLARATION

I, Rholene Juliet Bok, hereby declare that this study of my Master's Degree titled: An Analysis of the Influence of the Pre-entry to Tertiary Education Programme on Gr 12 NSSC Students` Admission to Higher Education: A Case Study of NAMCOL Head Office Centre, is my work and it is a true reflection of my research and that this work or any part thereof has not been submitted for a degree at any other institution.



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CHAPTER 1: BACKGROUND AND CONTEXT OF THE STUDY

1.1 PURPOSE OF THE STUDY

This study focuses on assessing the influence of the Pre-Entry to Tertiary Education (PETE) Programme on Gr 12 NSSC students` admissions to higher education.

The PETE Programme was implemented in 2008 for the first time at NAMCOL to bridge the gap between secondary education and tertiary education, to increase the possibility of students, not only getting admission into the Faculties of Science and Technology but also to enable students to cope with higher education. The PETE Programme is one of the strategies of the Education and Training Sector Improvement Programme (ETSIP), which was developed by the Namibian Ministry of Education to redress the mismatch between exit skills at the secondary level and the required entry skills at the tertiary level through pre-entry and/or foundation programmes (Government of the Republic of Namibia, 2007). In particular, PETE was introduced initially to respond to low entry in the Faculties of Science and Technology (especially addressing gender issues) to disadvantaged groups into institutions of higher learning, high failure rates and low completion rates among the entrants to the Faculties of Science and Technology. This programme was developed to enable students to re-sit for examinations of specific subjects of the Namibia Senior Secondary Certificate Ordinary (NSSCO) or Namibia Senior Secondary Certificate Advanced Subsidiary (NSSCAS) subjects and improve their grades to enable them to meet admission requirements of tertiary institutions and be able to cope with curricula demands at tertiary level.

The PETE programme has, since its inception been expanded to include all study fields offered, whereas it initially started only with the science field. The review of relevant

literature on other pre-entry university programmes indicates that the previous studies focused on similar programmes and the only study which was conducted in the Namibian context was that of Frindt (2002) which focused on the bridging programme offered by the University of Namibia. This was the only study which was conducted in the Namibian context focused on the bridging programme offered by the University of Namibia.

Frind`s (2002) study on the University Access Programme (UAP) indicates that students exhibited increased confidence and enhanced cognitive skills and that the bridging programmes did not only address academic deficiencies but also fostered broader academic development.

The PETE programme, similar to the UAP, aims to enhance university access in Namibia. While initially focused on science education, the PETE programme has since expanded to encompass more subjects such as commerce, social science and languages.

By examining the PETE programme, this research can contribute to the evolving landscape of pre-university programmes in Namibia. This study focuses on a pre-entry to tertiary programme offered by an open and distance education institution, NAMCOL, which does not have the same status as a university and aims to assess the extent to which the pre-entry programme with a wider choice of subjects improves the grades of high school students to enable them to meet admission requirements to higher education in Namibia.

1.2 THE CONTEXT OF THE STUDY

Before independence in March 1990, continuing distance education initiatives were offered to Namibians, including those who resided outside the country. The Department of National Education offered a distance education programme that

prepared students for the National Senior Certificate. After independence, these programmes were continued under the Department of Adult and Non-formal Education within the then Ministry of Basic Education and Culture. In 1992, a study was commissioned on the expansion of distance education in the country. The report was called, "Taking Education to the People", and recommended the establishment of a multipurpose Distance Education College to coordinate the development and delivery of distance education programmes at the pre-tertiary level. This directed and led to the establishment of NAMCOL as a Directorate within the Ministry of Education in November 1994, and in 1997, NAMCOL was established as a statutory entity through legislation, Act No. 1 of 1997. This act mandates the college to "contribute toward the social and economic development of Namibia by upgrading the educational levels of adults and out-of-school youth through programmes of open learning; by designing, developing and offering programmes to address the diverse educational needs of such adults and out-of-school youth; and by providing opportunities for adults and out-of-school youth to upgrade their professional and vocational skills, as well as their level of general education" (Government of the Republic of Namibia, 1997). The NAMCOL Act became fully operational on 1 April 1998, when the college officially delinked from the Ministry of Education.

The mandate of NAMCOL is to upgrade the educational levels of out-of-school youth through open and distance learning programmes in tertiary, vocational and general education (Murangi, 2017). NAMCOL's core mandate has been to provide and spearhead open and distance learning to youth and out-of-school adults. A high percentage of students who enrol with the College are those who did not meet the minimum requirements to proceed to senior high school grades or pursue further studies at institutions of higher learning. On average, students repeat a minimum of

two subjects to improve performance. The College aims to broaden access for all to education by establishing and maintaining tutorial centres in the various regions of Namibia. NAMCOL is the largest educational institution in Namibia and can be classified as a mega-school because of its annual intake of more than 30,000 students (Murangi, 2017).

Currently, the College offers a new secondary education curriculum, Namibia Senior Secondary Certificate Ordinary (NSSCO) Level, leading up to Grade 11, which is the first point of exit for senior secondary education. Grade 12 is optional for those students who passed Gr 11 with at least three C-symbols. The Grade 12 only offers the Namibia Senior Secondary Advanced Subsidiary (NSSCAS) level. The NSSCAS offers students a better chance to enter into institutions of higher learning. Some of the students in the PETE group do the NSSCAS levels to apply at institutions of higher learning.

NAMCOL offers tertiary programmes which include various certificates, diplomas and degrees ranging from 1 to 4 years in duration on Early Childhood, Education for Development, Business and Entrepreneurship, Youth Development, Local Government, Open School Operation and Management and Sign Language, among others. Delivery of all programmes is in distance mode, with a face-to-face component for orientation, examinations workshops, and block tuition for secondary education. All tertiary programmes are accredited by the Namibia Qualifications Authority (NQA). In 2013, NAMCOL introduced a Technical, Vocational Education and Training (TVET) component, offering Office Administration, Plumbing and Pipe-fitting, Automotive Mechanics and Welding and Metal Fabrication.

NAMCOL remains the biggest open and distance education institution in Namibia, with a learner intake of 32,905 in 2021.

1.2.1 Brief Description of the Namibian Education System

Following Namibia`s independence in 1990, the Namibian government placed high priority and devoted considerable resources to education to improve the education system and improve the basic needs of children, young people and adults. The goal was to provide an education that is effective, efficient and of good quality, including lifelong learning, and democratic participation in all spheres of education (Namibia EFA, 2002).

The Namibian Constitution and the Basic Education Act No. 3 of 2020 regulates the educational system. It is compulsory "for a learner to attend school during school hours from the first school day of the academic year in which he or she reaches the age of six years until the last school day of the year in which he or she attains the age of 18 years".

Basic education comprises the following school phases: the junior primary phase (Grades 1-3), the senior primary phase (Grades 4-7), (the junior secondary phase (Grades 8-9) and the senior secondary phase (Grades 10-12). Some private schools differ from this school phase structure. In the first three grades, the medium of learning is the mother tongue language of the majority of the students, with the English language as a medium of learning from Grade 4. Students qualify for the NSSCAS level after having completed NSSCO at the end of Grade 11. Some local universities admit students upon the successful completion of NSSCO. There are sixteen private, and two public universities in Namibia.

The Namibian education system before independence was characterised by acute disparities and shortcomings (Ministry of Education and Culture, 1997). Widespread racial discrimination left a legacy of differential allocation of resources to different racial groups. While some schools had highly qualified teachers, expensive equipment

and small classes, other schools struggled with teachers having limited training and overcrowded classrooms, with poor equipment (Ministry of Education and Culture, 1997). After independence, the Ministry had to redress all shortcomings of the education system. Multiple initiatives and policies were embarked on that would bring reform to the education system, and included equity, access, quality and democracy for all students and teachers in the education system (Ministry of Education and Culture, 1997). Several legislations and key policies were introduced to ensure access to equitable quality education with a focus on the most vulnerable children, children from poor communities and those with disabilities. These include the Education Act No. 16 of 2001, Basic Education Act No. 3 of 2020, the Education Sector Policy for Orphans and Vulnerable Children of 2008; the National Policy on Learner Pregnancy of 2012; Educator Sector Policy for Inclusive Education of 2013 and the National School Feeding Policy of 2019.

1.2.2 Namibia's National Development Plans that led to the development and implementation of the NAMCOL Pre-Entry to Tertiary Education Programme

1.2.2.1 Vision 2030 and the National Development Plans

The Namibian government aims to change the country into a high-income society by re-orientating the economy so that technology, knowledge-creation and innovation are the key drivers by 2030 (SAIDE, 2020). For the attainment of Vision 2030, Education is seen as a vehicle for achieving this noble goal involving a reduction of the unemployment rate. Education also leads to the abolition of economic disparities and poverty, and lastly, improving manufacturing and the services sectors that depend on the production of the required human resource skills in Namibia (SAIDE, 2020). One of the objectives of Vision 2030 is to ensure that all young men and women in Namibia

are provided with opportunities for development through education and training so that they become well-equipped with skills, knowledge and abilities. In this respect, the importance of strengthening the education sector, particularly post-school education and training cannot be overemphasised. Vision 2030 goals remain the important guiding beacons for Namibia`s educational current and plans.

From 1999 to 2006, numerous issues were acknowledged under the National Strategic Plans of the Ministry of Education and Culture, to be addressed in the National Development Plans 1 and 2 (Government of the Republic of Namibia, 2002). Under the strategic plan, equitable access would be a priority earmarked for 2006. In addition, expansion of access to secondary education, and the introduction of new programmes to enable students to become empowered. (Government of the Republic of Namibia, 2002).

The Fifth National Development Plan (NDP 5) is the fifth in a series of seven national medium-term development plans that summarises the aims and goals of Namibia`s long-term vision as set out in Vision 2030. According to NDP 5, the low performance of students shows that teaching does not have the intended impact on student learning. The changeover from secondary to higher education is very low, estimated at a 19 % pass rate of the Grade 12 cohorts, according to NDP 5 (National Planning Commission, 2017). NDP 5's desired outcome was that all students should have access to equitable inclusive quality education that would qualify them to pursue higher education by 2022 (National Planning Commission, 2017).

1.2.2.2 Education and Training Sector Improvement Programme (ETSIP)

Through a World Bank study, ETSIP was developed to improve the Namibian educational system. It signifies the education and training sector's response to the call for Vision 2030. Its key purpose was to significantly enhance the sector's contribution

to the achievement of strategic national development goals and to facilitate the changeover to a knowledge-based economy (Government of the Republic of Namibia, 2007). ETSIP was a comprehensive sector-wide programme that covers: (i) early childhood development and pre-primary education, (ii) general education, (iii) vocational education and training, (iv) tertiary education and training, (v) knowledge and innovation, and (vi) information, adult and lifelong learning. In response to the challenges identified in Vision 2030 and the World Bank report, the government devised a comprehensive framework, ETSIP, to strengthen strategic planning and monitoring of outcomes. The strategic plan for the first five-year phase of ETSIP focused on improving the quality and effectiveness of the education system, enhancing its internal efficiency, redressing persistent inequities and ensuring that what young people learn is relevant to the world outside the school walls (SAIDE, 2011). The ETSIP plan (2005-2010) recognised the potential of open and distance learning (ODL) to expand access to senior secondary education. It also acknowledged NAMCOL's contribution to the nation's development by offering a complementary system of education for out-of-school youth and hard-to-reach individuals (SAIDE, 2011). The ETSIP strategic plan also envisaged a role for the College in creating and supporting a system of lifelong learning outside the conventional classroom.

ETSIP was integrated into the Ministry of Education's strategic plans in 2010 and was meant to cover a period of fifteen years and features in the Ministry`s 2012/13 - 2016/2017 and 2017/18 - 2021/2022 strategic plans (SAIDE, 2020). Inspired by Vision 2030, the Ministry`s strategic plans aim to transform the education and training system to be more effective in reaching the core national development goals to fast-track growth and reduce poverty, scarcity and social inequalities, among others (SAIDE, 2020). The transformation in education, in 2007, ETSIP, through the

Ministry of Education, identified the need to develop pre-entry and foundation programmes and student support to redress the mismatch between exit skills at the secondary level and entry skills at the tertiary level, and this resulted into the launch of the PETE programme at NAMCOL.

According to the ETSIP plan, phase one was to strengthen the quality, and effectiveness of the general education and training system to ensure a lasting supply of entrants that will take up opportunities for senior secondary education and training, tertiary education and training, and lifelong learning (ETSIP, 2007).

Many students fail to make the changeover from secondary school to higher education because they have not developed the study skills and habits required for independent learning. Some are simply unable to cope with the difference between the highly structured and closely monitored environment of senior secondary school and the relative lack of supervision in tertiary education (SAIDE, 2020).

It was planned that the first phase of ETSIP would focus on strengthening the immediate supply of middle to high-level skilled labour to meet labour market demands support overall national development goals and follow a pro-poor method to skill-base for reduction of poverty, income poverty, and social disparities (Government of the Republic of Namibia, 2007).

Further planning was that the following components would serve the purpose of reducing poverty and inequalities: (a) a pro-poor development of opportunities for high-quality senior secondary education; (b) a pro-poor development of opportunities for high-quality and market-responsive vocational education and training; and (c) the growth of pre-entry programmes for tertiary education and training.

To reach a knowledge-based economy, the ETSIP programme had to be important in driving initiatives in the attainment of Vision 2030. It was envisioned that pre-entry

and foundation programmes would equip students for the levels at tertiary institutions to address the disparities between leaving the secondary level and the required entry skills at the tertiary level, the lack of graduates in science and technology fields and low completion rates in most science and technology-related subjects and admissions from the least privileged groups. It was noticed that a lack of guidance and information about science-based programmes exists in schools. To start the process, a national review was done by the Ministry of Education with the outcome of the establishment of pre-entry and foundation programmes. The pre-entry programmes were offered by two institutions, namely The University Centre for Studies in Namibia (TUCSIN) and NAMCOL to offer programmes in the areas of languages, mathematics and science using existing facilities (Government of the Republic of Namibia, 2007).

1.3 THE PRE-ENTRY TO TERTIARY EDUCATION (PETE) PROGRAMME

In 2008, NAMCOL introduced the Pre-Entry to Tertiary Education (PETE) Programme for 100 students during the 2008/09 year with state funding under the Ministry of Education, Arts and Culture. This pre-entry programme responded to the NDP 5 and consequent World Bank study recommendations to address the need to establish programmes to advance a system that would respond to industrial needs. Under the NDP 5's social transformation, the goal of "widen access through equity and inclusion" had the desired outcome that, by 2022, Namibia would have put in place an education system that responds to industrial needs" (Government of the Republic of Namibia, 2007).

The PETE programme at NAMCOL intends to assist school-leavers who would like to upgrade their symbols in the Namibia Senior Secondary Certificate (NSSC) examinations, to gain admission to higher education institutions. This is done by allowing students to enrol for the programme and improving previous Grade 12 results,

that could not previously enable them to apply for entry at higher education institutions (HEIs). The PETE programme objectives were, among others, to bridge the gap between exit skills at the secondary level and the required entry skills at higher education level and improve their competencies to levels that will enable them to gain admission into tertiary institutions and be able to cope with curricula demands at tertiary level. The PETE programme included the following aspects: all participants will be expected to attend a minimum of 80% of tutorial sessions; obtain a minimum score of 70% in all assignments; achieve a minimum C symbol in end-of-trimester tests, mock examinations and consult with the counsellor/academic coach to discuss their aspirations for higher education and to critically evaluate their suitability for further or tertiary studies. The programme has been delivered per NAMCOL`s existing open mode of study, which combines the College's internationally acclaimed study materials with face-to-face tutorials. In addition, the students enrolled for the PETE programme were provided with additional contact sessions that totalled five hours of face-to-face tuition per week (1 hour per day) in each subject. The PETE students studied the same NSSCO curriculum and syllabus as students in conventional schools, and later, the NSSC higher-level subjects were included. The first intakes enrolled for the following subjects namely English 2nd Language, Biology, Physical Science and Mathematics. Tutors who teach this programme are teachers in formal schools or colleges and are experts in their respective subjects. The College is now in its 13th year of offering the programme. The subjects on offer were increased to accommodate other fields of study, including languages (NAMCOL PETE Booklet, 2019).

The PETE programme includes an orientation workshop, NAMCOL Study Materials, face-to-face tutorials, tutor-marked assignments, examination booklets, self-

supervised study groups, study-related counselling, access to services at the resource centre at Jetu Jama, Short Message Service (SMS), eLearning and web-based lessons, basic computer skills and education radio programmes broadcast through the national senders of the Namibian Broadcasting Corporation (NBC) initially, and now on-campus radio, available on the website. Further to this, the use of social media extends the contact and information flow to all students, including those in the PETE programme (NAMCOL PETE Booklet, 2020).

Applications for admission to the programme are done through the placements of advertisements, and applicants write an aptitude test for admission if they meet the requirements of having completed Grade 12 with a minimum E symbol in content subjects plus English. Students with up to two years out of school are being given priority, and those with E-D symbols get preference for those with C symbols. Approximately 20% of the students admitted should be orphans and vulnerable children.

Tutors are appointed based on suitability of qualifications in subjects and can be re-appointed based on the students' performance per subject in the previous year`s national examinations, and vice versa. The PETE programme makes use of daily contact sessions.

Assessments include formal assessments, and informal assessments and assignments, and are compulsory. Monthly assessment schedules are submitted. As part of end-of-year examination preparation, students sit for the mock examination in all subjects during August and submit these results for preliminary admission at institutions of higher learning. Assignments serve to provide retrospective feedback to students on subject areas where they experience difficulties and where they may seek tutors` advisory interventions.

Every lesson taught must be tested either with class activity or with homework and at least one test should be given for every topic covered in a month. Students doing Extended for Mathematics and English will be given additional hours to cover extra work. All students are required to attend basic computer sessions offered and this should not interfere with the subject activities.

Extramural activities for the students are encouraged and may include educational tours, information-sharing sessions on health and social issues, career guidance, counselling and motivational talks.

It is believed that the set aims for PETE can only be attained if students are both physically, emotionally and physiologically well prepared and therefore, the Head of the Centre invites different professional counsellors on different occasions to address the students on psycho-social and academic dynamics, to allow students who may be experiencing challenges in their personal and academic life to express such challenges and to get professional advice (NAMCOL PETE Booklet, 2017).

NAMCOL deals with students who have had efforts to progress in their education stifled and/ or interrupted, and failure to make progress has often left a dent in their confidence and self-belief. Just as in counselling, students need to be stirred up into the right momentum, improve their confidence and get them to set specific goals which would effectively motivate them to achieve better results (NAMCOL PETE Booklet, 2017). Professional support to tutors includes all materials for daily face-to-face classes, assistance to tend to students as best as possible, including teaching aids and submission of monthly reports.

1.4 DEFINING PRE-ENTRY PROGRAMME

According to Gazeley & Aynsley (2012), the term pre-entry intervention` in its broadest sense refers to any point in time before the start of a course of study at a

higher education institution (HEI). Ssempebowa, Wilson & Mulumba (2013) found that some students are denied admission to universities due to gaps found in their admissibility. Kirst and Venezia (2001) argue that a lack of articulation between higher education and high school curriculum content may hinder successful transitions between the systems and reduce the educational opportunities for many students. University bridging programmes were found to improve and augment the admissibility of such students to the required level of effectiveness of the university.

Gazeley and Aynsley further state that the areas addressed by these interventions, bridging or pre-tertiary programmes have the potential to support previous expectations of students. These interventions support students with academic preparedness at the tertiary level to meet course demands; social integration within the higher education setting, and lastly, provide access to additional support to meet specific needs and develop a robust student identity.

A study done by Pennington et al. (2015) assessed whether pre-entry programmes foster a successful changeover to higher education, and simultaneously examined factors associated with course satisfaction. The findings of their study indicated that pre-entry programmes reported higher academic self-efficacy and satisfaction if compared to the typical route followed by students after the secondary education phase. Moreover, this study found that academic self-efficacy predicted student satisfaction at the start of the academic year (Pennington et al, 2015). These findings indicate that pre-entry programmes may have a helpful influence on the sense of academic self-efficacy, which was associated with perseverance, resilience and achievement in educational settings (Pennington et al, 2015). Rodrigues, Hughes and Bell (2012) found that providing students with a relevant education can improve the likelihood of success for them.

In South Africa, it was found that policies have led to widening access to universities, especially amongst the poor and disadvantaged population (Leibowitz & Bozalek, 2014). In a study done on South African universities, Bernhardt (2015) concluded that Foundation programmes are a type of learning intervention geared towards growing access at HEIs. He further argues that apart from content-specific curricula, subject-related expertise and critical thinking skills assist those students who are enrolled in foundation programmes to develop literacy and critical thinking skills in allowing them access to HEIs.

In Namibia, a bridging programme was implemented to widen access to the university, especially focusing on mathematics and English. According to the study conducted by Frindt (2002), it focused on students who were under-prepared for tertiary education. One of the findings of this study was that student unpreparedness for tertiary education accounts for much of the failure rate of first-year students.

Frindt citing Bird (1996:9) pointed out that widespread recognition in respect to access to higher education should be widened, in particular, to include groups who have not entered HEIs. In this particular study, Frindt (2002) found that grades improved in Mathematics while reading and writing abilities also improved.

This study focuses on a pre-entry to tertiary programme offered by an open and distance education institution, which does not have university status.

1.5 STATEMENT OF THE PROBLEM

There seems to be little research that assessed the influence of pre-entry programmes on learner admission to universities offered by non-university institutions in the Namibian context. Previous studies related to this study examined similar pre-entry programmes which were offered at universities, in different contexts and focused on variables such as policies, and the inclusion of females, from less privileged socio-

economic groups and disadvantaged groups. In Tanzania, a study reviewed a pre-entry programme, implemented to widen access to universities. It was found that the programme should be a short-term measure for enhancing female`s admission to higher education (Nawe, 2015). In the United Kingdom, some policies have been developed to facilitate access for underrepresented groups, specifically minority groups in higher education (Crowl & Browlit, 2015). The only related study conducted in the Namibian context was that of Frindt (2002) focused on improving Mathematics and English to widen access to the then Polytechnic (now NUST) and the University of Namibia.

1.6 RESEARCH QUESTIONS

The study was guided by the following main research question: How does the PETE programme influence students' access to institutions of higher learning? The research sub-questions for this study are as follows:

- To what extent does the PETE programme improve high school students' grades to meet admission requirements to institutions of higher learning?
- What factors facilitate the PETE students improving their grades to meet the admission requirements of local universities?
- What factors hinder PETE students from improving their grades to meet the admission requirements of local universities?

1.7 SIGNIFICANCE OF THE STUDY

The findings of the research provide insight into the extent to which PETE has improved the grades of high school students and enabled them to meet the admission requirements of institutions of higher learning. The study adds to the existing knowledge base on the relationship between pre-entry university/bridging programmes and student admission to higher education. The study contributes to the

theory and practice of pre-university/ bridging programmes by delineating issues underlining the successes and challenges of these programmes in improving student access to higher education.

1.8 LIMITATION OF THE STUDY

This study had a few limitations. One hundred students who studied through the PETE programme during the 2018-2020 were selected for the study, however, only ninety students participated through the online questionnaire. Due to limited time and financial constraints, only one of the four NAMCOL centres that offer the PETE programme, namely the head office, was included. Due to a small sample size, the data from this study cannot be generalised. The researcher bias presented a limitation as it was a challenge to create distance between the research and being a NAMCOL staff member. Another limitation of this study was that the views of the students could not be verified against the admission requirements from HEIs.

1.9 DELIMITATIONS OF THE STUDY

The study involved students who participated in the PETE programme in Windhoek only, from the main campus of the Jetu Jama Centre, from 2018-2020.

1.10 THEORETICAL FRAMEWORK

The theoretical framework used for this study was first suggested and tested by Vincent Tinto (1975). Although the model was developed based on pre-entry programmes offered at universities, it is relevant to this study. In this model, Tinto suggested that the degree to which a student is integrated into studies and the degree of their commitment and social life are predictive of student persistence (Tinto, 1975). In his Student Integration Model, Tinto associates the pre-university attributes of (family background, skills and abilities, and prior schooling) to the institutional experience and eventually the educational outcomes, retention and success. Tinto

(1975) describes his “interactive model” as a dynamic process insofar as goals and intentions are concerned as they are continuously reshaped through university interaction and its social structures. The key to this theory is the incorporation of attitudes and values with the social student life, academic life and goals of the university. The researcher used the attributes of Tinto’s model (1975) to assess the influence of the pre-entry to tertiary education programme on high school students` access to higher education. The attributes include family background, skills and abilities of the students.

1.11 STRUCTURE OF THE THESIS

This study consists of six chapters. Chapter 1 introduces the study and consists of the background and context of the study, a statement of the problem, the main research questions, significance, limitations, delimitations and a brief theoretical framework of the study.

Chapter two presents the literature review on pre-entry programmes, and in particular the PETE programme, its structure and how it is offered, and how it relates to the problem under investigation. Chapter three focuses on the research methodology, while chapter four presents the findings of the study. Chapter five presents a summary of the findings, while Chapter six comes up with the main conclusions and recommendations for future studies.

CHAPTER 2: LITERATURE REVIEW

2.1 INTRODUCTION

This chapter presents the theoretical framework that guides the study and the review of literature that relates to the research topic.

2.2 THEORETICAL FRAMEWORK

This study is underpinned by the theoretical framework developed by Vincent Tinto (1975a, 1993b, 1997c) on student attrition, retention and success at university. He advocated that student integration into the academic and social life of the university, together with the degree of commitment to studies, and the aims of the university, are predictive of student perseverance (Tinto, 1975a; McCubbin, 2003).

Tinto's model has been applied to explain students' changeover to higher education, coupled with their ability to succeed in their programmes and studies. The degree of adjustment to the academic and social environment, according to him, influences their decision to persist or drop out of higher education. Tinto (1975a, 1993b) defines six successive categories underlying decision-making processes for continuing in academic courses and programmes. These continuing categories consist of pre-entry attributes, objectives and initial commitments, experience with the university system, integration, objectives and emerging commitments and results. Tinto argues that students reach universities with pre-entry attributes. The qualities or attributes they possess include family background, skills, abilities and prior schooling. He further explains that pre-entry attributes are connected to initial objectives and commitments, professional or future career goals, purpose to obtain a degree, the preferred choice of higher education institution and their external commitments to others outside the higher education institution, such as family, friends, and employers. The study used

some of those attributes to assess the extent to which the PETE programme improves high school students' grades to meet the admission requirements of higher education. According to Tinto (1975a, 1993b), academic integration is defined by students` academic performances, level of intellectual development, and perception of having a positive experience in those academic settings, while social integration is defined by involvement in extracurricular activities and the presence of positive relationships with their peers. According to Tinto's model (Tinto 1975a, 1993b), instructors play an important role in academic and social integration through the choices they make about the course and programme contents, supervision provided, teaching, learning and assessment strategies used. Academic and social integration is based on the suitability of course and programme contents, teaching and learning, and assessment strategies for needs. The match between needs, interests and preferences about the various elements listed above, and the higher education institution's offer of these same elements (Tinto 1993b), is key to academic and social integration.

Tinto's revised Student Integration Model (1997c) links the pre-university entry attributes (such as family background, skills and abilities and prior schooling) to the experience gained at the institution, and finally to educational outcomes, student retention and success. The important factors in his revised model include intentions, goals set, commitments to academic work, institutional experiences linked to the academic and social system, and the quality of student effort and learning. Tinto described the model as an interactive model of a mainly sociological character (1993b) because it is dynamic as long as the student's goals and intentions are always restructured through exchange and contact with the institution and its academic and social structures. Tinto points out that integration represents the alignment of attitudes and values with the social aspect of student life. This integration takes place and

includes their peers, academic life including interaction with staff members, and the institutional goals of the institution. Tinto further points out that the more integration takes place, the more positive or negative does experience grows or shrinks. If the interaction is positive, it boosts the experience, if it is negative, it negatively affects the student`s personal goals. In the context of this study, if students have a negative experience on campus, the chances are more that they may not finish the programme. These goals link to the institution and can reduce commitment to institutional goals, including the academic and social side of student life (Tinto, 1993b). This means that persistence becomes a function of integration into the academic and social aspects of the institutional system, influenced by goal commitments. Tinto's theory postulates that for students to persist through to completion, they have to successfully commit to, and integrate into, both the academic and social spheres of campus life. These three distinct, and overlapping phases constitute the integration process. Firstly, a separation phase during which the student loses bonds with the originating environment (home) and starts the move towards the new environment (campus). During this phase, characteristics are the strongest and most direct influences on their success and persistence. The second phase is the transition phase, where the student becomes part of the new environment, and lastly, there is an integration phase where the student becomes fully integrated into the institution by meeting its standards (Tinto, 1993b). Tinto argues that social and academic integration does not act as reliable indicators for persistence in the USA. On the other hand, Tinto maintained that a harmonious relationship exists between social and academic integration, which positively influences persistence and retention. Despite the criticism, according to McCubbin (2003), Tinto's Student Integration Model remains "the most influential model of dropout from tertiary education".

Klemenčič (2013) advances that student engagement has become the buzzword in higher education research worldwide. It has become part of the higher education reform agenda and it is linked to the modernisation of teaching and learning, quality of student services or quality of the entire student experience while in higher education. The most recent theoretical developments on student persistence and student success have therefore evolved on the construct of student engagement. This has drawn extensively on Tinto's theory of social and academic integration.

Martin & Bollinger (2018) advance that interaction and engagement are closely related and are developed through interaction and fostering of interaction in learning. It pivots on the following seven principles: (1) it increases the contact between student and faculty, (2) it provides opportunities for students to work in cooperation, (3) it encourages students to use active learning strategies, (4) it provides timely feedback on academic progression, (5) it requires students to spend quality time on academic tasks, (6) it establishes high standards for acceptable academic work, and lastly, (7) it addresses different student needs in the learning process. Tinto conceives learning communities as interdisciplinary peer groups that extend into the social and academic lives of students, from the curricular to the co-curriculum and into their residences (Tinto, 1997b).

In policy as well as scholarly work, student engagement is promulgated as key to several academic and societal goals (Thomas, 2012). Thomas (2012) sees student engagement portrayed as a key factor in study success and employability.

This argument is in line with Tinto's Theory of Engagement and has been furthered by Trowler (2015) who says that student engagement has also been regarded as a substitute for institutional quality and has been combined into institutional performance measurements.

In addition, Kahu (2013) has taken an important step with an integrated approach to the study of student engagement. She highlights the importance of the broader socio-cultural context along with structural, that is university culture, policies, curricula, assessment of student background and family support, together with psycho-social influences such as university teaching and student motivations, skills, etc. The engagement itself is then channelled through enthusiasm, interest and belonging, deep learning, self-regulation, time and effort, interaction and participation (Kahu, 2013).

Tinto's model identifies various pre-entry attributes that might influence students to persist and succeed in the pre-entry to tertiary education programmes. However, the model was developed based on the university pre-entry programmes. This study focuses on assessing the extent to which the pre-entry programme improves the high school students' grades who participated in a full-time pre-entry programme which is based on a senior secondary curriculum. This study assessed the following: Tinto's pre-entry attributes which are family and peer support, commitment to studies, student motivation, academic performance and positive experience with tutors and peers. These pre-entry attributes were applied in this study because they were found to be appropriate to the nature of the phenomenon (PETE) being investigated.

2.3 THE CONCEPT "PRE-ENTRY TO TERTIARY EDUCATION"

Various terms describe the concept of 'pre-entry` in literature. Some of these terms include pre-entry intervention, top-up programme, post-school system, widening participation, bridging programme and transitioning. Gazeley and Aynsley (2012) refer to the term 'pre-entry intervention' as open to interpretation because, in its broadest sense, it can be seen to refer generally to any point in time before the commencement of a course of study at a higher education institution (HEI). Gazeley and Aynsley also point out that the term 'pre-entry intervention' can be used

specifically to refer to the phase that immediately precedes entry to an institution of higher learning. Gazeley and Aynsley (2012) further state that the academic areas addressed by these interventions, bridging or pre-tertiary programmes have the potential to support ` prior expectations. These interventions assist with academic preparedness at the tertiary level to meet course demands; social integration within the higher education environment, and, lastly additional support to meet specific needs and develop a strong student identity.

Thomas (2012) identifies factors that the most effective pre-entry interventions focus on. These include providing information; informing expectations; developing academic skills; and building social capital that constitutes links with peers and staff while nurturing a sense of belonging. McCary et al., (2011) identify other factors such as providing good quality and easily accessible information (so that students can make informed choices about their course of study); making sure that they know what support systems are available and how to use them; ensuring that they are prepared for the possibility that they might feel a bit lost at first and allowing parents and families as they play a large part in supporting them in periods of difficulty, during studies, and lastly, allowing for the demands of becoming more independent.

McGrath & Bailey (2009), found that bridging programmes serve to bridge a perceived gap between existing English language proficiency and/or academic level and the level deemed to be necessary for undergraduate study through the medium of English. In the UK, Australia and New Zealand, a distinction is made between pre-sessional courses and (international) foundation programmes. Pre-sessional, (4–12 weeks), are primarily intended for students who have been offered a place conditional on their achieving a given level of English. Many of these students will have applied for entry to postgraduate rather than undergraduate courses.

Foundation programmes, on the other hand, typically last two to three terms and are designed for those whose academic qualifications do not meet university entry requirements and the use of the term 'international' in the UK distinguishes these courses from foundation or access programmes intended for home (McGrath & Bailey, 2009).

The NAMCOL PETE programme aims to prepare students for further education at HEIs, by improving academic readiness and preparing students for the demands of tertiary curricula. Students have the opportunity to learn and interact with peers and tutors in a closely controlled environment in the class set-up on campus. PETE may be seen as a bridging programme to enter HEIs, an opportunity that gives students entry where they are better prepared.

2.4 THE VALUE OF PRE-ENTRY PROGRAMMES

Wars & Gazeley (2012) explain that pre-entry programmes include the provision of information, advice and guidance, the provision of information about sources and support, preparing students to meet the demands of course content and assessment, developing students' self-confidence and cross-phase communication between staff members. Johnston et al., (2012) argue that accessing pre-entry programmes to university allows students to get first-hand experience in higher education and even to use the access programme as a vehicle for entering full-time degree courses at universities. The on-campus presence allows students for informal contact with peers and tutors or lecturers, another environment that enables a different type of pedagogy and social engagement with fellow students pursuing the same goals of furthering their education. The authors further mention that in terms of the curriculum and pedagogy, pre-entry programmes provide a form of preparation for the first-year experience as an

understanding of literature and content that will be better. It further creates space for transformational personal development (Johnston et al., 2012).

The Kuh`s student engagement (Pennington et al, 2015) attributes used for the study include student-staff contact, cooperation, active learning, prompt feedback, time spent on learning tasks, high expectations and respect for diverse talents and ways of learning. The Kuh`s model assessed whether pre-entry programmes foster a successful transition to higher education, and simultaneously examined factors associated with course satisfaction. Findings revealed that the students who participated in a pre-entry programme showed higher academic self-efficacy and satisfaction if compared to those who did not participate in pre-entry programmes. This same study also examined if academic self-efficacy with social identity is a predictor of student satisfaction during their first year at university. Findings indicated that academic self-efficacy determined satisfaction in the beginning but in-group affect it happened over a longer period. The findings suggest that pre-entry programmes may foster positive educational experiences. Rodrigues, Hughes and Bell (2012) found that students providing with a good education can improve their chances for success.

Other related studies, conducted on access to higher education focused on different variables and revealed various findings. For example, a study conducted in South Africa that focuses on access to higher education found that policies have led to widening access to universities, especially amongst the poor and disadvantaged (Leibowitz & Bozalek, 2014).

Another study assessed the influence of the bridging programme (focusing on Mathematics and English) on student access to universities in Namibia (Frindt, 2002). The study was conducted on the premise that students were under-prepared for tertiary education and this accounts for much of the failure rate of first-years. Frindt asserts

that access to higher education is something which should be widened, in particular, to include groups who have not in the recent past successfully entered such institutions". Frindt (2002) found that grades improved in Mathematics while reading and writing abilities also improved. This was the only study that was conducted in the Namibian context, offered by the University of Namibia.

Bridging or Access programmes have the probability to accomplish a broader purpose in enabling students to adjust socially and culturally to a new environment, as they allow for physical orientation and contact with subject tutors or lecturers, and may encourage the formation of friendships which may provide the much-needed emotional support during stressful times (McGrath & Bailey, 2009). One of the distinctive features of bridging programmes is that they prepare for study through the medium of English. This raises at least two issues: how to enable students to acquire the 'general academic' language that will be needed, and also how to provide for the discipline-specific needs of individuals, especially within diverse classes. A related question is how to equip students with the study skills they need if they do not have these already, and how to integrate this element with other components (McGrath & Bailey, 2009). These authors wrote that the bridging courses were felt to be beneficial since they provided training in skills that reported successful degree course completion. The authors found that students, over the 7 years, failed outright, and some failed for non-completion. A correlation for these were reported as 'weak' (0.4) or 'very weak' (0.23). Possible causes were that students found year 1 easier; furthermore, course content on the foundation bridging was considered by the participants to have been successful, and from the university's perspective, it succeeded in its aim of enabling the great majority to enter their degree courses.

2.5 THE NAMCOL PRE-ENTRY TO TERTIARY PROGRAMME (PETE)

The PETE programme was introduced in 2008 and has been offered by NAMCOL to students who need to improve their grades to enter institutions of higher learning. This programme was an initiative of the Education and Training Sector Improvement Programme (ETSIP) under the auspices of the Ministry of Education, fully sponsored by the Ministry of Education, Arts and Culture. PETE was introduced due to the low enrolment in terms of gender and least advantaged groups in the science and technology-related programmes and high failure with low completion rates at institutions of higher learning. Therefore, the need was identified to introduce PETE in addressing this mismatch and to bridge the gap between exit skills at the secondary level and the required entry skills at the higher education level.

The programme aims to allow students to rewrite specific Grade 12 NSSCO level subjects and improve their competencies. It was assumed that students would improve their results and therefore would gain admission into tertiary institutions and be able to cope with curricula demands at the tertiary level. The programme concentrates substantially on courses most relevant to the realisation of Vision 2030.

Since independence in 1990, NAMCOL offered a Secondary Education Programme (SEP), previously known as the Alternative Secondary Education Programme. All of the SEP courses offered by NAMCOL follow the same syllabuses used in conventional schools. Alongside the traditional SEP, the PETE programme enjoys the same curriculum and status as prescribed by the Ministry of Education.

Through the PETE programme, students are allowed to repeat subjects in the science and commerce fields, including subjects like Biology; Mathematics; Physical Science, Economics; Accounting; Business Studies and English for both fields. The initial

curriculum was revised and includes higher level subjects, languages and social sciences to cater for a wider variety of intakes.

2.6 IMPORTANCE OF ACCESS TO INSTITUTIONS OF HIGHER LEARNING

Akyeampong (2013) argues that access to education lies at the heart of development and a lack of educational access together with the inadequate acquisition of knowledge and skills defines poverty. Akyeampong further argues that continual access to learning facilitates signs of progress in productivity, the reduction of poverty, and health care, empowerment of women, and a drop in inequality. Akyeampong points out that countries such as China enrolled all children in secondary school, and the same was done for most of South India, while Africa is under-educated at the secondary level when compared to all other regions.

2.7 DEFINING THE CONCEPT OF ACCESS

The concept of access to education has been described from four perspectives: the broadening of access (growth of the number of potential students entering higher education), the deepening of access (allowing significant proportions of students from non-traditional social classes - the working class, ethnic minorities), retention and successful completion of the studies (analysing the factors that would lead to dropouts, such as the increase of tuition fees or downturns in the economy) and maintaining enrolment levels (need to provide loans to), (Ziderman, 2013).

Academic entry or Access programmes bring students one step closer to entering institutions of higher learning (Muller, 2013). This author states that for entry into institutions for higher learning, students may have written an exit examination, but still lack skills to be admitted to higher education. The focus of her study was to investigate the opportunity to re-write some subjects or the whole examination, where

programmes offer a structured admissions process for those who complete the programme. Muller (2013) suggests that there are two models of bridging in facilitating the transition from high school to university, a phased transition, and secondly, an intermediate phase. Phase one matches the end of school and the beginning of tertiary education, which requires a shift from one level to the other. The author states that a bridging programme is necessary to move from one phase to the other. Other Access programmes may be offered through a foundation year an extended degree, or an augmented programme.

Allen and Penuel (2020) in the "International Journal of STEM Education" discuss access in the context of STEM education, highlighting the necessity of expanding access to underrepresented groups and the impact of educational reforms on improving student retention and success (Allen & Penuel, 2020).

According to the UNESCO Global Education Monitoring Report (2019), broadening access includes efforts to include marginalized groups and ensuring that educational opportunities are equitable and inclusive. This report emphasizes the need for policy measures to address barriers to education and enhance retention and completion rates (UNESCO, 2019).

Furthermore, the *OECD* Report on Education Policy (2021) provides insights into socio-economic barriers affecting access to higher education. This report analyses enrolment trends and the effectiveness of financial aid programs in improving student retention and completion rates, thus addressing the economic dimensions of access (OECD, 2021).

Sana and Fenessi (2013) found a strong association between good achievement in high school and post-secondary education, in their study done in Canada. According to them, there are skills provided in high school that prepare them for post-secondary

education. In this study, Grade 13 graduates were 25.2% more likely than Grade 12 graduates to pursue further studies at university. This, according to the authors, could reflect that Grade 13 was structured in a way to thoroughly prepare students for the demands of university. The 5-year high school curriculum (Grade 13) required students to complete a greater number of advanced-level courses covering a range of subjects and were mandatory to pursue university. This means that Grade 13 graduates had more opportunities to develop their knowledge and skills, and more time to explore suitable post-secondary programmes that they wanted to pursue. These authors point out that post-secondary preparation must include high school prerequisites to facilitate academic excellence and exposure to different academic fields. Sana and Fenessi (2013) focused on the extent to which high school graduation predicts the achievement of post-secondary success, including those who finished only Grade 12, and those students who finished an extra year, Grade 13, which in this case equalled the post-secondary year. Their study found that those who graduated from the Grade 12 high school curriculum showed reduced academic success in their last year of high school and their first year of university. Sana and Fenessi (2013) found that Grade 13 graduates were 25.2% more likely than Grade 12 graduates to pursue university and that the extra year was structured to prepare them for tertiary studies, and created more opportunities to develop knowledge and skills. The findings above add to the importance of the quality of high school education delivered to, and in this case, the extra year that constitutes the Gr 13, bridging year, or pre-entry to tertiary education year. Sana and Fenessi (2013) found a strong association between good achievement in high school and post-secondary education, in their study done in Canada. He focused on the extensions of supplementary instruction classes by HEIs (post-secondary) that expand opportunities for learning for students to be successful in post-

secondary studies. Students have been provided additional help in the form of increased teaching time, learning material and smaller classes. The main aim of the programme was to extend additional support in academic subjects to improve their academic performance. In this way, they would reduce failures and dropout rates. The findings of the study revealed that the students learnt the importance of accessing academic support to augment their academic credentials.

In the context of this study, it is assumed that the PETE programme would provide the PETE students with learning opportunities to improve their high school grades to enable them access to higher education. Access in this study, therefore, is limited to admission to institutions of higher learning.

2.8 FACTORS THAT HINDER STUDENT ACADEMIC PREPAREDNESS FOR HIGHER EDUCATION

Rodriguez and Wan (2010) stated that the term `access` requires the removal of barriers that have limited over time the access of all students to higher education. Thereby, three major barriers were identified that have been addressed by research and policies. The barriers are poor academic preparation, lack of financial resources and lack of knowledge about application and enrolment in higher education. Academic consistency and achievements in high school are found to be strong indicators for subsequent success at the university (Rodriguez and Wan, 2010). The focus of the present study is on assessing barriers related to poor academic preparation of high school students. The question of under-preparedness relates not only to knowledge and skills in subjects such as mathematics and science but also to language competency, the ability to speak and understand the languages of instruction in the country's higher education institutions.

Jensen (2011) groups some barriers into three categories, namely individual (academic performance, attitudes and satisfaction); institutional (academic engagement); social and external (social and family support). Furthermore, the lack of cultural/social/physical encouragement and support from family members, teachers/tutors, and friends also hamper access. (Prodan et al, 2015).

2.9 CONCLUSION

This chapter reviewed the relevant literature that relates to the research topic. It discussed Tinto's theoretical model and its aspects that might influence students' success at university. Tinto's model which emphasizes academic and social integration, is the main theoretical framework of the study. Furthermore, the chapter discussed the previous studies that focused on pre-entry programmes designed to prepare students for the academic and social demands of higher education. These studies provide insight into the existing knowledge base on the influence of pre-entry programmes on student access to institutions of higher learning. The review identified variables that may facilitate or hinder students' access to institutions of higher learning as well as variables that may influence students' success at university.

Previous studies related to this study examined similar pre-entry programmes which were offered at universities, in different contexts and focused on variables such as policies, and the inclusion of females, from less privileged socio-economic groups and disadvantaged groups. However, there has been no study that focused on the NAMCOL PETE programme since it was introduced in Namibia. The only related study conducted in the Namibian context was that of Frindt (2002) focused on improving Mathematics and English to widen access to the then Polytechnic (now NUST) and the University of Namibia This study focuses on a pre-entry to tertiary

programme offered by an open and distance education institution, which does not have university status.

CHAPTER 3: RESEARCH METHODOLOGY

3.1 INTRODUCTION

This chapter discusses the research paradigm, research design, research methods, research instruments, the population and sample of the study, and concludes with the data collection and analysis procedures.

3.2 RESEARCH METHODS

3.2.1 The Research Paradigm

The research is guided by a post-positivist paradigm, acknowledging the limitations of absolute objectivity and the influence of the researcher's background on the research process (Creswell, 2014). This paradigm acknowledges that while an objective reality exists, our understanding of it is inherently imperfect and influenced by our theoretical perspectives and biases (Phillips & Burbules, 2000).

Musa and Aldiabat (2024) argue that 'post-positivism rejects the notion of a single objective reality, proposing instead that multiple realities exist and can be explored through diverse methodological approaches' (p.105). The authors point out that post-positivism with its emphasis on critical realism and methodological pluralism, offers an alternative that bridges the divide between quantitative and qualitative research. By embracing both empirical rigour and interpretive depth, post-positivism fosters a more comprehensive understanding of social reality, accommodating the diverse and often contradictory nature of human experience (Musa and Aldiabat, 2024).

This study utilizes the tenets of the post-positivism paradigm to provide a robust analysis of the influence of PETE on student access to higher learning institutions. In line with critical realism, the researcher recognizes that this reality can be understood from multiple perspectives, necessitating a comprehensive approach that considers various stakeholder viewpoints (Bhaskar, 2008). By using both quantitative and

qualitative methods, the study aims to capture a more complete picture of the influence of the PETE programme on student access to institutions of higher learning.

Post-positivism embraces the use of both qualitative and quantitative methods in research. Therefore, the paradigm enables researchers to utilise various data collection methods to gather comprehensive data about the phenomenon. In the context of this study, the use of closed-ended questionnaires and focus group discussions allows for the collection of diverse data, contributing to a more nuanced understanding that can be continuously improved upon as new insights emerge (Creswell, 2013). The study incorporates the perspectives and experiences of students, tutors, and staff. The researcher uses structured online questionnaires to gather quantitative data and qualitative focus group discussions to delve deeper into personal experiences and insights (Teddlie & Tashakkori, 2009). This dual approach ensures that the data collected is enriched by the theoretical frameworks and prior knowledge of both the participants and the researchers (Maxwell, 2012). Through qualitative focus group discussions, in-depth insights into the experiences of students and tutors were gained. These discussions allowed participants to share their personal stories and perspectives, providing rich, contextual data that complements the quantitative findings (Finlay, 2017). By integrating these methods, the study leverages the strengths of both approaches, offering a more holistic understanding of the PETE programme's influence (Creswell & Plano Clark, 2017).

3.2.2 Research Design

The research design for this study is a mixed-methods design. This design is based on the central premise that the use of a combination of quantitative and qualitative approaches provides a better understanding of research problems than either approach alone (Creswell & Clarke, 2011). In particular, this study employed a convergent

parallel mixed methods design. This type of research design aims to collect and combine quantitative and qualitative data simultaneously. Therefore, ensuring that one of the collected data sets can compensate for the weaknesses of the other, finding a more comprehensive response to the research problem (Şahin and Öztürk, 2019, p. 305). The quantitative data gathered provided basic research evidence with quantifiable evidence, while qualitative data provided further insight and reasons behind the quantitative answers with in-depth and focus group interviews (Creswell & Clarke, 2011). Qualitative research aims to provide an in-depth understanding through first-hand experience, truthful reporting and quotations of actual conversations.

In the context of this study, data collected through quantitative methods was complemented with the qualitative data gathered through semi-structured interviews with students and programme facilitators, providing deeper insights into factors that contribute to or hinder student success within the PETE programme. Following separate analyses, the quantitative and qualitative findings were integrated and interpreted to provide a holistic picture of the programme's influence on student access to higher learning institutions. The combination of quantitative and qualitative research methods enables the researcher to triangulate data obtained from different data sources (Creswell & Clarke, 2011). Triangulation is used to describe research where two or more methods are used, better known as mixed methods (Heale & Forbes, 2013). Triangulation in research is the use of more than one approach to researching a question. The objective is to increase confidence in the findings through the confirmation of a proposition using two or more independent measures (Heale & Forbes, 2013). The combination of findings from two or more approaches provides a more comprehensive picture of the results than either approach could do alone (Heale & Forbes, 2013). The study adopted a survey research and case study methodologies.

The case study, typically, is used to answer the how and why questions on issues to be investigated, with no researcher control over variables when the case is current (Lylum et al, 2017). Case studies are valuable data sources for researchers given the complexity and diversity of educational settings and purposes. Case study research has an important role in putting theories into practice, thus developing the practice in the field of educational sciences. In this regard, the nature and the focus of the case study must be clear. The case study aims to explain why the students do or do not achieve access to HEIs after doing the PETE programme, and the best results are through investigating the focus and nature of the programme, and its importance in educational settings, and offering suggestions for practice to researchers (Lylum et al, 2017). It is furthermore based on the belief that existing problems whose complexity cannot be fully researched when the combination of quantitative and qualitative approaches is not undertaken as is more difficult to understand from a single quantitative or qualitative approach (Ponce & Pagán-Maldonado, 2015). Mixed-methods research addresses problems and challenges in which clear objective and subjective aspects are manifested that require the use of quantitative and qualitative approaches.

The researcher aimed to obtain the experiences and views from students in the PETE programme, and whether the programme prepared them for HEIs. The key questions focused on the extent to which the PETE programme improved the grades of high school students to gain admission to HEIs, the factors that facilitate access of the PETE students to local universities, and the factors that hinder access of students to local universities. The qualitative research focused on semi-structured interview guide protocols to gather data on students` backgrounds, expectations, opinions and experiences on the programme to support basic research evidence.

a) Population

The study population consists of 876 students, 10 tutors, 2 counsellors and 1 administrator.

b) Sample

To collect quantitative data, the researcher chose a study sample of 100 participants drawn from a population of 876 using simple random sampling. This method ensures each student in the population (876) has an equal chance of being selected (Rea & Parker, 2012). Lists of registered students from 2018-2020 were obtained from the administrator, and names were randomly chosen from each cohort, divided by field of study. The chosen sample size of 100 represents over 10% of the targeted population. To collect qualitative data, a convenient sampling technique was used to select students as study participants. This technique involves selecting participants readily available and willing to participate (Polit & Beck, 2017). Twenty students participated in the study.

The study included all 10 tutors, 2 counsellors, and 1 administrator because they were few and due to their valuable insights into programme implementation and student experiences.

3.2.3 Research Instruments

This study used the following research instruments: questionnaires, focus group interviews, semi-structured interviews and document analysis to collect data about the influence of PETE on high school students' admissions to higher education.

a) Questionnaires

Boynton and Greenhalgh (2004) define a questionnaire as a research instrument with a set of questions which offer data or information about people's knowledge, opinions and beliefs, attitudes, and behaviour. The authors point out that the information needed

is obtained through an objective collection of information (Boynton & Greenhalgh, 2004).

Questionnaires contained closed and open-ended questions for the students, NAMCOL administrative staff, the counsellor and the tutors. The content of the questionnaires was developed from related literature and included demographic information, questions on their experiences on the PETE programme regarding assessment, class attendance, results obtained before and after the programme for students, social aspects with peers, family and friends such as support from them during their year of study. Questions ranged from biographical data to experiences either as a student, tutor administrator or counsellor on the PETE programme.

b) Focus Group Discussion

The researcher chose this method because it is best suited for obtaining a few perspectives on the same topic, and included discussion points prepared before the time. This discussion was with a particular group of individuals to obtain information on their views and experiences of a topic (Getie A, 2020). In this study, the focus group relied on the live discussion of the topic supplied by the researcher, in which all participants participated. Getie (2020) asserts that focus groups help to draw upon respondents' attitudes, feelings, beliefs, experiences and reactions in a way which would not be possible if any other method is used, such as observation or even interviews that are on one. The researcher believed that participants` beliefs and feelings were personal and unique, but added rich information in the social setting, which has a better chance of being revealed, as others also share their views and feelings. In addition, the focus groups provoke other views and also emotional processes and, in this way, more information is obtained (Getie, 2020). Throughout the session, a mini recorder was used to record all responses by the participants.

c) Semi-structured Interview

The authors Adeoye-Olatunde & Olenik (2021), explain that semi-structured interviews are the chosen and most preferred data collection method when the researcher aims to obtain a better understanding of the participant's unique perspective rather than a generalised understanding of a phenomenon (Adeoye-Olatunde & Olenik, 2021). They further explain that one of the benefits is that it allows for the interviews to be focused and still gives the researcher the freedom to explore ideas that may come up as the interview progresses (Adeoye-Olatunde & Olenik, 2021). This is also something that cannot be derived from quantitative data alone; it can be used to enhance the depth of quantitative data when used in a mixed methods approach. This data collection method was chosen by the interviewer to add additional information from the group of students on their experiences during the PETE programme, as the objective of the interview was to get an in-depth understanding of the individuals themselves. Another aim was also to obtain information about their family life during the programme, their social activities and if that impacted their learning. The researcher also wanted to hear about their challenges with learning, and teaching, their struggles and successes that led them to successfully finish, or not finish the programme. The semi-structured interview guide was meant to provide structure and focus to the natural flow of conversation for each interview.

d) Document Analysis

Armstrong (2020), outlines document analysis as a systematic procedure that is used for the review or evaluation of documents that can be either in printed or electronic format. For meaning to be produced in a qualitative research document analysis, the document must be examined and interpreted to gain an understanding of the contents, and further develop empirical knowledge from the data (Armstrong, 2020). The author

further explains that document analysis is frequently used in combination with other qualitative research methods as a means of triangulation. Triangulation is the combination of methodologies in the study of the same phenomenon (Armstrong, 2020) to draw upon multiple sources of evidence; that is, to seek union and support through the use of different data sources and methods. Armstrong (2020) asserts that by triangulating data, there is an attempt made by the researcher to provide a joining together of evidence that leads to the reliability and trustworthiness of information. Through document analysis, the researcher can validate findings across the data sets to reduce the impact of probable biases that can exist in a single study. Cardno (2018) complements the above author by believing that qualitative research methods include document analysis as a second or supplementary way to be part of the data collection used to add firmness to a study by using a multi-method form of triangulation. Cardno (2018) and Armstrong (2020) find that it is common for studies that use interviews as part of their qualitative design will also use documentary evidence as an additional source of data when this is both relevant and feasible for the study.

The College's mark sheets, examination results and statistical digest formed part of the study used by the researcher, as the PETE student`s performance was documented before and after the programme. The researcher relied on a variety of documents obtained from the PETE administrator to conduct a comprehensive analysis of the PETE programme's influence on student success in higher education admissions.

The researcher accessed detailed lists provided by the PETE administrator, containing the registration information of PETE students. These lists included valuable data such as students' subject preferences across study fields like Science, Social Science, Commerce, and Languages, as well as their previous Grade 12 academic performance

indicators. This information offered crucial insights into the academic backgrounds and preferences of PETE students, forming the foundation for the study's analysis.

Excel sheets containing the examination results of PETE students following the 2018, 2019, and 2020 final national examinations were instrumental in the study. These sheets facilitated a thorough examination of students' academic performance within the year of their attendance. The College's Statistical Digest served as a rich source of data for the study. The information contained in the Digest was taken from the official examination results of the Directorate of National Examinations and Assessment in the Ministry of Education, Arts and Culture. The digest contains a wide range of information related to student performance, including examination results and other relevant metrics. By referencing this digest, the researcher gained access to a wealth of data that provided context and depth to the analysis of student outcomes within the PETE programme.

The researcher used this information to indicate results obtained before and after the PETE programme. This rigorous comparison process was essential for verifying the accuracy and reliability of the data used in the analysis. By cross-referencing multiple sources, the researcher ensured the integrity of the study's findings and strengthened the validity of the conclusions drawn on the research topic.

3.3 DATA COLLECTION

The researcher obtained an Ethical Clearance Certificate which was issued by the University of Namibia. With this tool, permission was granted to go ahead with the collection of data. Permission was obtained from NAMCOL to conduct interviews and administer questionnaires to tutors, administrative staff and counsellors. Respondents were pre-contacted via text message to alert them of the arrival of the research tool. The researcher obtained the respondents` contact addresses from the

College`s database system. Due to the Covid 19 restrictions, electronic questionnaires were sent, using a link in a short message (SMS) that explained the purpose of the study. Through the Google Form function, questionnaires were uploaded for further use. Through a link, questionnaires were sent to all the groups. The purpose of the study was explained to the participants at first. Thereafter it requested the student, tutor, administrator and counsellors to complete the questions and submit them as questionnaires containing a handle through which it is submitted and stored on Google Forms for retrieval.

A follow-up telephone call was made to get consent from all participants and explain the study. The link gave access to complete questionnaires online. Three WhatsApp groups that were divided in their respective years of study were another platform to engage them as a group in the study. Tutors were contacted separately using the same platform. A cover letter to the questionnaire explained the purpose of the research to influence the return rate and emphasise the importance of the responses.

For the questionnaires, the anonymity principle for this research was explained to participants. Their responses would remain anonymous, would not be shared with anyone and handled with confidentiality, as this was stated on the questionnaire itself. Questionnaires had no names as it was submitted online. Participation was voluntary and they could withdraw at any point. Govil (2013) eludes to the responsibility of researchers to respondents. The author explains that respondents have the right to remain private, remain anonymous, and guaranteed confidentially and that no harm, betrayal or deception will be done to them.

The response rate was less than what was expected by the planned sample. The researcher expected a return of at least a hundred completed online questionnaires from the former PETE students. Only ninety questionnaires were sent back after

numerous follow-ups that were sent to the same chosen groups to complete the questionnaire. The researcher received several enquiries from parents of these students who received the link for completing the questionnaire, as students were hesitant to answer the questions. The researcher had to explain to each of those who called and enquired that this was an approved study by the College and through the University of Namibia, even though the WhatsApp messages and the questionnaires also explained the purpose of the study.

The researcher conducted a focus group discussion with the PETE tutors. The focused group discussion started with an introduction to the purpose of the study, requested consent and explained the confidentiality of responses. The focused group discussion was arranged on campus, while tutors were busy preparing their students for the final examinations in November 2021. The set-up was done in the training room, with a mini-recorder and the questionnaires in front of them, so that they could follow the questions. For the focus group discussion, the group consisted of a small number of people between six and nine brought together by the researcher to explore attitudes perceptions and ideas on a given topic. A setting was provided by the researcher for the interview. The focus group discussion was held with the PETE tutors, administrator and counsellor, after a scheduled appointment during the afternoon, in a quiet room that was big enough to accommodate all of them. The table setting was in a semi-circle so that everyone was visible from every angle in the room. The researcher explained that their responses would be kept anonymous and their responses would not be shared with others. Their responses in all cases would be handled with confidentiality, and participation was voluntary and they could withdraw at any point. Their privacy was guaranteed (Govil, 2013) and no harm, betrayal or deception would be done to them. A recorder was used to record responses, while the researcher posed

questions with follow-up questions after responses were given. The focus group discussion lasted until all the questions were exhausted, and they were motivated by others to participate equally on the topic. Questions were introduced one by one, and probing techniques were used such as pauses and involving discussions without giving value to it, to get adequate responses. Questions were open-ended, such as their experiences with students who had difficulties, reasons why they were doing well or not so well, and their general beliefs in the PETE programme. All participants talked openly about their experiences and gave their own opinions on the programme, as well as the value of it for the students.

Focus group interviews are generally used where respondents have a reasonably high degree of homogeneity in terms of their roles and their status within an institution. Respondents should freely talk about issues under investigation in ways that encourage them to engage positively with the research process (Saide, 2014). At the same time, they should be well conversant with the complexity surrounding social issues within the context of lived experience. Thus, their selection is based on the concept of "Applicability", in which subjects are selected based on their knowledge of the issues of importance for the study. The focus group technique involves the use of in-depth group interviews in which participants are selected because they are purposive, although not necessarily a representative sample of a specific population. Discussion within the group was not allowed to range freely, but rather was 'focused' by a facilitator on a given subject or topic. As the literature affirms, the uniqueness of a focus group is its ability to generate data based on the synergy of the group interaction. For this study, the only participants who were involved in the focus group discussion were PETE Tutors (10 tutors responsible for the PETE groups, one administrator, and the only councillor responsible for the Jetu Jama Head Office) at the NAMCOL. These

were selected on the criteria that they would have something to say on the topic, had similar socio-characteristics and would be comfortable talking to the researcher and each other on issues regarding the programme.

The questions were structured around the research questions, namely, to what extent does the PETE programme improve high school students' grades to meet admission requirements to institutions of higher learning; what factors facilitate the PETE students from improving their grades to gain admission to local universities, and what factors hinder the PETE students improving their grades to gain admission to local universities. The analysis done below refers to the factors that influence students to succeed in their studies. The discussion was guided by a request for honesty and the researcher explained the expectations of the group, and also that no one would be pressurised to speak. Confidentiality and anonymity were guaranteed to all of the participants. During the data collection process tutors and administrative staff shared their perceptions about the pre-entry programme and the extent to which the programme enabled high school students to improve their grades to meet admission requirements of institutions of higher learning. A comparison was made between the grades obtained before the programme, and grades obtained after the programme, tutors` years of experience in teaching subjects, their experiences in tutoring the subjects and the performance of students. For the administrative staff members, the emphasis was on their interaction with students, the support rendered to them, and tutors, with the analysis of their results. Counsellors had to share information on the types of support rendered to students and tutors, the frequency of sessions, and what possibly influenced the students' results.

The researcher conducted semi-structured interviews with 20 voluntary students, who could participate in the study. These students were available for the session and were

interviewed as a group. The setting for the semi-structured interviews with the 20 students was the same for the students as it was for the tutors. In this setting, the students were comforted and could openly talk about all the experiences that surfaced as the session progressed. The researcher took notes of the responses and could observe the behaviour of the students such as the non-verbal reactions and the ability to use visual cues. The students were identified and contacted for the interviews on an afternoon, in the same venue where the tutors were interviewed on campus. The researcher prepared an interview guide with questions aimed at addressing the research objective, which was to draw on their experiences on the programme to find out if it assisted them in getting entry into institutions of higher learning, and what their academic journey was like. Students' anonymity and confidentiality were explained before the session. Anyone could withdraw at any time. The purpose of the study was explained, and they could ask questions to get certainty about it, the researcher responded that their participation would not bring any harm to them. After they were all comfortable, the recorder was switched on and the semi-structured interview started. The researcher used the questions used in the questionnaires for the session, and follow-up open-ended questions probed more on their feelings on the programme, and how it added value to their academic lives. In this way, they could explain with much more depth how they experienced the programme, academic life, assessment, social life on campus and their challenges.

This tool was used to collect subjective responses from a sample regarding a particular situation or phenomenon experienced, in this case, the PETE programme (McIntosh & Morse, 2015). This method was used to get subjective knowledge, where objective knowledge exists, and interview questions focused on the responses of each participant. Participants responded to open-ended questions probed by the researcher.

The semi-structured interview is characterised by comparing participants` responses per item, and in this case, the twenty students who participated in the interview responded individually. Follow-up questions were used as follow-up questions in categories and probing intended to go beyond the initial response of the participant to gauge good and rich information. Students had the opportunity to react to questions with their experiences on modalities of the programme, assessment, their opinions and the outcomes after the programme.

Semi-structured interviews probed students to share their experiences while they were part of the programme, and if the programme assisted them in getting access to HEIs. This led to further in-depth probing via interviews, especially with administrators, tutors and councillors, which includes methodologies used for tutoring, frequencies of classes, evaluation and a better understanding of contents and mastery altogether. Qualitative protocols via interviews were used to gain an in-depth understanding of underlying reasons, opinions and motivations by tutors, and administrators and how experiences and the programme itself enhanced access to higher education. The aim was to corroborate the data from different sources. The collection of quantitative data was done first and followed up with interviews to help explain their outcomes. The data that was collected for this study included a record of students` marks obtained before the programme, for every subject they wished to enrol for in the PETE programme. These marks or symbols were carried in on Excel and in Word format sheets, and stored on the College`s administrative system. The same happened with the symbols obtained after the final examinations. Broadsheets were obtained from the Ministry of Education, Arts and Culture, specifically from the Directorate of National Examinations and Assessment (DNEA). Symbols from the students at the

College were extracted. After this extraction, a summary is done to determine the status of students` results.

The focus group discussions were done after the questionnaires were sent and completed as a follow-up to obtain deeper information on experiences and views on the PETE programme, especially how it assisted in improving results and performance to get entry into higher education. The researcher used the note-taking technique and a recording device.

Literature warns that the danger of this is that the researcher has to rely on memory (Wilkinson, 2020). Through the process of correcting, the researcher picked up incomplete sentences, parts of words and odd phrases that had to be completed to comply with written language standards.

Patton et al., (2015) assert that document analysis as a research method can include analysing several types of documents that include books, newspaper articles, academic journal articles and institutional reports. Patton et al., (2015) further explain that any document containing text is a possible source for qualitative analysis. Analysing documents can be beneficial as data is stable and unaffected (Patton et al., 2015).

Armstrong (2020) further points out that some document analysis procedures involve the epistemological stance of the researcher, as it is important to look at the epistemological theories of research, such as factual evidence for the study, or to corroborate a theory or hypothesis. The author clarifies that new interview questions can also be generated and new data can be added to the study (Armstrong, 2020). For this study, the Researcher obtained the academic records for the PETE students from the Administrator. The results of the students were recorded before the programme after acceptance into the programme. At the end of the academic year, the final results that they obtained after the final national examinations, were recorded. These results

were kept to compare the progress of the students after the programme and were stored for record-keeping at the College. The College compiles the Statistical Digest which is a combination of results for students in the various programmes. It provides enrolment statistics, examination results, staffing and physical facilities. As such, the PETE results are part of this official document.

The researcher prepared questionnaires for students, the PETE administrator, the counsellor and the tutors. Quantitative data was collected using these questionnaires that obtained information on the student's demographic information, their educational background before the PETE programme, and their educational experiences during the programme, including social experiences and institutional and academic performances after the programme. The staff information included their views, observations and experiences with the students, as well as their demographic information. The quantitative data was collected through online questionnaires using Google Forms. All the questions were prepared and a link was sent to participants. Google Forms automatically stores data when the questionnaire is completed.

3.4 DATA ANALYSIS

The quantitative data underwent comprehensive analysis, employing descriptive statistics, pivot tables, and cross-tabulations. Information was extracted from an Excel sheet encompassing all data points, allowing for systematic filtering and merging of variables to enhance presentation. Pivot tables, generated through Excel, facilitated cross-tabulations, enabling insightful comparisons between distinct variables. Data collected via Google Forms was seamlessly integrated into the Excel sheet for centralized analysis. Cross-tabulation techniques were instrumental in drawing meaningful inferences from disparate datasets. Microsoft Excel served as the primary tool for generating pivot tables, aiding in the meticulous examination of quantitative

data. Additionally, a Pearson product correlation coefficient was utilized to assess the relationship between PETE programme results and the final NSSCO/H results that students obtained after the PETE programme, elucidating any discernible associations. Qualitative data obtained from focused group discussions and semi-structured interviews were transcribed for analysis. Content analysis was done on open-ended questions to determine the relevance of conceptual meanings. The data was coded for use in analysis in Excel. For the responses that have multiple responses the responses to the variable were split according to the number of responses (multiple dichotomies). The researcher grouped the information according to the research questions. Canary (2010) explains that thematic content analysis begins with weeding out biases to establish overarching impressions of the data. Data was organised according to the same recurring words and phrases and coded into common themes and patterns using the research questions.

The data that was collected through the document analysis was analysed by grouping the different years of attendance for students from 2018- 2020, according to the different subject groups. Another document contained a summary of whether students' grades remained the same, dropped or improved after the final examinations. This information was then organised into tables to indicate those differences and see the percentages of the categories. The information that was used to indicate the correlation coefficient between students` grades before the programme and after the programme was extracted from the same records provided by the PETE administrator.

Recorded responses from the interviews were transcribed from the devices and used in the analysis, which is the first step in the analysis of focus group data. The researcher appointed a typist to have the interview transcribed. Since the transcriptions

were not always complete, gaps had to be filled in missing words had to be added, and typographical errors had to be corrected through the process of cleaning up data.

The researcher followed a process to familiarise herself with the data by reading and rereading responses. During this process, data was collated and organised.

After the data was organised, it was separated to create meaningful groupings of data. This is a process called coding Castleberry & Nolen (2018). The authors Castleberry & Nolen (2018) define "the process by which raw data are gradually converted into usable data through the identification of themes, concepts, or ideas that have some connection with each other", Castleberry & Nolen (2018). By this, the researcher identified similarities and differences in the data that was gathered and organised. The themes for the qualitative data presentation were obtained by the process called thematic analysis which takes five steps, including compiling, disassembling, reassembling, interpreting and concluding the quantitative data. This process is a method whereby the researcher first identifies, analyse, and then reports patterns or themes within the data that was gathered (Castleberry & Nolen, 2018). This descriptive method groups and reduces the data gathered in a flexible way to merge with other data analysis methods (Castleberry & Nolen, 2018).

3.5 SUMMARY

This chapter discussed the research paradigm and design, research instruments for data collection and how quantitative and qualitative data was analysed using different data analysis methods. The next chapter presents the research data and findings.

CHAPTER 4: THE DATA PRESENTATION AND DISCUSSION OF THE RESEARCH FINDINGS

4.1 INTRODUCTION

This chapter presents the research data obtained and discusses the study findings. This study aimed to assess the extent to which the PETE programme improved the grades of high school students to enable them to gain admission to institutions of higher learning. This study collected both quantitative and qualitative data to assess the extent to which the PETE programme improves the grades of PETE students and influences their admission to institutions of higher learning, the factors that facilitate and hinder PETE students from meeting admission requirements to local universities. The research questions are as follows:

- To what extent does the PETE programme improve Gr 12 NSSC students` grades to meet admission requirements to institutions of higher learning?
- What factors facilitate PETE students improving their grades to meet admission requirements of local universities?
- What factors hinder PETE students from improving their grades to meet the admission requirements of local universities?

The researcher grouped results according to the research questions. Below, is a summary of both quantitative and qualitative data collected. The findings of the study are grouped according to the three research questions.

4.2 DEMOGRAPHIC DATA

4.2.1 The Profile of PETE

a) Gender

Figure 1

Gender distribution of PETE students

Figure 1: Gender distribution of PETE students

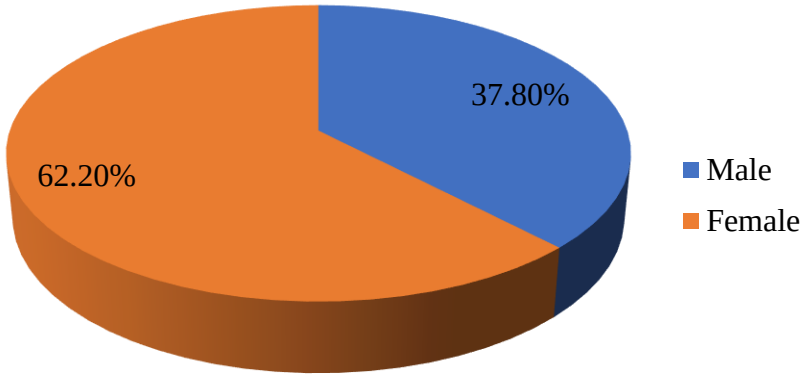


Figure 1 above indicates the gender distribution of the group. This information was obtained from the Excel summary generated by Google Docs. The figure indicates the gender representation of the two gender groups who participated in the study, namely males and females. The pie chart indicates that 62,2 % (69 students) of respondents were females, while the remaining 37,8% (21 students) were males. The ages of this group varied between 19 and 23 years.

b) Years of Attendance of PETE students

Figure 2: *Years of attendance of PETE students*

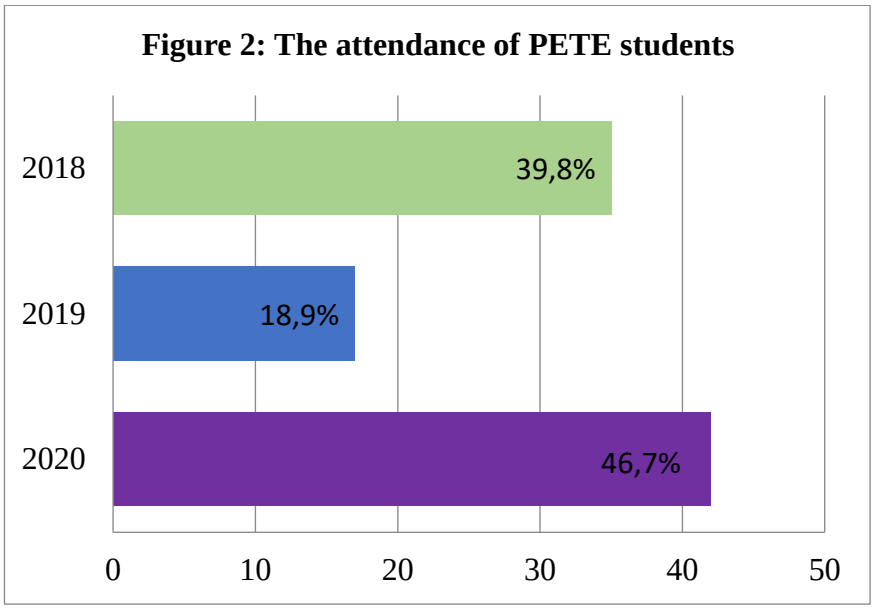


Figure 2 indicates the specific year in which the student attended the PETE programme. The bar graph shows that the majority of students who participated in the PETE programme were from the 2020 academic year, which contributes 46,7% of the total, followed by the 2018 group which constituted 39,8% of the entire sample, and the lower number of students came from the 2019 group, 18,9%. The higher number of respondents came from the 2020 academic year, and the lower from the 2019 year. This information was obtained from students` responses to the online questionnaire.

4.3 THE INFLUENCE OF THE PETE PROGRAMME ON THE IMPROVEMENT OF THE PETE STUDENTS` HIGH SCHOOL GRADES

This sub-section presents the extent to which the PETE programme improved the PETE students' high school grades to meet admission requirements to institutions of higher learning.

More specifically, this sub-section presents the data on the following research question below:

Research Question 1: To what extent does the PETE programme improve high school student`s grades to meet admission requirements to institutions of higher learning?

Before presenting the data on this research question, the researcher looked at the general entry requirements of institutions of higher learning in Namibia, as highlighted below:

4.3.1 Entry Requirements for Some Higher Education Institutions in Namibia

As indicated in Chapter One, there are sixteen private universities and two public universities. The entry requirements presented here are for the International University of Management (IUM) as the largest private university and two public universities, namely the University of Namibia (UNAM) and the Namibian University of Science and Technology (NUST). UNAM's admission criteria based on School Leaving Certificates before 2021, for Undergraduate Degree programmes (general admissions), indicate that a student must have a pass in five subjects, which can be as follows: 2 subjects on the higher level (NSSCH) with a 4 or higher, 3 subjects on ordinary level (NSSCO) with a C or higher, English must be at minimum C at NSSCO level, or 3 subjects on the higher level (NSSCH) with a 4 or higher, 2 subjects on ordinary level (NSSCO) with a D or higher and English must be at minimum C at NSSCO level.

The current entry requirements (also before 2021) for IUM admission to stand-alone programmes require a total of 20 points in the best 5 subjects with a D symbol in English at NSSCH/O or equivalent. For admission to the Diploma in Education, a student requires an NSSC Ordinary or equivalent with a minimum of 23 points in the

best five subjects (including a minimum D symbol in English and any Namibian Language) on the IUM's evaluation scale. For admission to Bachelor Degrees and Integrated Bachelor Honours Degrees, a student requires 25 points in the best 5 subjects with a D symbol in English at NSSCH/ or equivalent.

Entry requirements for NUST are a minimum of 25 points in five subjects including an E-symbol in English on NSSCO Level. Individual programmes require the subjects of Mathematics and Science at different levels. This information is obtained when students have to provide proof of their records upon application to the programme. A certified copy must be submitted, as per the College`s admission requirements. The symbols are carried into Excel sheets and stored. Upon completion of the national examinations for the PETE year, symbols are requested from the Ministry of Education, Arts and Culture`s Directorate of National Examinations and Assessment (DNEA) in broadsheets. These sheets contain all the symbols of the students in Namibia. Broadsheets are now scrutinised to find PETE students` results and they are carried into results sheets. Information on these sheets is then used to make the comparisons of students to indicate results before and after PETE, in different subjects.

4.3.2 The PETE students' results before (and after) the PETE Programme attendance

This sub-section presents the data on the results of the PETE students before and after their attendance of the PETE programme. The data presented here was obtained from the PETE Administrator`s official records.

The researcher obtained the College`s official mark sheets from the PETE administrator. These mark sheets indicate the performances of students. Symbols were recorded from students` original statements or certified statements of results upon enrolment. The same mark sheets contain students' symbols obtained after the Grade

12 national examinations. Students were enrolled for one to three subjects, with some who only enrolled for one, while others opted for two or three subjects. For this presentation, the entry requirements for institutions of higher learning are presented, to give information about what is required for students to gain admission to higher education.

Table 1 below indicates the results of students who obtained in the Grade 12 (NSSCH/O) national examinations. Students used the results to enter the PETE programme and used the improved results to apply for entry at HEIs.

Table 1: *Symbols obtained in Grade 12 national examinations, before and after the PETE programme*

STUDENTS 1-20	**GRADE 12 SUBJECTS**													
	Biology		Mathematics		Physics		English OL/HL		Economics		Geography		History	
	SYMBOLS OF SUBJECTS OBTAINED BEFORE AND AFTER THE PETE PROGRAMME													
Student 1	D	**3**												
Student 2			C	**2**	E	**F**								
Student 3							E	**E**	C	**2**	D	**U**		
Student 4	D	**3**			E	**F**	E	**D**						
Student 5			B	**2**	D	**B**	D	**D**						
Student 6							D	**C**	D	**U**	D	**4**		
Student 7													C	**2**
Student 8													D	**U**
Student 9											E	**D**	C	**2**
Student 10											E	**E**	C	**3**
Student 11	D	**C**	E	**E**										
Student 12			E	**U**										
Student 13							E	**3**						
Student 14							E	**3**	E	**3**				
Student 15	E	**D**			D	**4**								
Student 16			D	**4**	D	**4**								
Student 17							C	**3**						
Student 18	D	**B**	C	**3**	C	**3**								
Student 19							D	**3**						

Student 20									D	**4**			C	**4**

Key: *before PETE* *after PETE*

Note: NAMCOL PETE Programme Administrative Records, based on DNEA official released results obtained for the years 2019-2021 by NAMCOL.

Table 1 above shows the symbols that twenty students obtained in subjects before and after the PETE programme. The requirements for the PETE programme were the following:

Students must have completed Grade 12 with a minimum E symbol in all 3 science subjects (Biology, Mathematics and Physical Science) plus English; students must have completed Grade 12 with a minimum E symbol in all 3 commerce subjects (Accounting, Economics and Business Studies) plus English. Students with E-D symbols are given preference to those with C symbols. Students 1-20 were accepted into the programme based on their performance in the previous year`s final results for 2017, 2018 and 2019. The table above shows the symbols that they applied with the admission requirements, and the symbols obtained after completion of the programme during the national examinations.

The curriculum of the Namibia Senior Secondary Ordinary (NSSCO) level makes provision for symbols A-U. An “A” indicates the highest symbol and a “U” indicates an ungraded symbol. For the curriculum of Namibia Senior Secondary Higher (NSSCH) level results are indicated in the range from 1-4, with 1 as the highest symbol, and 4 as the lowest. In the table that depicts the symbols that students obtained before the PETE programme, symbols vary from C to E. In some cases, students just opted for one subject, while others opted for two or three subjects.

In Table 1, the scores of the 20 sampled students (whose NSSC examination results were analysed) were used from the NAMCOL PETE administrator`s official records. Symbols obtained varied between E and U, and from 2 to 4, including some ungraded symbols. The analysis of the table focused on students taking a certain number of subjects. Students took between 1 and 3 subjects. Students who took one (1) subject and improved were students 1, 7, 13, 17 and 19. These students showed improvement as follows: Student 1 improved from a D in Biology ordinary level to a 3 on a higher level. Student 7 improved from a C in History to a 2 on a higher level, while student 13 improved in English from an E symbol to a 3 on a higher level. Student 13 improved from an E symbol in English ordinary level to a 3 on a higher level, while student 17 improved from a C symbol in English to a 3 on a higher level, and student 19 improved from a D in English to a 3 symbol on a higher level. Students who have taken two (2) subjects and showed improvement were 9, 11, 14, 15, 16 and 20. Student 9 improved from an E symbol in Geography to a D symbol on the ordinary level and from a C symbol in History ordinary level to a 2 on a higher level. Student 14 improved to 3 symbols for both English and Economics on a higher level from E`s on an ordinary level. Student 15 improved from an E in Biology on the ordinary level to a D on the same level, and from a D on the ordinary level to a 4 on a higher level in Physical Science. Student 16 improved in both Physical Science and Mathematics from D symbols on the ordinary level to 4`s on higher level. Student 20 improved from a D on the ordinary level in Economics to a 4 on a higher level, and from a C on the ordinary level for History to a 4 on a higher level. The following students had 3 subjects and improved mostly in 2 subjects: students 4, 5 and 18. Student 4 showed improvement in Biology and English from a D on the ordinary level to a 3 on a higher level and an E symbol to a D symbol on the ordinary level. Student 18 improved all

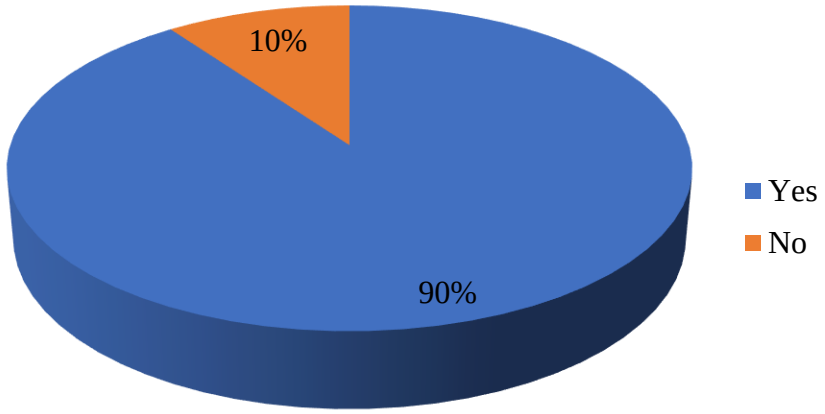
subjects in Biology, from a D to a B symbol on an ordinary level, and in both Mathematics and Physical Science from a C to a 3 symbol. Students who dropped performance are as follows: Student 3 improved 2 subjects but dropped performance in Geography, from a D symbol to an ungraded, or U symbol. Student 6 equally has done 3 subjects and dropped performance from a D ordinary level in Economics to ungraded. Two students had 1 subject only, students 8 and 12 and both of them obtained an ungraded symbol in History and Mathematics, respectively.

The number of subjects that showed improvement totalled 30 out of 38. The number of subjects that remained the same totals 2, while the total number that dropped performance totals 6.

4.3.3 The PETE students' views about the extent to which PETE prepared them for higher education

The researcher wanted to know the extent to which the programme assisted students in meeting the entry requirements of higher learning institutions. The high school students were required to indicate whether PETE prepared them to get admission to HEIs. In short, if their symbols improved in such a way that they met entry requirements. The PETE students were required to indicate: Yes/No. The student`s responses on the extent to which PETE prepared them for higher education are indicated in **Figure 3** below:

Figure 3: The extent to which PETE prepared students for higher education



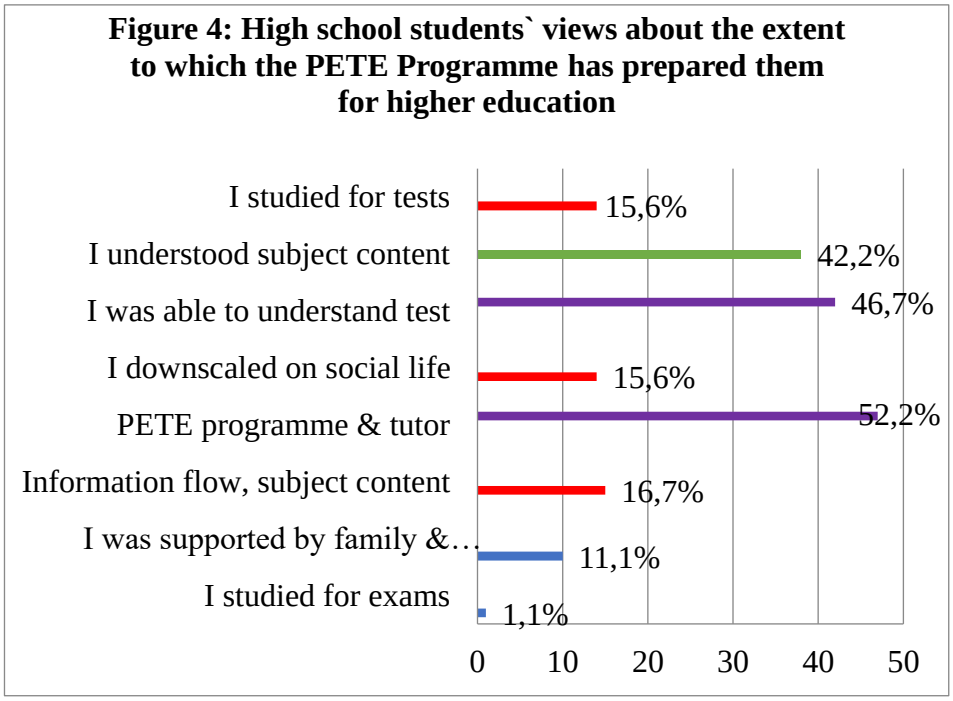
According to the graph, Figure 3, 90% indicated that the programme prepared them for higher education, while 10% indicated that the PETE programme did not prepare them for higher education. Students had to indicate on the questionnaire whether the programme prepared them for further studies.

The researcher further wanted to know how the programme assisted students, by giving them some options to choose from as possible responses and indicated that they could add any other reason too.

The responses are indicated in Figure 4 below.

Figure 4

High school students` views about the extent to which the PETE Programme has prepared them for higher education



In above Figure 4, 52.2% of the students indicated that the PETE programme and tutors helped them to stay motivated. This was followed by the group of 46,7% who indicated that they were able to understand contents better, and could answer test and examination questions better. A total of 15,6% indicated that they studied for tests, that they understood the flow of the contents and frequency of tests and downscaled on social life with friends. A total of 11,1% of students indicated that family and friends supported them during their year of studies.

The students' views on the improvement in their Grade 12 results due to PETE were drawn from the Excel summary of students` responses.

Table 2 below indicates data on students' improvement in their results due to the PETE programme.

Table 2

Improvement of students due to the PETE programme

	Female	Male	Total
No	3	2	5
Yes	52	32	84
Total	**55**	**34**	**89**

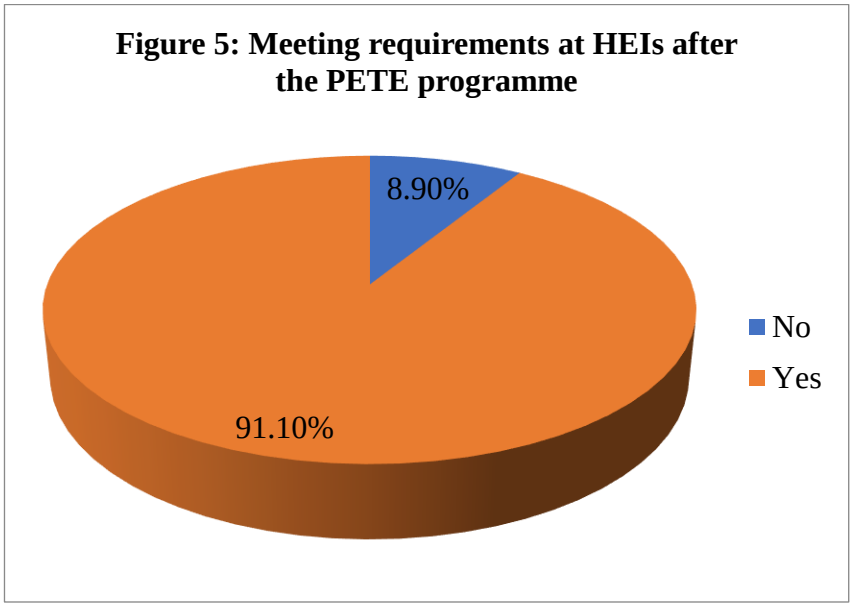
Note. Data collected by author November 2021

The table above (Table 2) shows that a total of 84 students out of the 89 (94.4%) indicated that their results had improved due to the programme. Out of the 84 students, 52 are females and 32 are males.

Figure 5 below indicates the students' responses on meeting the requirements at HEIs after the PETE programme.

Figure 5

PETE students' views about meeting requirements at HEIs after the PETE programme



The figure above (Figure 5) shows that 91,1% of the students believed that they met the entry requirements of Higher Education Institutions. They had the answer Yes or No on the question posed if the PETE programme assisted them in meeting the requirements of Higher Education Institutions.

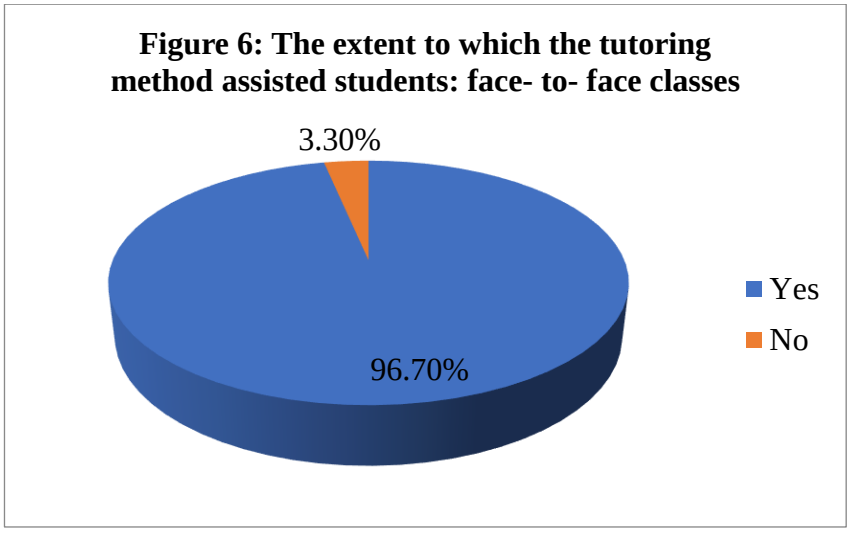
4.3.4 The PETE students` views about the extent to which PETE tutoring methods assisted them in improving their Grade 12 symbols in various subjects

The researcher wanted to find out if the tutoring methods that were used by the PETE tutors contributed to their improved performance. Students had to answer the following question: Did the face-to-face classes help you to understand the subject contents better?

Figure 6 below indicates the students' responses on the extent to which PETE assisted them in improving their Grade 12 symbols in various subjects.

Figure 6

The PETE students' views on the extent to which the tutoring method assisted students: face-to-face classes



In the graph above (Figure 6) a total of 96.70% of the sampled PETE students indicated that the tutoring methods (face-to-face) were instrumental in the improvement of subjects. The reasons which take preference for the above are that the PETE programme and tutors were keeping PETE students motivated, followed by their better understanding of test and examination questions, and a better understanding of the subject contents. Other reasons are that they studied for tests, understood the flow of information, explanation of subject contents, frequency of tests and motivational talks. The table below indicates the number of tutoring sessions per week for students.

Table 3

Number of tutoring sessions per week for male and female students

Number of tutoring sessions/ weeks	**Female**	**Male**	**Total**
1	3	2	5
2	3	1	4
3	8	7	15
more than 3	41	24	65
Total	**55**	**34**	**89**

Note: Data collected by author November 2021

4.3.5 Tutoring Sessions per Week Against Gender

In Table 3 above, the number of tutoring sessions per week is indicated for male and female students. In cases where more than 3 subjects were offered per week, the percentage of females, 46% was more than the male counterparts, 36%. From the above, more students, males and females were attending more than 3 sessions per week per subject.

Table 4

The number of tutoring sessions per week versus successful/unsuccessful application status

Number of teaching sessions/ week	**Application Success**		**Total**
	No	Yes	
1		5	5
2	2	2	4
3	6	9	15
more than 3	13	52	65
Total	**21**	**68**	**89**

Note: Data collected by author November 2021

4. 3.6 Number of teaching sessions per week versus application status

From Table 4 above, the frequency of sessions seemed to influence the application's success. The table indicates that students with the most teaching sessions per week, namely 3 sessions per week per subject, had successful applications at institutions of higher learning. A total of 68 students (76.4%) were successful, while 21(23.5%) students were not successful. The table also shows that five students who attended one session only had success with their applications.

4.3.7 The relationship between symbols obtained before and after the PETE programme

To determine the relationship between the symbols obtained before the PETE programme and those symbols obtained after the programme to determine if students improved their symbols, the Pearson Correlation Coefficient test was carried out.

The key below was used for the conversion of symbols and their weight. This is the table used by the Ministry of Education, Arts and Culture.

Key: NSSCH Level subjects

1= **10**	4= **5**
2= **9**	3= **4**
3= **8**	2= **3**
4= **7**	1= **2**
5= **6**	U= **0**

NSSCO Level subjects

A= **7**	F= **2**
B= **6**	G= **1**
C= **5**	U= **0**
D= **4**	
E= **3**	

Table 5

Symbols of students before the sampled PETE programme with values

STUDENTS 1-20	**GRADE 12 SUBJECTS**							∑
	Biology	Mathematics	Physics	English OL/HL	Economics	Geography	History	
	SYMBOLS OBTAINED FOR SUBJECTS AFTER THE PETE PROGRAMME							
Student 1	D = 4							**4**
Student 2		C = 5	E = 3					**8**
Student 3				E = 3	C = 5	D = 4		**12**
Student 4	D = 4		E = 3	E = 3				**10**
Student 5		B = 6	D = 4	D = 4				**14**
Student 6				D = 4	D = 4	D = 4		**12**
Student 7							C = 5	**5**
Student 8							D = 4	**4**
Student 9						E = 3	C = 5	**8**
Student 10						E = 3	C = 5	**8**
Student 11	D = 4	E = 3						**7**
Student 12		E = 3						**3**
Student 13				E = 3				**3**
Student 14				E = 3				**3**
Student 15	E = 3		D = 4					**7**
Student 16		D = 4	D = 4					**8**
Student 17				C = 5				**5**
Student 18	D = 4	C = 5	C = 5					**14**
Student 19				D = 4				**4**
Student 20					D = 4		C = 5	**9**
∑x								**148**

Note: The table above was done by the author, using the values from the conversion scale of the MoEAC, on 16 August 2023.

Table 5 above shows the symbols of students for subjects before the PETE programme. Each symbol obtained for each subject was converted to an equivalent figure according to the NSSCH/O grading key, as seen below. Thereafter, each student`s row was totalled (∑) and that column was totalled (∑x).

Table 6

Symbols of students after the PETE programme with values

STUDENTS 1-20	**GRADE 12 SUBJECTS**							∑
	Biology	Mathematics	Physics	English OL/HL	Economics	Geography	History	
	SYMBOLS OBTAINED FOR SUBJECTS AFTER THE PETE PROGRAMME							
Student 1	3 = 8							**8**
Student 2		2 = 9	F = 2					**11**
Student 3				E = 3	2 = 9	U = 0		**12**
Student 4	3 = 8		F = 2	D = 4				**14**
Student 5		2 = 9	B = 6	D = 4				**19**
Student 6				C = 5	U = 0	4 = 7		**12**
Student 7							2 = 9	**9**
Student 8							U = 0	**0**
Student 9						D = 4	2 = 9	**13**
Student 10						E = 3	3 = 8	**11**
Student 11	C = 5	E = 3						**8**
Student 12		U = 0						**0**
Student 13				3 = 8				**8**
Student 14				3 = 8				**8**
Student 15	D = 4		4 = 7					**11**
Student 16		4 = 7	4 = 7					**14**
Student 17				3 = 8				**8**
Student 18	B = 6	3 = 8	3 = 8					**22**
Student 19				3 = 8				**8**
Student 20					4 = 7		4 = 7	**14**
∑y								**210**

Note. This table was done by the author, using the values from the conversion scale of the MoEAC, on 16 August 2023. Table 6 above shows the symbols of students for subjects after the PETE programme. Each symbol was converted to an equivalent figure according to the above grading key. Thereafter, each student's row was totalled and then the totals column (∑) was totalled (∑y).

Table 7

Totals of Students' Symbols for Calculation of Pearson Coefficient

STUDENTS (n)	∑SYMBOLS BEFORE PETE PROGRAMME (X)	∑SYMBOLS AFTER PETE PROGRAMME (Y)	XY	X^2	Y^2
1	**4**	**8**	32	16	64
2	**8**	**11**	88	64	121
3	**12**	**12**	144	144	144
4	**10**	**14**	140	100	196
5	**14**	**19**	266	196	361
6	**12**	**12**	144	144	144
7	**5**	**9**	45	25	81
8	**4**	**0**	0	16	0
9	**8**	**13**	104	64	169
10	**8**	**11**	88	64	121
11	**7**	**8**	56	49	64
12	**3**	**0**	0	9	0
13	**3**	**8**	24	9	64
14	**3**	**8**	24	9	64
15	**7**	**11**	77	49	121
16	**8**	**14**	112	64	196
17	**5**	**8**	40	25	64
18	**14**	**22**	308	196	484
19	**4**	**8**	32	16	64
20	**9**	**14**	126	81	196
∑	**148**	**210**	**1850**	**1340**	**2718**

Note: This table was done by the author on 16 August 2023

$$r = \frac{n(xy) - (x)(y)}{\sqrt{[n\,x^2 - (x)^2][n\,y^2 - (y)^2]}}$$

$$r = \frac{20(1850) - (148)(210)}{\sqrt{[20(1340) - (148)^2][20(2718) - (210)^2]}}$$

$$r = \frac{37000 - 31080}{\sqrt{[26800 - 21904][54360 - 44100]}}$$

$$r = \frac{5920}{\sqrt{[4896][10260]}}$$

$$r = \frac{5920}{\sqrt{50232960}}$$

r = 0,835

The correlation coefficient indicates the strength and direction of the linear relationship between two variables and can range from -1 to +1. The greater the value of the Pearson correlation coefficient, the stronger the relationship between variables. In table 7, the students (20) represent (n). Variable x is the total of the symbols obtained before the PETE programme, hence column 2 and notice the total at the bottom which is ∑x. Column 3 depicts variable y, which is the total of symbols the students obtained after the PETE programme, and again is totalled at the bottom as ∑y. Column 4, labelled XY is the multiplication of x with y, for example, (4 x 8 = 32). Therefore, multiply column 2 by column 3 and totalling the column at the bottom to get ∑xy. Column 5, labelled X^2 is the multiplication of x with x, for example, (4 x 4 = 16). Therefore, multiplying column 2 with itself twice and totalling the column at the bottom to get x^2. Column 6, labelled Y^2 is the multiplication of y with y, for example, (8 x 8= 64). Therefore, multiplying column 3 with itself twice and totalling at the bottom to get y^2.

Calculations: n = 20, ∑x = 148, ∑y = 210, ∑xy = 1850, x^2 = 1340, and y^2 = 2718.

The above totals were taken from Table 13 and inserted into the Pearson correlation coefficient formulae and simplified until a r value of 0,835 was reached. It is a very high r-value, which is indicative of a strong linear relationship between x and y; a

positive value shows a positive slope; it also indicates a direct relationship, meaning if x increases, so does y.

The analysis reveals a positive correlation between student performance before and after the PETE programme. This means students with higher initial grades (X) tended to score higher after the program (Y), with a positive value (0.835) indicating a strong positive relationship. The closer this value is to 1, the stronger the correlation, suggesting a clear trend: students with stronger foundations are more likely to improve with the PETE programme. It is also important to note that correlation doesn't equal causation. While the PETE programme might be playing a role, other factors like student motivation or prior academic background could also influence improvement. The analysis itself focuses on the connection between pre- and post-programme grades. This strong positive correlation suggests the PETE programme has the potential to be effective in improving student performance as measured by symbol grades.

4.3.8 Reasons for Application to HEIs and Outcomes

The table below indicates the reasons why students applied to HEIs, and it also indicates the number of students next to the reasons for the application.

Table 8

Reasons for Application to HEIs, the number of students who applied and why they either applied or did not apply

	Reasons	Total of students
Female	I did not have the funds to apply	3
	I had enough points and qualified to apply to HEIs	41
	Other	5
	Unsuccessful because I did not qualify for entry on points	7

Female Total		**56**
Male	I did not have the funds to apply	1
	I had enough points and qualified	24
	Other	4
	Unsuccessful because I did not qualify for entry on points	5
Male Total		**34**
Grand Total		**90**

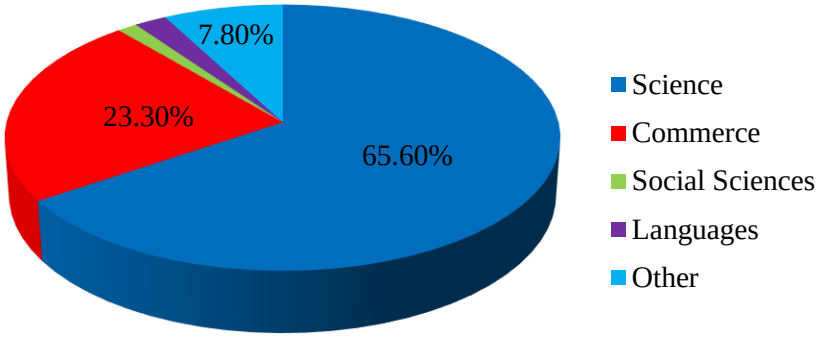
Note: Data collected by author November 2021

Table 8 above is a cross-tabulation extracted from the Excel data sheet on the reasons why students applied at HEIs. The table also indicates the number of males and females who applied, and why they chose to apply or do not apply. Three (3) female students indicated that they did not have funds to apply for further studies at HEIs. Forty-one (41) females indicated that they had enough points to qualify for applications to HEIs. The word "Qualify" refers to the points that students obtained that meet the entry requirements. This information was extracted from their responses on Google Forms after they completed the PETE programme. By the time they participated in the study, they were already enrolled in HEIs. Seven (7) females indicated that they could not apply as their points accumulated after PETE were not enough to apply for entry at HEIs. One (1) male student did not have the financial means to apply for entry into HEIs, while twenty-four (24) male students had enough points to apply for entry into HEIs. Five (5) males indicated that they did not score enough points to apply for entry into HEIs.

Figure 7

Fields of study enrolled for in the PETE programme

Figure 7: Fields of study students registered for



The figure above, Figure 7, indicates the fields of study that PETE students registered for. The figure indicates that 65,60% of the students registered for the Science field, while 23,30% were registered in the Commerce field. This information was retrieved from the online questionnaire completed by the students.

Table 9

Application with Success by Gender (according to the PETE students' views)

HEI application	Unsuccessful	Successful	Grand Total
Female	15	40	**55**
Male	6	28	**34**
Grand Total	21	68	**89**

Note: Data collected by author November 2021

The information in Table 9 above was extracted from the Excel sheet on which the cross-tabulations were done after the data was recorded. The data was captured from the online questionnaires that students completed. In Table 9 above, it is evident that the highest percentage of applications were dominated by successful females, totalling

40 (44.94 %), while 28 (31.46 %) consisted of males. The overall total of successful applicants is represented by 76, 40 %, a dominating figure as opposed to 24% of unsuccessful applications.

4.4 SUMMARY OF KEY FINDINGS AND CONCLUSIONS FROM THE QUANTITATIVE DATA ABOUT THE INFLUENCE OF THE PETE PROGRAMME ON IMPROVING NSSC GRADES OF THE PETE STUDENTS TO MEET ENTRY REQUIREMENTS OF LOCAL HEIs

Overall, students showed improvement in their NSSC examination results after the PETE programme. Before the programme, symbols varied from C to E. Symbols after the programme varied from 2 to E. Students doing the PETE programme moved from the NSSCO level to the NSSCH level option, allowing them to obtain an improved symbol that added to their overall points necessary for entering HEIs. The move from the NSSCO level to the NSSCH level allowed students to improve their performance. From the sample of the 20 students, there is evidence that a total of 30 subjects were improved, while 2 subjects remained the same and 5 dropped performance. Out of the total of 38 subjects that the 20 sampled students registered for in the PETE programme, it was indicated that the student's grades improved and could be admitted to HEIs. The four (4) students who registered for one (1) subject only, all improved their performances. The seven (7) students who registered for two (2) subjects improved all subjects, except for 1 student who moved the Physical Science performance from E to F on an ordinary level. Of the sampled students who registered for three (3) subjects, all improved their symbols from ordinary to higher level, except 2 students who obtained ungraded in 1 subject each, namely Mathematics and Economics. The number of subjects that showed improvement totalled 30 out of 38. The number of subjects that remained the same totals 2, while the total number that dropped performance totals 6.

It can be inferred that they improved their performance after the PETE programme. 90% of the students indicated that the PETE programme prepared them for higher education, and 10% of students indicated that the programme did not prepare them for higher education.

Furthermore, 91% of students indicated that they met the entry requirements at HEIs. The tutoring methods were indicated as one of the reasons why they understood test and examination questions better, and ultimately understood subject contents better.

The Pearson Correlation Coefficient test that was carried out revealed that there is a correlation coefficient of 0, 835 (r=0,835). This indicates a strong positive correlation, meaning that the first variable is likely to lead to an increase in the second variable. It also does not necessarily mean that one variable causes the other. The field of study that most students in the PETE programme applied for, was the Science field of study. Further findings showed that 76% of PETE students successfully applied to HEIs. However, the success of their applications to HEIs was not verified. Triangulation was employed to validate the findings from multiple perspectives. Both quantitative and qualitative data were collected and analysed to provide a comprehensive understanding of the PETE programme's impact. For quantitative data, examination results before and after the PETE programme were used and the statistical analysis was through the Pearson Correlation Coefficient. For the qualitative data, the student surveys on their preparedness for higher education, reasons for improvement, and satisfaction with tutoring methods were used. The triangulation of these data sources confirms that the PETE programme positively influenced students' grades, preparing them for higher education and meeting HEI entry requirements. This comprehensive approach enhances the reliability and validity of the study's conclusions.

4.5 QUALITATIVE DATA ABOUT THE INFLUENCE OF THE PETE PROGRAMME ON IMPROVING THE PETE STUDENTS' NSSC GRADES TO MEET ADMISSION REQUIREMENTS OF THE LOCAL HEIs

The previous sub-section presented quantitative data on the influence of PETE on improving the PETE students' NSSC grades to meet the admission requirements of the HEIs. This sub-section presents qualitative data about the influence of the PETE programme on improving the PETE student`s NSSC grades to meet the admission requirements of HEIs. In particular, the qualitative data that is presented in this sub-section provides in-depth data on the participants' views about the PETE programme and the role played by the PETE staff in improving the PETE student`s high school grades.

4.5.1 The Nature of the PETE Programme

The question that was asked here was to mention the experiences they have gained during their year of study at NAMCOL, being part of the PETE programme.

The students interviewed stated that it was different from school where they were used to being in a formal set-up. The students' responses to the PETE programme itself were recorded and referred to the way that the programme was structured. The students said that they qualified for university after the programme. They claimed that they obtained improved points to allow them entry into institutions of higher learning. One student said, "*it taught me that preparation leads to success, and I am able to study on my own, because here at universities, 70% of the time, you`re on your own. I appreciate the PETE programme for shaping me into a better student*".

One other student felt that the PETE programme prepared them for the academic demands of tertiary institutions. After the programme, they had a better understanding of what it takes to work independently, and how important self-study was. It was mentioned that it was one of the advantages of the PETE programme. The students

interviewed further pointed out that the PETE programme assisted them in making the right choices. One student pertinently mentioned that the programme familiarised them with the University of Namibia`s (UNAM) subject offerings so that their choices of career and study fields were informed. These are their responses:

"It taught me more discipline and gave a greater understanding towards how school is supposed to go"

"I didn't assist with my further studies, because I didn't get any chances to improve my points"

"Because it is a very straight forward program with aims and vision"

"It assisted me further studies, we had amazing tutors that helped us with new studying strategies and ways to understand work better"

"The PETE tried to familiarize us with the courses that UNAM offers for us to be able to make good choices"

"It taught me to go an extra mile on my own for my studies. With more work given daily"

"Tutors were extremely committed"

"I qualified for university"

Another student mentioned that the programme fostered adaptability skills and by doing so, they could adapt to life on campus better and it prepared them for life on the university campus. One student mentioned that that programme helped him to get into his dream career. Unlike the first attempt in the formal school, one student mentioned that the approach toward preparation for the external examinations was different, as PETE helped him to be more focused and structured in preparation to write. One student alluded to the programme preparing them for studies at university. In particular the University of Namibia- to him, was a good choice, as the subject contents and

volume of work were more, and they could prepare to handle bigger volumes. Another said that tutors and counsellors made a huge difference in their institutional experiences, as they were always ready to help with advice.

On the contrary, some mentioned that they failed, as they did not have a chance to improve their subjects. In certain cases, it was mentioned by students that they only wanted to perform in one subject, and in other cases, their points in other subjects were already sufficient to apply for entry into HEIs.

4.5.2 The PETE Programme support system

The student counsellor interviewed mentioned that students were motivated because they could access library services, internet, study materials a strong support system in an academic setting and good emotional support from home. One of the tutors mentioned that students acquired creativity, and abilities to plan and organise and these made them more committed as they now practise improved skills to make them academically more prepared for higher studies.

One student said, *"It wasn't the programme, it was me"*. This student explained that he spent much more time behind the books, and had less time to waste with friends and social parties, as he realized that he was responsible for his learning and improved results. Furthermore, one student indicated that he had support from family members, as his mom always reminded him of the second chance he had now to be a better student. One student said he studied very hard to reach university, as this gave him one chance to prove himself.

Others had the following to say:

"*Self-study was the main key and discipline. Having access to past exam papers. And making use of the internet".*

"My self-study and my passion for studying".

"Courage".

"Self-study".

"I used to google to search for more important content for my subjects".

"Self-motivation".

Students also mentioned that they were pushing themselves to be more committed to obtaining better results, as this was the only way to make sure university would become a reality. Others mentioned that friends and family helped as they understood their dilemma to get better results to qualify for HEIs.

4.5.3 The role played by the PETE Staff in improving the PETE students' high school grades

The responses of the students indicated that tutors were committed to their classes and timetables. The PETE students interviewed felt that tutors regularly attended classes, and were well prepared for tutoring sessions. The students indicated that the commitment of the staff motivated them to do their best in class, with preparation and assisting their students. One student mentioned that the tutor`s motivation acts as a source of encouragement to this day. The participant stated that the mental and emotional effort that went into tutoring showed great results as students kept on improving themselves. It was further, pointed out that tutors carried out motivational talks throughout the programme to remind students of their goals to improve their performances, and that there was an expectation to improve their previous results. The data from the interviews with the PETE administrator indicated that results have been improving each year. It was further revealed that tutors received subject-specific training at the beginning of each year, there were open discussions after lessons; students were exposed to educational excursions, Saturday classes, standardised tests and NotesMaster training. Notesmaster is an interactive student management

programme that contains extra lesson contents, old examination papers and chat rooms with online tutors. The data also revealed that the administrator met with tutors regularly to assess the progress of students. According to the PETE administrator, more than 70% of students met entry requirements for HEIs. The Administrator also pointed out that students` determination, daily class attendance and study groups contribute to students receiving improved grades in final examinations. On the other hand, she also pointed out that absenteeism plays a role in the students` results not showing improvement or passing subjects. These are her direct words, "*Teachers and learners' absenteeism, lack of commitment from both teachers and learners, lack of understanding basic mathematics concepts, teachers' incompetency in teaching mathematics, Socio-economic factors, lack of motivation*"

This is what one student said: "*The mental and emotional effort that the management put into the programme is really strong and the quality and provision of educational materials are on another level*". Tutors` effort, efficient tutoring methods, and the amount of time spent on understanding the content were mentioned as factors that contributed to a better outcome and improved symbols after the programme.

4.6 SUMMARY OF THE KEY FINDINGS AND CONCLUSIONS FROM THE QUALITATIVE DATA ABOUT THE INFLUENCE OF THE PETE PROGRAMME ON IMPROVING PETE STUDENTS' NSSC GRADES TO MEET ADMISSION REQUIREMENTS OF LOCAL HEIs

The findings revealed that overall, students showed improvement in their achievement after the PETE programme. Before the programme, symbols varied from C to E. Symbols after the programme varied from 2 to E. This was underscored and confirmed by the PETE administrator, who revealed that those students had enough points gained by improving the subject they needed to improve. The students who enrolled for the PETE programme moved from the NSSCO level to the NSSCH level option, allowing

them to obtain an improved symbol that added to their overall points necessary for entering HEIs. The findings also revealed that a few students were not successful as they could not improve their academic performance during the PETE programme.

90% of the students indicated that the PETE programme prepared them for higher education. The PETE students interviewed indicated that the PETE programme assisted them in making the right choices, their level of independence grew as they were able to study on their own. They also indicated that the PETE students had an improved understanding of their subject contents, especially the contents that seemed difficult at first. The PETE students interviewed further indicated that the PETE tutors supported them during their studies greatly. The students also indicated that the PETE tutors were well prepared for lessons, tutored effectively and efficiently, and motivated students to work hard so that they would be successful in the programme. The findings also showed that a strong support system boosted not only the morale of the students but also improved students` creative thinking, organisation of studies and commitment.

4.7 FACTORS THAT FACILITATE THE PETE STUDENTS TO IMPROVE THEIR GRADES TO MEET THE ADMISSION REQUIREMENTS OF LOCAL HEIs

4.7.1 Quantitative data

This sub-section presents the quantitative data on the factors that facilitate meeting students` admission requirements to institutions of higher learning.

The question below in Figure 8 is a comparison of students' views on their improvement before and after the programme. This question was part of the student questionnaire for the study sample.

Figure 8

The PETE students` responses on the improvement of grades before and after the programme

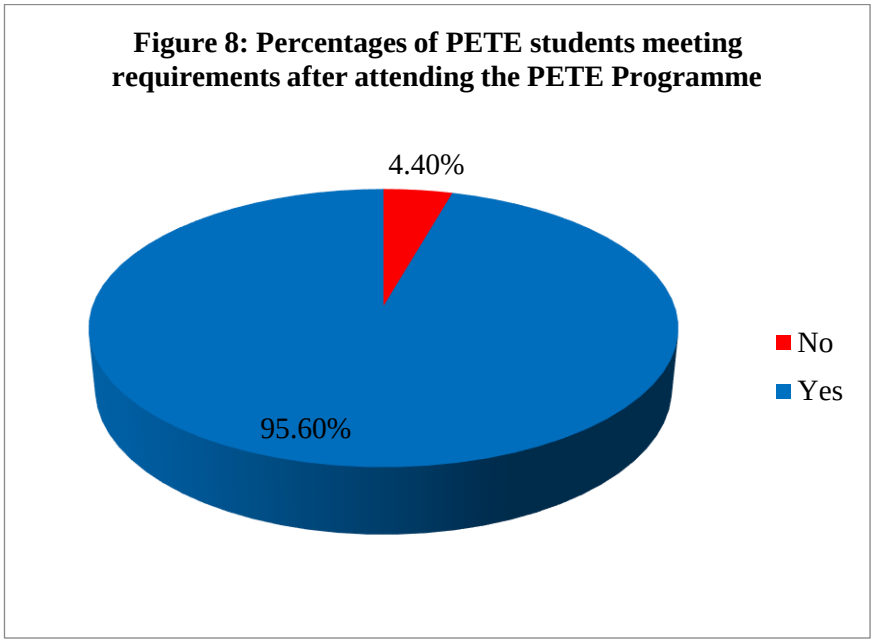


Figure 8 above indicates the responses from students on the question of their improvement changed when compared to the grades they obtained before the programme. They had to indicate with a Yes or No. A majority of 95,6% of students indicated that they met the entry requirements for HEIs after the PETE programme, while 4,4% did not meet the entry requirements of HEIs. The above percentages are an indication that students' grades improved. This question was answered by all 90 students that formed part of the sample. This information was obtained from the Excel sheet storing the information from the online questionnaires' responses.

Students could enrol for between 1 and 4 subjects, though most of them chose more than 1 subject. According to the students who responded to the questionnaire, students who took more subjects had a better chance of being successful when they applied for admission to HEIs.

Table 11 below shows the number of students who enrolled in the PETE programme.

Table 11

Number of subjects enrolled for the PETE programme and HEI application success

	Application Success		**Total**
Number of Subjects	No	Yes	
1 subject		3	3
2 subjects	1	2	3
3 subjects	14	30	44
4 subjects	6	32	38
5 subjects		1	1
Grand Total	**21**	**68**	**89**

Note. Data collected by author November 2021

Table 11 shows two sets of data. This is a cross-tabulation of the number of subjects the sample of 90 students enrolled for, and the application status they received on the number of enrolled subjects, enrolled for. The Excel-stored results were used to compile the information from student`s responses to the online questionnaires.

The table shows that of the 89 students who participated in the study over the three years, the majority enrolled on 3 subjects under the PETE programme and of these, 30 (34%) were successful with access to an HEI after completion of the programme. On the other hand, it is key to note that the highest number (32, 36%) of successful applications was from those that took 4 subjects. According to the students' responses who attended, more tutoring sessions enabled them to achieve higher success in having their applications accepted at various HEIs.

Table 12 below indicates the number of tutoring sessions per week, per subject against application success to HEIs.

Table 12

Number of tutoring sessions and application success

Number of tutoring sessions/weeks	**Application Success**		**Total**
	No	Yes	
1		5	5
2	2	2	4
3	6	9	15
more than 3	13	52	65
Total	**21**	**68**	**89**

Note. Data collected by author November 2021

The summary in the table was extracted from the Excel sheet containing a summary of the information by students` online questionnaires.

The above table confirms the students` claim that those who attended more tutoring sessions had higher success in having their applications accepted at various HEIs. According to Table 12, 76.5% (52) of the students that had application success, attended 3 or more tutoring sessions per week. Furthermore, more female students attended more tutoring sessions compared to their male counterparts (41 versus 24).

The students' responses indicated that the students who received support from their parents improved their grades and took a better chance to have their applications to HEIs approved.

The graph below indicates the kind of parental support that PETE students received from their parents.

Figure 9

Different kinds of parental support to PETE students

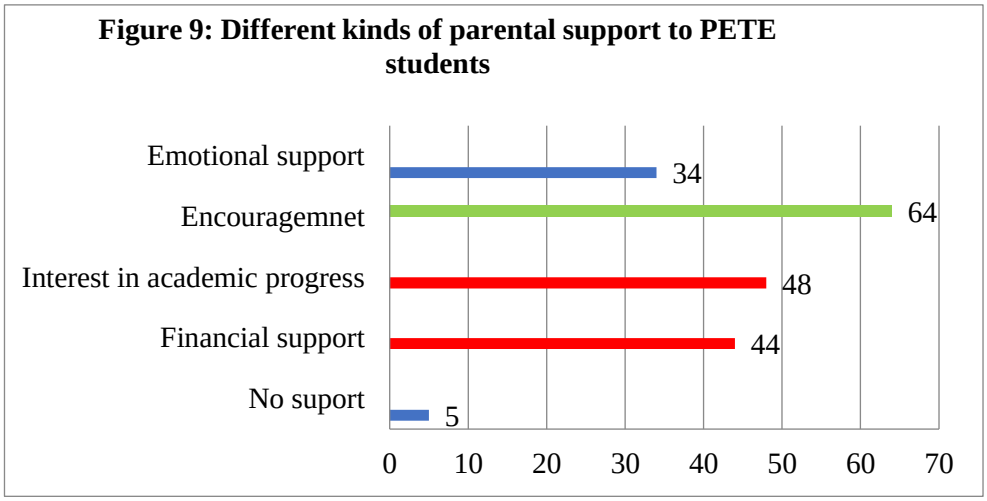


Figure 9 indicates the parental support students received from their parents. Students had to indicate and choose from a list of options given in the questionnaire the types of parental support they received from parents. Encouragement to succeed in studies takes preference, followed by the interest shown in progress and financial and emotional support. Of those who indicated no support only 5.6%.

4.7.2 Qualitative data on the factors that facilitate PETE students to improve their grades to meet the admission requirements of the local HEIs

The data from the focus group interviews with the PETE students and staff members was transcribed and coded into meaningful groups and then themed. The following themes emerged: students' goals, intentions and commitment; institutional experience; pre-university attributes and students' views on the PETE programme. These themes are supported by the Tinto Model.

4.7.2.1 Students' aspirations and goals for understanding of subject contents

The students interviewed were asked whether they met their own goals and aspirations to pass with better grades. Most of the students indicated that the goals they had set

for themselves to understand the subject contents better contributed to a better mark or symbol to qualify for entry into institutions of higher learning. Students who were interviewed indicated that they improved their understanding of subject concepts and processes. One student mentioned that their set goals and intentions helped her to understand more of the subject and its contents, and not just some, because her learning in general improved. Students also said that their approach to learning as a process improved. Below are some responses from students:

"Being committed wanting to reach my goals And tutor's being committed to teaching us"

"With Help from PETE tutors, i remained goal fast"

"Motivation from my Biology Teacher… Miss Alex, she always reminded me on goals"

"Teachers made sure they explained more certain topics that we didn't understand"

"Courage made me focus on the bigger picture"

"Staying motivated by friends, family and school management. Keeping my focus on the purpose of enrolment Praying and staying strong on the faith. Avoiding negativity and unnecessary friends"

"Studying together on the campus and seeing us having the same goals"

"Teamwork and self-commitment"

"Being commitment and focused"

"Gained a better understanding on how to answer questions"

"The support from my teachers, friends and family I was very motivated"

"Consistency"

"Determination"

4.7.2.2 Students` goals, intentions and commitment

Throughout the responses, the commitment by students stood out as a factor. Most students interviewed, emphasised the importance of commitment to their studies. The students indicated that their commitment allowed them to accept their academic fate and responsibility for their academic performance and growth. The respondents pointed out that the fact that those who went the extra mile and attended Saturday classes, showed better results in assessments such as tests and worksheets. The following are the extracts from some of the student's responses to the question: "What factors contributed towards your success?"

"Commitment and hard work"

"Determination"

"Motivation"

"Studying in groups, getting enough time to revise and getting better explanation from the tutors"

"The support from my teachers, friends and family I was very motivated"

The respondents indicated that increased resources such as electronic platforms, among others, the NAMCOL Notesmaster platform and YouTube videos, radio lessons and web-based lessons to enhance subject contents and made understanding easier, and led to increased use of resources.

4.7.2.3 Institutional experience

The NAMCOL counsellor remarked that a good support system for academic and psycho-social well-being is important for students. She reiterated that most of the students that she counselled, came from toxic homes, where students had to face some verbal or physical abuse, constant criticism, and lack of support that left them in an atmosphere of fear, anxiety and low self-esteem. According to her these circumstances

impede academic excellence and exacerbate progress. She pointed out that support increased their self-expression and mental well-being, and left them with a sense of security and acceptance. She further pointed out that students struggle when they are not given the space to do self-expression to iron out personal and academic-related challenges. She mentioned that those students who participated in the wellness side of the programme had the opportunity to make frequent visits to her office to benefit by receiving advice on how to address personal challenges, how to express themselves, and how to communicate with family members on any issue presenting an obstacle to them. The counsellor pointed out that some students do not get full support at home, where it all starts, as they feel pressured to deliver good symbols in academic work. This, in turn, influences their self-esteem. Understanding their future, job prospects and what the future holds for them increases their awareness to work hard. In cases where failed support at home lets them down, increased support from staff members at the PETE centre was necessary. She also indicated that those students who were academically more organised, seemed to be doing better, as they had a better understanding of their goals. The counsellor also reported that most of these students made it to university and are doing well since they still visit her office for guidance on academic and social challenges. Tutors felt that the PETE programme and all its modalities prepared students well for the challenges of university. The Mathematics tutor pointed out that the PETE higher level subject contents include work that is dealt with at the university first-year level, so this makes work familiar to them once they reach the first year at the tertiary level. He said that the Mathematics students appreciated his guidance and some of them returned to show their gratitude, even those who passed with distinctions. He pointed out that this gave them a better chance to understand their work. He said that some students were exempted from doing a subject

like Basic Mathematics when they were admitted to the university. This he says, is because more content is done in the programme to prepare them better for their first year at university. He felt that looking at their preparedness to meet the level of difficulty at university, the programme gives them a step ahead. Another tutor also reported that two of their former students are now in the medical field studying in Zambia, and did A levels, which benchmarks with NSSCH level. Another tutor agreed to this and feels the PETE programme assists students with exemptions for certain modules in subjects. According to this tutor, some students who were admitted for pre-engineering had the advantage of some content from the PETE programme. Tutors feel that commitment, tutoring methods, tutor competencies, pedagogical and subject knowledge and socio-economic factors such as parents' occupation, education and income also contribute to students` success.

The PETE tutors and administrators agreed that more than 70% of students qualify for entry into higher education institutions. *"You see, to be admitted to the university in Namibia, a student should obtain 25 points in five subjects, and I think the marks have increased at some universities to 27 points now. Right from the start, go for an increase of points to be admitted, that is why they enter the programme. So, many of them reach this goal. Now, sometimes some students only do two subjects at PETE and they perform well, but if they do not meet the requirements, they will not be accepted at the university. This is because some students do not register for more subjects with PETE".*

"That is why at the beginning of the year, we encourage them to at least take 4 subjects because the marks/applications come through my office, but the bigger challenge here is it also depends on the parent's financial status."

It seems not all parents can afford the fees per subject for this programme, even though fees are very low in comparison with other private service providers. The PETE programme administrator explained that:

"I believe that parents were also affected by the increase in prices in the subjects which occurred this year. And even when we advise students to take 4 subjects that will help them qualify for university entry, we have found out that they don't have enough money to add more subjects, so, even if they perform very well in these two subjects the opt for, they cannot qualify for the university entry. The consequence is they want to come back and take more subjects from PETE students to repeat. You can only be entered once on the system because the system will not allow you to be entered again. The system will automatically reject you upon entry. And that is also why they struggle to get admission at the university."

Members of the focus group agreed that the programme provides an excellent foundation for success in HEIs. In this respect, a comparison was made by students` symbols upon entry, and their results after the national examinations, after the PETE programme. *"They get amazing results, especially the students that come in for counselling."*

"*We had to conduct a comparison of the results and most of the students at the university with whom I communicate end up sending their results to me, therefore this programme sets them up for success. The tutors are doing a good job. In conclusion, we can say that only very few students do not get admission into the university, but the majority get admission after having done this programme*".

The tutors indicated that trust between students and their tutors is another contributing factor because the students do not want to disappoint tutors who are working hard to

make sure they get good attention. Not only does this improve their levels of confidence, but their performance too.

The data indicated that the level of confidence and maturity that students reach is prominent. Tutors explained that the level of confidence before and after the programme makes a difference, as it also boosts the students' understanding and ability to communicate better about areas in which they struggle.

4.7.2.4 Pre-University Attributes

Tinto`s model on student attrition (1997) refers to pre-university attributes such as family background, students` skills and abilities and prior schooling. The data from the students` focus group and online questionnaires revealed that the support of parents, siblings, other family members and friends played a significant role in the academic life of students. Students said the interest taken in them, their well-being and academic progress boost their progress.

This is what some of them had to say:

"Staying motivated by friends, family and school management. Keeping my focus on the purpose of enrolment, praying and staying strong in faith. Avoiding negativity and unnecessary friends.

"Teachers made sure they explained more in certain topics that we didn't understand"

"Paying attention in class. Taking of notes that helped me narrow down what I should master for the tests and exam. Asking questions to my teacher`s where I was finding it difficult to understand".

Frequent assessments and tests, extra time and regular feedback enhance their learning, and curiosity to learn and that is why they succeed in the programme.

"*The study programme and frequency of tests prepare them well for their studies. They often write tests to see their progress, and sometimes they have to attend classes*

over weekends, Saturdays, and during school holidays, so that they can have as much time as possible with books, at class and learn."

The PETE counsellor stated that psycho-social issues, time management, goal setting, communication with tutors, personal development, developing strategies to help achieve success through ODeL, study programmes and personal timetables, positive study habits and discipline, career guidance and psychometric assessments, student support services, awareness, examination preparations, inclusive education and special needs arrangements through one-on-one counselling and group sessions. Tutor discussions include referrals and the process of doing a referral. Communication includes all academic-related aspects, psychological and emotional barriers and finding ways to assist. From her experience," *when students are given equal access to all academic activities they are more likely to feel motivated. They succeed at the end of the day due to the availability of compassionate tutors, administrators, and student support programmes such as counselling and extramural activities. Resources such as the library, internet, guides etc. all boost students' motivation level to set their goals and achieve them. A strong support system in an academic setting is really what makes a huge difference, and most importantly emotional support from home."*

Tutors indicated that they have to manage discipline in a classroom and impart knowledge, attitudes and skills. Some of the tutors also indicated that the journey with students had been smooth to a certain extent, especially for those who were repeating NSSCH or that had an extended level in the previous grade.

"Most are committed and work hard. Even when COVID was rife, they would contact me through social media and call for assistance. Many of them feel a sense of responsibility toward their work. There are, however, a few who for one or other

reason just disappeared and those are some of the ones who struggle with assignments and attending classes."

The tutors stated that "*the skills, knowledge and competencies we impart are communication skills, creativity and the ability to plan and organize studies well. Critical and logical thinking and reasoning to solve problems including real-life problems and co-existence*". The tutors pointed out that the technology was something to be considered a bigger integration as part of the programme, and increase the number of lessons for subjects. They also indicated that the programme prepared the PETE students for the demands of HEIs. The PETE administrator, a full-time staff member of the College oversees the Programme with applications, admission, the appointment of tutors, evaluation of tutors, and analysis of the final year results. This is what the administrator said:

"I have been part of the PETE programme for the last four years. I am an area coordinator for this region. The administration of the PETE centre here at Jetu Jama is my responsibility. I have a lot of daily interaction with tutors and students."

The PETE Administrator pointed out that from her experience on the 2018- 2020 results, a general increase in performance was observed across all subjects, annually. She added that the support that was rendered to tutors included open discussions after class visits, methods to improve, subject-specific training, especially for practical subjects, availability of printing facilities for notes, access to the SMS system to contact students, the library, counselling services, state of the art laboratories for practical subjects such as Physics and Biology and eLearning platforms. She further added that the interaction with both students and tutors was daily, so a close relationship kept her abreast with the daily challenges that both groups are facing. She

said that she had formal meetings with tutors once every term to gauge the progress and to strategize to overcome barriers in tutoring and learning.

4.7.2.5 The PETE Students' Views on the Programme

The researcher attempted to gauge students' opinions of what contributed to their success or failure, and their experiences. The following opinions from that data summarised the experiences of many students:

"It did assist me because I managed to pass all the subjects that I was improving, and my points increased. It helped me well because I furthered my studies at the university of my choice".

"I also improved English from an E to a C symbol for the 2021 academic year!"

"Through PETE I managed to get higher symbols in my subject that enabled me to apply for further study. ***"****It assisted me with my studies because the tutors were dedicated to helping us prove. The mental and emotional effort that the management put into the programme is really strong and the quality and provision of educational materials are on another level. PETE is like a private school, we were very disciplined and grounded. It was easy to stay focused."*

4.8 SUMMARY OF KEY FINDINGS AND CONCLUSIONS ON THE FACTORS THAT FACILITATE THE PETE STUDENTS TO IMPROVE THEIR GRADES TO MEET ADMISSION REQUIREMENTS OF THE HEIs

This sub-section presents the key findings on the factors that facilitate PETE students to improve their grades to meet admission requirements of institutions of higher learning and includes both quantitative and qualitative data. The data revealed that students` determination, motivation to stay in the programme and commitment to their studies, group studying and support from tutors, friends and family played an important role in their success at the end of the programme. The research findings

revealed that students' experience at NAMCOL strengthened their self-confidence and improved their well-being. The findings revealed that students' level of confidence after the programme improved and boosted performance. A further finding was that their family backgrounds and the skills possessed before the programme provided them with a good foundation to learn, as they could plan and organise their studies, leisure time and work on their self-growth. The findings revealed that students improved their grades in English, some managed to obtain higher level symbols that enabled them to apply for further studies, while tutors played a huge role in their success. Counselling sessions with the counsellor contributed to the student's mental and emotional well-being.

4.9 FACTORS THAT HINDER PETE STUDENTS FROM IMPROVING THEIR GRADES TO MEET THE ADMISSION REQUIREMENTS OF LOCAL HEIs

This sub-section presents the findings on the factors that hinder the PETE students to improve their grades. The sub-section specifically presents the data that answer the following question: What factors hinder PETE students from improving their grades to meet the admission requirements of local universities? The data revealed that the following factors hinder PETE students from improving their high school grades.

4.9.1 Lack of Motivation

Lack of motivation among students was mentioned many times, according to the tutors. They said that unmotivated students find it difficult to attend lessons. The Mathematics tutor explained that missing lessons makes students fall behind since lessons sequentially follow with more complex content that builds up to the final understanding of subject contents, especially with those students doing higher and

extended levels. *So, if some students miss lessons, it is easy for them to stay away and become demotivated*. This is what some students said:

"Lack of interest to study and procrastination".

"Losing focus"

"Too much work at the same time".

"Discouragement from the community when you go to NAMCOL"

"I lacked a lot of motivation"

Tutors mentioned that some students only wanted to improve in one subject, but had to enrol for all three subjects in the field. In such cases, they lose motivation to attend classes and perform in other subjects. They simply lose interest.

Tutors also mentioned that some students obtained ungraded symbols due to being unmotivated, not showing up for classes and performing poorly not only in tests but in their final examinations.

4.9.2 Student Absenteeism

The PETE tutors in the focus group discussions agreed that student absenteeism presented a huge challenge, as students lost important work done in the face-to-face sessions. Tutors pointed out that basic and more complex competencies depend on the physical presence of students. This was specifically pointed out by the Mathematics tutor. He further explained that gaps in the understanding of subject contents increase and require additional time to catch up on work that fell behind. This, in turn, may lead to drop-out. Tutors mentioned that absent students find it difficult to fully understand work and make sense of it when they do not attend lessons.

Another challenge mentioned by the tutors was the new curriculum. It is meant for two years, but the PETE programme has covered it over 9 months, and they find it hard to close the gap. In the case of Mathematics Extended, they may not even finish

the content within that period. The Mathematics tutor further explained that peer tutoring comes in very handy to assist those students who need additional attention.

4.9.3 Low level of English Language Proficiency

Tutors pointed out that freedom of expression in English presented another difficulty for students. Tutors indicated that students come from different backgrounds, religions, and ethnic groups, and some feel embarrassed to express themselves in English. The tutors pointed out that students' low level of English language proficiency impedes their openness and willingness to participate in class discussions and group work. One such example given by a tutor was that some students struggled to express themselves, as they did not speak English at home.

"They do not feel free to express themselves in class. They lack encouragement and feel that the teacher will not get their point, while others might laugh at them."

This tutor went on to say, *I encourage them to speak and express themselves if the subject is not English, as long as they understand the content, try from any angle and ask the question in the language that they are comfortable with.* The counsellor reported that the stigma from family members on failure or not being good enough to get acceptance into HEIs, parents and peers (affiliated with NAMCOL) all play a major role in how their confidence and self-esteem are built. When students are viewed as failures, it negatively affects their mindsets to accept the situation. It becomes difficult for them to realise that just the first step to success is their willingness to work hard and change their results for the better.

4.9.4 Lack of a Strong Support System, Mental Illness, Bad Influences, Laziness, Unwillingness to Change Results

The counsellor mentioned that students have difficulties by being stuck in the past and not opening their eyes to new opportunities and possibilities. She also said that there

is a lack of cooperation with the tutors/teachers because some students are not going the extra mile for their studies. She further mentioned that some of them are just being content with their situation and that hinders their academic performance. It seems that they did not want to make a difference in their academic work.

During the COVID pandemic absenteeism increased during lockdown periods where students could not attend classes for long periods as a result of national policies enforced at the time. The notion was also expressed that in the absence of increased performance, students were lacking the basic knowledge of subject contents, or may have had undesirable socio-economic influences, such as unhelpful parents, or parents who do not have the pedagogical knowledge to assist students. Not all the students had positive experiences. Few considered the programme not adding to their academic success, in the below:

"Due to some tutors not attending, I failed a subject that I took on a higher level". Also, lack of teaching and studying resources at home. I got sick and stopped going to for classes about a month. Covid-19 effect."

"I became demotivated, and problems at home did also not help me. I had little support from my parents, I also had financial problems."

"I had financial challenges to go to face-to-face classes and I lacked a lot of self-motivation. Peer pressure and temptations also were difficult for me."

"It didn't assist in my further studies, because I didn't get many chances to improve my points, the work environment was difficult for me."

The above factors contributed to some PETE students' non-success to meet admission requirements into HEIs. Other factors that were mentioned, are included in the below responses:

"Adapting to work, family and social life"

"Time management still seems to be a major concern"

"Travelling".

"Public transport".

"Time, because we were at school from 8 to 5 in the afternoon and sometimes at weekends too".

"Finance".

"There was not enough time to study all the chapters".

"Walking long distances from home and staying at school from 8 to 17".

"Come towards my final exam I got depressed and it caused me to panic this affect my results, but I managed to improve my results at the end even though it was not what I was expecting".

"The accommodation I had was too far".

"Bad influences from friends".

"Sometimes tutors are not around and some do not really explain well".

"Organisation my studying time on and off campus".

"Some content was not thought clearly so it was difficult to understand".

"Lack of space to study at school sometimes".

"Accommodation in a different town".

4.10 SUMMARY OF KEY FINDINGS AND CONCLUSIONS ON THE FACTORS THAT HINDER PETE STUDENTS FROM IMPROVING THEIR HIGH SCHOOL GRADES TO MEET THE ADMISSION REQUIREMENTS OF LOCAL HEIs

The data revealed that the factors that hindered the PETE students from improving their high school results included the following: lack of motivation, student absenteeism, low level of English language proficiency, lack of strong support system, mental illness, bad influences from peers, financial difficulties, laziness and

unwillingness to change results. The data revealed that some students lacked motivation from the beginning of the programme. This observation was confirmed by the counsellor, who said that some students came from troubled households and struggled to keep things together, and this caused them to be demotivated, even if they enrolled on the programme, knowing what their goals were. The researcher found that student motivation resulted in them missing out on tutoring which further resulted in poor performance. The data revealed that the English language was difficult for some, as they struggled to express themselves. Furthermore, the data showed that the COVID-19 pandemic contributed further to illness, absenteeism, and death in their families. This caused students to stay away from class. Many students had financial troubles and could not afford to pay for accommodation and did not always have money for transport.

Drawing from the key findings on the factors that hinder PETE students from improving their high school grades, the following conclusions were made:

Procrastination and lack of motivation hindered a few students` performance. They lost focus, as the workload was too much. Student absenteeism caused them to lag and they lost further interest in their studies. Some students struggled with English proficiency and this influenced their communication skills in class. Mental illness, bad influences, laziness and the unwillingness to improve their performance hindered their academic progress.

4.11 SUMMARY AND CONCLUSIONS

This chapter presents the data and findings on the three research questions.

The findings on **research question 1** (the influence of the PETE programme on improving PETE students' high school grades to meet admission requirements of local HEIs) were as follows:

The findings revealed that overall, the sampled PETE students showed improvement in their achievement after the PETE. The data showed there were improvements in a total of 30 subjects while 2 subjects remained the same and 5 dropped performance. Out of the total of 38 subjects that the sampled 20 students registered for in the PETE programme, there was evidence that the sampled PETE students' grades improved. The four (4) students who registered for one (1) subject only, all improved their performances. The seven (7) students who registered for two (2) subjects improved all subjects, except for 1 student who moved the Physical Science performance from E to F on the NSSCO level. Of the sampled students who registered for three (3) subjects, all improved their symbols from ordinary to higher level, except 2 students who obtained ungraded in 1 subject each, namely Mathematics and Economics.

90% of the sampled students indicated that the PETE programme prepared them for higher education, and 10% of the sampled students indicated that the PETE programme did not prepare them for higher education. 91% of the sampled students claimed that they met the entry requirements at HEIs. The data revealed that the PETE students had an improved understanding of their subject contents, especially the contents that seemed difficult at first. The PETE students interviewed indicated that the PETE tutors supported them during their studies greatly. The data also revealed that the PETE tutors were well prepared for lessons, tutored effectively and efficiently, and motivated students to work hard so that they would be successful in the programme. Furthermore, the findings also showed that a strong support system contributed to the students' success in their studies.

The findings on **research question 2** (the factors that facilitate the PETE students to improve their grades to meet admission requirements of the HEIs) were as follows:

The data revealed that students` determination, motivation to stay in the programme and commitment to their studies, group studying and support from tutors, friends and family played an important role in their success at the end of the programme. The data revealed that the PETE students' family backgrounds and the skills possessed before the programme provided them with a good foundation to learn, as they could plan and organise their studies, and leisure time and work on their self-growth. Furthermore, the data revealed that tutors and counselling sessions played a huge role in students' success.

The **third research question** focuses on the factors that hinder PETE students from improving their grades to meet the admission requirements of HEIs. The findings were as follows: The data revealed that the factors that hindered the PETE students from improving their high school results included the following: lack of motivation, student absenteeism, low level of English language proficiency, lack of strong support system, mental illness, bad influences from friends, financial difficulties, laziness and lack of commitment to improve their results.

In conclusion, it can be inferred from the findings that there was an improvement in the majority of the PETE students' high school grades, while there was no improvement in a few of the PETE students' grades. This was evident in the NSSC examination results after their PETE studies. It can also be concluded that there were factors that facilitated and hindered the PETE students' success in their studies. Student determination, motivation, commitment, support system (family and student counselling), study resources and tutoring methods are factors that are associated with students' success in the PETE programme, while lack of motivation, student absenteeism, low level of English language proficiency, lack of a strong support

system, mental illness, bad influences and laziness came out strongly from the research as factors that hindered PETE students to improve their grades during PETE studies.

CHAPTER 5: DISCUSSIONS OF THE MAIN FINDINGS AND CONCLUSIONS

5.1 INTRODUCTION

This chapter discusses the main findings and conclusions of the study. This study focuses on assessing the influence of the PETE programme on high school students` admissions to higher education. The study assessed: (a) the extent to which the PETE programme improves the students` grades and enables them to meet the admission requirements to local HEIs; (b) the factors that enable students to improve their high school grades and, c) the factors that hindered students from improving their grades.

5.2 THE INFLUENCE OF THE PETE PROGRAMME ON THE IMPROVEMENT OF THE PETE STUDENTS' NSSC GRADES

This section discusses the main findings and conclusions about the influence of the PETE programme on improving the PETE students' high school grades to meet the admission requirements of the local HEIs. It is assumed that the PETE programme would provide the PETE students with the learning opportunities to improve their NSSC grades to enable them to meet the admission requirements of local HEIs.

This study revealed that the PETE programme was structured as follows: orientation workshop, Study materials, face-to-face tutorials, tutor-marked assignments, examination booklets, self-supervised study groups, study-related counselling, and access to services at the resource centre at Jetu Jama. The study findings also revealed that the PETE programme provides students with additional contact sessions that totalled five hours of face-to-face tuition per week (1 hour per day) in each subject, student support services comprising of Short Message Service (SMS), eLearning and web-based lessons, basic computer skills and education radio programmes broadcast through the national senders of the Namibian Broadcasting Corporation (NBC), on-

campus radio, available on the website as well as access to social media. Tutors were appointed based on suitability of qualifications in subjects and could be re-appointed based on the students' performance per subject in the previous year`s national examinations, and vice versa. The PETE programme has been delivered through daily face-to-face contact sessions. Every lesson taught had to be tested either with class activity or with homework and at least one test had been given for every topic covered in a month. Students who did Extended for Mathematics and English have been given additional hours to cover extra work. All students were required to attend basic computer sessions offered and this could not interfere with the subject activities.

Extramural activities for the students are encouraged and may include educational tours, information-sharing sessions on health and social issues, career guidance, counselling and motivational talks.

The programme assessments included formal and informal compulsory assessments. Monthly assessment schedules were submitted. Assignments serve to provide retrospective feedback to students on subject areas where they experience difficulties and where they may seek tutors` advisory interventions.

The PETE programme was designed to support students both academically, emotionally and socially. This type of programme design seems to contribute to student success. The design aligns with principles and aspects of programme design that are highlighted by authors such as Martin & Bollinger, 2018; Tinto, 1997; Klemenčič, 2013 and Kahu, 2013. These principles and aspects include opportunities for students to work in cooperation, active learning strategies, timely feedback on academic progression, students to spend quality time on academic tasks, student engagement, extracurricular activities, supervision provided, teaching, learning and assessment strategies.

The study findings revealed that there is an improvement in the PETE students' NSSC grades after attending the PETE programme. A sample of the 20 PETE students whose NSSC examination results were analysed in depth to indicate their before and after participation in the PETE programme. Out of the 20 sampled PETE students, 10 students improved in 1 subject, 7 students improved in 2 subjects, and 3 students improved in 3 subjects. Out of 20 sampled students, 8 dropped performance in 1 subject, and 2 students` grades did not improve after attending the PETE programme. The finding of students' grade improvement after attending the PETE programme aligns with the findings of a study conducted on the influence of the bridging programme (focusing on Mathematics and English) on student access to universities in Namibia (Frindt, 2002). The study found that grades improved in Mathematics while reading and writing abilities also improved.

The participants claimed that the PETE programme prepared them for higher education. It was found that 90% of students indicated that the programme helped them meet entry requirements for higher education institutions (HEIs). Students identified several programme strengths, and 52.2% of students viewed the programme and tutors as key motivators, while 46.7% of students felt they grasped course content better and could answer test or examination questions more effectively. 15.6% of students indicated that the programme promoted better study habits, including focused studying, understanding test flow and frequency, and managing social life.

94.4% of students reported improvement in their Grade 12 results after participating in the PETE programme, while 96.7% of students pointed out that the tutoring methods (particularly face-to-face sessions) helped them achieve the grades needed for HEI admission.

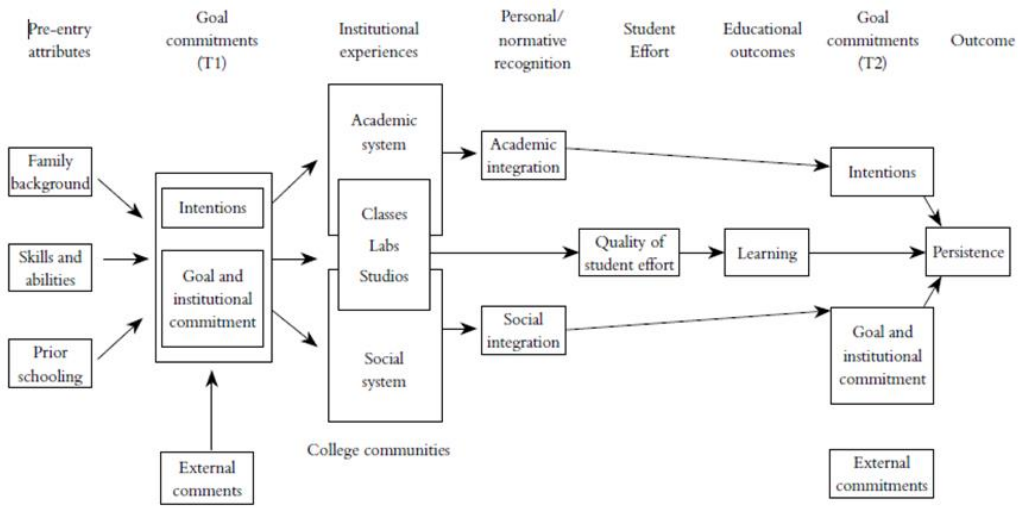
A total of 90% of the participants indicated that their applications to HEIs were successful, while 10% indicated that their applications were unsuccessful. However, the claims of the students could not be verified against real uptake in HEIs.

5.3 FACTORS THAT FACILITATED THE PETE STUDENTS TO IMPROVE THEIR GRADES TO MEET THE ADMISSION REQUIREMENTS OF LOCAL HEIs

This study found that student determination, motivation and commitment, support system (family and student counselling), study resources, nature of the PETE programme and tutoring methods were factors that seem to be associated with PETE students' success. These factors are in line with Tinto's pre-entry attributes which are family and peer support, commitment to studies, student motivation, academic performance and positive experience with tutors and peers.

The Tinto Model, developed by Vincent Tinto (1975, 1993, 1997, 2013), is a sociological theory used to explain student retention in higher education. It suggested that a student's decision to stay in or leave college is influenced by two key factors, namely integration which refers to a student's sense of belonging and connection to both the academic and social aspects of the college environment. This included factors like feeling comfortable and accepted by peers and faculty, participating in academic activities and clubs, and feeling supported by academic advisors and tutors. Secondly, it suggested that commitment refers to a student's goals and motivations for attending college, and included factors like clarity about academic and career goals. According to Tinto's model, students who feel more integrated and committed are more likely to persist in their studies. Figure 10 describes different elements of Tinto's model, the linkage among the elements and how they influence student academic outcomes.

Figure 10: *Tinto`s Model of Student Integration*



Source: Leaving College: Rethinking the Causes and Cures of Student Attrition. Chicago: University of Chicago Press. 1987, 2nd ed. 1993, 3rd ed. 2013.

The findings of this study indicate that intensive tutoring was one of the factors that was cited as contributing to PETE students' success. This finding resonates with Kuh's model as cited in Pennington et al., 2015, which underscores the importance of student-staff contact and active learning strategies for successful academic transitions. The current study on intensive tutoring aligns with previous research highlighting the positive impact of interventions on student success.

Like intensive tutoring, pre-entry programmes in Kuh's model emphasize student-staff contact (tutoring) and active learning strategies. These factors lead to higher academic self-efficacy and satisfaction, supporting the idea that targeted interventions can improve student outcomes.

Rodrigues, Hughes & Bell (2012) suggest a broader concept - good education, potentially delivered through intensive tutoring, can improve student success chances. The findings of this study are in line with the existing research showing that targeted interventions like intensive tutoring play a significant role in improving student

academic performance and potentially fostering a smoother transition to higher education. While some studies have a broader focus on "good education," the underlying principle of providing support and fostering engagement seems to be key.

The study found that face-to-face tutoring potentially fosters interaction with tutors, creating a sense of connection and offering academic guidance. This could indirectly contribute to a supportive environment. Previous studies that indicate social support was done by Thomas (2012), indicating the building of social capital (connections with peers and staff) as a key factor in successful pre-entry interventions. McCary et al. (2011), advocates for informing students about available support systems. A strong support system plays a crucial role in student success, as suggested by these previous studies. This study found that a strong support system during tutoring sessions could have contributed to building connections and fostering a supportive environment.

The study found that student determination, motivation, and commitment as key factors associated with student success. Strong support systems including family, student counselling, and potentially tutoring sessions within the PETE programme were found to be beneficial. The study found that access to appropriate study resources played a role in student improvement. These findings align with Tinto's model (pre-entry attributes like family support and student motivation) and support the idea that factors beyond just academic instruction can influence student success.

5.4 FACTORS THAT HINDERED THE PETE STUDENTS FROM IMPROVING THEIR GRADES TO MEET THE ADMISSION REQUIREMENTS OF LOCAL HEIs

This study found that a lack of motivation, student absenteeism, low level of English language proficiency, lack of a strong support system, COVID-19 and lack of financial resources, bad influences and laziness are factors that were associated with no or little success in the PETE studies.

It was found that some students lack motivation, especially from poor socio-economic backgrounds and they struggled to maintain focus on their studies. The study revealed that some students missed scheduled classes, resulting in gaps in their understanding and poorer performance in standardized tests and final examinations.

A low level of English language proficiency emerged as a barrier for some students, with those from the Ohangwena region specifically mentioned as struggling. Students with limited English proficiency faced difficulties in expressing themselves clearly, hindering communication in class discussions and group work.

This study found that some students lacked adequate support from parents due to their educational limitations. A few students reported a negative experience due to factors like absent tutors and lack of resources at home.

It was found that Covid-19 disrupted student attendance. It was also found that many students faced financial hardships, lacking basic needs like transportation, which forced them to walk long distances, affecting their time and energy for studies negatively. Some students opted to work part-time to support themselves financially, but it created a burden for some students, making it difficult to manage both work and studies.

This study's findings support the previous research (Rodriguez & Wan, 2010), that poor academic preparation leads to lower achievement and potential dropping out. Prodan et al, 2015) identify the lack of cultural, social, and physical encouragement and support from family members, teachers/tutors, and friends as factors that may influence student success.

The PETE study identified several barriers to student success that align with previous research on access to higher education. These include a lack of motivation can hinder academic performance, and factors like absenteeism and language proficiency can

create gaps in knowledge and skills. This study also supports the findings of Jensen (2011) who pointed out financial challenges and mental health issues as social and external barriers to student success.

5.5 CONCLUSIONS

There is evidence that the PETE programme was designed to provide students with learning opportunities to improve their NSSC grades.

It is evident that the NSSC results of the majority of the sampled students showed improvement after the PETE programme, while other students' previous NSSC grades dropped and a few PETE students' previous grades remained the same. However, the sample size was too small for these results to be generalised.

Although the data revealed that 76% of PETE students indicated that they were successful in their applications to HEIs, the success of their applications to HEIs could not be verified.

The factors that this study identifies as those that facilitate students to improve their grades support the findings of the previous related studies and theoretical perspectives on pre-entry programmes.

CHAPTER 6: CONCLUSIONS AND RECOMMENDATIONS

6.1 INTRODUCTION

This chapter discusses the conclusions based on the main findings of the study.

6.1.1 The Influence of the PETE programme on improving the PETE students' NSSC grades to meet the admission requirements of local HEIs

It is assumed that the PETE programme would create learning opportunities to improve the PETE students' high school grades to enable them to meet the admission requirements of local HEIs.

The PETE programme was designed to provide students with learning opportunities to improve their NSSC grades. The programme included an orientation workshop, study materials, face-to-face tutorials, tutor-marked assignments, examination booklets, self-supervised study groups, study-related counselling, access to services at the resource centre at Jetu Jama; provision of additional contact sessions that totalled five hours of face-to-face tuition per week (1 hour per day) in each subject, and student support services. The design of the PETE programme aligned with the existing literature on the design and delivery of pre-entry programmes.

As previously mentioned, the NSSC results of the majority of the sampled students showed improvement after the PETE programme, while other students' previous NSSC grades dropped and a few PETE students' previous grades remained the same. However, the sample size was too small for these results to be generalised.

It can be concluded that 76% of PETE students indicated that were successful in their applications to HEIs, However, the success of the PETE students' applications to HEIs could not verified.

6.1.2 Factors that facilitated the PETE students to improve their grades to meet the admission requirements of local HEIs

The study concludes that the following factors seem to facilitate the PETE students to improve their grades: determination, motivation, and commitment. This study's conclusions support the findings of the previous related studies and theoretical perspectives on pre-entry programmes.

These align with Tinto's model's pre-entry attributes (Tinto, 1975, 1993, 1997, 2013), which emphasize the importance of a student's initial drive and academic goals.

The study also concludes that strong support networks as a key factor in student success. This includes support from family, access to student counselling services, and potentially the positive connections formed with tutors during PETE tutoring sessions. These findings resonate with Tinto's model's concept of integration, where a sense of belonging and connection can influence student persistence.

Access to appropriate study resources emerged as a significant factor in student improvement. The study finding underscores the importance of equipping students with the necessary resources such as in this case an online learning platform, and access to examination booklets to succeed in their academic endeavours. It is concluded that the PETE programme structure and tutoring methods contributed to their improvement. The findings align with Tinto's model (1975, 1993, 1997, 2013) by addressing factors beyond academic instruction that influence student success.

6.1.3 Factors that hindered the PETE students to improve their grades to meet the admission requirements of local HEIs

This study concludes that there were factors that hindered the PETE students from improving their grades to meet the admission requirements of local HEIs. Those factors include lack of motivation, low level of English proficiency, student

absenteeism, low level of English language proficiency, lack of a strong support system, COVID-19 and lack of financial resources, bad influences and laziness. Most of these factors were pointed out in the previous related studies.

6.2 RECOMMENDATIONS

6.2.1 Recommendations for the influence of the PETE programme on improving the PETE students' NSSC grades to meet admission requirements of local HEIs

The study concludes that there is evidence of improvement in the sampled PETE students' NSSC grades and that the sampled PETE students claim that their applications to HEIs were successful. However, there is no empirical evidence from the local HEIs that shows that the PETE students whose high school grades improved were admitted to local HEIs.

It is recommended that a mechanism to track PETE graduates be established to monitor their success in gaining admission to local HEIs. This could involve collaborating with HEIs to track student enrolment data or conducting follow-up surveys with PETE graduates. By tracking PETE graduates' university admissions success, the programme can demonstrate a clearer link between programme participation and achieving its core objective of preparing students for HEI admission. This can also identify areas for improvement within the PETE programme to better equip students for the HEI application process and provide valuable data for future research on the PETE programme's long-term impact on student success.

Another finding of this study is that there are factors that hindered PETE students from improving their NSSC grades. It is recommended that the challenges identified in this study be addressed to improve the PETE programme's overall effectiveness, a multi-faceted approach is recommended. This includes developing a support system with

workshops on motivation and focus, parental engagement initiatives, and mentorship programmes. Additionally, strategies to improve attendance and address knowledge gaps are crucial. These could involve flexible scheduling options, attendance monitoring with follow-up procedures, and targeted tutoring or peer-to-peer study groups. Furthermore, enhancing language support through pre-programme assessments, targeted instruction within the programme, or collaboration with local language programmes is essential. Finally, optimizing resource allocation and exploring partnerships through needs assessments, collaboration with organizations for resources like scholarships or transportation assistance, and investigating family and community engagement strategies can build stronger support networks for students. By implementing these recommendations, the PETE programme could create a more supportive learning environment, and improve student engagement that might lead to a higher success rate in achieving HEI admission requirements.

6.2.2 Recommendations for Future Research

Recommendations can be drawn from this study to serve as a basis for future research on the influence of the PETE programme on improving the PETE students' NSSC grades to meet admission requirements of local HEIs:

a) Although this research provides evidence of improvement in the PETE students' NSSC grades, the sample of the students whose NSSC examination results were analysed, its generalisability is still limited and could be further investigated.

b) The study was limited to discriminating the positive influence of the PETE programme on the improvement of the PETE students' NSSC grades from other factors outside the programme. Future studies should assess the impact of the programme on improving the PETE students' high school grades.

c) There is no empirical evidence from the local HEIs that shows that the PETE students whose high school grades improved were admitted to local HEIs. A tracer study could be carried out on former PETE students.

7. Limitations

The researcher acknowledges the initial challenge of maintaining objectivity due to their staff member status. This highlights the importance of employing strategies to minimize researcher bias in future studies.

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APPENDIX A

UNAM
UNIVERSITY OF NAMIBIA

ETHICAL CLEARANCE CERTIFICATE

Ethical Clearance Reference Number: SoE-DEC100621/18 **Date: 03 August 2021**

This Ethical Clearance Certificate is issued by the University of Namibia Decentralised Research Ethics Committee (DEC) in accordance with the University of Namibia's Research Ethics Policy and Guidelines. Ethical approval is given in respect of undertakings contained in the Research Project outlined below. This Certificate is issued on the recommendations of the ethical evaluation done by the Faculty/Centre/Campus/Unit Research Ethics Committee.

Title of Project: AN ANALYSIS OF THE INFLUENCE OF THE PRE-ENTRY TO TERTIARY EDUCATION PROGRAMME ON HIGH SCHOOL LEARNERS` ACCESS TO HIGHER EDUCATION: A CASE STUDY OF NAMCOL HEAD OFFICE

Nature/Level of Project: MASTERS

Researcher: RHOLENE J. BOK

Student Number: 8616523

Faculty: EDUCATION & HUMAN SCIENCES

School: EDUCATION

Take note of the following:

(a) Any significant changes in the conditions or undertakings outlined in the approved Proposal must be communicated to the DEC. An application to make amendments may be necessary.
(b) Any breaches of ethical undertakings or practices that have an impact on ethical conduct of the research must be reported to the DEC.
(c) The Principal Researcher must report issues of ethical compliance to the DEC (through the Chairperson of the Faculty/Centre/Campus/Unit Research Ethics Committee) at the end of the Project or as may be requested by DEC.
(d) Approval is valid for a period of one year from the date of issue.
(e) A mid-year report to be submitted to DEC (where applicable).
(f) The DEC retains the right to:
    (i) Withdraw or amend this Ethical Clearance if any unethical practices (as outlined in the Research Ethics Policy) have been detected or suspected,
    (ii) Request for an ethical compliance report at any point during the course of the research.

DEC wishes you the best in your research.

.....
Dr Helena Miranda
SoE-DEC Chairperson

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2021 -08- 03
DIRECTION
RUNDU CAMPUS

APPENDIX B

CENTRE FOR RESEARCH SERVICES
Office of the Pro-Vice Chancellor: Research Innovation and Development
UNIVERSITY OF NAMIBIA, Private Bag, 13301 Windhoek, Namibia
340 Mandume Ndemufayo Avenue, Pioneers Park, Office F224

UNAM

RESEARCH PERMISSION LETTER

Date: 25/08/2021

Student Name: Rholene Juliët Bok

Student Number: 8616523

Programme: MASTER OF EDUCATION (CURRICULUM, INSTRUCTION & ASSESSMENT STUDIES)

Approved Research Title: AN ANALYSIS OF THE INFLUENCE OF THE PRE-ENTRY TO TERTIARY EDUCATION PROGRAMME ON HIGH SCHOOL LEARNERS` ACCESS TO HIGHER EDUCATION: A CASE STUDY OF NAMCOL HEAD OFFICE

TO WHOM IT MAY CONCERN

I hereby confirm that the above mentioned student is registered at the University of Namibia for the programme indicated. The proposed study met all the requirements as stipulated in the University guidelines and has been approved by the relevant committees.

The proposal adheres to ethical principles as per attached Ethical Clearance Certificate. Permission is hereby granted to carry out the research as described in the approved proposal.

Best Regards

Dr. AEE Shikongo
Head: Postgraduate Support Services
Tel: +264 61 206 3129
E-mail: aeshikongo@unam.na

APPENDIX C

NAMCOL

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www.namcol.edu.na

6 April 2021

Ms. R.J. Bok
P.O. Box 10772
WINDHOEK
Republic of Namibia

Dear Ms. Bok,

RE: REQUEST TO CONDUCT YOUR RESEARCH AT NAMCOL

Your letter dated 3 April 2021 concerning the above subject matter is hereby acknowledged with gratitude.

I have the pleasure to inform you that your request to conduct research on "“An analysis of the influence of the Pre-Entry Education Programme on High School learners` access to Higher Education: A case study of NAMCOL Head Office Centre" is considered positively. You are further requested to submit a copy of the dissertation to NAMCOL upon completion on your studies.

I wish you all the best with your academic career.

Yours sincerely,

.....
H. V. Murangi (Ph.D.)
Chief Executive Officer (CEO)
NAMCOL

NAMCOL CHIEF EXECUTIVE OFFICER (CEO) - 6 MAR 2021 PRIVATE BAG 15008 KATUTURA WINDHOEK NAMIBIA COLLEGE OF OPEN LEARNING

APPENDIX D

Questionnaire Cover Letter

Dear Participant

1. My name is RHOLENE JULIET BOK, student number 8616523. I am studying towards a Master`s in Education degree at the University of Namibia (UNAM), and I am conducting a survey about the influence of the Pre-Entry to Tertiary Education (PETE) Programme on High school Students ` access to Higher Education, and it is a case study for NAMCOL Head Office, at UNAM.
2. I have selected you to participate in my study, because you belong to the group of people I want to include for my research. I would therefore like to invite you to complete this questionnaire.
3. The research I am conducting has been approved by the UNAM Research Ethics Committee. I would appreciate it very much if you would complete this questionnaire, and I would like to assure you of the following:
    a. You do not have to fill in this questionnaire if you do not want to.
    b. You can stop filling in the questionnaire and stop participating at any time if you want to, and there will be no negative consequences for you.
    c. Your participation is anonymous. You are not required to provide your name on this questionnaire. This means that, even if I ask information that might identify you or if I know you, I am not allowed to make your identity known to anyone. When I report on my questionnaires' data and results, I will not mention any personal information about participants that might identify them.
    d. All completed questionnaires and data will be stored in a safe and secure place, and only authorised University officials, my supervisor and I will have access to it. After five years, all the questionnaires and data will be destroyed in an environmentally friendly way.
4. If you have any questions about this questionnaire, or if you do not understand anything, please feel free to ask me, and I will be happy to explain it to you.
5. If you want to know more about the research I am doing, please feel free to ask me, and I will be happy to tell you more.
6. It should take about 15 minutes for you to complete the questionnaire.
7. You can reach me on my cell phone at 0855636844, or send an e-mail to bok.rholene@gmail.com.
8. If you want to contact the UNAM Centre for Research and Publications for more information or because you have a comment or complaint about this research or about me, please call (+ 264 61) 206 …, or write an e-mail to research@unam.na. Please provide specific information.
9. Thank you very much for your willingness to participate in this research!

APPENDIX E

HREC-NH Annex 5A Questionnaire **QUESTIONNAIRE for Administrative Staff**	UNAM UNIVERSITY OF NAMIBIA

Age:

Gender:

1. How long have you been an Administrator for the PETE programme?

One year	Two years	Three years	More than three years

2. Briefly describe your role as a PETE Administrator?
3. How often do you interact with PETE students, and if you do, what is your responsibility?
4. When analysing results, which changes have you noticed from the 2018-2020 PETE results?
5. What kind of support does this programme render to tutors?
6. What kind of support does this programme render to students?
7. How often do you interact with Tutors and why?
8. From your experience, what percentage of these students were able to meet the entry requirements of Institutions of Higher Learning?
9. From your experience, what are the factors influencing students not to pass and meet entry requirements?
10. Please indicate if you are willing to participate in a follow-up interview?

Yes	No

Thank you for your participation and your time to complete the questionnaire and interview.

APPENDIX F

HREC-NH Annex 5A QUESTIONNAIRE
Questionnaire for Counsellor

Age:

Gender:

1. How long have you been a NAMCOL Counsellor?

One year	Two years	Three years	More than three years

2. How often do you meet students?
3. How often do you meet Tutors?
4. How often do you meet with Administrators?
5. Which are typical issues you discuss with students?

   Which are typical issues you discuss with Tutors?

   From your experience, what percentage of students were able to meet entry requirements?
6. What factors do you think motivate students to learn in this programme?
7. What factors do you think demotivate students to learn in this programme?
8. What factors do you think influence their performance?
9. What factors do you think hinders their performance?
10. Please indicate if you are willing to participate in a follow-up interview?

Yes	No

Thank you very much for your willingness to participate in this research!

APPENDIX G

HREC-NH ANNEX 5A QUESTIONNAIRE
Questionnaire for PETE Graduates

Demographical Information

1. Indicate your gender below with an x in the appropriate box.

Male	Female

2. Please provide your date of birth.
3. Indicate the year in which you attended the PETE programme at NAMCOL?

Academic Information

4. Which Institution have you applied to for further studies?

Yes	No

5. Was your application successful or unsuccessful?

Yes	No

6. Why was it successful or unsuccessful?
7. Which year did you attend the PETE programme?
8. State the reason/s why you applied for the PETE programme?
9. How many subjects were you enrolled for?

2	3	4	5

10. Indicate the Field of Study that you were enrolled for?

Science	Commerce	Other

11. How many tutoring sessions have you attended per week, per subject? Did the face-to-face classes helped you to understand the subject contents better?

Yes	No

12. Indicate in the appropriate box your degree of commitment to your studies? (preparation for class, tests and attendance)

Not committed at all	Somehow committed	Committed	More than committed	Very committed

13. How often did you write tests?

Daily	weekly	Bi-weekly	Monthly

14. If you did not attend classes, state the reasons why?
15. What were your Grade12 results before you enrolled for the PETE programme? Please provide your grades obtained before and after the programme with the subjects you were enrolled for.
16. Did the programme assist you to improve your Grade 12 results?

Yes	No

17. How did the programme assist you in improving your results? Indicate with yes or no

I studied for tests	
I understood subject contents better	

I was able to understand test and examination questions and responded better	
I downscaled on social life and prioritized schoolwork	
The PETE programme delivery helped to keep me motivated (Information flow, subject content explanation, frequent tests and motivational talks)	
Other:	

18. If the programme did not assist you to improve your results, state the reasons why?
19. When you compare the results with your first Gr 12 results before you enrolled for PETE programme, was there an improvement in the final results?
20. Were you able to meet the entry requirements at an Institution of higher learning after the PETE programme?
21. Where are you enrolled/ were you enrolled?
22. Did the PETE programme assisted you with preparation for higher learning?
23. State why it did or did not assist you for further studies?

Tutoring

24. Did the tutoring methods improve your understanding of the subjects?

Yes	No

Parental Support and Social life

25. What support have you received from your parents, family and friends? Indicate below by ticking in the space provided. You may tick more than one response.

Emotional support	Encouragement	Interested in your academic progress	Financial support	No support

26. Rate the level of support you received from them?

Very involved	Somehow involved	Involved	Less involved	Not involved at all

27. What difficulties did you experience during your studies?

28. What factors contributed to your success during your studies?

29. Please indicate if you will be willing to participate in a follow-up interview

yes	no

Thank you very much for your willingness to participate in this research!

APPENDIX H

HREC-NH Annex 5A Questionnaire
Questionnaire for Tutors

Age:

Gender:

Subjects taught:

1. How long have you been teaching these subjects?

One year	Two years	Three years	More than three years

2. What is your experience of teaching these subjects to these group/s (of) students?
3. Which skills, knowledge and competencies have they acquired?
4. How often did you asses students?
5. Are you satisfied with students ` performance?
6. From your experience, what factors influence students to success in their studies?
7. From your experience, what factors hinder students not to success in their studies?
8. Do you think this programme (especially the subject you teach) prepare students to cope with university studies?
9. Do you have any other suggestions/comments on the PETE programme?
10. Please indicate if you will be willing to participate in a follow-up interview.

yes	No

APPENDIX H

Rholene J. Bok
P.O. Box 10772
WINDHOEK
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bok@namcol.edu.na
+264 85 636 844
3 April 2021

The Chief Executive Officer (CEO)
Dr Heroldt Vekaama Murangi
Namibian College of Open Learning (NAMCOL)
Private Bag 15008, Katutura
WINDHOEK
Republic of Namibia

Dear Dr Heroldt Murangi,

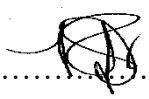
Re: PERMISSION TO CONDUCT RESEARCH AT THE NAMCOL

I am currently pursuing a master's degree through the University of Namibia (UNAM). As part of the studies, I am required to complete research. My research topic is**: "An analysis of the influence of the Pre-Entry Education Programme on High School students ` access to Higher Education: A case study of NAMCOL Head Office Centre"**

This study will be of great benefit in providing information and insight to enable NAMCOL to critically look at the PETE programme to improve modalities and strategies for delivery. In addition, I am conducting this research as a requirement towards the Master's in Education by research only.

The purpose of this letter, therefore is to seek your permission to conduct my research at NAMCOL on the above-mentioned topic.

I am positive that my request will receive your favourable consideration.



Sincerely yours,
Rholene J. Bok
(M. Ed Student, Faculty of Education UNAM)